2026 BUTTE COUNTY

COMMUNITY WILDFIRE PROTECTION PLAN

Working together to build fire adaped communities, resilient to wildfire



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UPDATED MAY 2026

IN COLLABORATION WITH:





















We would like to formally thank the Core Team and all stakeholders for contributing their time and expertise throughout the planning process. Your participation has contributed to creating resilient landscapes, implementing public education, reducing structural ignitability, and ensuring safe and effective wildfire response.

For additional information, questions, or concerns regarding this project, please contact Project Manager Arianna Porter at arianna.porter@swca.com or the CAL F IRE Butte Unit at BTU.PFE@fire.ca.gov.

BUTTE COUNTY COMMUNITY WILDFIRE PROTECTION PLAN AMENDMENTS

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EXECUTIVE SUMMARY

The 2025 Butte County Community Wildfire Protection Plan (CWPP) serves as an update to the 2021–2025 CWPP, emphasizing strategies to mitigate wildfire risks, reduce hazards, and protect human life and property. It offers a thorough assessment of wildfire risks, hazards, and protection needs across Butte County, uniting various stakeholders involved in wildfire pre-planning, management, and suppression. By identifying gaps and potential planning deficiencies, the plan establishes a framework for future planning and the implementation of mitigation projects and other measures.

Butte County's CWPP serves a dual role as both the countywide CWPP and the Unit Fire Plan for the California Department of Forestry and Fire Protection (CAL FIRE) Butte Unit. This combined approach, developed over a decade ago, streamlines planning and ensures alignment with the California State Board of Forestry's 2018 Strategic Fire Plan for California and CAL FIRE's Statewide Strategic Plan, promoting a unified vision of community safety across local, state, and federal levels. The CWPP's design allows for regular updates and validation by multiple agencies, keeping the plan responsive to current needs and incorporating innovative strategies for fire prevention, protection, and post-fire recovery.

The CWPP meets the requirements of the Healthy Forests Restoration Act of 2003 (HFRA) as well as the CAL FIRE CWPP and Unit Fire Plan guidelines by:

- Including documentation that the plan was collaboratively developed and included public engagement
- Providing an assessment of wildfire hazard and risk
- Including prioritized actions to address hazardous fuels and reduce structural ignitability
- Being approved by authorized representatives from local governments, fire departments, and CAL FIRE
- Providing additional content to describe the planning area, plan goals and objectives, roles and responsibilities, response and suppression capabilities

Butte County, located on the east side of the northern Sacramento Valley and spanning a little over one million acres, is home to approximately 205,928 residents and includes a mixture of State, Federal, and Local Responsibility Areas (Butte County 2024a). Butte County benefits from an integrated, cooperative, regional fire protection system that is both strong and cost-effective. Six entities—CAL FIRE, Butte County, City of Biggs, City of Gridley, City of Oroville, and Town of Paradise—operate as one, highly efficient department, and all fire protection agencies countywide, including Chico Fire Department and the U.S. Forest Service, participate in seamless, decades-old resource-sharing agreements.

Butte County's fire ecology depends on maintaining natural fire return intervals, which are crucial for ecological health and preventing catastrophic fires. Historically, Indigenous communities managed these landscapes with frequent, low- to moderate-intensity fires, promoting biodiversity and reducing wildfire hazards. Preserving these intervals is essential for managing fuel loads, sustaining fire-adapted species, and enhancing forest resilience.

Recent fire activity has profoundly impacted Butte County residents, leading to devastating consequences such as loss of life, property destruction, psychological trauma, contaminated water supplies, and health issues from prolonged exposure to wildfire smoke. These challenges are among the many faced by communities as they navigate recovery from numerous recent wildfire disasters. Given that wildfire is a natural and recurring element in Butte County's landscape, building community resilience is essential. Adapting to live with fire requires proactive measures, including fire-resilient land management,

community preparedness, and sustainable planning practices that recognize wildfire's role in local ecosystems, while simultaneously prioritizing resident safety and well-being. By fostering resilience, the community can mitigate both the immediate and long-term impacts of wildfires, creating a landscape where ecological health and public safety are integral priorities.

The 2025 Butte County CWPP development process involved a core planning team (the Core Team) consisting of local and state agencies and groups with extensive experience in fire management and prevention. The planning process united wildfire responders and land managers in a collaborative effort to model and map wildfire risk, identify hazards, and incorporate stakeholder and public input. Community engagement and awareness were facilitated through public meetings, surveys, workshops, and online platforms. Additionally, the draft document underwent review periods for the Core Team, stakeholders, and public to provide their input on the 2025 Butte County CWPP.

The 2025 Butte County CWPP establishes a comprehensive framework for wildfire preparedness and management, aligning its objectives with the 2018 Strategic Fire Plan for California, California's Wildfire and Forest Resilience Action Plan, and California's Forests and Rangelands: 2017 Assessment. These guiding documents represent the most current statewide strategies and assessments available to inform wildfire planning efforts.

The plan is outlined as follows:

Chapter 1: Introduction and Unit Overview
The plan begins with an introduction to its overarching goals and historical alignment with state and national wildfire strategies. The chapter also outlines the collaborative roles of local and public stakeholders.

Chapter 2: Planning Area Overview and Values
The planning area is clearly defined, and community values, past achievements in mitigation projects, and evacuation procedures are discussed.

Chapter 3: Fire Environment
The plan evaluates fire risks across the wildland-urban interface (WUI), providing a detailed analysis of fire ecology, historical ignitions, and trends.

Chapter 4: Fire Department Capabilities and Pre-Fire Management Strategies
Fire departments provide a summary of the settings, objectives, and resources available to each department or battalion within the planning area. Additionally, mutual aid and dispatch agreements are discussed.

Chapter 5: Cooperator Fire Management Strategies
The collaborating entities within the planning area and their crucial roles in sustaining community-wide resilience to wildfire impacts are detailed.

Chapter 6: Mitigation Recommendations
Mitigation recommendations are identified and outlined in detail, with a focus on fire prevention and fuels reduction, educational outreach, structural preparedness, and response capabilities.

Chapter 7: Monitoring and Adaptation
Provisions for ongoing monitoring and evaluation are provided to ensure the timely adaptation and effectiveness of fuel treatments, risk assessments, and hazard mitigation actions.

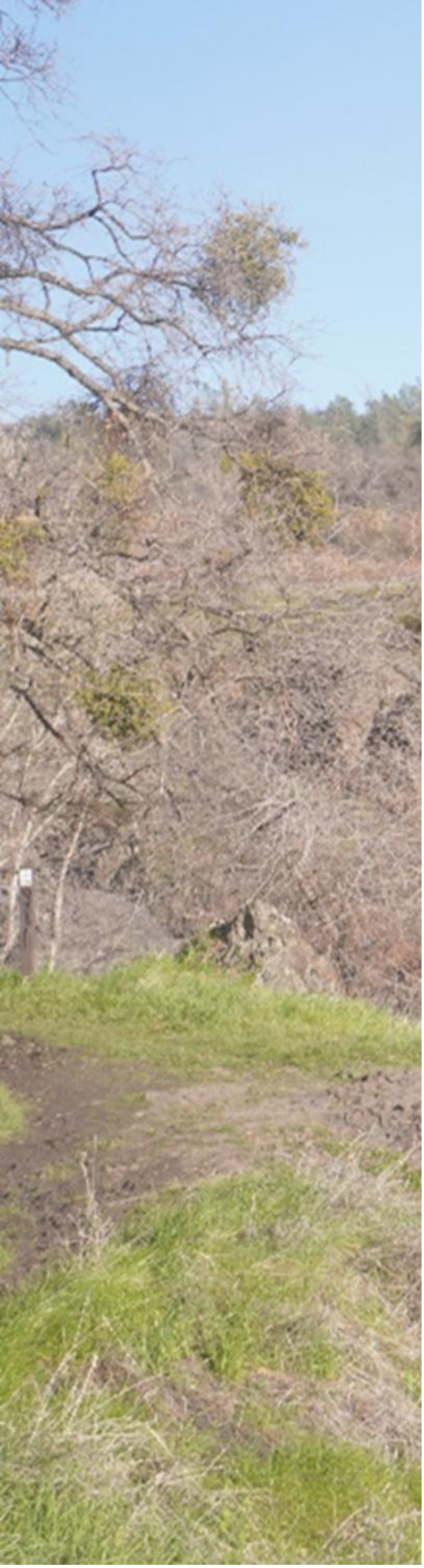
Chapter 8: Quantitative Wildfire Risk Assessment (QWRA)
The plan uses a QWRA to equip land use managers, fire officials, and planners with essential data for crafting targeted wildfire mitigation strategies.

CWPPs do not have the authority to mandate the implementation of any recommendations. However, the core message of this document is that the most effective fire mitigation can be achieved through the joint actions of individual property owners and partner, local, state, and federal governments. The true value of CWPPs lies in their ability to provide a framework for collaboration among the public, governments, agencies, and other partner entities to develop solutions and strategies for wildfire management and mitigation.

This CWPP should be regarded as a dynamic document that necessitates regular updates, particularly after significant fire events. Consistent revisions are essential to incorporate changes, modifications, or new information. These updates are crucial for effectively reducing wildfire risks across Butte County and ensuring the CWPP's core ideas and priorities remain relevant for the long-term benefit of the communities it serves.

The plan has been formally adopted by the Butte County Board of Supervisors and all additional signatories as noted on the signatory page. As part of the annual CAL FIRE Fire Plan update cycle, the CAL FIRE Butte Unit will oversee the plan's governance to ensure project progression and will facilitate ongoing maintenance and updates to keep the plan current and effective.

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CHAPTER 1 – INTRODUCTION

The United States is facing urgent forest and watershed health concerns. In recent years, wildfires have shown a trend of increasing severity, with the total acres burned and the average acres burned per fire rising significantly over time (National Oceanic and Atmospheric Administration [NOAA] 2024). Since 2000, there has been a clear increase in the total acreage burned, with particularly high spikes observed in 2007, 2012, 2015, and 2020 (NOAA 2024). From 2013 to 2022 an average of 7.2 million acres were impacted annually due to wildfire, more than doubling the annual average of acres burned in the 1990s (Congressional Research Service 2023). The 2015 fire season had the most acreage impacted in a single year (between 1960 and 2022) at 10.13 million acres. 2020 was the second most extensive year for wildfire with 10.12 million acres burned (Congressional Research Service 2023). These statistics demonstrate that wildfires are becoming larger and harder to control.

The California's Forests and Rangelands: 2017 Assessment remains the most current comprehensive evaluation of the state's forest and rangeland conditions, highlighting critical challenges such as increased wildfire severity, pest outbreaks, and ecosystem degradation (California Department of Forestry and Fire Protection [CAL FIRE] 2017). While an updated assessment is underway (CAL FIRE 2023b), recent strategic documents like the 2020 California Forests and Rangelands Strategy and California's Wildfire and Forest Resilience Action Plan underscore the urgency of implementing robust wildfire mitigation and resilience measures (CAL FIRE 2020b). These include addressing forest density, prioritizing vegetation treatments, and increasing adaptive management to mitigate wildfire risks and climate impacts (CAL FIRE 2020b).

California faced an especially severe 2024 fire season, with 8,024 wildfires burning 1,050,012 acres statewide, damaging 432 structures, destroying 1,716 structures, and resulting in one civilian fatality (CAL FIRE 2025a). This marks a significant increase compared to the 5-year average, with the acreage burned being over 30 times that of the total fires in 2023. This trend highlights the growing intensity and frequency of wildfires across the state.

Over the past 14 years, wildfires have burned more than 1 million acres in Butte County. In 2024 alone, the CWPP planning area experienced 269 fires, with the Park Fire being the largest at 429,603 acres (including portions in Tehama County). The Park Fire is recognized as the largest arson-caused wildfire in California's history. Butte County has also faced several fires listed among CAL FIRE's top 20 deadliest, most destructive, and largest wildfires in state history (CAL FIRE 2024a).

The 2018 Camp Fire remains the deadliest and most destructive fire in California history, causing 85 fatalities and destroying more than 18,000 structures (Link and Maranghides 2023). The 2020 North Complex Fire ranks as the fifth largest and fifth most destructive fire in state history, burning 318,935 acres and destroying 2,352 structures (Eco Flight 2020). The 2021 Dixie Fire, which burned 963,309 acres, holds the record as the largest single-start wildfire in California's history (CBS News 2021).

Historically, California experienced an average of 1.8 million acres burned annually prior to Euro-American settlement (Stephens et al. 2007). Much of this fire activity consisted of low-intensity, ecologically beneficial burns driven by natural ignitions and intentional burning practices by Native Americans (Stephens et al. 2007). In contrast, recent decades have brought more high-severity fires to Butte County, including the Park Fire, Camp Fire, North Complex Fire, and Dixie Fire, underscoring the increasing severity and impact of modern wildfire events (CAL FIRE 2024a).

Over the past century, fire suppression policies have resulted in a continuous buildup of fuels, leading to larger and more intense wildfires (U.S. Forest Service [USFS] 2003). These fires are increasingly challenging and costly to control, particularly during very dry, windy conditions or during widespread lightning events like those that occurred in northern California in 1999, 2008, and 2020. Under these conditions, local, state, and federal firefighting resources can be quickly overwhelmed.

As wildfire severity increases, communities need a plan to help prepare for, reduce the risk of, and adapt to wildland fire events. Community wildfire protection plans (CWPPs) help accomplish these goals. A CWPP provides recommendations that are intended to reduce, but not eliminate, the extreme severity or risk of wildland fire. This CWPP functions as both the community's wildfire protection plan and the Unit Fire Plan for the CAL FIRE Butte Unit, aligning local priorities with CAL FIRE’s statewide goals. This promotes coordinated fire safety efforts across local and statewide levels of government. The CAL FIRE Butte Unit, along with its goals, priorities, programs, accomplishments, and fire response capabilities, is described in Chapter 4.

GOAL OF A COMMUNITY WILDFIRE PROTECTION PLAN

The goal of a CWPP is to enable local communities to improve their wildfire mitigation capacity, while working with government agencies to identify high fire risk areas and prioritize areas for mitigation, fire suppression, and emergency preparedness. Another goal of the CWPP is to enhance public awareness by helping residents better understand the natural and human-caused risk of wildland fires that threaten lives, safety, and the local economy. The minimum requirements for a CWPP, as stated in the Healthy Forests Restoration Act of 2003 (HFRA), are:

Collaboration: Local and state government representatives, in consultation with federal agencies or other interested groups, must collaboratively develop a CWPP (Society of American Foresters 2004).

Prioritized Fuel Reduction: A CWPP must identify and prioritize areas for hazardous fuels reduction and treatments and recommend the types and methods of treatment that will protect one or more communities at risk and their essential infrastructure (Society of American Foresters 2004).

Treatments of Structural Ignitability: A CWPP must recommend measures that property owners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan (Society of American Foresters 2004).

Additional information on the planning process is available in Appendix A.

ALIGNMENT WITH THE NATIONAL COHESIVE STRATEGY

The 2025 CWPP is aligned with the National Cohesive Wildland Fire Management Strategy (Cohesive Strategy) and its Phase III Western Regional Action Plan by adhering to the nationwide goal "to safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a Nation, live with wildland fire" (Forests and Rangelands 2014:3).

The primary national goals identified as necessary to achieving the vision are:

- **Restore and maintain landscapes:** Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.
- **Fire-adapted communities:** Human populations and infrastructure can withstand wildfire without loss of life and property.
- **Wildfire response:** All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.

Alignment with these Cohesive Strategy goals is described in more detail in Chapter 4, Fire Department Capabilities and Pre-Fire Management Strategies.

In addition to aligning with the Cohesive Strategy, the CWPP also incorporates information on post-fire recovery, the significant hazards of a post-fire environment, and the risk that post-fire effects pose to communities (Appendix H, Figure H.1).



Figure 1.1. The three primary goals of the National Cohesive Strategy and post-fire recovery.

Note: This CWPP incorporates the three primary goals of the Cohesive Strategy as well as post-fire recovery and serves as a holistic plan for fire adaptation and resilience.

ALIGNMENT WITH PLANS AND AGREEMENTS

This CWPP is aligned with multiple local, state, and federal planning documents, most notably the:

- 2018 Strategic Fire Plan for California
- CAL FIRE Strategic Plan 2024
- 2024 CAL FIRE California CWPP Guide/Toolkit
- Butte County 2024 Local Hazard Mitigation Plan Update
- Butte County General Plan Health and Safety Element 2040
- Butte County Community Wildfire Protection Plan 2021–2025

Like this plan, these planning documents and agreements aim to mitigate wildfire impacts by reducing fire risk, protecting communities and natural resources, and enhancing overall fire resilience. These documents and agreements, as well as additional fire policy and legislative direction, are summarized in Appendix A.

2018 STRATEGIC FIRE PLAN FOR CALIFORNIA

The 2018 Strategic Fire Plan for California, developed by CAL FIRE and the State Board of Forestry and Fire Protection, aims to enhance wildfire management and mitigation through fire prevention, suppression activities, and natural resource management. Key focus areas include improving fire response capabilities, maintaining resilient forests to meet climate goals, and increasing public awareness and community involvement in fire prevention. The plan outlines eight primary goals and 66 specific objectives, such as identifying wildland fire hazards, integrating land use planning, enhancing community fire protection planning, and implementing post-fire assessment programs.

This 2025 CWPP update aligns with the 2018 Strategic Fire Plan for California by integrating the following goals into its project recommendations:

- **Comprehensive Hazard Assessment and Mitigation**: The recommendations support identifying and evaluating wildland fire hazards through activities such as hazard tree and vegetation surveys, maintenance of fuel breaks, and implementation of defensible space programs.
- **Collaborative Data Sharing and Planning**: The recommendations promote collaborative development and sharing of analyses by partnering with tribal governments, conducting quarterly collaborative group meetings, and implementing projects identified in CWPPs.
- **Local Land Use Planning Support**: The recommendations support local land use planning by incorporating solutions for limited access issues into the General Plan's Safety Element, enhancing public education programs, and implementing countywide home hardening techniques.
- **Fire Prevention Awareness and Education**: Increasing fire prevention awareness is addressed through community engagement in Firewise USA programs, public education initiatives, and workforce development and training.
- **Integrated Management Practices**: Integrating fire and fuels management practices with landowner priorities is evident in the collaborative projects with tribal governments, intentional fire implementation, and countywide grazing programs.

- **Resource Determination for Fire Prevention**: Determining necessary resources for fire prevention is supported by enhancing green waste disposal, establishing dedicated wildfire preparedness positions, and conducting workforce training.
- **Fire Suppression Resource Needs**: Addressing fire suppression resource needs includes increasing fire department staffing, modernizing the firefighting fleet, and creating strategic partnerships for firefighting aircraft.

STAKEHOLDER COLLABORATION

CORE TEAM

The Core Team collaboratively guided the development of the 2025 Butte County CWPP. The Core Team included representatives from Butte County Administration, Butte County Fire Department, the Butte County Fire Safe Council, and CAL FIRE. The Core Team drives decision making, data sharing, and communication with community members and other stakeholders. The Core Team facilitated collaboration with local and state organizations throughout the region as appropriate, primarily through coordination with the Butte County Collaborative Group (BCCG). The BCCG membership includes local, state, federal, and tribal governments, as well as nonprofits, private companies, and other organizations with a role in fire management and planning in and around the community. This diverse group was actively engaged throughout the CWPP development process at several regular meetings during which the group provided input on stakeholder outreach and education, project recommendations, and the CWPP during the public review period.

By bringing together stakeholders from a wide range of governmental and non-governmental organizations, the BCCG supported effective cross-boundary collaboration and ensured alignment in planning efforts related to forest health, ecological restoration, and wildfire safety.

In addition to weekly check-in meetings, the Core Team first met on June 3, 2024, convened again on October 9, 2024, and for the final time on December 6, 2024.

Table 1.1. Core Team List

Name	Title	Organization
Spencer Mallinger	Pre-Fire Engineer	CAL FIRE Butte Unit
Nick Burtman	Wildland Fire Preparedness and Mitigation	Butte County Fire Department
Dawn Nevers	Deputy Chief Administrative Officer	Butte County Administration
Katie Simmons	Deputy Chief Administrative Officer	Butte County Administration
Taylor Nilsson	Executive Director	Butte County Fire Safe Council

KEY COLLABORATORS

The development of the 2025 Butte County CWPP was a collaborative effort involving numerous local, state, and federal entities, as well as local tribes and non-governmental organizations. The membership of the Butte County Collaborative Group (BCCG), which consists of over 30 governmental, non-governmental, tribal, and nonprofit entities that play an active role in developing and implementing prescribed fire and other hazardous fuel reduction projects, played a critical role in shaping the CWPP.

This group met regularly throughout the CWPP development process and provided direct project input and collaboration with the public and other relevant stakeholders.

In addition to the Core Team, the BCCG, and the public, the planning process benefited from the input of every local, state, and federal fire protection agency serving the planning area. These agencies brought expertise and on-the-ground experience, ensuring that the plan was comprehensive and addressed the unique challenges of the region.

To recognize the breadth of collaboration, Table 1.2 outlines key partners who participated in CWPP development, including entities that submitted projects or served as signatories to the CWPP.

Table 1.2. Key Collaborators

Organization	Role/Contribution
Big Chico Creek Ecological Reserve	BCCG Memorandum of Understanding (MOU) Signatory, Project Input
Biggs Fire Department	Project Input
Bureau of Land Management (BLM)	Federal Partner, Project Input
Butte County	BCCG MOU Signatory, Core Team Leadership, Project Input
Butte County Air Quality Management District	BCCG MOU Signatory, Project Input
Butte Environmental Council	BCCG MOU Signatory, Project Input
Butte County Fire Department	Core Team Leadership, Project Input
Butte County Fire Safe Council (BCFSC)	BCCG MOU Signatory, Core Team Leadership, Public Outreach, Education, Coordination, Project Input
Butte County Resource Conservation District (RCD)*	BCCG MOU Signatory, Project Input
CAL FIRE Butte Unit	Core Team Leadership, Project Input
California Department of Water Resources	Project Input, Watershed Management, Fuel Reduction Collaboration
California State Parks	Project Input, Land Management, Wildfire Prevention on State Park Lands
Camp Fire Collaborative	Project Input
Chico Fire Department	Project Input
Enterprise Rancheria	BCCG MOU Signatory, Project Input
Gridley Fire Department	Project Input
Konkow Valley Band of Maidu Indians	BCCG MOU Signatory, Project Input
Lassen National Forest	Federal Partner, Project Input
Local Tribal Governments	Cultural and Land Management, Project Input
Mechoopda Indian Tribe of Chico Rancheria	BCCG MOU Signatory, Project Input
North State Planning & Development Collective	BCCG MOU Signatory, Project Input
Northern California Regional Land Trust	BCCG MOU Signatory, Project Input
Oroville Fire Department	Project Input
Paradise Fire Department	Project Input

Organization	Role/Contribution
Plumas National Forest	Federal Partner, Project Input
Private Landowners/Companies	Project Implementation Partners
Sierra Pacific Industries	BCCG MOU Signatory, Project Input
Town of Paradise	Project Input
U.S. Forest Service	BCCG MOU Signatory, Federal Partner, Project Input
Yankee Hill Fire Safe Council (YHFSC)	BCCG MOU Signatory, Public Outreach, Education, Coordination, Project Input

PUBLIC INVOLVEMENT

A key element in the CWPP process is the meaningful discussions it generates among community members regarding their priorities for local fire protection and forest management (Society of American Foresters 2004). SWCA and the Core Team incorporated a comprehensive approach to public involvement throughout the planning process. This effort began with a press release from Butte County published on September 18, 2024, containing a public survey to gather input and specific concerns from residents.

To further engage the community, two public events were held: one in Chico on October 8, 2024, and another in Oroville on October 9, 2024. These events were announced via press releases and social media posts disseminated by CAL FIRE public information officers. At each event, informational materials were distributed, and local fire experts were present to answer questions and provide insights. Additionally, a TV news segment highlighted the CWPP development process and invited community participation. These events provided valuable opportunities for community members to learn about wildfire protection measures and provide their perspectives and feedback to the CWPP.

The draft CWPP was made available for public review from February 7, 2025, through February 21, 2025. During this time, two public meetings were held at the Oroville and Chico Libraries on February 11 and 12, 2025, respectively, providing residents an opportunity to ask questions and share feedback with Core Team members. In addition to the CWPP report, Butte County developed a CWPP hub site and story map (online content) to provide opportunities for information sharing and gathering. The story map and draft CWPP were announced through several different media outlets, including press releases and social media.

Additional information regarding public involvement and outreach is provided in Appendix D.

Tribal Collaboration

Collaboration between CAL FIRE and Indigenous tribes is a vital component of California's comprehensive fire management strategy. Table 1.3 is a list of federally and non-federally recognized tribes in Butte County. The State's 2018 Strategic Fire Plan emphasizes the importance of partnerships with local, state, federal, tribal, and private entities to create a fire-resilient environment, improve fire prevention and suppression efforts, and enhance coordination with tribal groups.

One notable example is the formation of the Tribal Caucus in 2023. Established as a subset of the Butte County Collaborative Group (BCCG), the Tribal Caucus provides a platform for supporting federally and non-federally recognized tribes to support forest health and wildfire safety initiatives.

CAL FIRE has also taken proactive steps to ensure tribal groups in Butte County are aware of capacity-building and grant opportunities by hosting partner meetings. CAL FIRE's Fire Prevention Grants Program supports projects that reduce wildfire risks, including those led by tribal governments. Additionally, CAL FIRE has established wildland fire protection to the Native American Rancherias in the SRA through a statewide agreement with the Bureau of Indian Affairs (BIA). Through coordination and collaboration throughout the state, CAL FIRE and tribal entities aim to protect lives, property, and cultural resources, ensuring a safer and more resilient future for all communities involved (personal communication, CAL FIRE, 2024).

Table 1.3. Tribes in Butte County and their Recognition Status

Tribe Name	Recognition Status
Berry Creek Rancheria	Federally Recognized
Enterprise Rancheria	Federally Recognized
Konkow Valley Band of Maidu Indians	Non-Federally Recognized
Mechoopda Indian Tribe of Chico Rancheria	Federally Recognized
Mooretown Rancheria	Federally Recognized
Pakan'Yani Maidu of Strawberry Valley Rancheria	Non-Federally Recognized

INSURANCE

This CWPP provides recommendations for mitigating wildfire hazard on a county scale; therefore, it is not used by private insurance companies to determine individual property risk, because it does not address hazard at a parcel level. The intent of a CWPP is to provide broad-scale mitigation of wildfire risk to communities, which requires collaboration by government entities, landowners, and the public.

The Quantitative Wildfire Risk Assessment (QWRA) conducted for this CWPP is not intended for the determination of insurance premiums for homes and properties. Both states and insurance companies have clarified that wildfire risk assessments and associated maps in planning documents, such as CWPPs, do not influence insurance rates or coverage determinations. Instead, insurance companies use their own internal, proprietary maps and methods, which consider factors that change more frequently than state and local planning documents (U.S. Department of Agriculture [USDA] 2023).

Resources like the Safer from Wildfires Initiative provide incentives for wildfire risk reduction; the California FAIR Plan Association offers coverage for high-risk areas; and United Policyholders supports homeowners with unbiased guidance on insurance-related challenges. For more information on wildfire insurance options and resources, see Appendix F.



Aerial photograph of homes and forested lands near Magalia, California.



CHAPTER 2 – PLANNING AREA OVERVIEW AND VALUES

PLANNING AREA

Butte County is situated on the east side of the northern Sacramento Valley, covering 1,072,789 acres according to the 2020 Census. The planning area for this CWPP is aligned to the boundaries of the CAL FIRE Butte Unit, which encompasses the entirety of Butte County as well as a small, sparsely populated portion of southeast Tehama County. The total acreage of the CWPP planning area is 1,134,193 acres.

Home to 205,928 residents, it is bordered by Plumas County to the northeast, Yuba County to the southeast, Sutter and Colusa Counties to the southwest, Glenn County to the west, and Tehama County to the northwest.

Approximately 52% of the county is designated as State Responsibility Area (SRA), while approximately 14% falls under Federal Responsibility Area (FRA), with public lands primarily managed by the Lassen and Plumas National Forests. The remaining 34% is classified as Local Responsibility Area (LRA), containing both densely populated urban areas and rural regions. The LRA, which experiences a high frequency of wildfires, poses a notable threat to adjacent SRA (CAL FIRE 2024i). See Figure 2.1 for the CAL FIRE Butte Unit and CWPP planning area boundary.

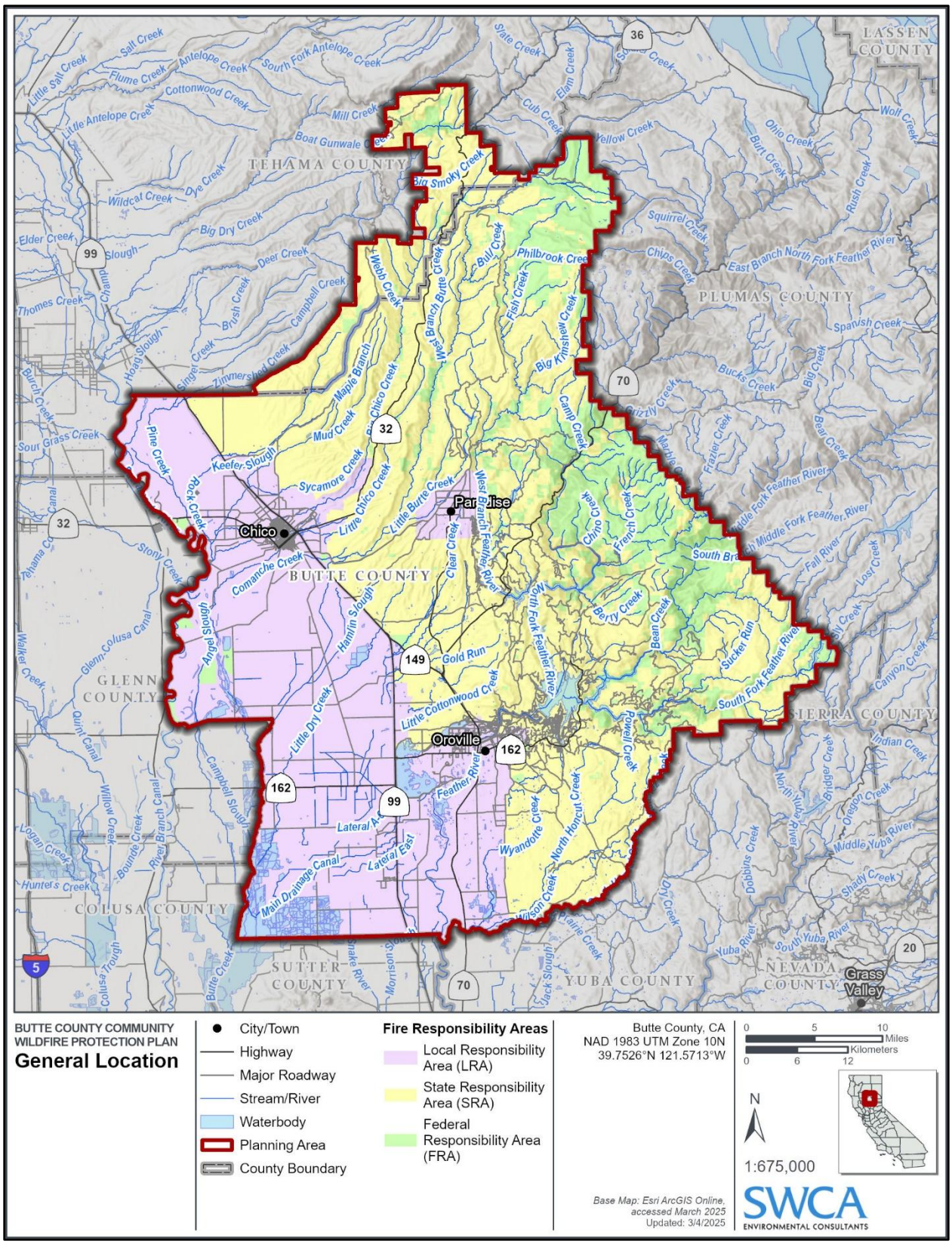


Figure 2.1. Butte County CWPP planning area with fire protection responsibility areas delineated.

LAND OWNERSHIP

Approximately 79% of the CWPP planning area is owned by private landholders, spanning both urban and rural areas, including an estimated 160,765 acres of private non-industrial timberlands. Public land is interspersed throughout the county, creating a mosaic of ownership.

The largest federal land holdings include the Plumas and Lassen National Forests (managed by the U.S. Forest Service [USFS]), which together account for 12.5% of the county's acreage. Federal lands managed by the Bureau of Land Management (BLM) account for 1.2% of the total land area. Additional federal holdings, including those managed by the U.S. Fish and Wildlife Service (USFWS) (0.4%) and the Bureau of Indian Affairs (BIA) (0.1%), are more limited in extent.

State-owned lands contribute a combined 6.0% of the total area, including lands managed by the California Department of Fish and Wildlife (CDFW) (2.4%), California Department of Parks and Recreation (0.5%), and other state agencies (2.6%).

Local government-owned lands make up 0.6%, while nonprofit conservancies and trusts account for 0.5% of the land area. Collectively, these smaller holdings, along with other public and conservation lands, contribute to the diverse management landscape in Butte County (Table 2.1; Figure 2.2).

Table 2.1. Land Ownership in the Butte County Planning Area

Agency/Entity	Acreage	Percentage of Planning Area
Private	896,893	79.1
U.S. Forest Service	142,133	12.5
Other State Lands*	29,748	2.6
California Department of Fish and Wildlife*	27,171	2.4
Bureau of Land Management	13,814	1.2
Local Government	6,835	0.6
California Department of Parks and Recreation*	6,163	0.6
Nonprofit Conservancies and Trusts	6,162	0.5
U.S. Fish and Wildlife Service	4,004	0.4
Bureau of Indian Affairs	1,270	0.1
Total	**1,134,193**	**100**

* Includes 42,000+ acres of California Department of Water Resources lands (FERC P - 2100)

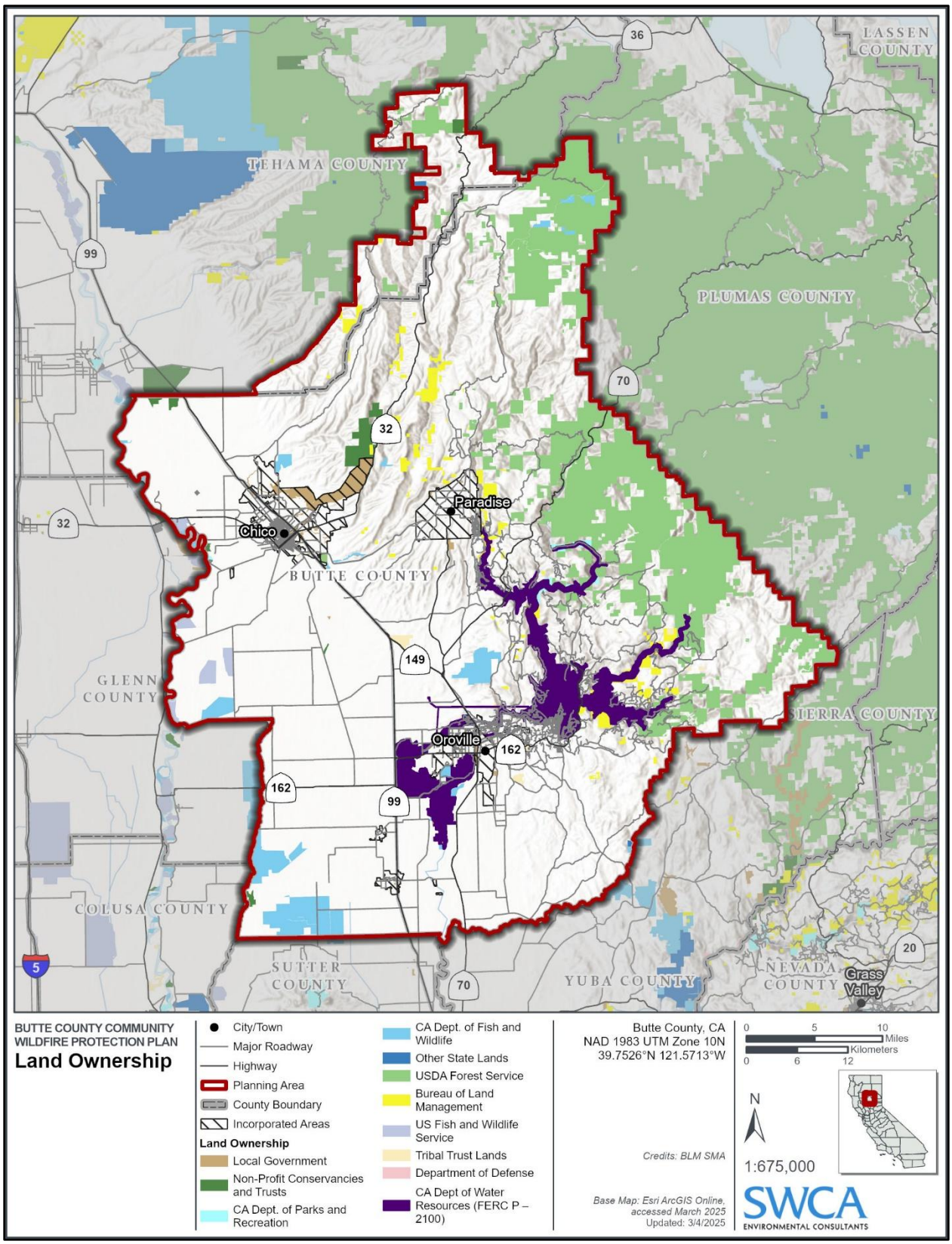


Figure 2.2. Butte County CWPP planning area land ownership map.

ROADS AND TRANSPORTATION

Butte County's transportation system consists of over 2,000 miles of public roads, including State Routes 32, 70, 99, 162, and 191, which connect urban and rural areas across Butte County (Figure 2.3). The county's geography, characterized by the Feather River, which bisects the county, and mountainous terrain in the east, limits the potential for roadway expansion. The Butte County Association of Governments works alongside the County to maintain and improve transportation infrastructure, which supports approximately 4.7 million miles of travel annually and includes a mixture of freeways, expressways, and local roads. Butte County consistently strives to improve the county's roadways with ongoing transportation projects focused on bridge replacements and road widening.

Safe and efficient roadways are especially crucial for emergency response and fire protection in fire-prone areas. Roadways such as the Skyway, connecting Chico and Paradise, are vital evacuation routes for the more rural communities of Butte County. Butte County is committed to enhancing roadway safety and emergency access by reducing hazardous vegetation and ensuring multiple access points are available for emergency vehicles, all of which are integrated into the County's Circulation Element to support mobility and wildfire preparedness.



Figure 2.3. A typical road in a Butte County ridge community.

Additionally, two major rail lines traverse Butte County that transport freight and passengers throughout the western portion of the United States. One of these rail lines parallels the western boundary of the county and the other follows Highway 70 into Feather River Canyon. Transportation safety, roadway capacity improvements, and coordination with regional and state agencies are top priorities.

RECREATION

Outdoor recreation is a popular pastime in Butte County, thanks to its diverse landscapes of forests, rivers, streams, and ecological preserves. The public lands managed by both federal and state agencies provide residents with ample opportunities for activities such as hunting, fishing, hiking, camping, and swimming. However, these outdoor recreation areas also pose potential wildfire risks due to human-caused ignition sources.

Federally managed lands encompass parts of the Plumas and Lassen National Forests. Butte County also boasts significant state-managed lands, including the Lake Oroville State Recreation Area, Thermalito Forebay/Afterbay, Oroville Wildlife Area, Gray Lodge Wildlife Area, Table Mountain Ecological Reserve, and Sacramento Wildlife Area.

WILDLIFE

Wildfire fuel management plays a crucial role in wildlife management due to the potential adverse or beneficial effects that wildfires and vegetation communities can have on wildlife habitat. Vegetation management treatments are routinely implemented across Butte County to help mitigate the severity of wildfire impacts through a landscape. Many wildlife species in the region have evolved alongside a frequent fire regime and are dependent on consistent burn regimes to thrive. In addition to developing effective vegetation management plans to mitigate wildfire, it is also important to consider the potential impacts to wildlife habitat when planning fuel treatments. Vegetation management projects aimed at reducing wildfire risk—such as creating fuel breaks or altering vegetation types—can yield both positive and negative effects on wildlife. For a deeper understanding of fuel management practices, refer to Appendix G. Figure 2.4 highlights the critical habitat areas found for species of concern within Butte County.

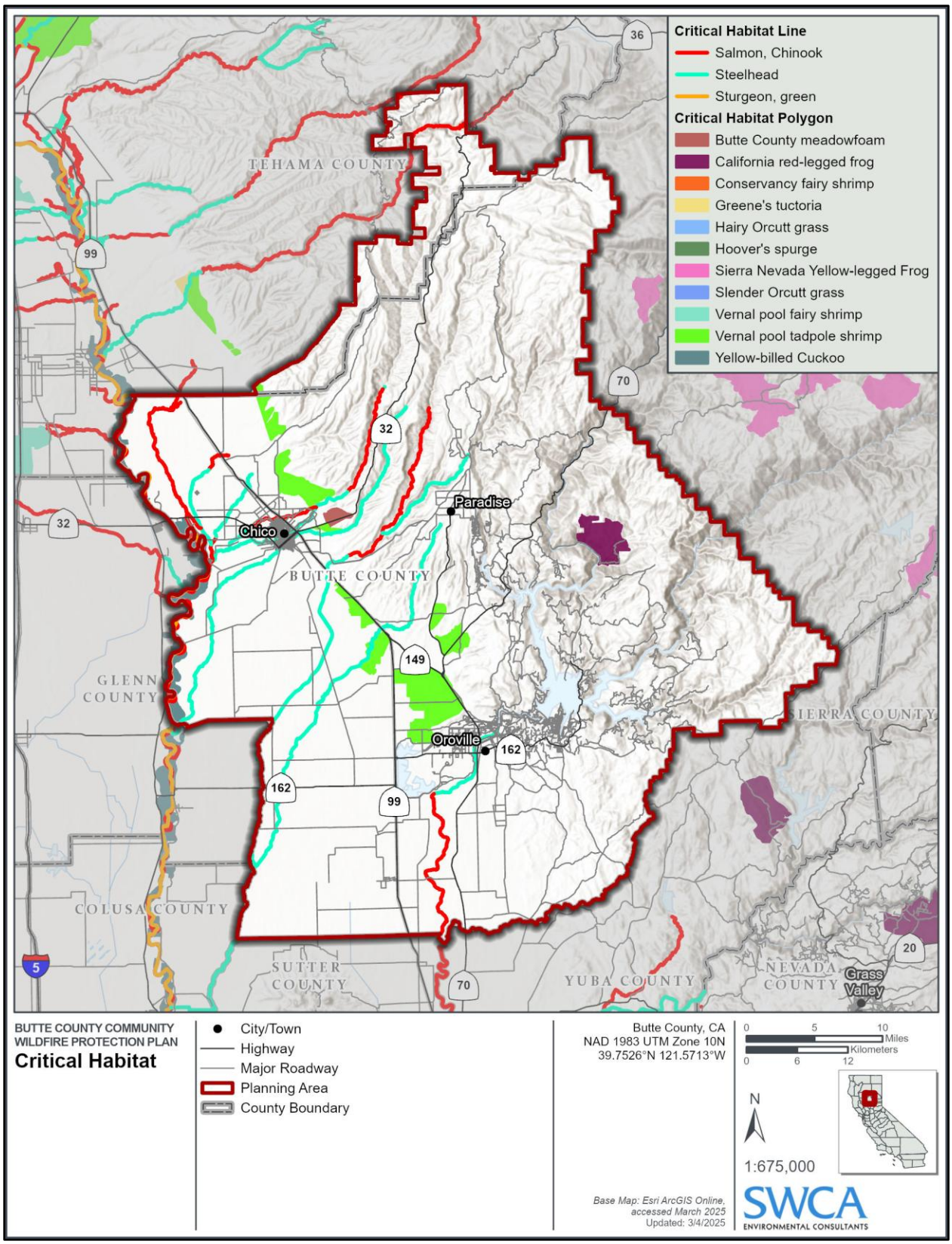


Figure 2.4. Critical habitat in the Butte County CWPP planning area.

Threatened and Endangered Species

Butte County has 224 known special-status species, with nine species being endangered and 10 species being threatened (CAL FIRE 2024i). Vascular plants (113 species) and birds (41 species) make up the largest number of special-status species within Butte County (Table 2.2). Some examples of these species include bald eagle (*Haliaeetus leucocephalus*), California black rail (*Laterallus jamaicensis coturniculus*), California tiger salamander (*Ambystoma californiense*), greater sandhill crane (*Antigone canadensis tabida*), Sierra Nevada red fox (*Vulpes vulpes necator*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) (California Natural Diversity Database 2024).

Table 2.2. Special-Status Species within Butte County

Type	Count
Animals - Amphibians	7
Animals - Birds	41
Animals - Crustaceans	5
Animals - Fish	11
Animals - Insects	4
Animals - Mammals	18
Animals – Mollusks	4
Animals – Reptiles	3
Community – Terrestrial	8
Plants – Bryophytes	9
Plants – Lichens	1
Plants – Vascular	113
Total	**224**

Source: California Natural Diversity Database (2024)

POPULATION

As of 2024, Butte County has an estimated population of 205,928 within its jurisdictional boundaries (Table 2.3). Approximately 109,589 people (53% of the total county population) reside within Chico city limits. The unincorporated portions of Butte County have the second highest population count with approximately 58,731 residents (29% of the total county population). Of the 205,928 residents within Butte County, 18.6% are over the age of 65, with 76.2% of the population being between the ages 5 and 65 years old (Butte County 2024a). The median age in Butte County is 35.9 years old (U.S. Census Bureau 2025).

Approximately 18.8% of Butte County residents live below the poverty line, defined as earning less than $14,580 annually (Butte County 2024a). The average income within the county is $64,426 (Butte County 2024a). This value is below the statewide average income of $73,220 and similar to the federal average income of $65,470 (Forbes 2024; U.S. Bureau of Labor Statistics 2024).

Table 2.3. Butte County Population by Jurisdiction, 2024

Jurisdiction	Population	Percent of Total Population
Biggs	1,853	0.9
Chico	109,589	53.2
Gridley	6,935	3.4
Oroville	18,129	8.8
Paradise	10,691	5.2
Unincorporated Butte County	58,731	28.5
Total	**205,928**	**100**

Source: Butte County (2024a)

Note: Population data are sourced from the Butte County mpbell fireard Mitigation Plan (LHMP). These figures represent estimates and projections at the time of the LHMP's publication and are subject to change due to population growth, migration, and other factors.

SOCIAL VULNERABILITY

The Federal Emergency Management Agency (FEMA) defines social vulnerability as the susceptibility of social groups to the negative impacts of natural hazards (e.g., wildfire), which include disproportionate death, injury, loss, or disruption of livelihood (FEMA 2022). A sole hazard occurrence can bring about considerably different impacts for distinct individuals, even if the magnitude of the hazard was the same for the entire community. Specific groups of individuals may be more susceptible to natural hazards because of socioeconomic status, physical state, or other factors. For instance, elderly individuals may have more difficulty in quickly evacuating during wildfire emergencies, which may make them more susceptible to entrapment.

Socially vulnerable populations can be assessed using a social vulnerability index (SVI), which approximates the social vulnerability of a location based on multiple indicators. This CWPP uses SVI data acquired from the Centers for Disease Control and Prevention (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR). These data are derived from the U.S. Census Bureau's 2020 American Community Survey 5-year estimates (CDC 2022). It is important to consider all indicators of social vulnerability, which can be understood using the CDC/ATSDR overall SVI shown in Figure 2.5. Figure 2.6 shows the American Community Survey datasets that were used to calculate total social vulnerability values across the United States.

According to the CDC/ATSDR SVI for 2022, Butte County, has a "high" vulnerability score of 0.8225. This places it at a state ranking of 4th and a national ranking of 190th, indicating a significant level of social vulnerability.

In addition to overall social vulnerability, access to critical socioeconomic resources plays a key role in wildfire resilience. Maps detailing the locations of educational facilities, health care services, critical infrastructure, and public safety resources are included in Appendix B (Figures B.17–B.20). These maps provide insight into the distribution of key community assets that influence wildfire preparedness and response.

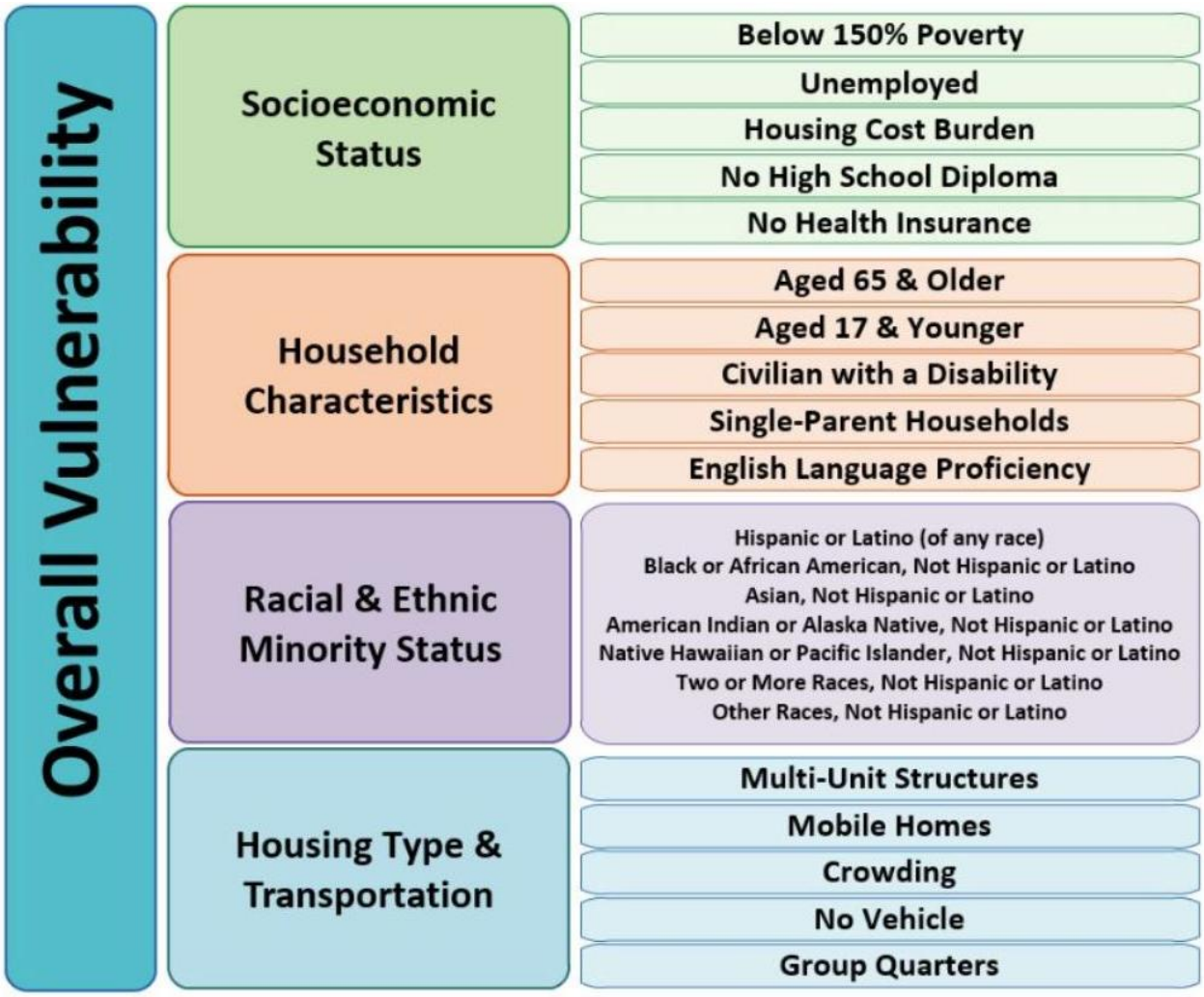


Figure 2.5. Diagram showing CDC/ATSDR indicators of social vulnerability.
Source: CDC (2022)

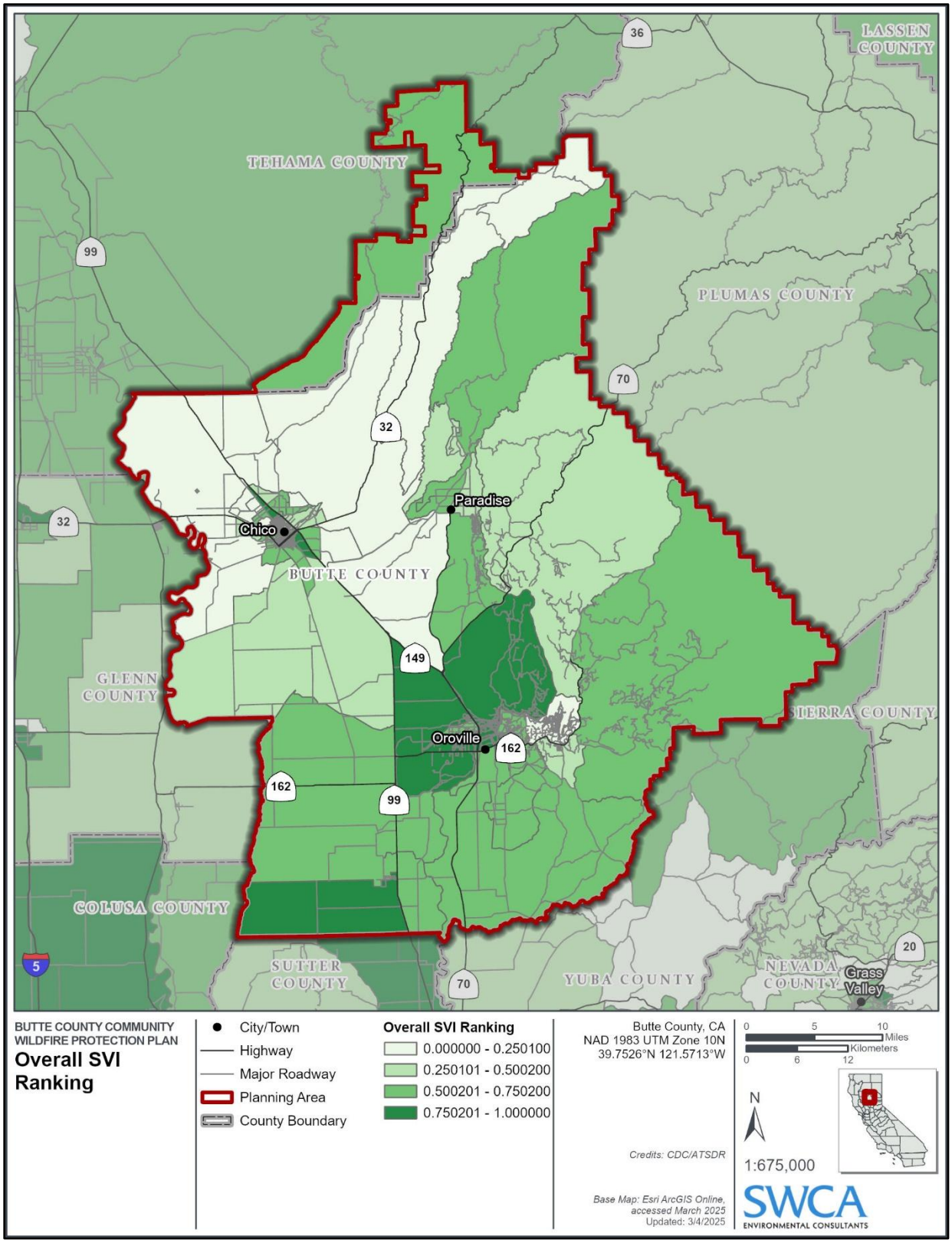


Figure 2.6. Overall social vulnerability index (SVI) percentile ranking for the Butte County CWPP planning area.

Source: CDC (2022)

Table 2.4 provides statistics on socially vulnerable populations within the entirety of Butte County as estimated by the USFS's *Wildfire Risk to Communities*. In this dataset, populations particularly at risk from wildfire include people over 65, people with disabilities, and people dwelling in mobile homes. Visitors and non-local property owners may also be at higher risk if they are not familiar with local guidelines regarding property management (defensible space, fire-resistant vegetation, fire-resistant building materials, etc.) and may not be registered or within reach of local emergency notifications. See Appendix B for additional SVI mapping for vulnerable populations in Butte County.

Table 2.4. Estimated Socially Vulnerable Populations in Butte County

Population at Risk	Number*	Percentage of Butte County*
Families in poverty	5,195	10.6
People with disabilities	34,705	16.4
People over 65 years	38,852	18.2
People under 5 years	11,263	5.3
People of color	66,604	31.2
Difficulty with English	5,128	2.5
Households with no car	5,063	6.1
Mobile homes	8,705	10.4

Source: USFS (2022)

* Numbers and percentages are estimates. For more information and details about margins of error, please visit the following webpage: https://wildfirerisk.org/explore/vulnerable-populations/06/06007/

In addition, wildland firefighters are a population at significant risk from wildfire due to the inherent dangers of their profession. While battling fires, they face immediate threats to their safety, as well as long-term health risks. These include exposure to smoke, chemicals, and other hazardous conditions that can lead to serious health issues over time. In addition to the acute dangers of the fire environment, such as injury or death, wildland firefighters are particularly vulnerable to the medium- and long-term impacts of inhaling harmful substances while on the job.

Unhoused Populations

With continued economic and social trends exacerbating housing insecurity, urban areas in the United States have seen significant increases in unhoused populations. Consequently, fire departments are responding to more incidents involving fires that impact unhoused people and their shelters or encampments.

Many unhoused individuals use open flames for warmth and cooking, often without awareness of fire safety, and often in high fire risk areas, such as densely vegetated riverbanks or vacant buildings. Legislative and political barriers can hinder efforts to address houselessness, which can allow fire risks to persist (National Fire Protection Association [NFPA] 2023).

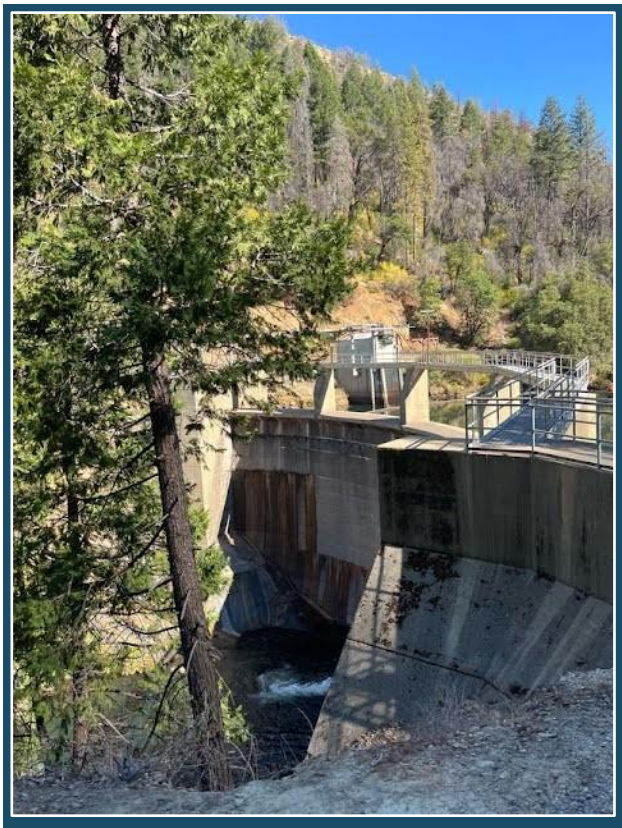
In Butte County, there are more than 1,000 unhoused individuals, many with health conditions that impact their ability to maintain a job or live independently. This count likely underestimates the true number due to displacement from recent wildfires (Butte County 2023).

COMMUNITY VALUES

A primary goal of the CWPP is to identify, prioritize, and protect the diverse values and assets within Butte County at risk from wildfire. Community values and asset data are gathered through the CWPP process using input from the Core Team, publicly available datasets, and insights from stakeholder and public outreach. These values encompass natural, cultural, and socioeconomic values (Figures 2.7–2.12) as well as lives and property. The scope of this CWPP does not allow determination of the absolute values that could be impacted by wildfire. Some examples of community values are (CAL FIRE 2024i):

- Private property
- Oroville–Thermalito Complex:
  - Oroville Dam
  - Thermalito Dam, Forebay, and Afterbay
  - Lake Oroville
  - Multiple hydroelectric facilities producing 2.2 billion kilowatt-hours per year
  - 200+ miles of lake shorelines
- Historic buildings and many historical sites, including over 20 on the National Register of Historic Places
- Railroads, including over 80 miles of heavily trafficked main line used for passenger and freight transportation
- High-tension power transmission lines, including hundreds of miles of major power lines (500+ kilovolts)
- Rangeland
- Agricultural facilities:
  - Fields
  - Orchards
  - Hullers
  - Dryers
  - Storage
- Research:
  - California Rice Experiment Station, hosting research projects utilized throughout the rice industry
  - Educational facilities, including Butte Community College with 13,000 students and California State University–Chico with 17,000 students
- Medical facilities:
  - Three hospitals, including the regional trauma center
  - Assisted living facilities (100+ senior and residential care facilities housing over 1,200 residents)
  - Rehabilitation facilities
  - Long-term care
  - Hospice
- Six state highways covering more than 175 miles, 25 miles of which are designated scenic highways.
- Ecosystem health and wildlife habitat, including 224 known special -status species, nine of which are endangered and 10 of which are threatened.
- Water quality, including the Sacramento River, Feather River, and associated watersheds
- More than $2.5 billion in timberland
- Recreation areas, including parks, campsites, and intricate trail systems
- Cultural sites and resources (see *Tribal Resources* below)
- Air quality
- Storage of natural gas and other flammable gases
- Bulk petroleum storage facility
- Large-diameter (12+ inch) high-pressure gas and fuel oil pipelines
- Wastewater treatment plants

- Agricultural product processing and distribution facilities for tree nuts, rice, and other crops
- Butte County Jail, Courthouse, and all city and county government offices (City Hall, Board of Supervisors, Sheriff, Treasurer, Hall of Records, Clerk-Recorder, District Attorney, etc.)
- Headquarters of local, state, and national politicians
- Multi-story casino resort hotels
- Regional distribution hubs for FedEx, UPS, Old Dominion Freight, Estes Express, and others
- Multiple regional, national, and international food and beverage product manufacturing, packaging, and distribution centers
- Butte County Landfill
- Telecommunications facilities, including cell and public safety radio towers, as well as wildfire monitoring cameras
- Three general aviation airports, one being an aerial firefighting base, and numerous agricultural airstrips





Water infrastructure (left) and forested lands (right), examples of natural and socioeconomic resources within the Butte County CWPP planning area.

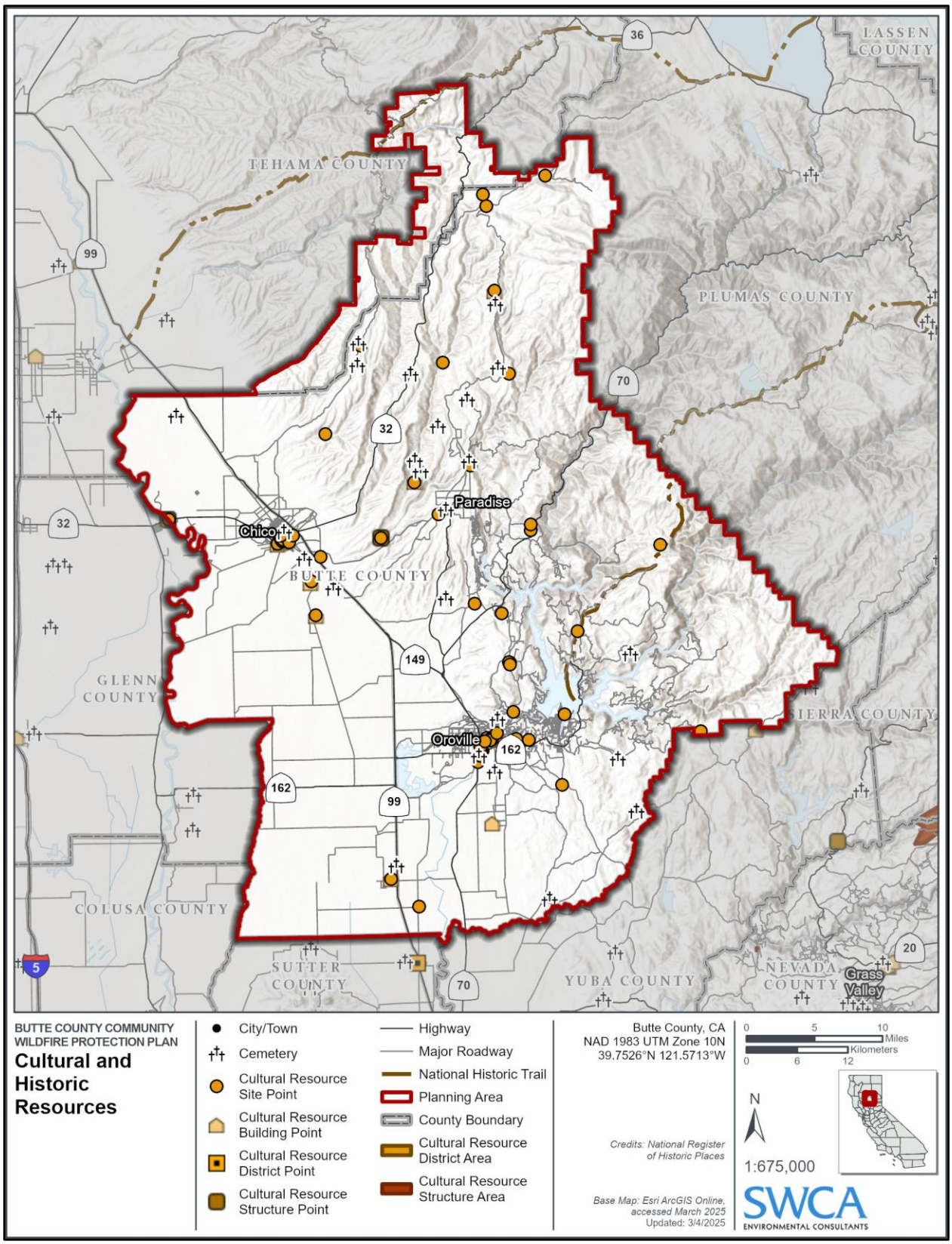


Figure 2.7. Cultural and historic resources in the Butte County CWPP planning area.



Figure 2.8. Bedrock mortars, a cultural resource found within the Butte County CWPP planning area.

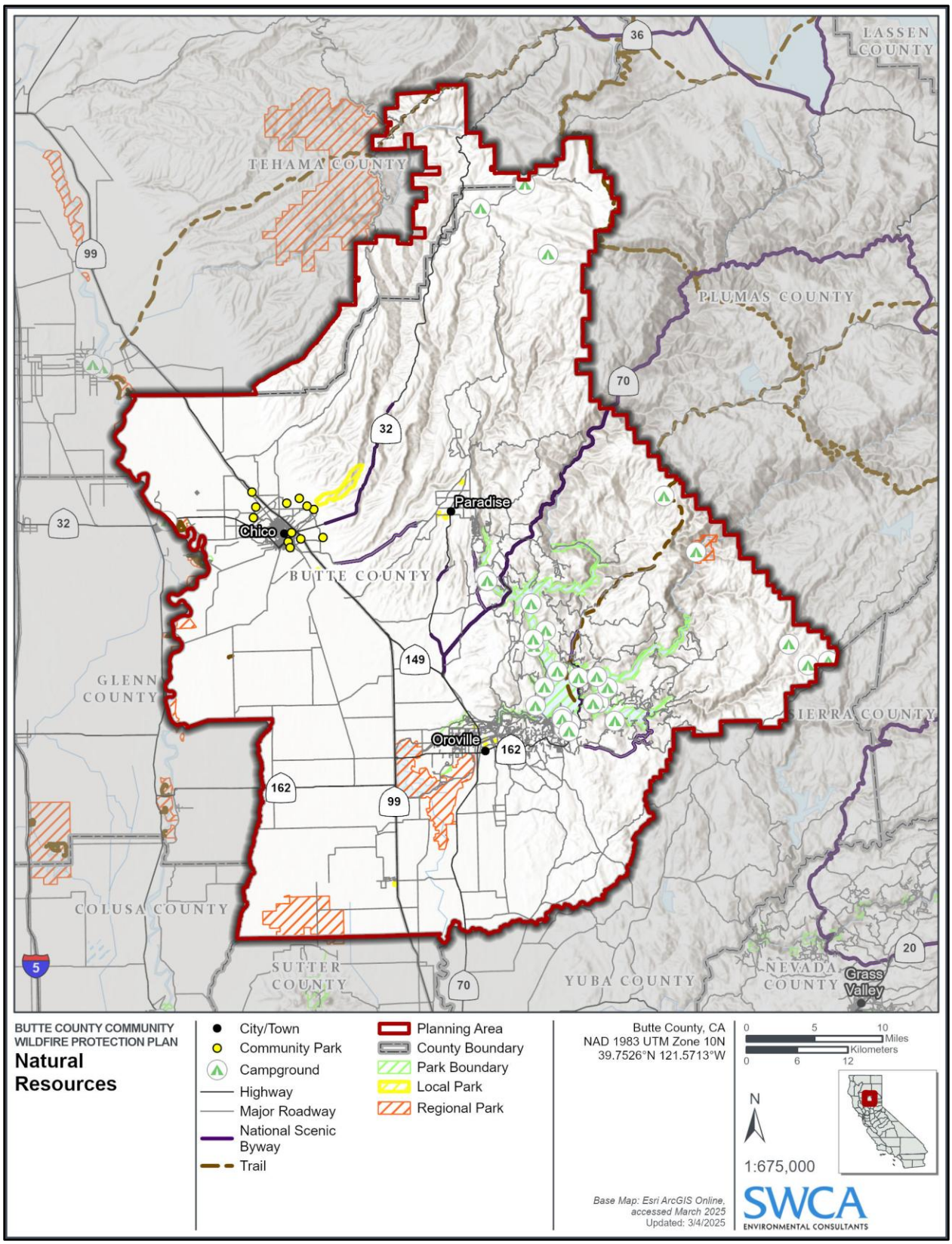


Figure 2.9. Natural resources in the Butte County CWPP planning area.



Figure 2.10. Forested land, an example of a natural resource within the Butte County CWPP planning area.



Figure 2.11. The Oroville Dam and Hyatt Powerhouse, examples of socioeconomic resources within the Butte County CWPP planning area.

Source: Explore Butte (2024).

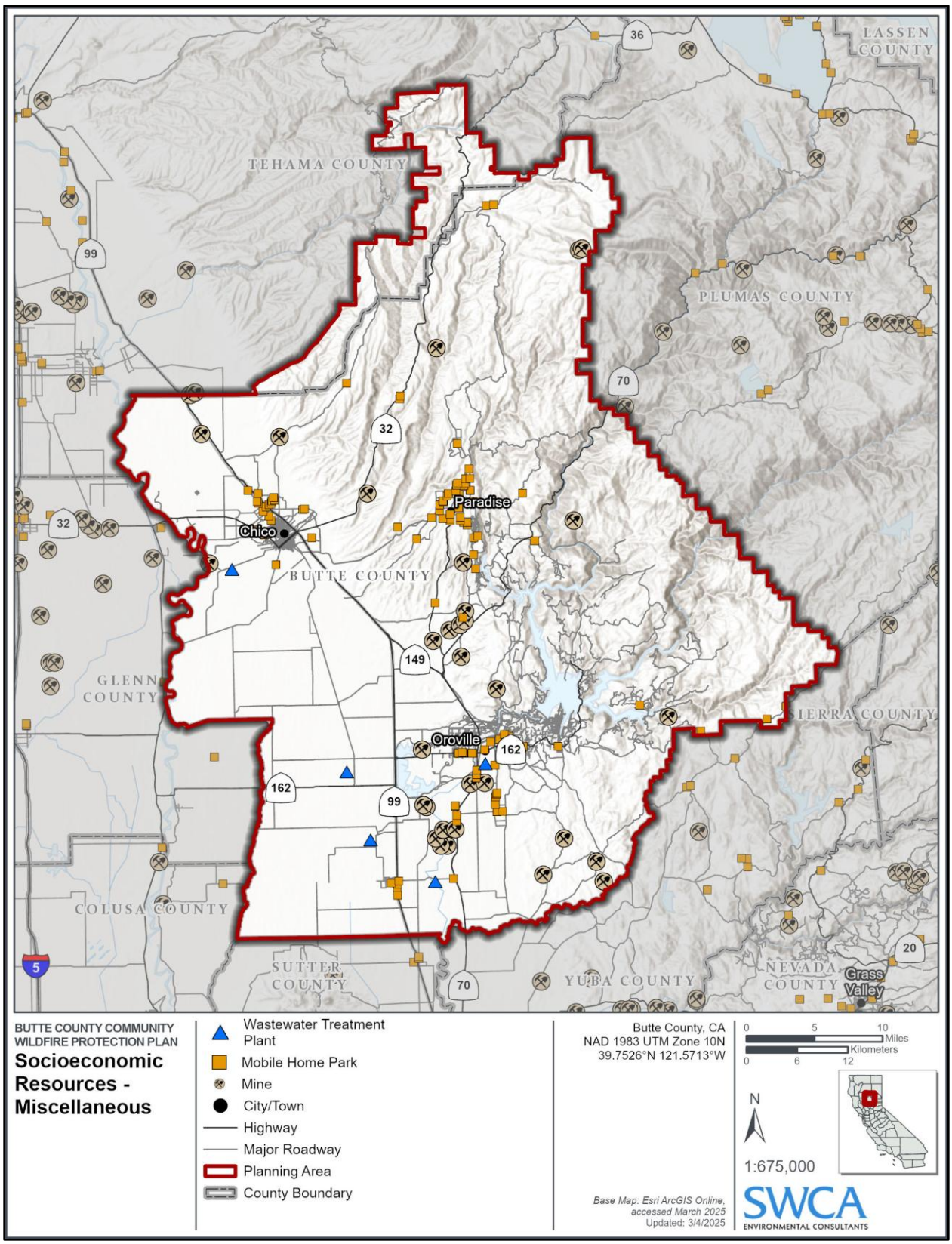


Figure 2.12. Socioeconomic resources in the Butte County CWPP planning area.

TIMBER INDUSTRY

The CWPP planning area encompasses approximately 200,000 acres of timberland located in the upper elevations of Butte County. These areas feature diverse ownership patterns, ranging from small landowners in the wildland-urban intermix to industrial landowners managing large, contiguous parcels within the SRA (Butte County n.d.a).

The timber industry in Butte County is a critical economic and environmental resource, supporting local jobs, supplying raw materials, and contributing to ecological services. However, wildfires pose significant threats to this industry. Risks include the loss of standing timber, diminished market value of fire-damaged wood, and disruptions to long-term forest regeneration. Severe wildfires can destroy young plantations and natural seedlings, delaying future harvests and undermining sustainable forestry cycles.

In addition to direct losses, the aftermath of wildfires often results in increased expenses for post-fire salvage operations, erosion control, and reforestation efforts. Damage to essential infrastructure, such as logging roads and sawmills, can further complicate recovery and escalate operational costs.

WATER INFRASTRUCTURE

Water infrastructure in Butte County, including reservoirs, treatment plants, pump stations, and distribution systems, is vital for providing clean drinking water, supporting agriculture, and maintaining ecological health (Butte County n.d.b). However, these systems face significant threats from wildfires, which can cause both direct and indirect damage with long-lasting consequences.

Direct impacts of wildfires include physical damage to treatment facilities, storage tanks, and distribution pipelines, particularly those made of plastic or other heat-sensitive materials. Aboveground infrastructure, such as intake structures and power supply systems for pumps, is especially vulnerable to high heat and flame exposure. Wildfire-related damage to vegetation and soil can also result in sedimentation and debris flows into reservoirs and watercourses, compromising water quality and increasing treatment costs.

Indirect consequences of wildfires include loss of vegetation in watershed areas, leading to increased erosion, reduced infiltration, and higher sediment loads in streams and reservoirs. These changes can impair water storage capacity and degrade water quality, often requiring extensive and expensive remediation efforts. Additionally, post-fire runoff may carry contaminants such as ash, heavy metals, and organic debris into water sources, posing risks to human health and aquatic ecosystems.

Water Availability and Supply

In Butte County, fire personnel rely on a diverse array of water sources to combat fires and respond to emergencies. The county's water supply includes hydrants, tanks, ponds, cisterns, wells, streams, and ditches (Figure 2.13).

In urban areas, hydrants are strategically placed, and their maintenance is generally prioritized to ensure a reliable water supply during emergencies. However, even these systems are not immune to failures or design limitations, as was evidenced by the failure of Paradise's hydrant system during the Camp Fire. This forced firefighters to utilize alternative water sources to maintain their firefighting efforts (direct communication, CAL FIRE, 2025).

Many unincorporated communities in the planning area are serviced by small private water districts—some with fewer than five hydrants—where maintenance and the ability to support sustained delivery of large volumes of water are significant concerns. For instance, the small water district in Butte Meadows experienced heavy strain during the Park Fire, as water tenders frequently refilled and stretched the district's resources.

In rural areas, which encompass the vast majority of the county's acreage, fire personnel often depend on drafting water from pre-positioned storage tanks, streams, ponds, or other natural sources.
The availability and condition of these water sources can vary greatly, particularly during dry seasons or droughts, when wells and streams may have significantly reduced water levels. Firefighters are trained to adapt to these conditions, using portable tanks and pumps to access water from unconventional sources as needed.



Figure 2.13. Diversion Pool after the Thompson Fire.
Source: Taylor Nilsson.

TRIBAL RESOURCES

Butte County is home to the historic territories of four Native American groups: the Maidu, the Nisenan, the Konkow, and the Yana. The Maidu territory is located at the boundary between the northern Sierra Nevada and the southern Cascade Range, encompassing mountain valleys from Honey Lake to Lassen Peak. The Nisenan territory extends from the banks of the Sacramento River across the lower Feather River drainages to the crest of the Sierra Nevada. The Konkow territory covers the Feather River area west of Rich Bar, stretching southwest almost to the Sutter Buttes, and includes the Sacramento River area from Butte City to Butte Meadows. The Yana territory spans from the edge of the Sacramento Valley eastward to the crest of the Cascades and northern Sierra (Butte County 2023).

This rich history of habitation has made Butte County notable for its array of both prehistoric and historic archaeological sites. The county has recorded 4,008 archaeological sites, of which 2,155 are prehistoric and 1,853 are from the historic period (it should be noted that the "historic" designation includes post-colonial history and includes resources not originating from tribal groups). This diversity and quantity of

resources present underscores the importance of robust regulatory measures to protect them in collaboration with local Native American tribes. Policies outlined in the Conservation and Open Space Element of the Butte County General Plan (COS-14, COS-15, COS-16, and COS-17) require maintaining collaborative relationships with tribal representatives to ensure the identification, evaluation, protection, and respectful management of cultural, historical, archaeological, and tribal cultural resources during planning and development processes. This collaboration is crucial in ensuring that the cultural heritage and traditional practices of these tribes are preserved and respected in perpetuity (Butte County 2023).

AREA OF CONCERN

To better prioritize resilient landscape recommendations (see Table 6.1 in Chapter 6), the CWPP Core Team delineated broad areas of concern within the county (Figure 2.14) using a variety of mapping products and local expertise, wildland-urban interface (WUI), wildfire hazards, fuel models, and aerial imagery. The area of concern is used to demonstrate regions of the planning area that should be prioritized for mitigation actions to reduce risk to assets. This allows land managers and homeowners to better understand locations on the landscape that would benefit the most from wildfire mitigation and preparedness.



Open space in Butte County.

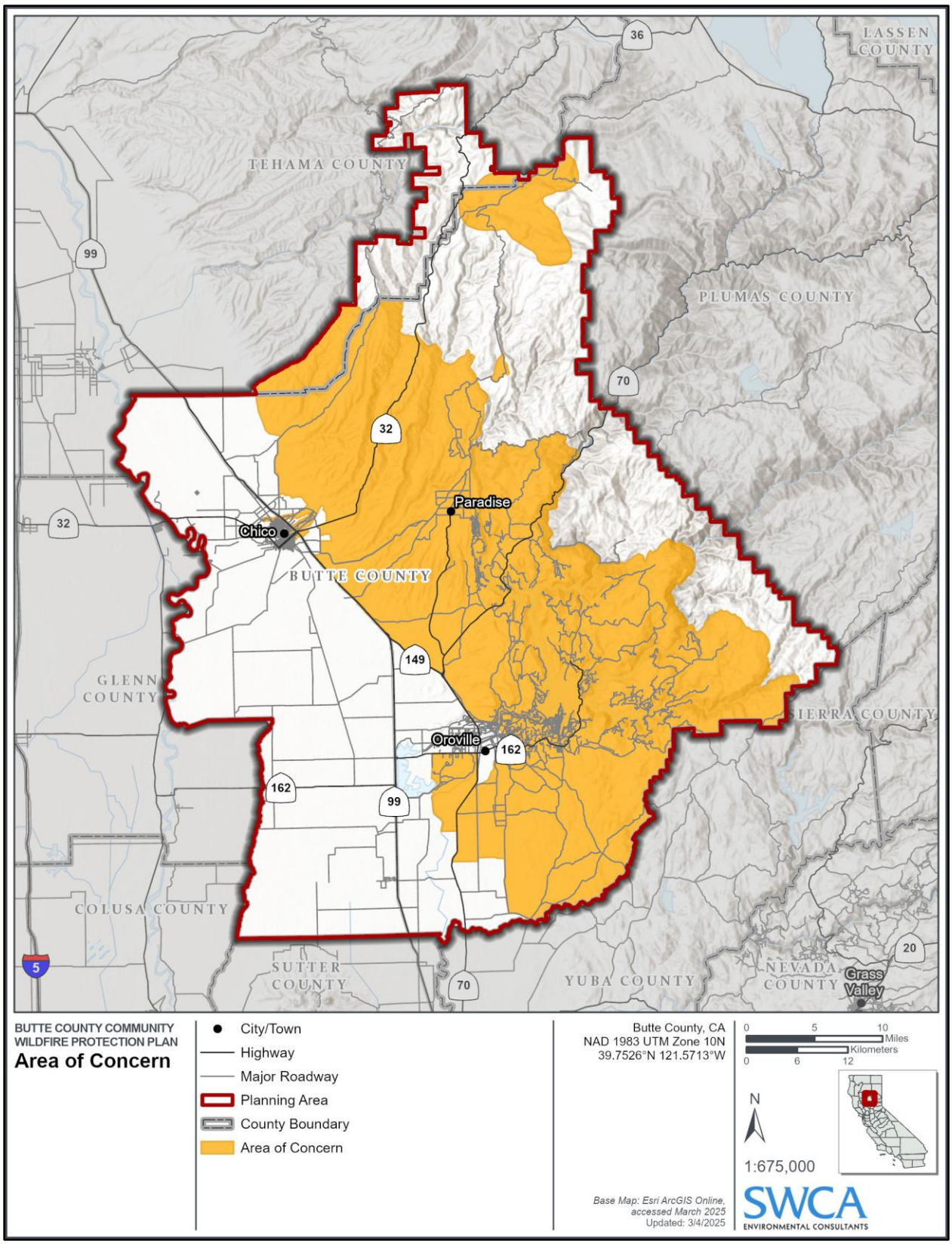


Figure 2.14. Areas of concern for Butte County CWPP planning area.

FUEL TREATMENT PROJECTS

CAL FIRE Butte Unit and other stakeholders lead an active and dedicated fuel treatment program across Butte County, as shown in Figure 2.15. This includes various fuel treatment projects on tall shrub and forested fuels and the implementation of prescribed herbivory (grazing) in grassland open spaces. This information is best shown in a web mapping application. Therefore, **recommended and planned projects for this CWPP update are presented in more detail on the project hub site here: https://butte-county-cwpp-buttecountygis.hub.arcgis.com/.** Maps of this data are provided in Figures 2.15 through 2.19 below.

Table 2.5 provides a comprehensive summary of the acres of treated landscape in each community, categorized by their current status: Active, Complete, Complete in Maintenance, and Planned/Proposed. This table offers a detailed overview of the ongoing, completed, and future projects aimed at managing and reducing fuels across various communities. The table is organized to show the total acres treated for each project within each community, allowing for a quick assessment of the progress and future plans in fuel reduction and landscape management initiatives**. It should be noted that the acreages were determined by the community boundaries that were delineated for the field surveys (refer to Figure C.1 in Appendix C).**

Key information for specific fuel treatment projects has been collected and is available in Appendix I, Table I.1. This includes essential details for each project, such as the project name, responsible agency, current status, expected or actual completion year, types of treatments applied, and the area covered in acres. It is important to note that not all cooperating entities within the county have the capacity to provide geographically referenced projects.

Table 2.5. Acreage and Status of Treated Landscapes

Community	Planned/Proposed (acres)	Active (acres)	Complete in Maintenance (acres)	Complete (acres)
CWPP planning area	48,557	147,234	599	19,884
Bangor/Rackerby	-	231	78	346
Berry Creek	471	22,195	-	2,027
Big Bend	215	12,162	-	171
Biggs/Gridley	282	2,025	-	6
Butte Creek Canyon	-	109	-	58
Butte Meadows	17	-	-	101
Butte Valley	105	2,924	-	114
Chico	17	545	34	1
Clipper Mills	345	1,696	-	1,146
Cohasset	2,818	9,039	-	1,352
Concow	1,682	32,150	-	1,174
East Oroville	2,638	3,114	46	2,670
Feather Falls	446	482	-	660
Forbestown	3	-	-	154
Forest Ranch	3,641	2,300	6	1,691
Honcut	-	8	-	-
Hurleton	563	284	314	498
Inskip	149	-	-	13
Jonesville	-	-	-	68
Magalia/Paradise Pines/De Sabla	1,796	4,932	-	2,897
Oroville	133	44	80	35
Palermo	1,855	1	-	175
Paradise	11,576	14,750	-	544
Pentz	482	1,315	-	61
Richardson Springs	4,210	1,207	-	51
Robinson Mill	355	235	122	937
Stirling City	-	-	-	206
Swedes	-	473	-	366
Table Mountain/ Cherokee	2,097	3,452	-	-
Thermalito	2,128	1,089	-	171
Yankee Hill	451	8,161	-	138

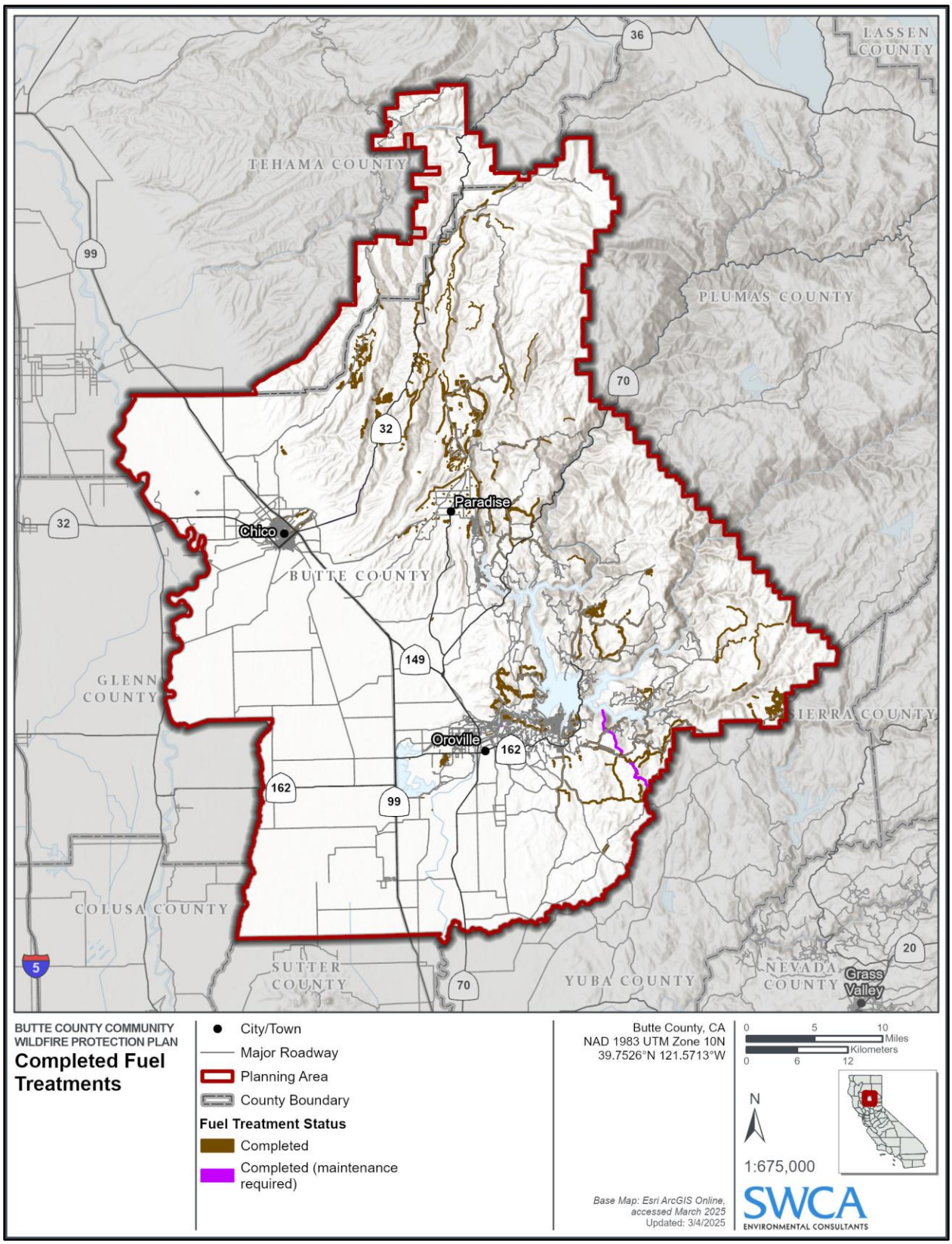


Figure 2.15. Completed fuel treatments within the Butte County CWPP planning area.

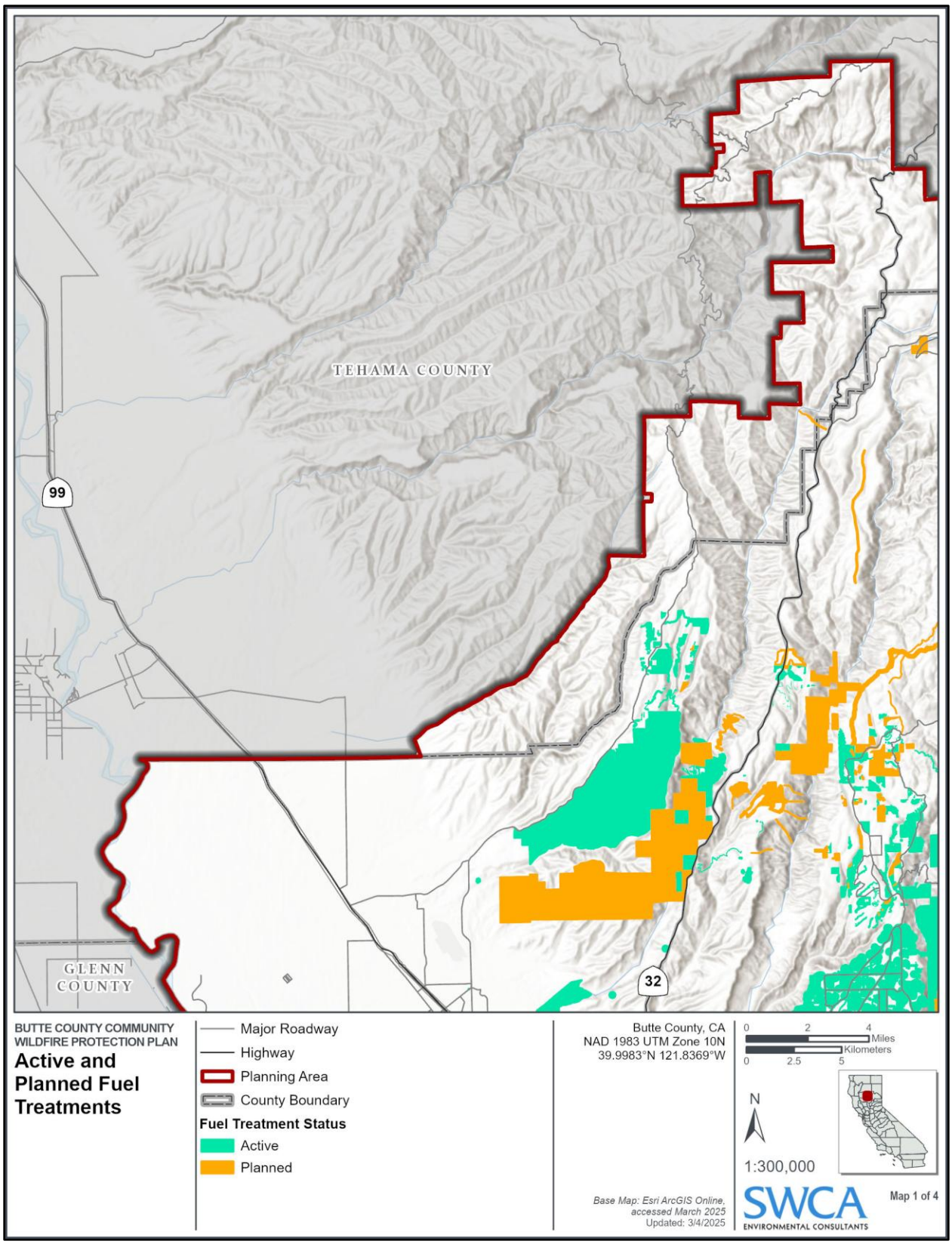


Figure 2.16. Active and planned fuel treatments in the Butte County CWPP planning area, map 1 of 4.

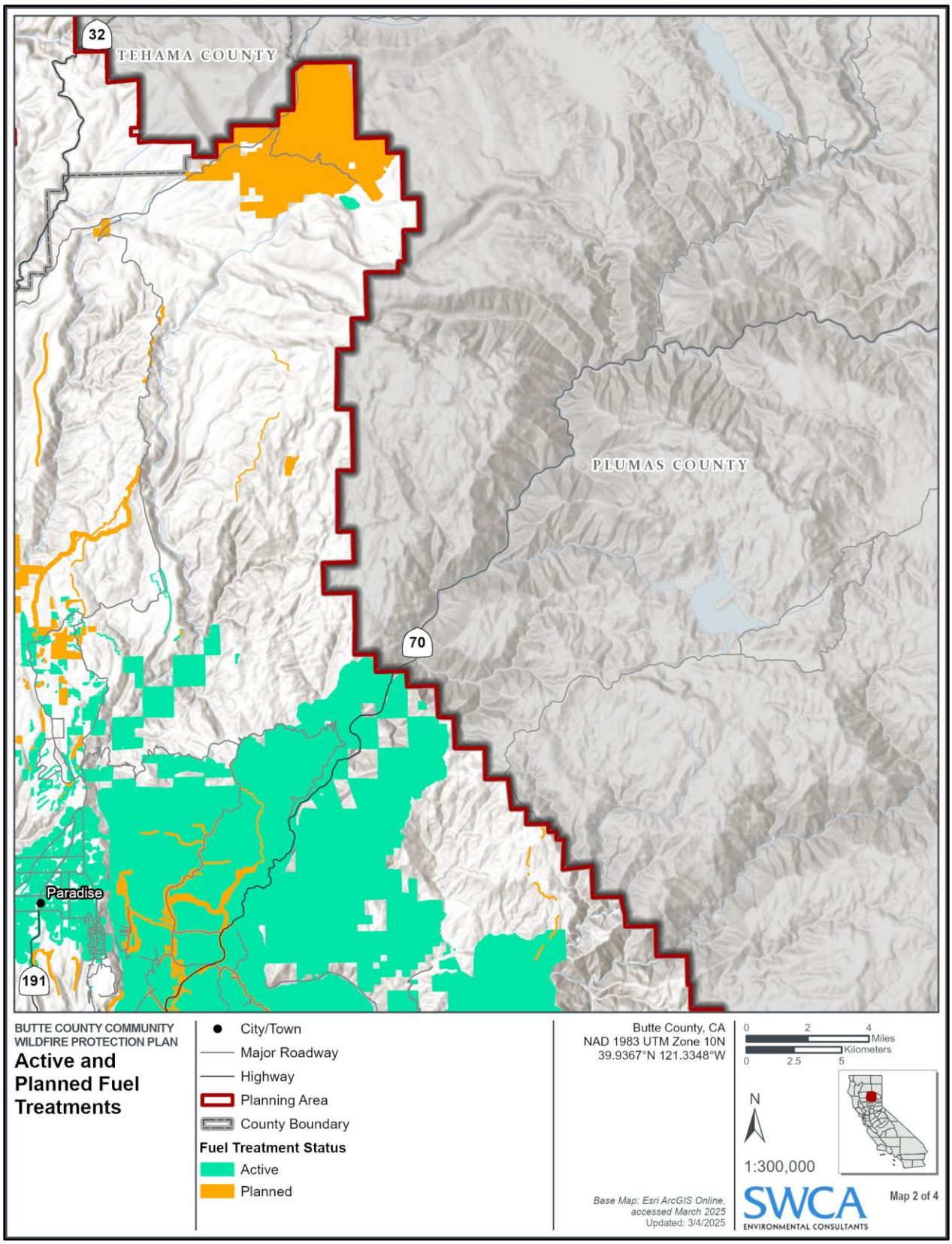


Figure 2.17. Active and planned fuel treatments in the Butte County CWPP planning area, map 2 of 4.

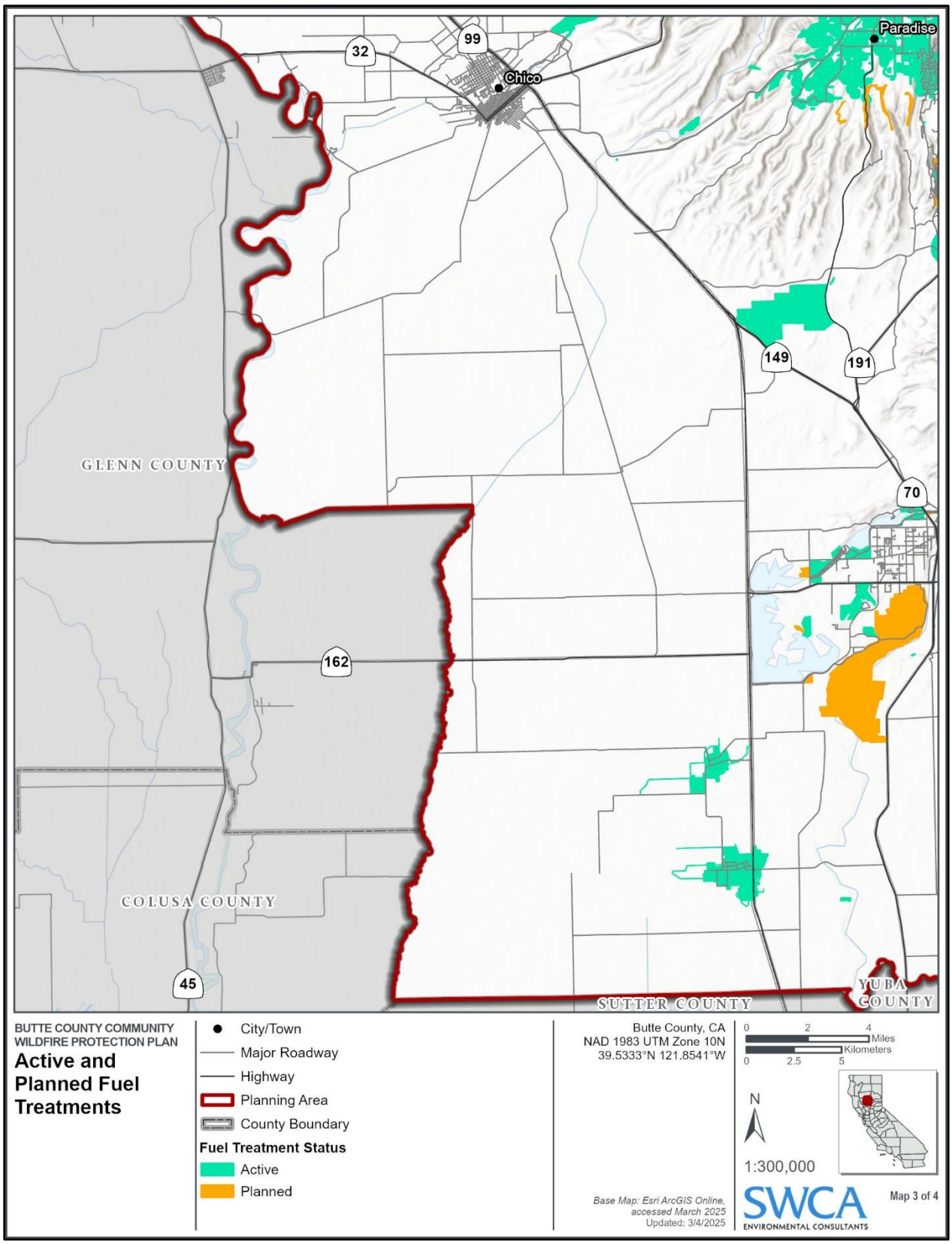


Figure 2.18. Active and planned fuel treatments in the Butte County CWPP planning area, map 3 of 4.

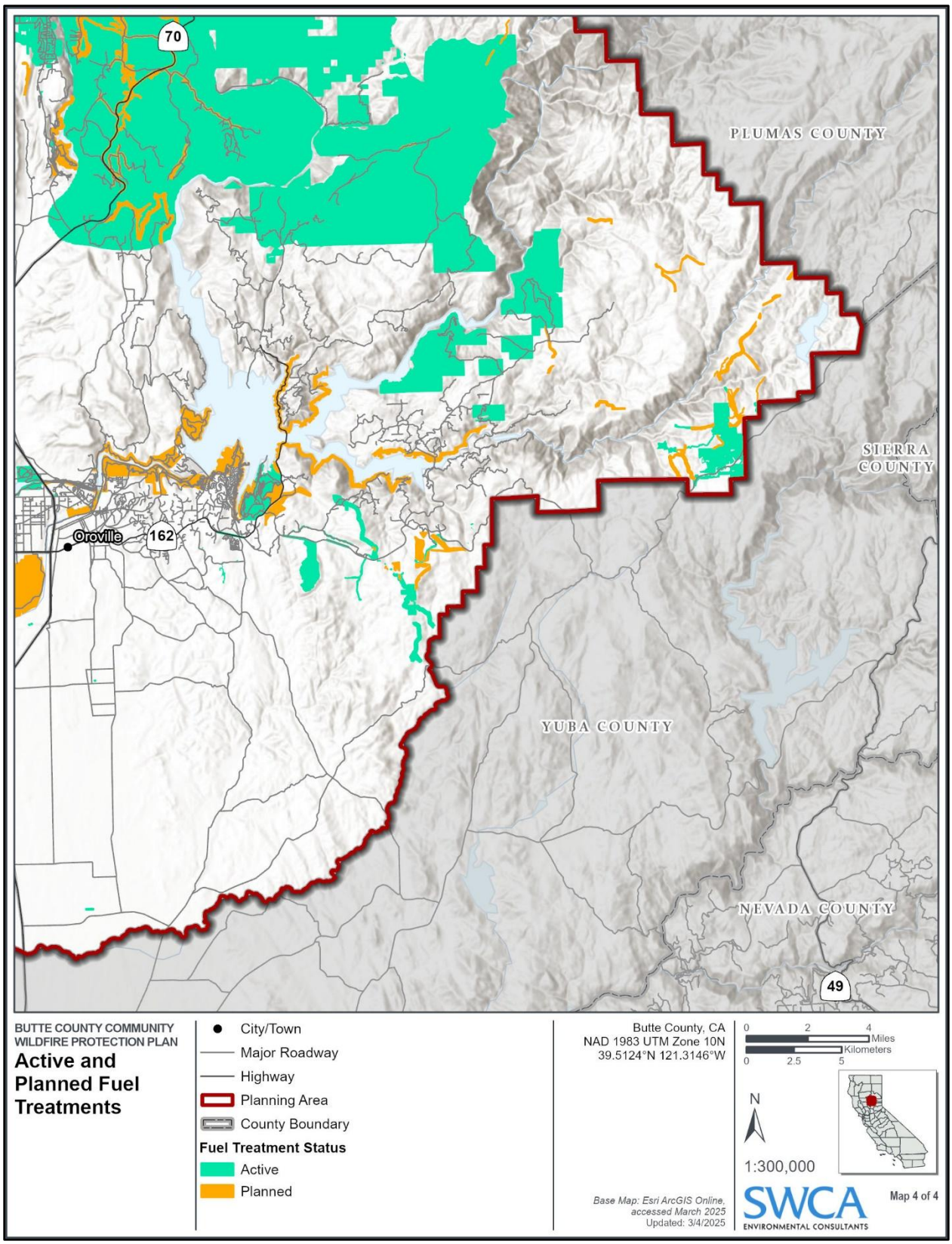


Figure 2.19. Active and planned fuel treatments in the Butte County CWPP planning area, map 4 of 4.

EVACUATION RESOURCES AND CHALLENGES

PEOPLE

In Butte County, the Sheriff's Department holds the primary responsibility for issuing evacuation orders. To facilitate efficient and safe evacuations, the County has implemented a zone-based system. This system streamlines the process, ensuring evacuations are conducted in an organized manner. More information about these evacuation zones can be accessed here: https://bereadybutte.com/know-your-zone/.

For general evacuation information and resources, residents can visit the Butte County evacuation site here: https://www.buttecounty.net/2081/Evacuation-Information.

Butte County uses the Code Red notification system to inform residents of wildfire threats and other emergency situations. These alerts are delivered via text messages, ensuring timely communication during critical events. Residents can sign up for Code Red here: https://public.coderedweb.com/CNE/en-US/BFA19C579EA5

In addition, Butte County has developed community evacuation plans and maps for several communities. These plans and maps can be accessed here: https://bereadybutte.com/evacuation-plans-by-community/. Butte County has also developed emergency preparedness guides for people with disabilities and access and functional needs. These resources can be accessed here: https://www.buttecounty.net/802/Considerations-for-Persons-with-Disabili.

Moreover, the County has established the Community Emergency Response Team, an all-volunteer, nonprofit organization operating under the Butte County Sheriff's Office. The Community Emergency Response Team supports the Sheriff's Office's mission by providing essential services during emergencies. Volunteers participate in public outreach, educating the community on emergency preparedness, and assist with critical tasks such as delivering supplies, staffing call centers, and managing the emergency notification system.

Disclaimer: Local, County, and State law enforcement evacuation notices should always be followed and supersede any guidance and evacuation information in this CWPP.

ANIMALS AND LIVESTOCK

Butte County Animal Control offers evacuation services and shelter for both large and small animals during disasters. These services support families who are either displaced from their homes or temporarily unable to care for their animals due to emergency situations. In the event of a disaster or emergency, current information on animal evacuations and sheltering can be accessed through the Butte County Public Health Department's Facebook and X (Twitter) pages. Butte County has also developed emergency preparedness guides for animals, including pets and livestock. These resources are linked below.

Animal emergency preparedness guides:

- https://www.buttecounty.net/800/Considerations-for-Animals
- https://www.buttecounty.net/639/Animal-Emergencies-Preparedness

The North Valley Animal Disaster Group provides animal evacuation, rescue, and shelter-in-place services in Butte County. More information can be found on their website: https://www.nvadg.org/.

Several local organizations contribute to animal rescue and care during emergencies. Friends United in Rescue, Inc. (FUR) specializes in providing shelter and adoption services for cats, particularly those impacted by disasters. Wags and Whiskers Pet Rescue is a no-kill rescue organization dedicated to rescuing, rehabilitating, and finding homes for animals in need. The Chico Animal Shelter offers essential services such as lost-and-found assistance, adoptions, and care for pets during emergency situations.

- Friends United in Rescue, Inc. (FUR): https://www.friendsunitedinrescue.org/
- Wags and Whiskers Pet Rescue: https://www.wagsandwhiskerspetrescue.com/
- The Chico Animal Shelter: http://www.chicoanimalshelter.org/

Agricultural Pass Program

Butte County's Agricultural Pass (Ag Pass) program was developed with local agencies to allow livestock owners essential access to care for their animals during restricted access times, such as wildfires. The program is designed to enable commercial livestock operators to feed, water, transport, and medically treat their animals when emergencies occur. The following is an overview of the process:

1. **Eligibility:** The program is available to commercial cattle operators with over 50 head and commercial beekeepers with more than 50 hives.
2. **Application:** Eligible operators apply for the Ag Pass through the Butte County Agricultural Department. This process includes verification of eligibility and completion of required training.
3. **Training:** Applicants must complete the U.S. Fire Administration's *Introduction to Wildland Fire Behavior* (S-190) training, which helps them understand fire behavior and safely navigate restricted areas.
4. **Issuance:** Upon completing the application and training, operators receive an Ag Pass, allowing limited access to their properties during emergencies for essential animal care tasks.
5. **Access:** In an emergency, passholders must request entry from public safety officials. The pass does not guarantee re-entry, as safety remains the priority. Public safety officials will assess conditions before granting access.

For more information, please visit the following links:

https://ucanr.edu/sites/Rangelands/2020_Commercial_Livestock_Disaster_Pass_and_Disaster_Preparedness_Training/

https://www.cdfa.ca.gov/AHFSS/Animal_Health/eprs/docs/livestock_agricultural_pass_program_process.pdf



CHAPTER 3 – FIRE ENVIRONMENT

WILDLAND-URBAN INTERFACE

The wildland-urban interface (WUI) is composed of both interface and intermix communities and is defined as areas where human habitation and development meet or intermix with wildland fuels (U.S. Department of the Interior and U.S. Department of Agriculture [USDA] 2001:752–753). Interface areas include housing developments that meet or are in the vicinity of continuous vegetation. Intermix areas are those areas where structures are scattered throughout a wildland area where the cover of continuous vegetation and fuels is often greater than cover by human habitation. For simplicity, Figure 3.1 below shows both interface and intermix areas combined as general WUI with an influence zone extension, totaling 165,632 acres of land in Butte County. The influence zone is described with respect to wildland and urban fire; it is an area with a set of conditions that facilitate the opportunity for fire to burn from wildland fuels to the home and or structure ignition zone (Community Wildfire Planning Center 2021).

According to the HFRA, the WUI can be defined and delineated by a CWPP. Additionally, the CAL FIRE California CWPP Guide/Toolkit requires that CWPPs identify and map the WUI. The WUI boundaries for this plan were established using a comprehensive approach that integrated pertinent data and regional expert insights. Key elements included using CAL FIRE's Fire and Resource Assessment Program (FRAP) 2019 wildland-urban interface and intermix data as an initial framework, with additional areas identified through analysis of structures and parcels and fine-scale adjustments from local fire management experts. A 1.5-mile buffer was added to the boundary to represent the influence zone.

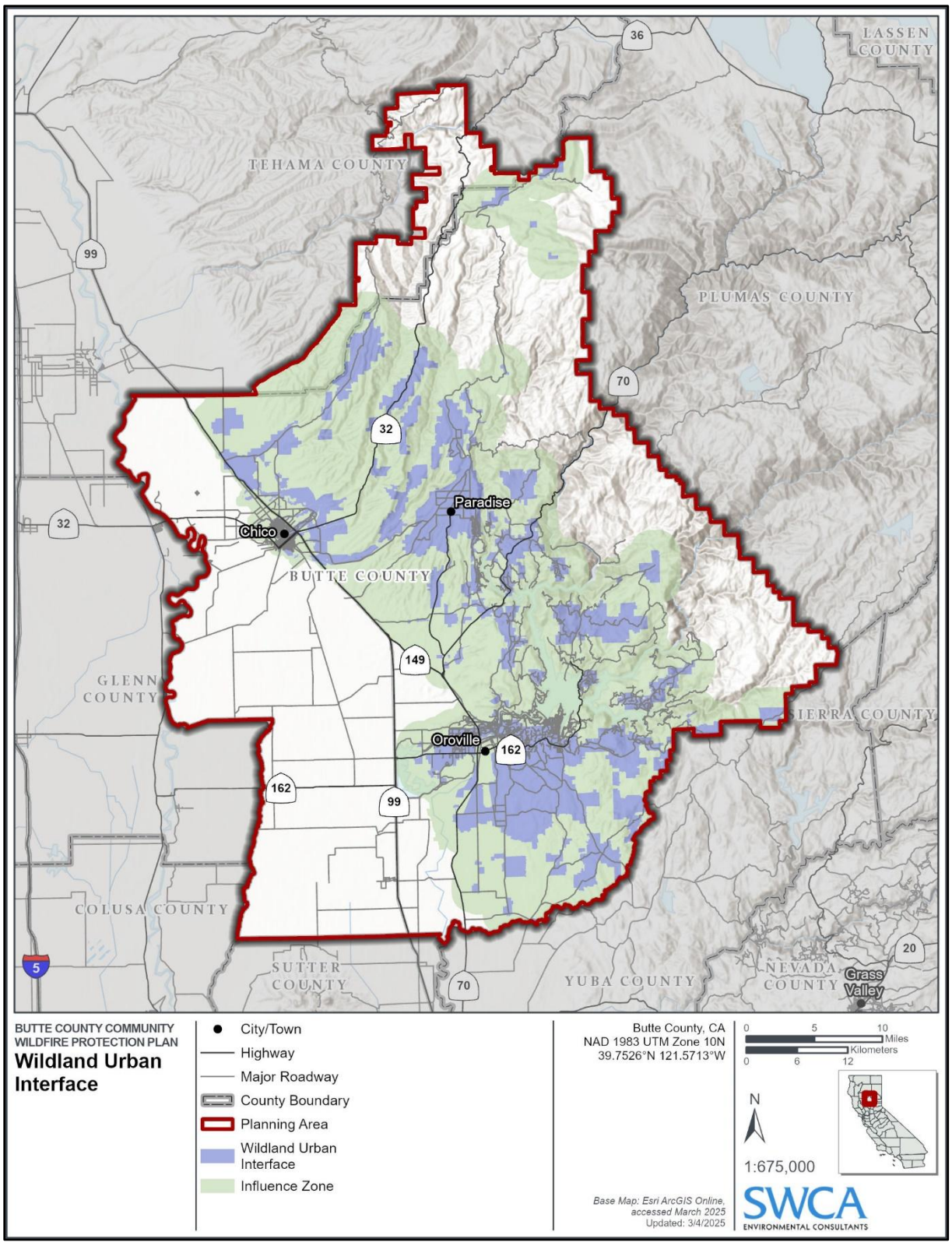


Figure 3.1. Butte County CWPP planning area WUI map.

The 2019 FRAP WUI mapping, which serves as the foundation for defining the WUI in the Butte County CWPP, is available for viewing in PDF format here: https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/calfire-website/what-we-do/fire-resource-assessment-program---frap/pdf-maps/wildland-urban-interface-2019.pdf?rev=e44c740c777940c6bda816c42c886c87&hash=52A9A0873B1CBF3E468DC52D4E5CB5B5

WUI LAND USE

California cities and counties face pressing challenges in providing safe, affordable housing. By 2030, an estimated 2.5 million homes will be needed to meet demand, with at least 1 million for low-income households (California Department of Housing and Community Development 2022). Many new units are being built near wildland areas, contributing to WUI conditions where more than 46 million residences across 70,000 communities are now at risk of wildfire (U.S. Fire Administration 2021a). The 2018 Strategic Fire Plan for California indicates a steep rise in structures lost to wildfires, reflecting the vulnerability of the WUI (CAL FIRE 2018a).

The WUI, California's fastest-growing area for housing development, presents both environmental and social challenges, increasing wildfire risks and habitat fragmentation. Housing affordability has pushed diverse populations—including but not limited to farmers, ranchers, Indigenous populations, commuters, and retirees—into more exurban areas, adding to the vulnerability of historically marginalized groups exposed to these environmental hazards (Greenberg et al. 2023; University of California, Santa Cruz 2024).

ENGINEERING AND STRUCTURAL IGNITABILITY

Wildfires can ignite homes and structures through three main avenues: embers (firebrands), direct flames, and radiant heat. Embers, small pieces of burning material, account for the majority of home ignitions during wildfires, contributing to 60% to 90% of these incidents. When embers are lofted into the air, they become what are known as firebrands, which can land on combustible materials and ignite new fires far ahead of the wildfire front, creating a secondary fire (Figure 3.2). Direct flame contact occurs when flames, either from the wildfire or nearby ignited combustible materials, reach a structure. Lastly, radiant heat from burning materials, even without direct flame contact, can ignite homes if they are close enough (CAL FIRE 2024c).



Example of good defensible space.

To mitigate the risk of structural ignitability, it is crucial to create defensible space and harden homes. Defensible space, the buffer zone around a structure, helps slow down or stop the spread of fire. In Butte County, compliance with Public Resources Code (PRC) 4291 and Butte County's Fire Prevention and Protection Ordinance (Chapter 38A) is essential. These regulations require homeowners to maintain the first 5 feet around the structure, known as the "Ember Ignition Zone," free of combustible materials in addition to 30- and 100-foot zones with reduced fuel loading. Using fire-resistant landscaping, such as low-growing, high-moisture plants, and keeping roofs, gutters, and other surfaces free of debris can significantly reduce the risk of ember ignitions (CAL FIRE 2024c).

California’s Chapter 7A of the Building Code further strengthens wildfire defenses by mandating fire-resistant construction materials and methods for homes in designated wildfire hazard zones. These standards, which apply to new structures in areas identified as increased hazard zones, focus on minimizing the chance of ignition from embers or radiant heat by using materials like fire-resistant roofing, exterior walls, and decking. By following these regulations and creating defensible space, homeowners can significantly increase their structure's chances of survival during a wildfire (CAL FIRE 2024d).

For more information on local and state codes and ordinances that establish defensible space standards and regulate the use of building materials, please visit Appendix A.

For guidance, tools, and strategies to help homeowners and community members reduce wildfire risks through mitigation, please see Appendix F.

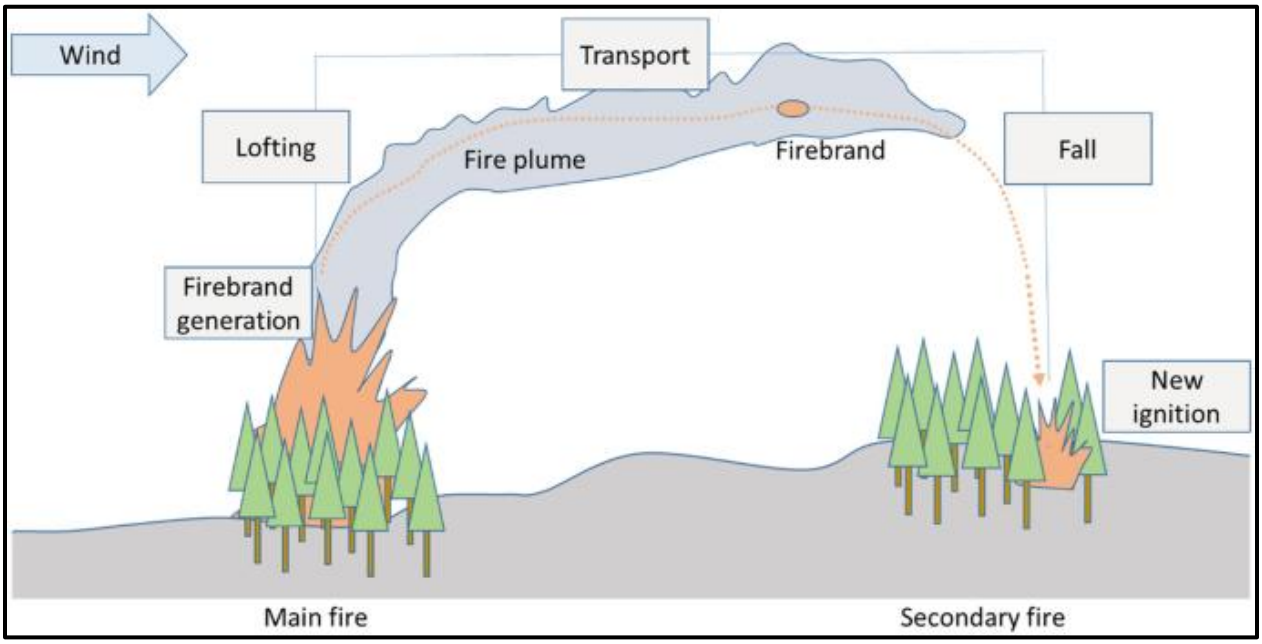


Figure 3.2. Factors associated with embers (firebrands) on the landscape.

Note: Vegetation type, wind, and topography all influence ember production and travel distances.

Source: Martin and Hillen (2016).

FIRE ECOLOGY

FIRE RETURN INTERVALS

Fire return intervals, the natural cycle of fire through an ecosystem, are crucial for maintaining ecological health, preventing catastrophic fires, and promoting biodiversity. These intervals vary by vegetation type, each tailored to the ecosystem's resilience and fire tolerance. In Butte County, managing fire return intervals is crucial for restoring and maintaining forest health and resilience. Historically, frequent, low- to moderate-intensity fires, including wildfires and cultural burns by Indigenous communities, shaped the county's landscapes, promoting biodiversity and reducing catastrophic wildfire risks (Butte County Resource Conservation District [RCD] 2022).

Specifically, regular fire cycles reduce accumulated ground fuels, such as dead wood, dry grasses, and leaf litter. Without periodic burns, fuel buildup can transform low-severity fire ecosystems into regions highly susceptible to catastrophic burns. Fire-adapted species, like blue oaks and certain hardwoods, rely on low- to moderate-intensity fires to trigger germination, enhance acorn production, and recycle nutrients through biochar. Additionally, fire acts as a natural control mechanism for pests and diseases, thinning overly crowded areas and helping trees access more sunlight and resources, thus strengthening forest resilience to threats like bark beetles and other pathogens (Butte County RCD 2022).

Figure 3.3 below outlines the estimated theoretical fire return intervals of Butte County. Fire return intervals are inherently challenging to define accurately, and many Butte County residents, land managers, and tribal leaders believe that the data often suggest intervals that are too lengthy for the region. Tribal leaders have advocated for much shorter intervals, with some recommending an annual burn cycle as a critical goal for maintaining ecosystem health.

This mapping exercise (Figure 3.3) presents an analysis of vegetation in Butte County and its relationship with the fire return interval. As a fire-adapted environment, Butte County's local vegetation relies on periodic burning or treatment to maintain its health. The mapping process utilized USFS data and expert opinions.

The transition from foothills to grassland ecosystems occurs near State Routes 99 and 70 (see data layer cut-off). In predominantly grassland environments, the fire return interval is less critical, as grass fuels can be managed with greater flexibility, allowing for adjustments in response to current conditions.

It is crucial to note that these fire return intervals are starting points and should be adjusted by local communities and experts to reflect the local consensus on appropriate fire return intervals. This underscores the need for ongoing fire management practices to mitigate wildfire risks.

It is also important to note that Figure 3.3 displays the estimated theoretical fire return interval, while Figure 3.4 shows the actual fire return interval. Figure 3.4 was created by analyzing large fires (over 500 acres) occurring from 1900 to 2024.



Forested lands outside of Forbestown, Butte County.

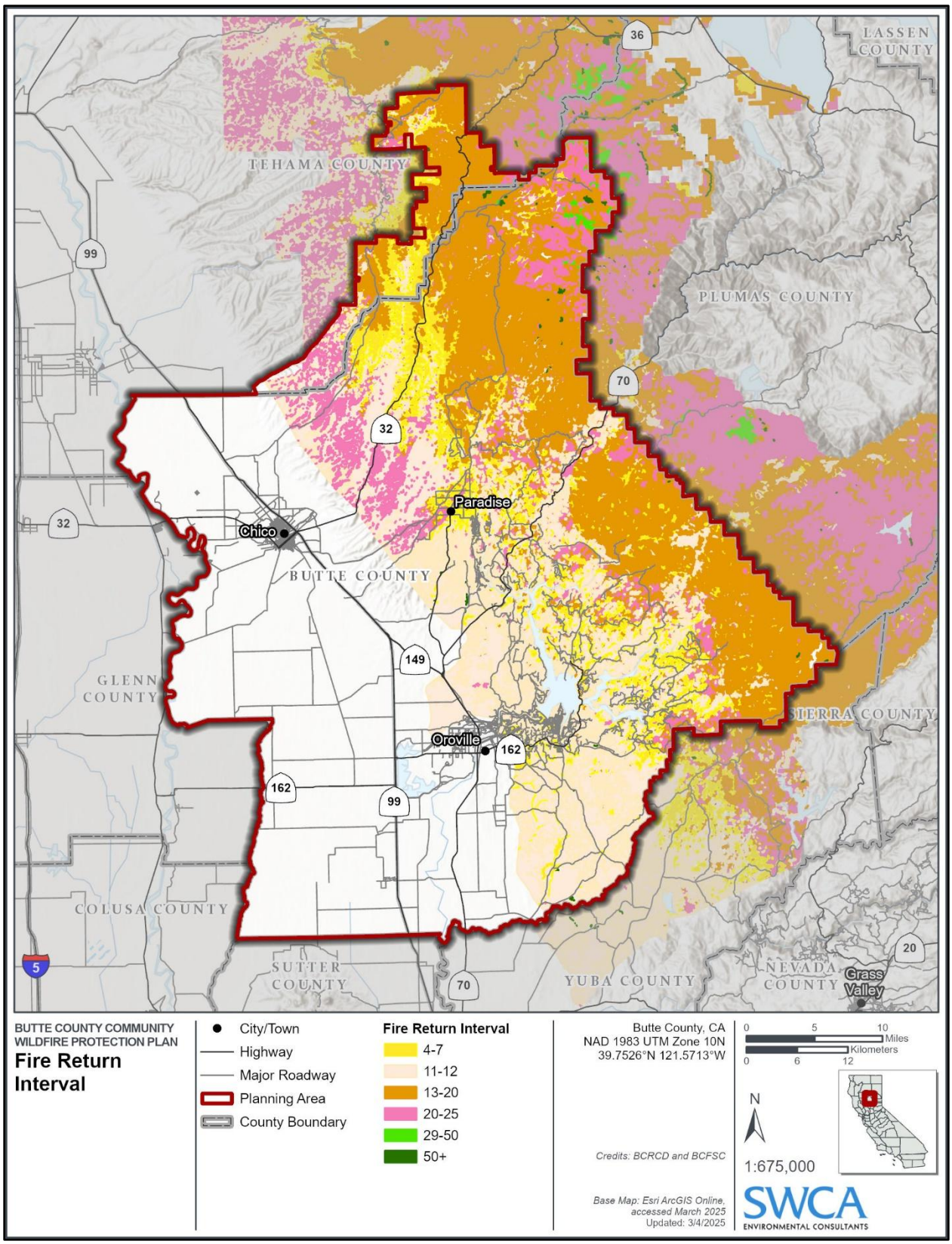


Figure 3.3. Estimated theoretical fire return interval throughout the Butte County CWPP planning area.

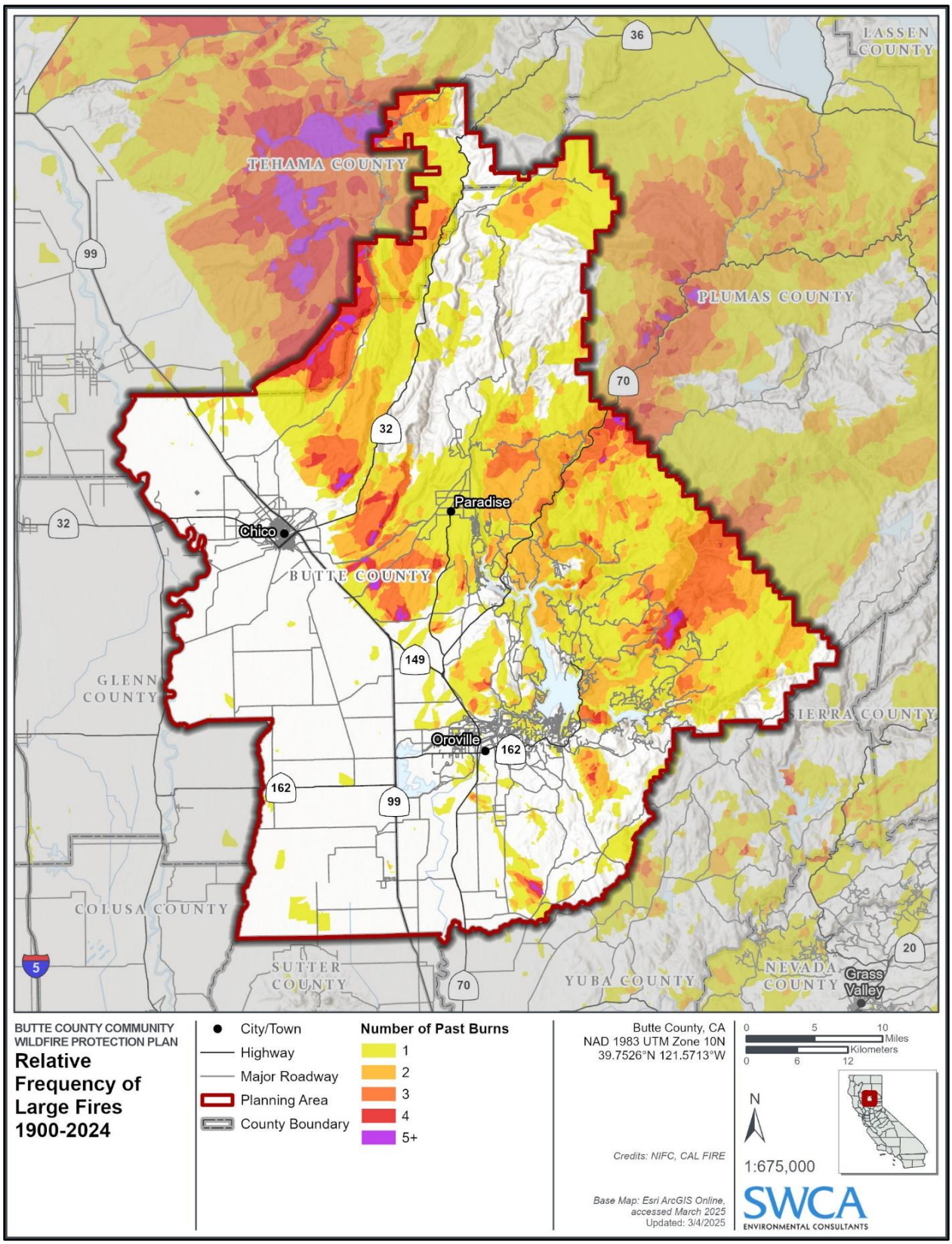


Figure 3.4. Actual fire return interval in the Butte County CWPP planning area based on large fires (500+ acres) occurring from 1900 to 2024.

Forest Zones and Fire Regimes

Butte County's forest communities are diverse and play a crucial role in the region's ecological balance and wildfire management. These communities can generally be divided into three zones: Blue Oak, Sierran Mixed Hardwood, and Mixed Conifer Woodland. Although these zones are typically associated with specific elevations, it should be noted that their distribution can vary due to landscape features, recent fire events, and shifting climatic trends.

At elevations between 100 and 1,500 feet, the Blue Oak Zone features resilient blue oak woodlands unique to California's Central Valley. Low-intensity fires, occurring every 5 to 10 years, are vital for these woodlands, promoting acorn production and minimizing undergrowth to maintain an open structure. This frequent fire regime helps manage fuel loads and supports biodiversity.

Between 1,200 to 4,000 feet lies the Sierran Mixed Hardwood Zone, a diverse mixture of hardwoods and conifers, such as California black oak (*Quercus kelloggii*), tanoak (*Notholithocarpus densiflorus*), madrone (*Arbutus menziesii*), bay laurel (*Umbellularia californica*), ponderosa pine (*Pinus ponderosa*), and Douglas-fir (*Pseudotsuga menziesii*). Fire plays a significant role in this zone by preventing conifers from becoming overly dominant and creating gaps for hardwood species. The fire return interval here ranges from 3 to 20 years, sustaining an open forest structure and preventing high-density conifer encroachment that can increase wildfire intensity.

At elevations above 4,000 feet, the Mixed Conifer Woodland Zone comprises a complex assembly of conifers such as sugar pine (*Pinus lambertiana*), Douglas-fir (*Pseudotsuga menziesii*), incense cedar (*Calocedrus decurrens*), and white fir (*Abies concolor*), with dense, multi-layered canopies and rich understories. Oak species may also be present, particularly on south-facing slopes. Fire is critical in these woodlands for reducing fuel loads, creating snags for wildlife habitat, and clearing space for new growth. The fire return interval varies from 10 to 50 years, reflecting the variability in terrain and climate. Regular fire management within this range promotes a resilient forest structure by creating clearings, reducing dead material, and supporting diverse species regeneration (BCFSC 2020; Butte County RCD 2022).

Figure 3.4 uses historic wildfire data (1900–2024) and geoprocessing tools to quantify the areas where large fires frequently occur within the Butte County CWPP planning area. This analysis reveals that fires commonly recur in the oak woodlands along the mid-elevation foothill areas, as well as in some high-elevation regions dominated by Mixed Sierran Conifer and Montane Hardwood communities. Both portions of the planning area are identified as having generally frequent fire return intervals, as estimated in Figure 3.3.

VEGETATION AND LAND COVER

Vegetation Types

Butte County contains many distinct vegetation types (Figure 3.5), with Sierran mixed conifer, montane hardwood, blue oak woodland, blue oak-foothill pine, and ponderosa pine constituting the majority in tree-dominated areas; annual grasslands comprising the majority in herbaceous habitats; and mixed chaparral making up the majority of shrub habitats in the county (Table 3.1). Vegetation types in the county that are less than 1% of the land area are not listed in the table below.

Vegetation data were gathered from CAL FIRE's Fire and Resource Assessment Program (FRAP). Through the FRAP program, CAL FIRE collaborates with the California Department of Fish and Wildlife's (CDFW's) VegCamp program and uses data from the USFS Region 5 Remote Sensing Laboratory to compile the "best available" land cover data for California into a comprehensive statewide dataset.

The dataset, spanning from approximately 1990 to the present, integrates the most current, detailed, and consistent data collected from various regions across the state. The vegetation data source is available here: https://gis.data.ca.gov/maps/CALFIRE-Forestry::california-vegetation-whrtype/about. A complete list of all vegetation/habitat descriptions can be accessed here: https://wildlife.ca.gov/Data/CWHR/Wildlife-Habitats.



Common grass, shrub, and tree mix in Butte County.

Table 3.1. CWPP Planning Area Vegetation Types

	Vegetation/Habitat Type	Primary Species/Elements	Acreage	Percent of Planning Area
Tree-Dominated Habitats	Sierran Mixed Conifer	Douglas-fir, ponderosa pine, white fir	176,659.1	15.6
	Montane Hardwood	Canyon live oak, California black oak, Oregon white oak	82,716.6	7.3
	Blue Oak Woodland	Blue oak, interior live oak, California buckeye	78,475.4	6.9
	Blue Oak-Foothill Pine	Foothill pine, blue oak, interior live oak	62,249.1	5.8
	Ponderosa Pine	Ponderosa pine, Jeffrey pine, Douglas-fir	62,689.1	5.5
	Montane Hardwood-Conifer	Ponderosa pine, incense cedar, California black oak	51,817.3	4.6
	Douglas Fir	Douglas-fir, tanoak, ponderosa pine	30,219.7	2.7
	Valley Foothill Riparian	Cottonwood, sycamore, valley oak	15,287.4	1.3
Shrub-Dominated Habitats	Mixed Chaparral	Scrub oak, ceanothus species, manzanita species	25,528.3	2.2
	Montane Chaparral	Ceanothus species, manzanita species, bitter cherry	13,317.0	1.2
Herbaceous-Dominated Habitats	Annual Grassland	Wild oats, soft chess, brome species	144,115.9	12.7
	Fresh Emergent Wetland	Cattail, bulrush, redroot nutgrass	26,470.5	2.3
Aquatic Habitats	Lacustrine	Plankton, duckweed, water lilies	17,196.7	1.5
Developed Habitats	Rice	Rice	105,407.1	9.3
	Deciduous Orchard	Almonds, walnuts, peaches	99,292.0	8.8
	Urban	Grass lawns, ornamental trees, hedges	49,915.4	4.4
	Cropland	Tomatoes, corn, wheat	38,720.7	3.4
All Other Types	--	--	51,627.4	4.5

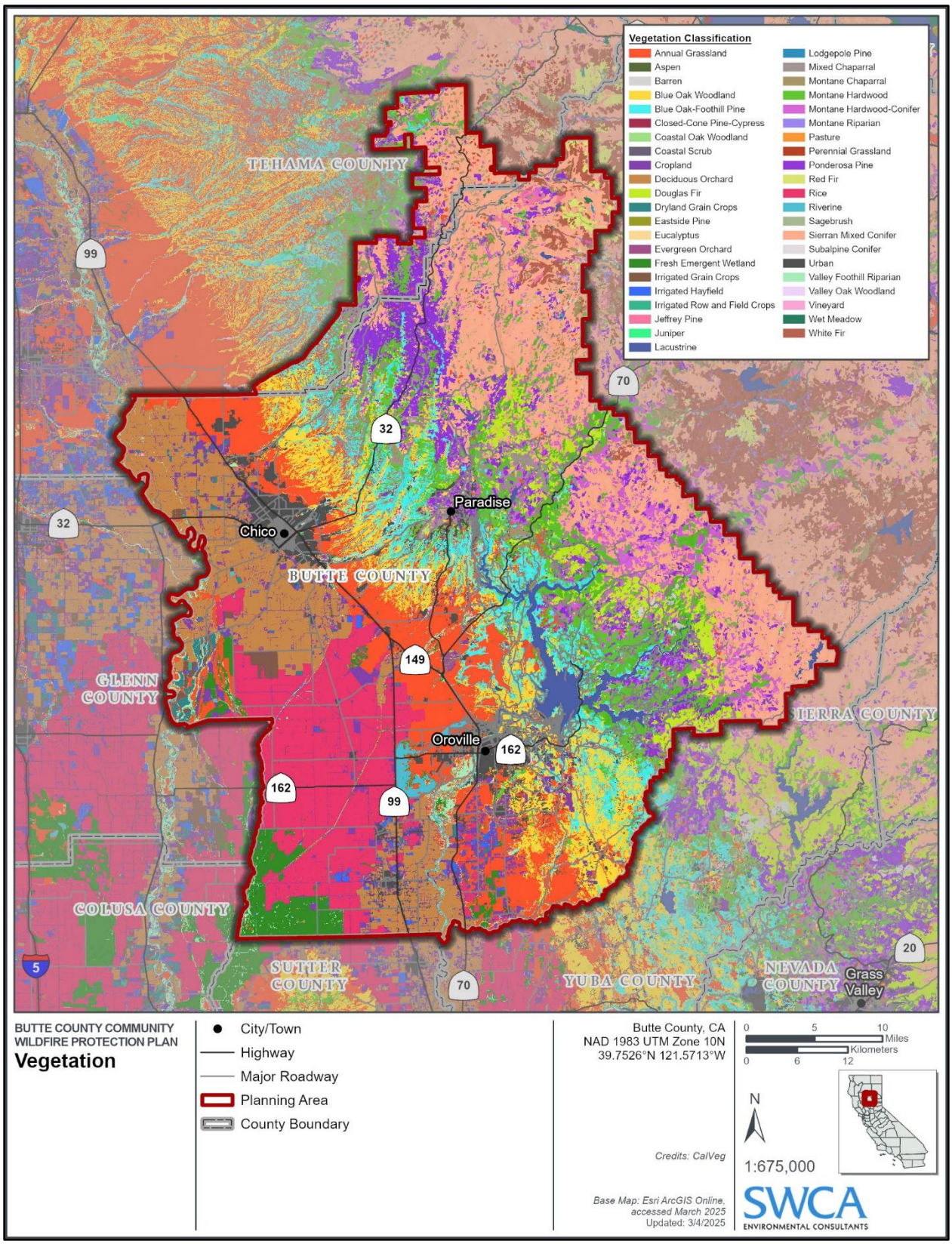


Figure 3.5. Vegetation types across the Butte County CWPP planning area.

Fuels



Standing dead timber fuel outside of Yankee Hill, Butte County.

In Butte County, the predominant fuel types are a mixture of grasslands, timber understory, and grass-shrub combinations, each contributing to the area's fire risk (Table 3.2; Figure 3.6). The following discussion highlights the most common fuel types found in the planning area, providing insight into the landscape's composition, using the Scott and Burgan 2005 fire behavior fuel model to describe fuels within the planning area (Scott and Burgan 2005).

The most widespread fuel type is GR2, a grass fuel type covering approximately 239,792 acres (~21% of the planning area). This type consists of fine fuels that dry out quickly and can lead to fast-moving surface fires, particularly in open areas. Grassland fuels are common across the valleys and lower elevations, and though they burn with less intensity than timber fuels in general, they can contribute to high fire spread potential during the dry season.

Timber understory fuel types (primarily TU5 and TU1) account for about 234,203 acres (~21% of the planning area). This fuel type typically consists of grasses and shrubs beneath forested canopies and occurs at a greater frequency as elevation rises moving east across the county. Fire behavior in these areas tends to vary depending on understory density, but it generally involves surface fire that can transition to more intense crown fires in the presence of connective fuels (e.g., hanging branches, snags, etc.) or when conditions are favorable for more intense fire behavior.

Grass-shrub fuels (primarily GS2) cover about 89,434 acres (~8% of the planning area). These fuels often occur in transitional zones between grasslands and shrub-dominated regions, particularly at mid-elevations. While fires in these fuel types are generally less intense, they can facilitate swift wildfire spread and serve a connective zone for fire to spread into areas with greater fire behavior potential.

Nonburnable areas (primarily NB3 and NB1) also make up a considerable portion of the planning area, with NB3 (urban development) covering about 101,702 acres (9% of the planning area) and NB1 (bare ground) covering 68,148 acres (~6% of the planning area). These areas include developed regions or landscapes with minimal vegetation and do not typically contribute to wildfire spread.

Timber litter (primarily TL6, TL3, TL4) is another notable fuel type, comprising approximately 124,445 acres (~11% of the planning area). These areas, often found in forested regions at high elevations, consist of fallen leaves, branches, and other debris. While they are not as fast to ignite as grass or shrub fuels, timber litter can sustain longer-duration fires that smolder and reignite under favorable conditions.

Shrub fuels (primarily SH4) account for about 41,890 acres (~4%) and are often found in the higher elevations of the county. These fuels, particularly when dense, can burn intensely and contribute to more hazardous fire behavior.

While these are the dominant fuels within Butte County, other fuel types of various shrub and grass combinations play secondary roles in the fire landscape. As with all fuel types, the specific behavior of fires in these areas depends on factors like fuel density, weather, and terrain.

It’s important to note that recent fires are not captured in the existing LANDFIRE fuels data set. To account for recent fire impacts, the fuels layer was revised to include the 2024 Park, Thompson,

Junes, and Apache Fire perimeters. Within these areas, grass, shrub, and timber understory layers were adjusted to reflect reduced rates of spread and shorter flame lengths, aligning with post-fire conditions. These adjustments were guided by LANDFIRE calibrations used for the 2021 Dixie and 2020 North Complex Fire, projecting likely fire behavior over the next 3 to 5 years as vegetation recovers.

Table 3.2. Scott and Burgan 2005 Fuel Model Classes within the Butte County CWPP Planning Area

Existing Fuel Type	Acres	Portion of Planning Area (%)
GR2- Moderately coarse continuous grass.	239,792	21.1
TU5- Fuelbed is high load conifer litter with shrub understory.	138,643	12.2
NB3- Agricultural field, maintained in nonburnable condition.	101,702	9.0
TU- Fuelbed is low load of grass and/or shrub with litter.	95,559	8.4
GS2- Shrubs are 1 to 3 feet high, moderate grass load.	89,434	7.9
NB1- Urban or suburban development (nonburnable).	68,148	6.0
TL6- Moderate load, less compact. Spread rate moderate; flame length low.	46,496	4.1
SH2- Moderate shrub fuel load.	41,890	3.7
TL3- Moderate load conifer litter.	39,645	3.5
TL4- Moderate load conifer litter, includes small-diameter downed logs.	38,305	3.4
All Other	234,579	20.7
Total	**1,134,193**	**100**

Note: “Other” represents the summation of the minor fuel components (TL2, GS1, TL8, NB8, SH4, TL1, TL7, GR3, NB9, TU2, TU3, GR1, SH5, TL5, TL9, SH1, SH3, SH7) found within Butte County.

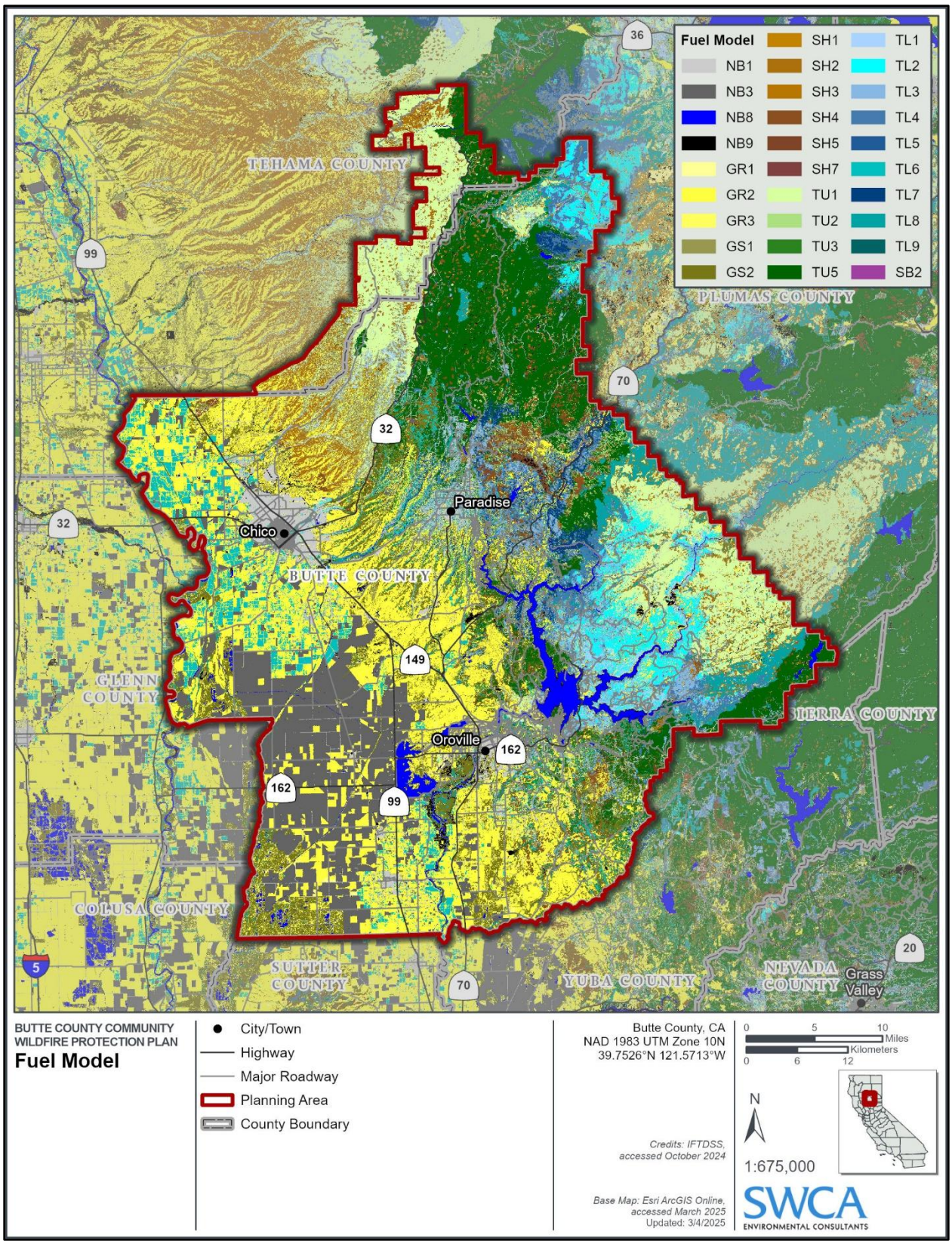


Figure 3.6. Fuel model classes across the Butte County CWPP planning area.

Topography

The topography of Butte County significantly influences fire behavior, with elevations ranging from 60 feet in the valley to over 7,000 feet in the mountainous regions. The county is characterized by its division into two primary topographical features: the flat grasslands and farmland of the Sacramento Valley to the west, and the foothills and mountainous regions of the Sierra Nevada and Cascade Mountains to the east.

The western portion of Butte County features flat landscapes that transition into rolling foothills moving eastward. In contrast, the eastern part of the county is composed of notably rugged terrain, characterized by steep slopes, dense timber, and dry conditions, creating a landscape conducive to extreme fire behavior, including long flame lengths, high rates of spread, and long-range spotting. This eastern region, with its intermix of woodland fuels and residential areas, presents a significant WUI problem, where wildland fires threaten both vegetation and homes.

Butte County's foothills and mountains are carved by several river drainages, the largest being the Feather River watershed, which culminates in Lake Oroville. The Feather River watersheds include the West Branch of the North Fork east of Paradise, the North Fork separating Yankee Hill from Berry Creek, the Middle Fork separating Berry Creek and Feather Falls, and the South Fork separating Feather Falls from Forbestown and the La Porte Road communities.

The northern part of Butte County is bisected by Butte Creek to the west of the Town of Paradise and by Big Chico Creek, which separates the Forest Ranch and Cohasset ridges.

The topography in these drainages varies significantly from the deep and steep, heavily timbered drainages of the Feather River watershed to the moderately steep, wide, and generally brush-filled Butte Creek and Chico Creek drainages. These drainages are oriented toward south and west aspects, leading to prolonged sun exposure and diminished fuel moisture in the wildland fuels, further influencing fire behavior in the region (direct communication, CAL FIRE, 2024)

CLIMATE

Butte County experiences a climatic gradient driven by elevation, with distinct weather characteristics at different altitudes. This is represented by data from remote automated weather stations (RAWS) near a selection of communities that collectively represent the three general elevation zones of the County. Monthly temperature and precipitation trends from Humbug Summit, Jarbo Gap, and Openshaw RAWS are shown in Figures 3.7, 3.8, and 3.9.

The Openshaw RAWS, located between Oroville and Chico off Highway 149 at an elevation of approximately 250 feet, is representative of the climate in the lower elevations of the county. This area experiences a Mediterranean lowland climate with an annual mean temperature of 64.3°F. Summers are hot, averaging 83.1°F in July, with daily highs often exceeding 100°F, while winters are mild, with January averages around 49°F. Precipitation is moderate, with an annual total mean of 30.7 inches, primarily occurring from January to March, and nearly no rainfall during the summer. This climate is characterized by hot, dry summers and mild, wetter winters, which is typical of the lower-elevation foothill regions of Butte County (Western Regional Climate Center 2025).

At around 2,500 feet, the Jarbo Gap RAWS near Yankee Hill captures the transitional climate between foothill and mid-elevation areas. This station records an annual mean temperature of 59.2°F. Summers are warm but less intense than at lower elevations, with July temperatures averaging 78.9°F, while winters are cooler, averaging 45.1°F in January, with occasional frost. Jarbo Gap receives significantly

higher precipitation, with an annual total mean of 53.4 inches, with wetter periods occurring from November through March (Western Regional Climate Center 2025).

At the highest elevations, the Humbug Summit RAWS, located near the peaks surrounding Butte Meadows at around 6,700 feet, represents the high-elevation montane climate. This area has an annual mean temperature of 44.2°F, with mostly temperate summers averaging 65.1°F in July and cold winters averaging 30.3°F in January. Precipitation at this station is the lowest of the three stations considered, with an annual total mean of 22.5 inches, much of which is snowfall during the winter months (Western Regional Climate Center 2025).

Table 3.3. Mean Annual Temperature and Precipitation from RAWS in the Butte County CWPP Planning Area

Month	Openshaw CA RAWS (2014–2025)		Jarbo Gap CA RAWs (2003–2025)		Humbug Summit CA RAWS (2012–2024)	
	Avg. Temp. (°F)	Avg. Precip. (inches)	Avg. Temp. (°F)	Avg. Precip. (inches)	Avg. Temp. (°F)	Avg. Precip. (inches)
January	49.1	4.7	45.1	8.2	30.3	3.2
February	51.3	4.4	46.3	8.5	30.8	1.2
March	54.5	3.6	48.9	9.0	32.0	2.0
April	61.8	3.1	54.1	4.1	37.0	1.2
May	69.3	5.2	62.3	2.4	44.6	1.4
June	78.6	0.1	71.3	0.7	57.5	0.7
July	83.1	0.0	78.9	0.1	65.1	0.5
August	80.6	0.1	77.1	0.1	63.3	0.3
September	75.5	0.5	71.7	0.6	56.4	0.9
October	66.5	1.2	61.3	3.3	46.7	2.4
November	53.5	2.9	49.9	5.6	35.9	3.3
December	48.2	4.9	44.0	10.8	31.2	3.7
Total Annual Avg.	**64.3**	**30.7**	**59.2**	**53.4**	**44.2**	**22.5**

Source: Western Regional Climate Center (2025)

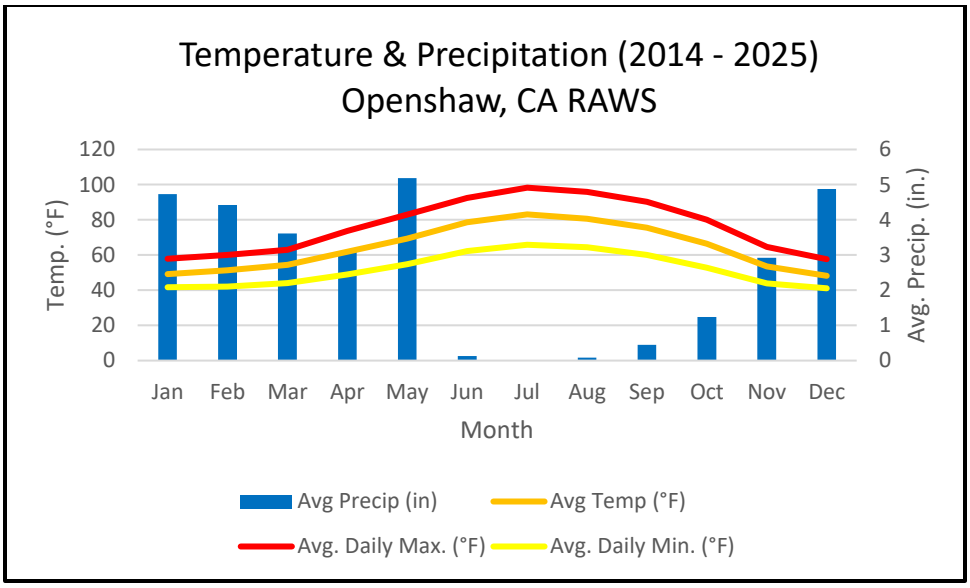


Figure 3.7. Monthly average temperature and precipitation trends for Openshaw, California, based on RAWS data from 2014 to 2025.

Source: Western Regional Climate Center (2025)

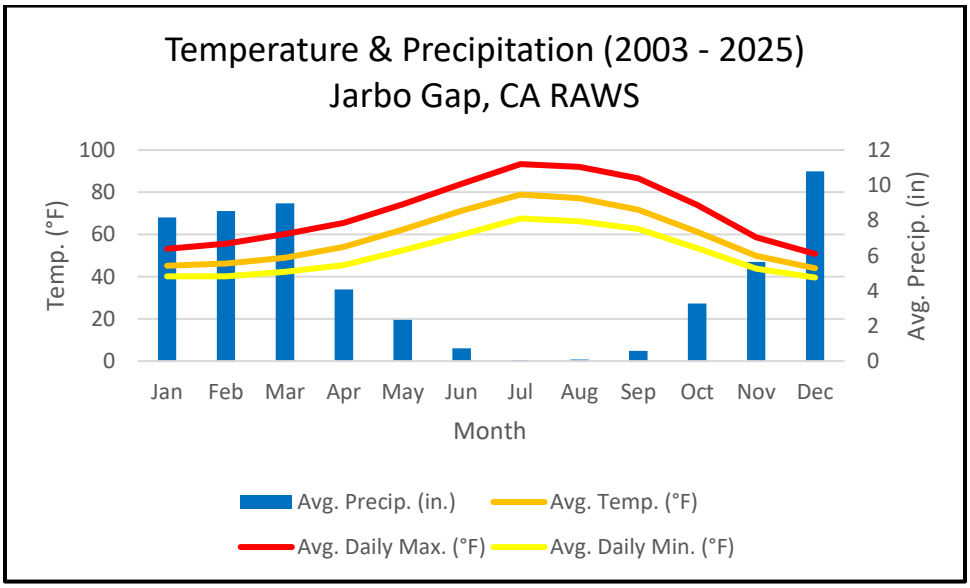


Figure 3.8. Monthly average temperature and precipitation trends for Jarbo Gap, California, based on RAWS data from 2003 to 2025.

Source: Western Regional Climate Center (2025)

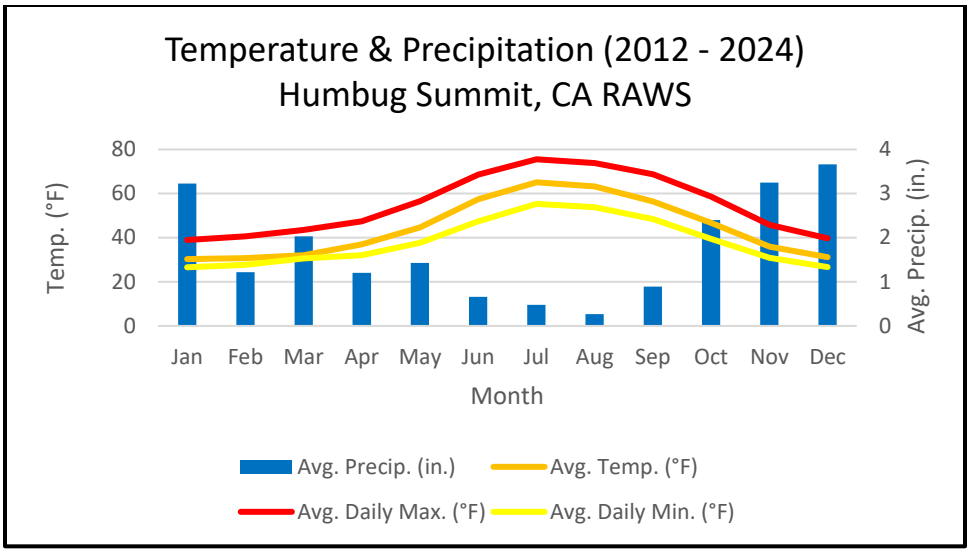


Figure 3.9. Monthly average temperature and precipitation trends for Humbug Summit, California, based on RAWS data from 2012 to 2024.
Source: Western Regional Climate Center (2025)

Regional Weather Patterns

Butte County's weather patterns are significantly influenced by its diverse topography, which includes a network of ridges and major canyons such as Butte Creek Canyon and the Feather River Canyon. These canyons create microclimates with unique wind patterns that can have a profound impact on fire behavior. The interaction between the hot air from the central valley and the cool air descending from the Sierra Nevada creates wind patterns that can facilitate rapid fire spread and increasing the difficulty of fire suppression.

These types of patterns are demonstrated across local phenomena such as the "Jarbo Winds," which are a notable example of how the Feather River Canyon can affect local wind patterns. These nightly down-canyon winds typically peak in the early morning hours, often with gusts of over 50 miles per hour.

Additionally, the North Winds and Delta Breeze have a significant impact on the valley areas. These wind patterns influence both temperature and humidity. The North Winds bring air to the valley from the northern mountains, which compresses as it descends to the valley floor, causing heating and drying. This warming process creates an additional vacuum effect, drawing even more warm, dry air from the north to fill the void. This perpetuating cycle can result in sustained wind speeds of over 20 miles per hour, with gusts exceeding 40 miles per hour. Under different atmospheric conditions, valley heating can draw cool, moist air from the San Francisco Bay and Delta region. While this Delta Breeze air is typically cooler and more humid, it can also produce sustained wind speeds of over 10 miles per hour, which may pose challenges for fire control.

In addition to these wind patterns, both the North Winds and Delta Breeze contribute to the relatively predictable diurnal up- and down-canyon flows. These flows can cause flames that burn uphill during the day to change course and burn downhill at night (St. John et al. 2018; personal communication, CAL FIRE, 2023).

In the higher elevations of Butte County, different microclimates emerge where shaded canyons and north-facing slopes experience a more moderate temperature and increased soil moistures compared to the more exposed south-facing slopes. These areas often have denser vegetation, which can be less

flammable during wetter months but can also contribute to significant fuel loads during dry periods. During drought conditions, this dense vegetation becomes more flammable, posing a considerable fire risk (National Integrated Drought Information System 2024). South- and west-facing slopes, which receive prolonged sun exposure, further reduce fuel moisture levels and increase the likelihood of intense fires (CAL FIRE 2024i).

These local weather patterns are crucial in understanding and predicting fire behavior in Butte County, highlighting the need for detailed monitoring and strategic planning to mitigate fire risks effectively.

FOREST HEALTH CONSIDERATIONS

Drought and Climate Change

The shifting climate, particularly rising temperatures, changing wind patterns, and increasing temporal and spatial variability of water availability, are considerably escalating wildfire risk across California. The recurrence of severe fire weather during the autumn months has more than doubled in California since the 1980s, and considering climate change, this prevalence is projected to increase in the future. As stated by California's Fourth Climate Change Assessment, if greenhouse gas emissions continue to increase, California is expected to experience a 50% increase in fires larger than 25,000 acres, as well as a potential 77% increase in average area burned, by 2100.

The state has already begun to encounter the impacts of increased fire occurrence and severity; the five largest wildfires in California occurred in the last 6 years, including the 2024 Park Fire (429,603 acres), the 2020 August Complex Fire (1,032,648 acres), and the 2021 Dixie Fire (963,309 acres), burning a combined total of nearly 2.5 million acres and destroying over 2,700 structures (CAL FIRE 2024f). In 2024, a total of 1,505,012 acres were burned by wildfire in California (CAL FIRE 2025a).

In addition to direct damage (e.g., structure and property damage), uncharacteristically large and severe wildfires also cause indirect impacts to the environment and ecosystem services. Wildfires are known to deteriorate local and regional air quality, pollute waterways, displace native species (animal and plant), and increase greenhouse gas emissions, such as carbon dioxide emissions (California Governor's Office of Planning and Research [Cal OPR] 2019).

It is important to note that fire is a natural part of California's diverse landscapes and is essential to many ecosystems across the state. Almost all of California's diverse ecosystems are fire-dependent or fire-adapted (CDFW 2021a). Frequent, uncharacteristically large, high-severity wildfires are the primary source of the catastrophic damage listed above.

Insects and Disease

Insect epidemics are a natural disturbance within plant communities, much like wildfires. Of particular concern are native insects that attack tree species, as they have significant implications for fire management. In addition to native pests, exotic or invasive species pose an increasing threat to forest ecosystems. Invasive species often face few natural enemies in their new locations, leading to rapid population growth and competition with native species.

In California's forests, insect epidemics have been persistent, particularly in the wake of extreme and prolonged droughts. This tree death is closely linked to drought stress and bark beetle infestations (USFS 2023). The aftermath of these insect outbreaks can create hazardous fire conditions, with the effect on fire behavior varying depending on how long ago the trees were killed and the amount of fuel left behind. In forests with high levels of mortality, especially where dead needles remain in the canopy, extreme fire

behavior becomes more likely. The buildup of dead fuels also increases the difficulty of fire suppression efforts, while snags—dead, standing trees—pose significant risks to firefighting crews.

In addition to insect threats, diseases, such as parasitic plants, fungi, and bacteria, also pose challenges to the health and productivity of forests, such as those in the Lassen and Plumas National Forests. Trees killed by disease contribute to increased fire hazards, similar to those impacted by insect infestations, adding to the complexity of fire management in these areas.

Tree Mortality

Rising temperatures, overcrowding, extensive droughts, extreme wildfires, and insect outbreaks have contributed to widespread tree mortality in the region and nearby forests, i.e., Plumas and Lassen National Forests (University of California, Agriculture and Natural Resources [UC ANR] 2024). Tree mortality is a natural ecological process; however, if many trees die in a brief time period over large regions, forest health may be negatively affected. The U.S. Forest Service's (USFS's) 2023 statewide aerial survey revealed tree mortality over 2.4 million acres out of 38.2 million acres surveyed. Butte County was significantly impacted, with an estimated 130,000 dead trees identified across 34,000 acres during the survey (USFS 2023).

In addition to disrupting ecosystem functions, widespread tree mortality near developed or recreational areas presents hazards as they can fall and potentially endanger the public and infrastructure (National Park Service 2021). Furthermore, the level of risk posed by hazard trees is contingent on the amount of time that has passed since the individual or population has died and the amount of fuel that has fallen to the forest floor. Any increase in tree mortality results in increased fuel loading, which contributes to the potential for high-severity fire and extreme fire behavior in the region (UC ANR 2020).

CAL FIRE's High Hazard Tree Mortality Zones

On October 30, 2015, Governor Brown issued an emergency declaration directing public agencies to identify areas of tree mortality that pose the greatest risk of wildfire or falling trees, thereby threatening people and property. Once identified, these areas are prioritized for the removal of dead and dying trees to safeguard public safety (CAL FIRE 2021).

Tier One High Hazard Zones are areas where significant tree mortality overlaps critical assets that require protection. Designated by state and local governments, these zones are considered the highest priority for tree removal in accordance with Governor Brown's 2015 Emergency Declaration. Tier Two High Hazard Zones are defined by watersheds with significant tree mortality and important community and natural resource assets. These zones address the immediate threats of falling trees and fire risk. Additionally, they support broader forest health and landscape-level fire planning efforts (CAL FIRE 2021; California Natural Resources Agency 2022). Tier One and Two High Hazard Zones for tree mortality in Butte County are displayed in Figure 3.10 and Figure 3.11, respectively.

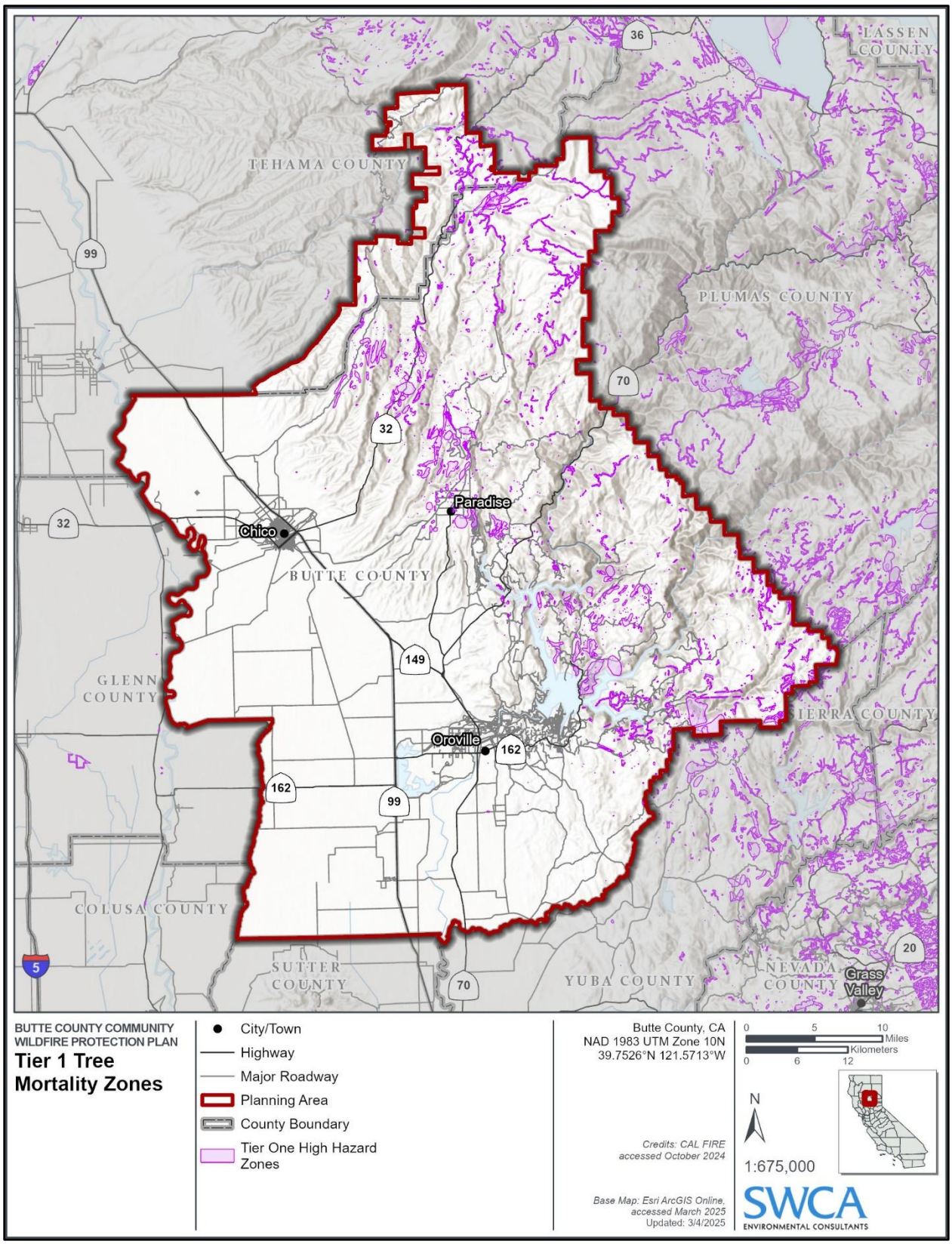


Figure 3.10 Tier One High Hazard Zones for tree mortality in the Butte County CWPP planning area.

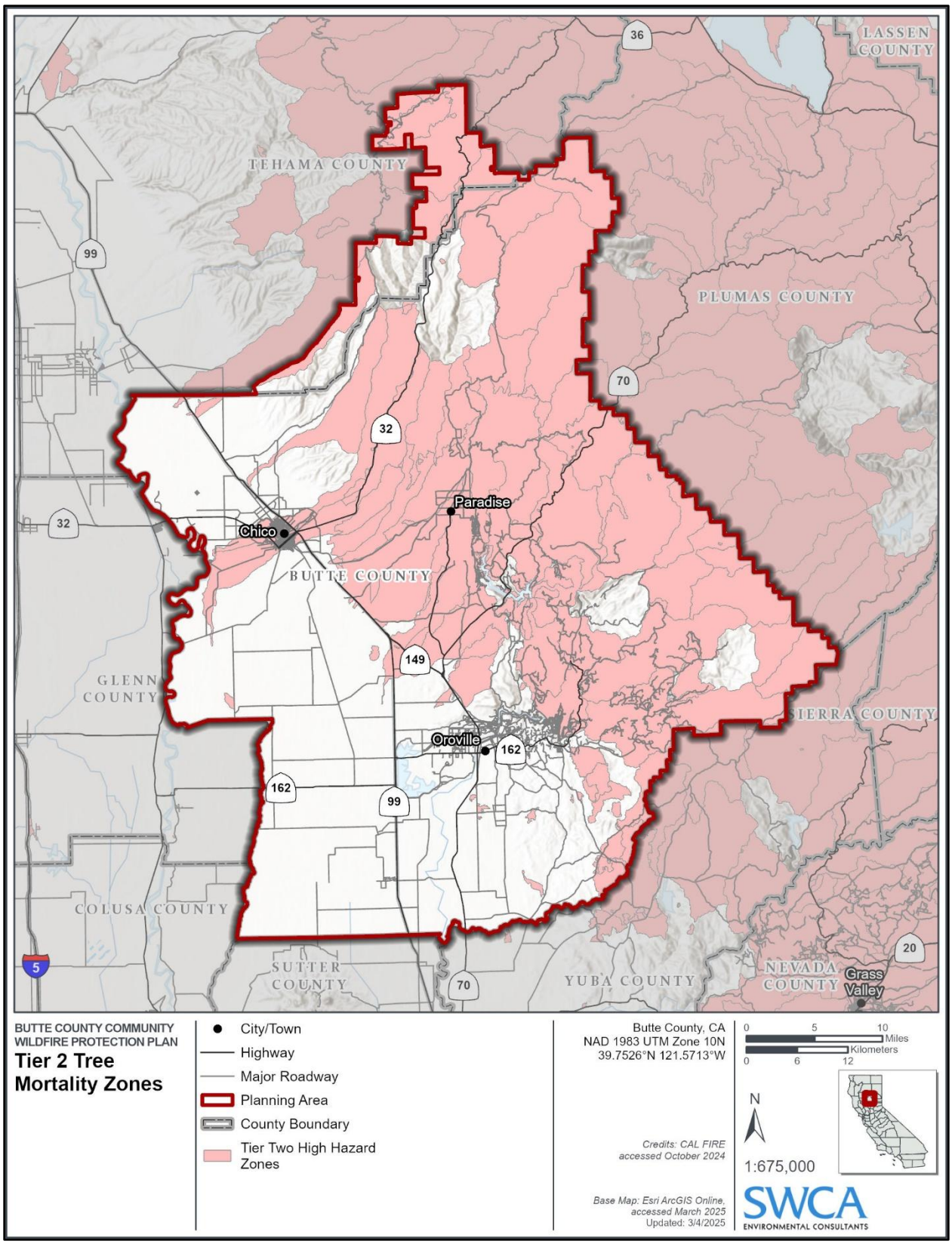


Figure 3.11. Tier Two High Hazard Zones for tree mortality in the Butte County CWPP planning area.

FIRE HISTORY

Fire is a natural part of California's diverse landscape and ecological history and is essential to many ecosystems across the state. Almost all of California's diverse ecosystems are fire-dependent or fire-adapted. For centuries, many California Native American tribes recognized this interdependence between fire and the ecosystem and employed traditional and/or cultural burning practices to maintain and restore ecosystem health.

However, shifts in fire management actions that have been implemented since the late 1800s, such as enforcing strict fire suppressions regimes, have resulted in challenges such as dense stand conditions, unhealthy rangelands, and increased ecosystem and community vulnerability to fire. Evidence suggests that the fire regimes in Butte County and throughout the western United States have experienced shifts due to changes in land use, land development, invasive and nonnative plant establishment, and wildland fire suppression. This is supported by ample evidence that shows vegetation communities and fire regimes have experienced significant departures from historic conditions due to anthropomorphic interference (Syphard et al. 2007). This trend, coupled with increased likelihood of above-average atmospheric temperatures and prolonged drought periods perpetuated by climate change, increase the risk of wildfire for those in Butte County.

FIRE BEHAVIOR PATTERNS

Butte County has experienced a pattern of large and severe wildfires in recent years (Figures 3.12–3.13), which are largely influenced by seasonal weather conditions. The vast majority of major fires occurring in the region were heavily influenced by extreme weather, including wind, high temperature, and low humidity or a combination thereof (direct communication, CAL FIRE, 2025).

Wind speed and direction are critical factors that are influencing the occurrence and intensity of large wildfires, particularly in the foothill regions with strong prevailing winds. During the summer, high to very high temperatures, low humidity, and light to moderate southern winds prevail across the county and are often associated with dry high-pressure weather systems. Butte County also encounters strong north wind events that can lead to sustained high winds, frequently resulting in red flag warnings. The National Weather Service defines red flag warnings as a combination of conditions—warm temperatures, low humidity, and strong winds—that significantly increase fire danger (National Weather Service 2024). This combination of environmental conditions creates an elevated risk for rapid fire spread across the landscape.

Although Butte County's seasonal weather patterns align closely with those observed across the region, local factors like erratic diurnal winds, often occurring in areas of extreme grade and topography, like those found in the Feather River Canyon, contribute to location specific fire behavior at various locations throughout the county. The combination of unique topography and extreme winds in certain portions of Butte County makes predicting fire behavior unit-wide particularly challenging. Unique combinations of weather and topography continue to shape the fire history and potential across the region (CAL FIRE 2024i).

RECENT FIRE OCCURRENCE

This section was developed using fire history data from CAL FIRE's FRAP (CAL FIRE 2022a). Although the fire history data from CAL FIRE is the most comprehensive digital record of fire perimeters in California, there are limitations. CAL FIRE states that the earlier data (i.e., prior to 1950) is subject to significant uncertainty due to poor and inconsistent record keeping. In addition, data for some fires may be missing or have incorrect information. This is due to the loss or damage of historical records as well as inadequate documentation (CAL FIRE 2022a). Given the limitations of the data, fire history analysis may contain discrepancies.

Butte County has a history of large, destructive wildfires, with over 850,000 acres burned since 2000. Notable historic fires include the Campbell Fire in 1990 (131,504 acres across Butte and Tehama Counties, with 6,028 acres within Butte County), the Poe Fire in 2001 (8,333 acres and 133 structures), and the 2008 Humboldt Fire (23,344 acres and 254 structures) (CAL FIRE 2025b).

More recently, the 2018 Camp Fire burned 153,336 acres, destroyed 18,804 structures, and resulted in 85 fatalities, making it the deadliest and of the most destructive fire in California's history and leading to the largest hazardous materials cleanup in state history (CAL FIRE 2018b).

The 2020 North Complex Fire burned a total of 318,797 acres of land, with approximately 152,151 of those acres being within Butte County, destroying 2,352 structures, and claiming 16 lives (CAL FIRE 2024i). In 2021, the Dixie Fire burned 963,309 acres across Butte, Plumas, Shasta, Lassen, and Tehama Counties and destroyed 1,329 structures, making the Dixie Fire the largest single fire in California's history (CAL FIRE 2024i).

In July 2024, the arson-caused Park Fire scorched 429,603 acres of Butte and Tehama Counties, destroying 709 structures, and damaging another 54 (CAL FIRE 2024e). The Park Fire is the fourth largest wildfire in the state's history, as well as the largest arson-caused wildfire ever recorded in the state (CAL FIRE 2024i, 2025a).

From 1910 to 2024, the total number of acres burned by fire incidents within Butte County has increased significantly. This rise in burned acreage is likely linked to population growth, which heightens the risk of human-caused ignitions, and alterations in the historic fire regime.

The decade from 2010 to 2019 saw the highest number of impacted acres, with approximately 377,219 acres affected by fire. Between 2020 and 2024, around 324,326 acres were impacted, with the Park Fire alone burning approximately 52,912 acres in Butte County (429,603 acres in total) (CAL FIRE 2024d). Since 2014, there have been about 1,537 fire incidents in Butte County, with the majority having unknown ignition sources.

The period from 2020 to 2024 recorded the highest number of fire incidents, totaling 1,284. Larger fires have predominantly occurred in forested mountain regions, while smaller fires are more common in the foothills and valleys near metropolitan areas.

Since the 1990s, there has been a notable increase in both the frequency and severity of larger fires. Most fires have occurred between June and September, with June and July having the highest number of incidents.

See Table 3.4 for a list of significant fires that started in or spread into Butte County. Note that Table 3.4 shows the statistics only for significant fires and not for all fires that have occurred since 1999.

Figure 3.12 illustrates the recent wildfire history from 2000 to 2024, while Figure 3.13 depicts the historic wildfire extent spanning from 1900 to 1999.

Table 3.4. Significant Fires that Started in or Spread into Butte County Since 1999

Year	Total Acreage	Acreage in CWPP Planning Area	Fire Name	Structures Destroyed	Fatalities
2024	429,603	104,403	Park	709	0
2024	3,789	3,789	Thompson	26	0
2024	1,056	1,056	Junes	1	0
2021	963,309	24,619	Dixie	1,311	1
2020	318,935	152,151	North Complex	2,352	16
2020	2,467	2,321	Butte Lightning Complex	0	0
2018	153,336	153,336	Camp Fire	18,804	85
2017	8,500	8,500	Cherokee	6	0
2017	6,151	3,920	LaPorte (Wind Complex)	74	0
2017	6,033	6,033	Wall Fire	91	0
2017	4,016	4,016	Ponderosa	55	0
2013	6,896	6,132	Panther	0	0
2013	2,264	2,264	Swedes	7	0
2008	23,344	23,344	Humboldt	254	0
2008	59,440	6,132	Butte Lightning Complex	117	0
2001	8,333	8,333	Poe	133	0
2000	1,835	1,835	Concow	16	1
1999	16,757	16,757	Musty	0	0
1999	10,857	10,857	Doe Mill	0	0
1999	2,610	2,610	Bloomer	0	0
Total	**2,029,531**	**542,408**		**23,956**	**103**

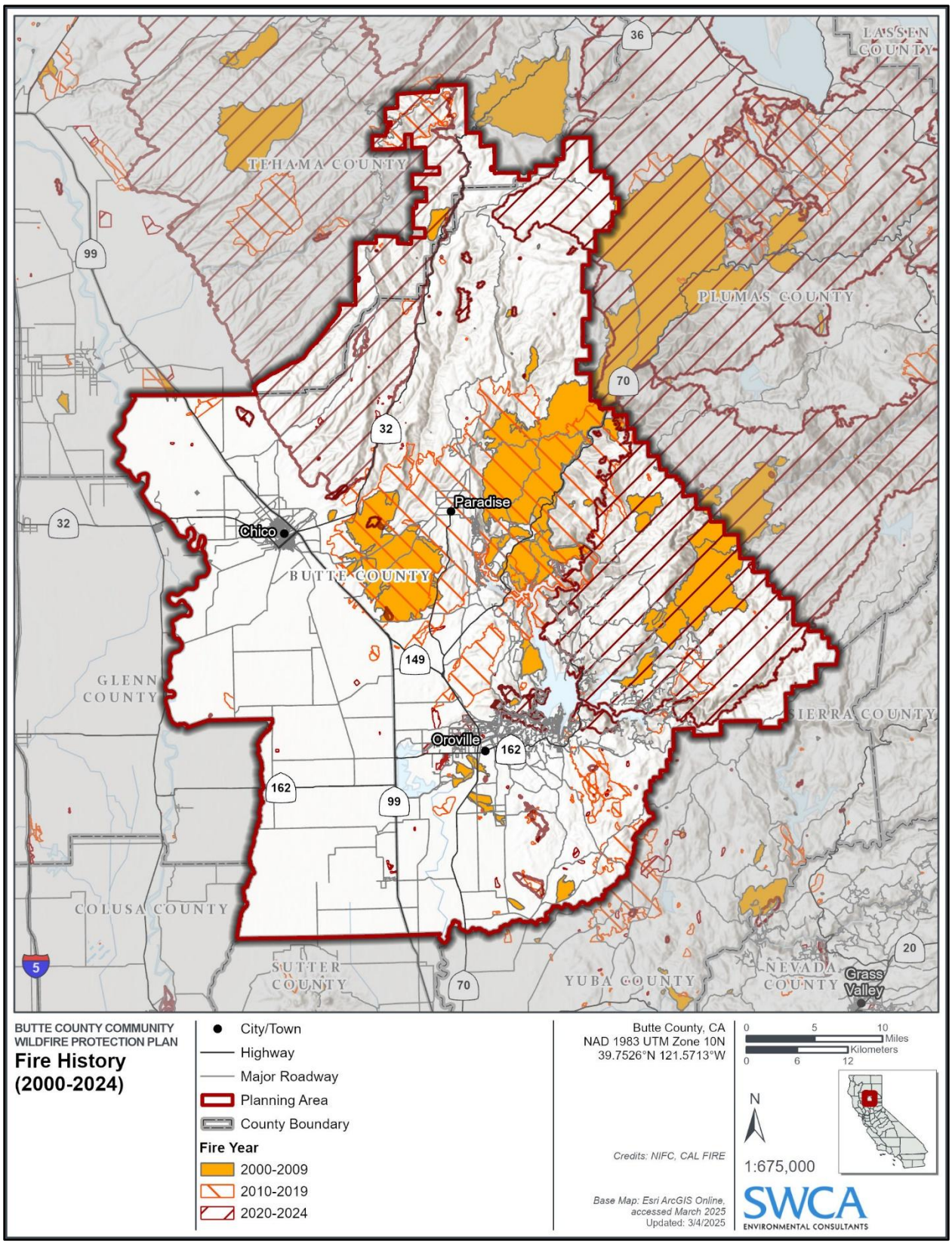


Figure 3.12. Wildfire history (2000–2024) in the Butte County CWPP planning area.

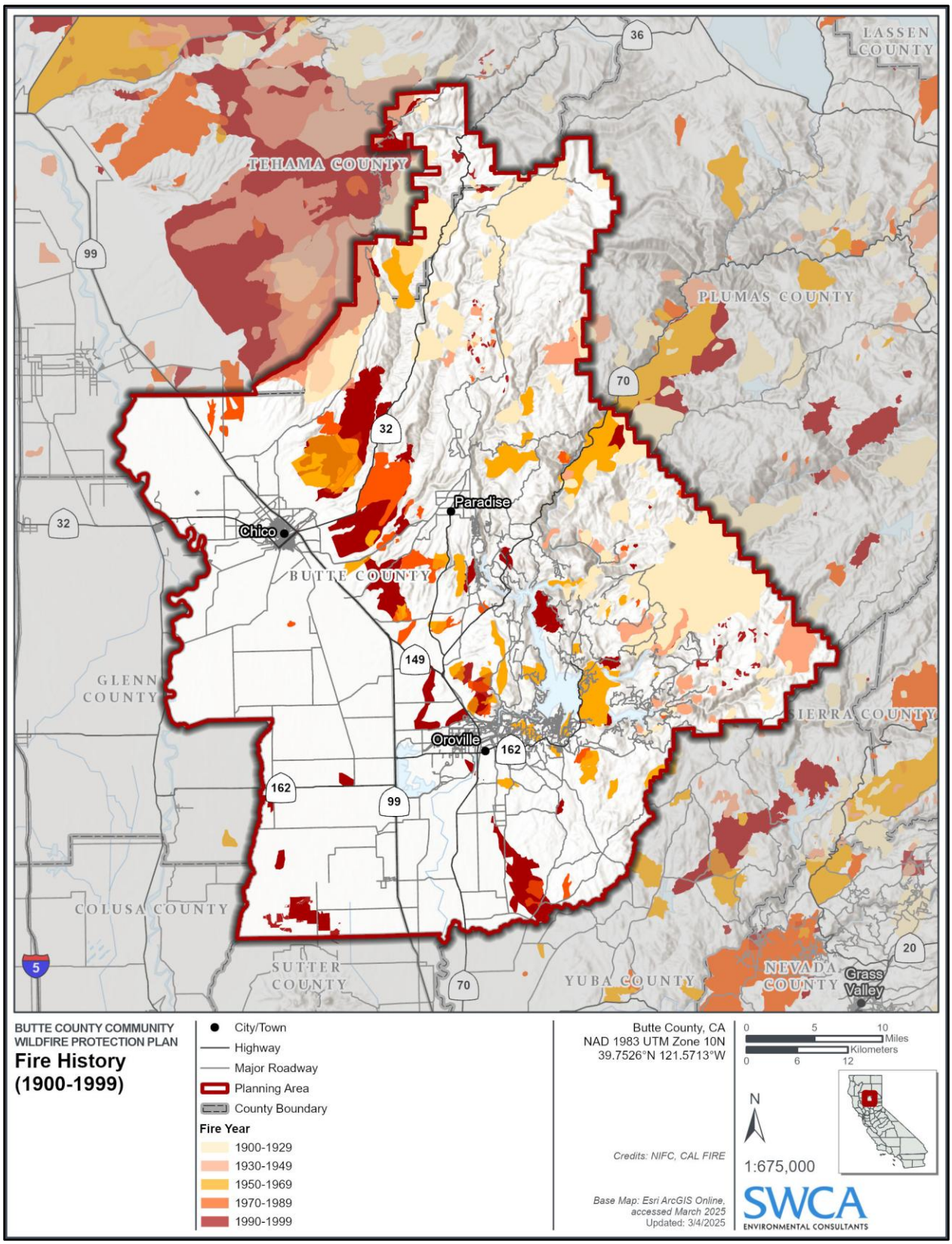


Figure 3.13. Wildfire history (1900–1999) in the Butte County CWPP planning area.

IGNITION ANALYSIS

Based on an analysis of all fires within the CAL FIRE Butte Unit (Figures 3.14–3.17), the most frequent ignition causes over the past decade are arson, and equipment which each account for 10.86% of all incidents. Debris burning followed as the second leading identifiable cause, responsible for 7.61% of ignitions. Fires are often concentrated along roadways and in densely populated areas. Identifying the exact cause of each fire remains a complex task. In many cases, the cause can only be narrowed down to a few possibilities, leading to an "undetermined" classification, which occurred for 13.41% of incidents. Other notable causes include electrical power (7.43%), and vehicles (4.87%), and lightning (2.06%) (direct communication, CAL FIRE, 2025).

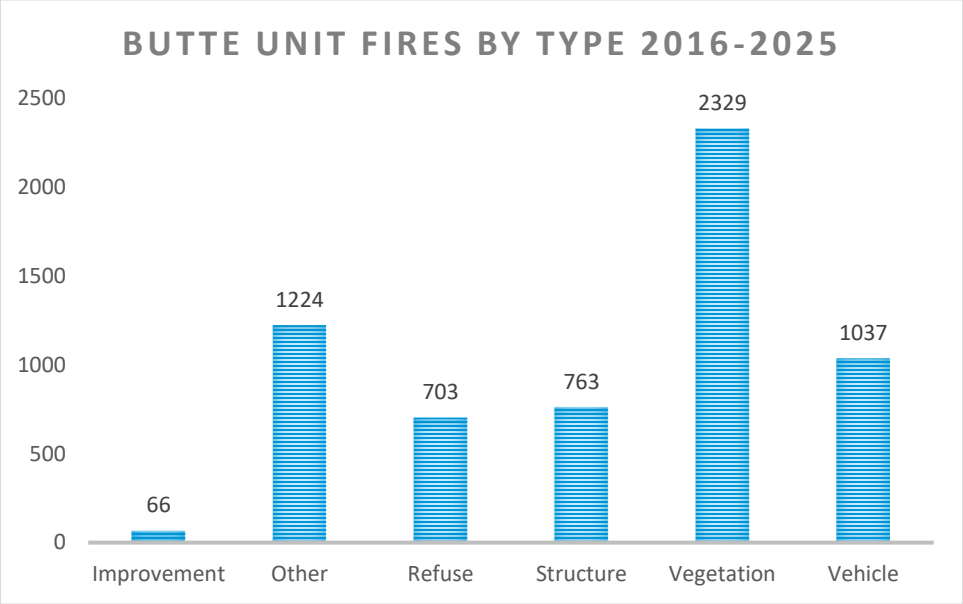


Figure 3.14. Butte Unit fires by type, 2016–2025.

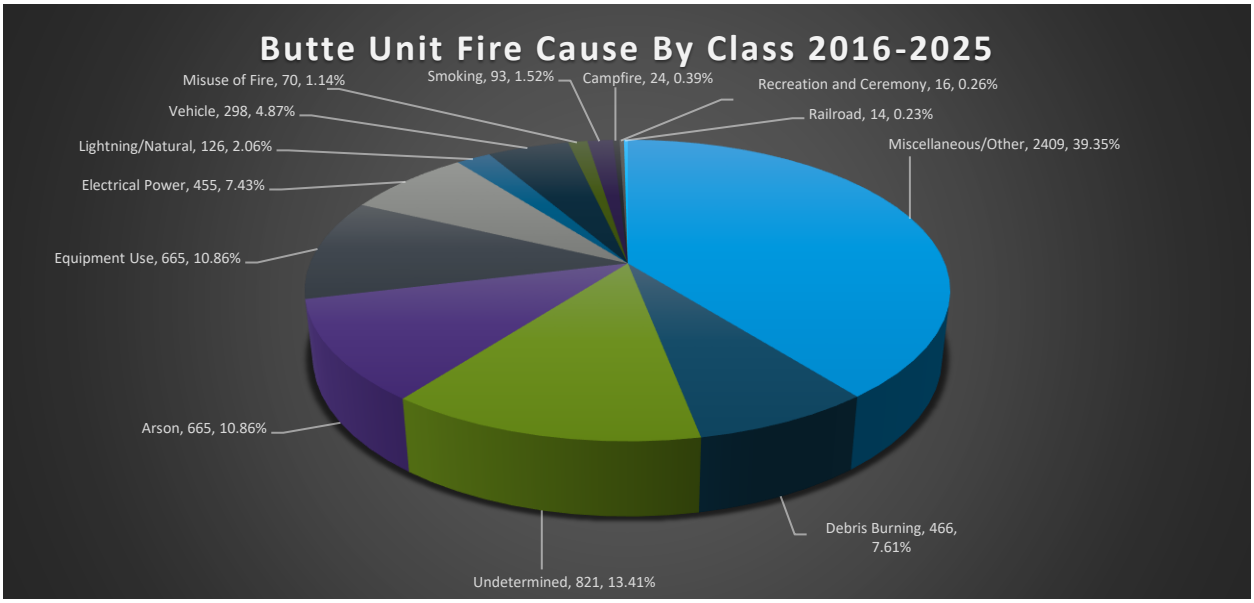


Figure 3.15. Butte Unit fire cause by class, 2016–2025.

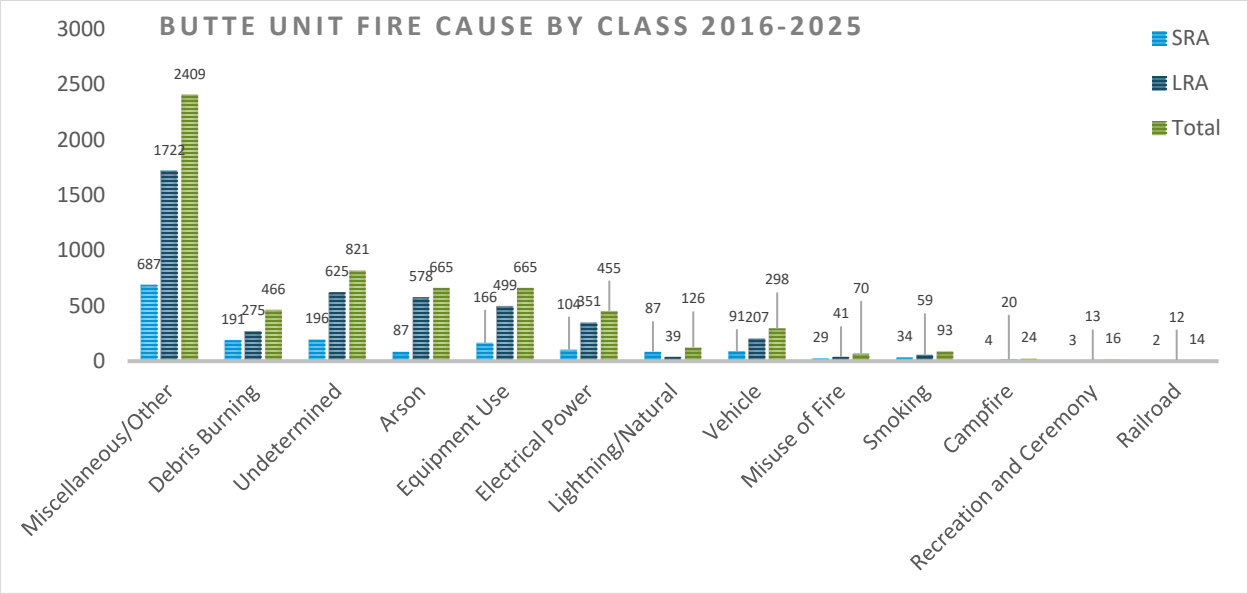


Figure 3.16. Butte Unit fire cause by class, 2016–2025, by responsibility area.

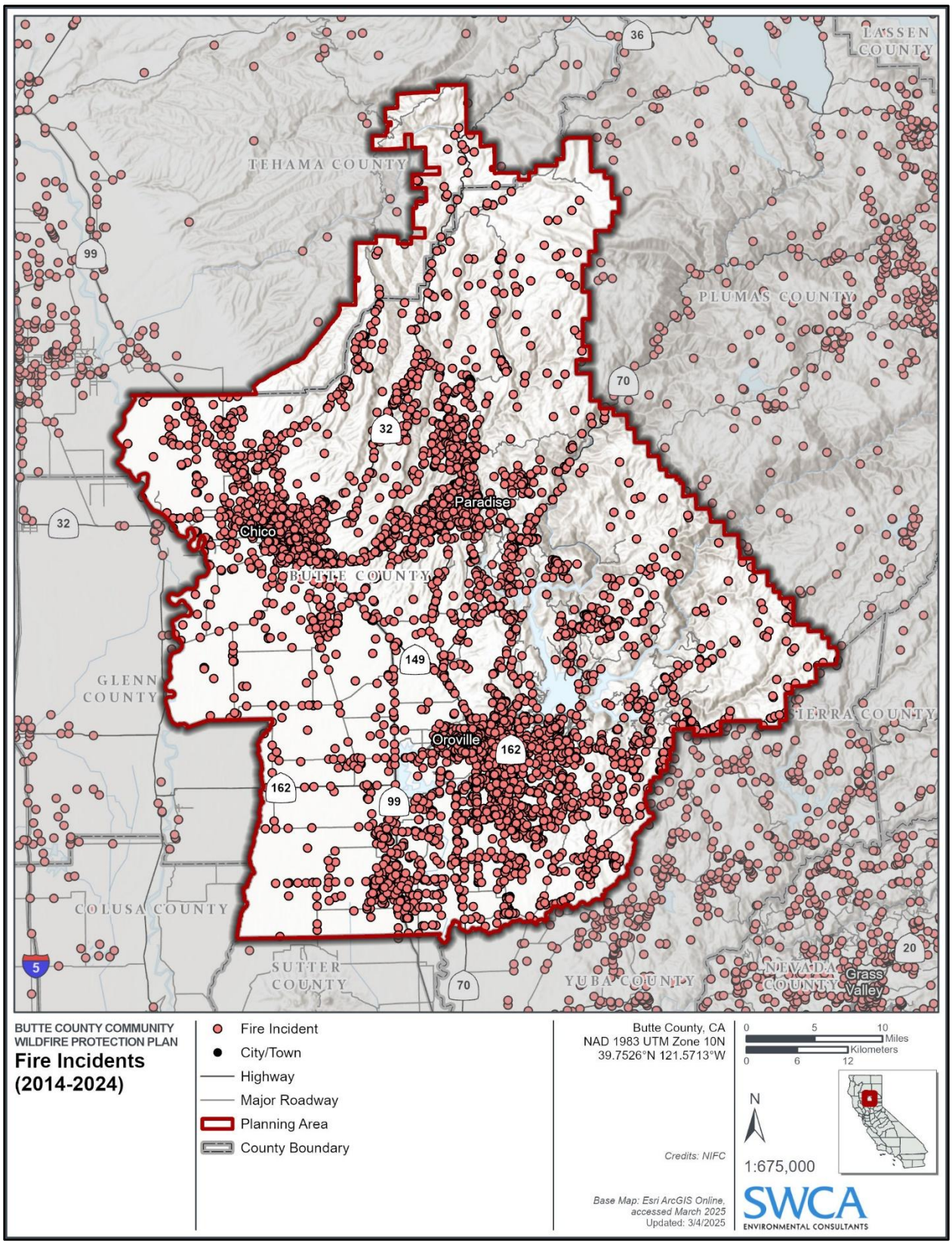


Figure 3.17. Fire incidents from 2014 to 2024 across the Butte County CWPP planning area.



CHAPTER 4 – FIRE DEPARTMENT CAPABILITIES AND PRE-FIRE MANAGEMENT STRATEGIES

MUTUAL AND AUTOMATIC AID AGREEMENTS

Butte County's fire agencies have a long history of cooperative fire protection. These agencies operate under boundary-drop aid agreements, sharing resources freely while maintaining their individual identities. This cooperation enhances service levels, minimizes expenses, and allows for seamless and cost-efficient service. These agreements improve operational efficiencies and safety despite budget constraints posed by the area's high poverty rate.

The foundation for the current countywide boundary-drop style aid agreements was laid in 1931 with the origination of a cooperative fire protection agreement between the Butte County and the California Division of Forestry, now known as CAL FIRE.

The aid agreements that are currently in place encompass all fire agencies within Butte County and allow for virtually seamless dispatching of the closest resources countywide, regardless of jurisdiction, including local, state, and federal lands.

In addition to the local aid agreements noted above, the fire agencies in Butte County participate in similar agreements with agencies in neighboring counties. These agencies are listed in Table 4.1.

All fire agencies in Butte County are also active participants in statewide resource-sharing agreements, including the California Master Mutual Aid Agreement (MMAA), the California Fire Assistance Agreement (CFAA), and/or the California Master Cooperative Wildland Fire Management and Stafford Act Response Agreement (CFMA) (CAL FIRE 2024i).

Table 4.1. CAL FIRE Butte Unit Mutual/Automatic Aid Agreement Participants

Within Butte County	
• CAL FIRE Butte Unit	• Mooretown Rancheria Fire Department
• Butte County Fire Department	• USFS Lassen National Forest
• City of Chico Fire Department	• USFS Plumas National Forest
• City of Biggs Fire Department	• U.S. Fish and Wildlife Service
• City of Gridley Fire Department	• U.S. Bureau of Land Management
• City of Oroville Fire Department	• Bureau of Indian Affairs
• Town of Paradise Fire Department	• National Park Service
Adjacent to Butte County	
• Foothill Volunteer Fire Department	• Marysville Fire Department
• Hallwood Community Services District	• Sutter County Fire Department
• Hamilton City Fire Department	• Tehama County Fire Department
• Loma Rica/Browns Valley Community Services District	

DISPATCH AGREEMENTS

The CAL FIRE Butte Unit's Emergency Command Center holds agreements to provide dispatch, communication, command and control, and "pre-arrival" emergency medical dispatch services to the Butte County Fire Department, Biggs Fire Department, Gridley Fire Department, Oroville Fire Department, and the Town of Paradise Fire Department (CAL FIRE 2024i).

Even though the Chico Fire Department maintains separate dispatching facilities and frequencies, the CAL FIRE Butte Unit Emergency Command Center and Chico Fire seamlessly dispatch the closest resources from any local jurisdiction to their own jurisdiction's incident through a decades-old resource-sharing agreement known as the Chico Urban Area Fire Response Agreement (CUAFRA).

In recent years, the ECC has obtained the capability to coordinate dispatching software with Chico Fire as well as the Butte Medics. This advancement allows for the direct and virtually instant transfer of emergency dispatch and resource availability information from one agency's dispatching software to the other, a capability commonly referred to as "CAD to CAD" dispatching.

This resource-sharing concept ensures that the closest available resource is immediately dispatched to an emergency, regardless of jurisdiction without delay.

FIRE DEPARTMENT OVERVIEW, CAPABILITIES, PLANS AND PRIORITIES

Individual fire department capabilities and priorities are detailed in the sections below. Fire response areas and fire stations within the planning area are shown in Figures 4.1 and 4.2. These figures highlight the geographical distribution of resources and the coverage provided by various fire departments, emphasizing the collaborative efforts in protecting the region.

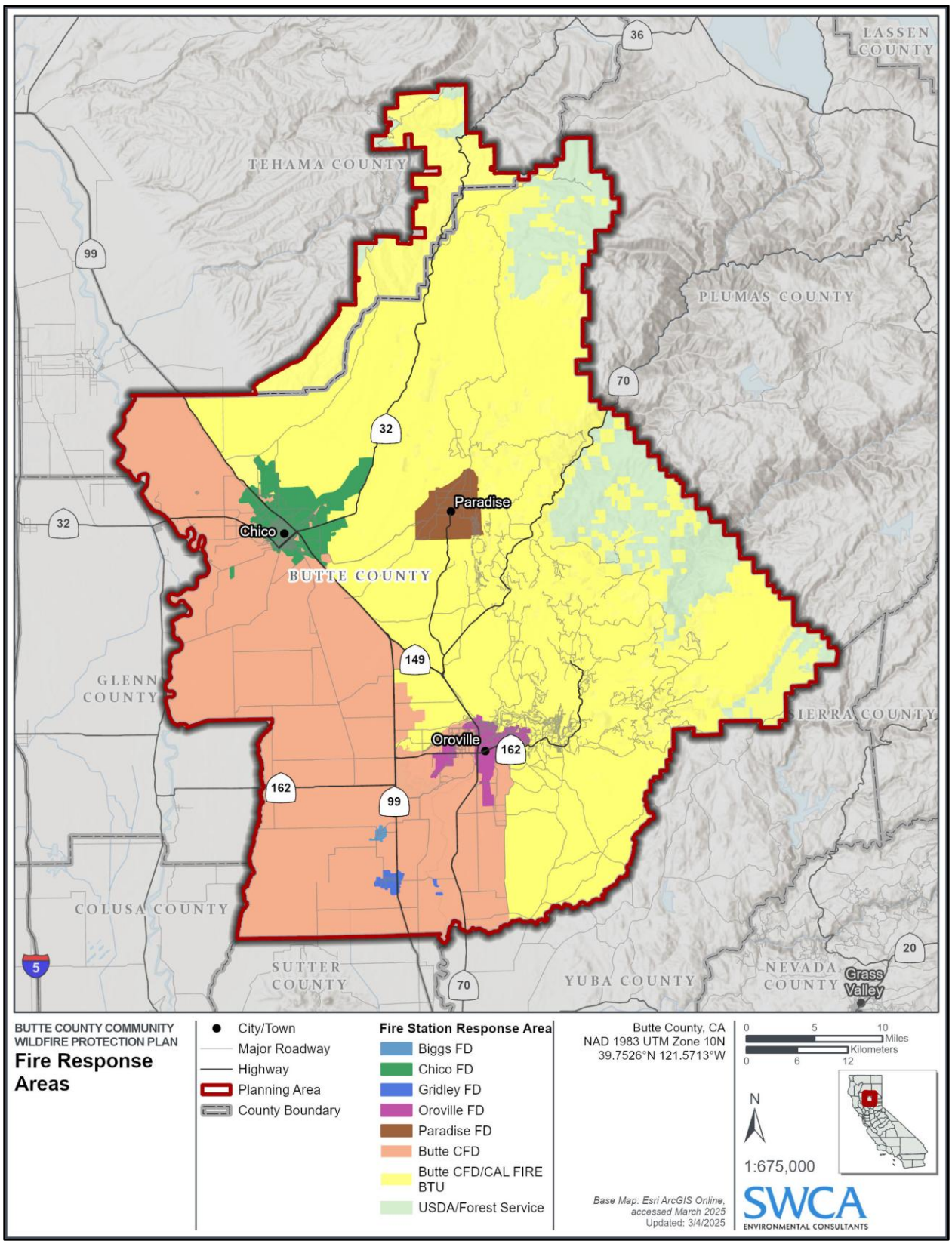


Figure 4.1. Fire response areas within the Butte County CWPP planning area.

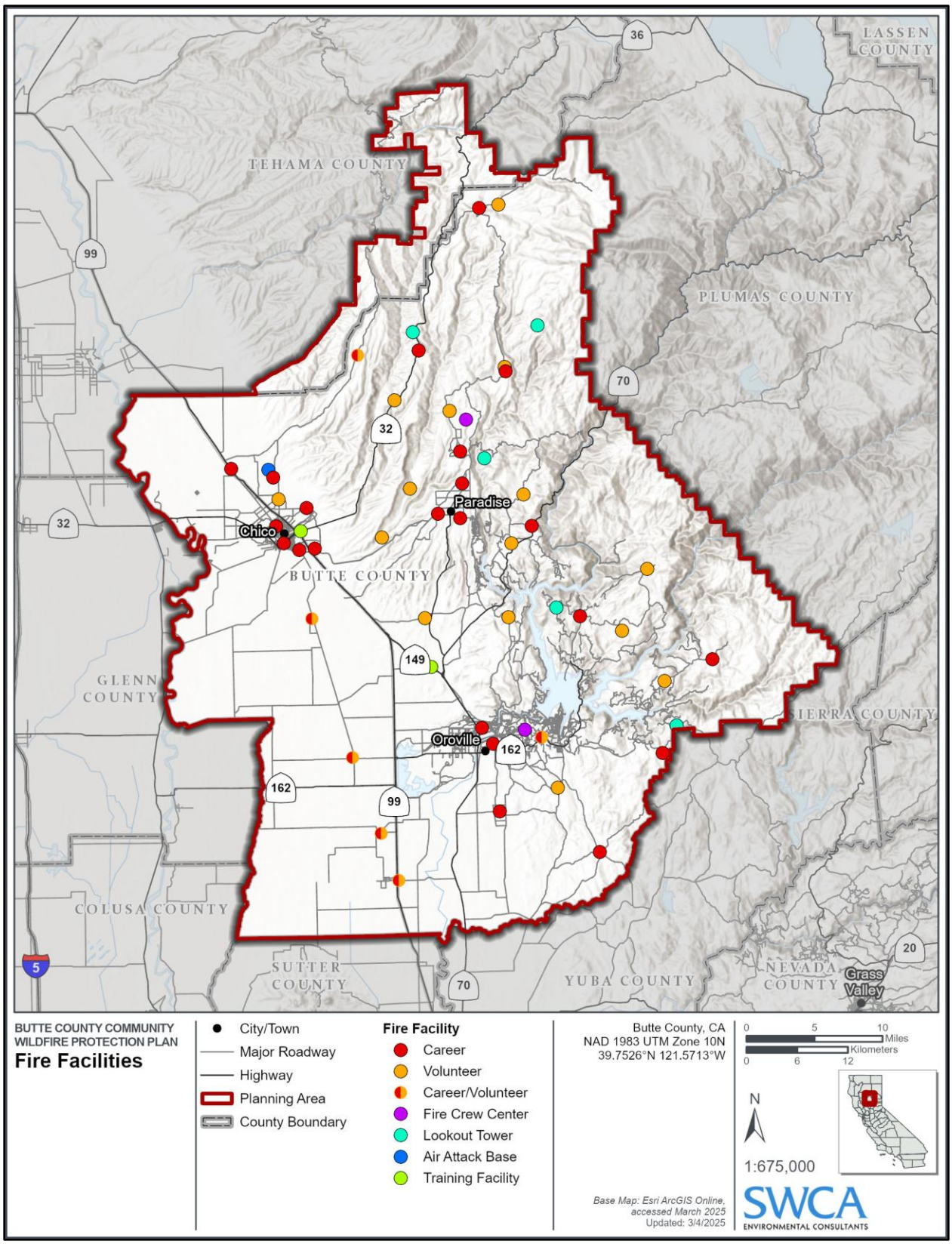


Figure 4.2. Fire stations within the Butte County CWPP planning area.

BUTTE COUNTY FIRE DEPARTMENT

Department Overview

The Butte County Fire Department directly serves the unincorporated area of Butte County, totaling over 90% of the county's 1,677 square miles, in addition to all incorporated areas of the county via various aid agreements.

Butte County Fire Department staffs 10 fire stations each day with a career-staffed Type 1 fire engine as well as 16 volunteer fire stations with a variety of apparatus that are staffed by volunteers on an as needed basis, including Type 1, Type 3, and Type 6 fire engines, water tenders, and other specialty vehicles. Select career-staffed fire stations also house specialized apparatus such as Type 3 fire engines, a Type 2 technical rescue vehicle, water rescue equipment, a hazardous materials response vehicle, and a medical support unit that is equipped for Multiple-Casualty Incidents (MCIs) that are cross staffed as necessary.

Daily staffing on each Type 1 fire engine consists of one Fire Captain, one Fire Apparatus Engineer, and one Firefighter 2. Response of Butte County Fire Department's water tenders, squads, and breathing support units are almost exclusively the responsibility of the department's volunteer firefighters.

Butte County Fire Department is dispatched under agreement with the CAL FIRE Butte Unit Emergency Command Center.

Butte County Fire Department has been operated and administered as part of a cooperative agreement with CAL FIRE since 1931, with close coordination of emergency response capabilities that have integrated the station and battalion organization between the two departments into a seamless response and administration plan.

As a countywide fire department, the fire history, weather, WUI situation, fuels, and topography are consistent with the overall conditions outlined in the Fire Environment chapter of this document and, due to the geographical and operational overlap between Butte County Fire and the CAL FIRE Butte Unit, are discussed in more detail in the CAL FIRE battalion and program breakout sections below. Therefore, the fire history, weather, WUI situation, fuels, and topography sections have been omitted from this section that details Butte County Fire Department.

Butte County Fire Department's resources are shown in Table 4.2 below.

Collaborators

- Butte County Fire Safe Council
- Butte County Resource Conservation District
- Butte County Collaborative Group
- CAL FIRE
- California Department of Fish and Wildlife
- California Department of Water Resources
- California State Parks
- City of Biggs
- City of Gridley
- City of Chico
- City of Oroville
- Town of Paradise
- Berry Creek Rancheria
- Konkow Valley Band of Maidu Indians
- Mechoopda Indian Tribe of Chico Rancheria
- Mooretown Rancheria

Department Priorities

- In the 90+ years since Butte County Fire and CAL FIRE entered into a cooperative agreement, alignment of the two departments' goals has yielded significant operational and administrative efficiencies. One of these benefits is the integration of Butte County Fire Department into the CAL FIRE Battalion and Program structure.
- For this reason, and to avoid redundancy in this document, Butte County Fire Department's priorities are included in, and fully aligned with, the CAL FIRE Butte Unit's Battalion and Program Priorities listed in the battalion section in this chapter.

Table 4.2. Butte County Fire Department Resources

Resource	Career	Volunteer
Personnel	114	152
Stations	10*	16
Type 1 Engine (Front Line)	10	3
Type 1 Engine (Reserve)	4	0
Type 3 Engine (Career are Cross Staffed)	4	6
Type 6 Engine	0	9
Tactical Water Tender	0	13
Squad	0	4
Breathing Support	0	2
Type 2 Medium Rescue (Cross Staffed)	1	0
Rescue Utility Terrain Vehicle	2	0
HazMat Support (Cross Staffed)	1	0
Medical Support (MCI) (Cross Staffed)	1	0
Water Rescue Trailer with Personal Watercraft	1	0

* Three stations listed here are jointly staffed by Butte County Fire Department and other fire agencies and are included in both departments' inventories. Those stations are Station 63 in Oroville, which is jointly staffed with CAL FIRE and serves as both departments' headquarters; Station 73, which is jointly staffed with Biggs Fire Department; and Station 74, which is jointly staffed with Gridley Fire Department.

CITY OF BIGGS FIRE DEPARTMENT

Department Overview

The City of Biggs Fire Department serves the incorporated area of Biggs, an area of about 1 square mile with a population of about 1,900 residents, as well as nearby jurisdictions via various aid agreements.

The Biggs fire engine and station are staffed and funded jointly with Butte County Fire Department and are administered as part of Battalion Seven under a cooperative agreement with CAL FIRE.

Under this arrangement, staffing is maintained for one fire engine 24 hours per day, 7 days per week. Normal staffing is traditional; one Fire Captain, one Fire Apparatus Engineer and one Firefighter.

Biggs Fire Department is dispatched under agreement with the CAL FIRE Butte Unit Emergency Command Center.

Biggs Fire Department's resources are shown in Table 4.3.

Collaborators

- Butte County Fire Department
- CAL FIRE
- California Department of Fish and Wildlife
- California Department of Water Resources
- City of Gridley

Fire History

Several vegetation fires have threatened and destroyed structures in Biggs over the years. However, these fires have been contained before they became major wildland fire incidents.

Weather

The City of Biggs shares weather patterns with the surrounding valley areas, featuring numerous summer days with temperatures over 100°F. North winds are a significant concern as they can drive rapid fire growth and spread. These conditions necessitate vigilant fire management practices to mitigate the heightened fire risk during peak summer months.

WUI Situation

While Biggs is not within the WUI areas designated in this CWPP, there are still connective fuels in the agricultural lands and open areas that can pose a risk to residential structures, infrastructure, and other values. These fuels require careful management to mitigate potential fire hazards and protect the community.

Fuels

The area around Biggs is characterized by grasslands and agricultural lands. Specific concerns include vegetation management around City-owned and operated overhead power lines, drainage canals, and wastewater retention ponds. Proper management of these fuels is crucial to reduce fire hazards and protect critical infrastructure.

Topography

Biggs is predominantly flat, with an average elevation of 95 feet above sea level. The flat terrain simplifies some aspects of fire management but also allows for the rapid spread of fires in grassy areas. Effective firebreaks and other preventive measures are essential to control potential fire spread.

Department Priorities

- Fuel management in and around City-owned/operated overhead power lines
- Fuel management in and around drainage canals
- Fuel management at wastewater retention ponds
- Public education
- Maintenance and testing of fire hydrants
- School fire prevention programs and outreach
- Fireworks sales booth inspections
- Title 19 Fire and Life Safety Inspections on applicable occupancies
- Weed abatement program for all city parcels

Table 4.3. Biggs Fire Department Resources

Biggs Fire Department Resources	
Resource	**Quantity**
Personnel	1.5
Station	1*
Type 1 Engine (Front Line)	1*

*The Biggs fire station and fire engine are staffed and funded jointly with Butte County Fire Department; therefore, these resources are also accounted for in Butte County Fire Department's resource inventory



City of Biggs Fire Department Station and Apparatus.

CITY OF CHICO FIRE DEPARTMENT

Department Overview

The City of Chico Fire Department serves the incorporated area of Chico, an area of about 35 square miles with a population of about 110,000 residents, as well as nearby jurisdictions via various aid agreements.

Chico Fire Department staffs four of their five fire stations, with the airport station currently unstaffed due to the current lack of commercial passenger service at Chico Regional Airport.

Daily staffing is five apparatus, consisting of four engines and one ladder truck.

Each fire engine is staffed with three personnel: one Captain, one Fire Apparatus Engineer, and one Firefighter. The truck is staffed with four personnel: one Captain, one Fire Apparatus Engineer, and two Firefighters.

Chico Fire Department maintains their own dispatch center, but resources are also directly dispatched to calls outside the incorporated area by the CAL FIRE Butte Unit Emergency Command Center under an aid agreement.

Chico Fire Department's resources are shown in Table 4.4.

Collaborators

- Butte County Fire Department
- Butte County Fire Safe Council
- Butte County Resource Conservation District
- CAL FIRE

Fire History

Significant wildfires impacting Chico in the past 30 years include the 1999 Musty Fire (18,000 acres, resulting in smoke and ecological damage), the 1999 Doe Mill Fire (11,000 acres, leading to evacuations and smoke issues), the 2008 Humboldt Fire (23,344 acres, destroying 254 structures just outside the Town of Paradise and causing evacuations and injuries), the 2018 Stoney Fire (950 acres, leading to evacuations and road closures), and the catastrophic 2018 Camp Fire (153,336 acres, with 203 acres burning within Chico city limits and 18,000 structures destroyed, none of which were within city limits).

Most recently, the 2024 Park Fire burned 429,603 acres, destroyed 709 structures, and damaged 54 more. Originating in Chico’s Bidwell Park, the Park Fire caused widespread ecological damage within the city.

Weather

Chico experiences high summer temperatures, often exceeding 100°F for multiple consecutive days, coupled with low humidity and light to moderate southerly winds. North wind events can lead to red flag conditions, significantly increasing the potential for extreme fire behavior. These weather patterns necessitate proactive fire management and preparedness measures throughout the fire season.

WUI Situation

The city of Chico, located in the northwest corner of Butte County, faces significant challenges related to its WUI. Critical infrastructure includes the Union Pacific Railroad main line, multiple large-diameter underground petroleum pipelines with bulk aboveground petroleum storage, state highways, high-voltage power lines, and Bidwell Park, which spans 3,670 acres and divides the city from east to west.
The eastern section of Bidwell Park, known as Upper Park, poses a notable potential for WUI conflicts. As home development has surged, large areas of Chico have transformed into WUI environments where wildland abruptly meets high-density housing, particularly evident in the eastern part of the city where most new residential construction is occurring.

There are multiple greenways that traverse the city. Four in particular—Big Chico Creek (Bidwell Park), Little Chico Creek, Lindo Channel, and Edgar Slough (Comanche Creek)—have a large number of residential and commercial parcels that abut the vegetation in these greenways, creating an additional significant WUI threat.

Fuels

The landscape around Chico includes grasslands, brush, deciduous trees, and some coniferous species. The flat terrain surrounding the city, particularly in the eastern areas extending toward the foothills, consists mainly of light to medium fuels, including annual grasses, oak woodlands, and chaparral brush. These fuel types can facilitate rapid fire spread, especially under windy conditions.

There are multiple greenways that bisect the city, including Lindo Channel, Big Chico Creek, Little Chico Creek, and Edgar Slough (Comanche Creek). These greenways support a variety of fuels ranging from grasslands to hardwood forests to riparian habitats. The western portion of the city is surrounded by agricultural land, primarily nut orchards, which pose minimal threat of a large-scale wildland fire.

Topography

The Chico area is primarily flat, with the foothills rising at an approximate slope of 15% and generally oriented toward the west. The city is traversed by Little Chico Creek and Big Chico Creek, which contribute to its drainage system. The major flood control drainage for the city is Lindo Channel. Additionally, other watercourses, including Mud Creek, Sycamore Creek, Comanche Creek, Dead Horse Slough, and Butte Creek, flow through the area, influencing the local topography and hydrology.

Department Priorities

- Explore and complete projects outlined in the City of Chico's Vegetation Fuels Management Plan and CWPP, which support several broad goals and actionable actions.
- Minimize fire risk while protecting ecological values.
- Restore and maintain appropriate fire return intervals in Chico's parklands, including the use of prescribed fire when indicated.
- Fund public education to conduct targeted outreach and education in high-priority areas and residents.
- Expand awareness of wildfire issues related to land use planning and building (Fire Code).
- Develop and implement evacuation planning.
- Provide education and resources to expand the use of prescribed fire on private lands.

- Strengthen building standards for existing and new structures and attachments.
- Explore the feasibility of building a bridge or low-water crossing over Big Chico Creek at the end of the park road.
- Enhance access to water supplies in high-risk areas.
- Develop pre-fire operational plans for Upper and Middle Bidwell Park, including prescribed burns, enhancing, maintaining, or creating fire breaks, and tactical wildfire management plans.
- Conduct community outreach and education at community events.

Table 4.4. City of Chico Fire Department Resources

City of Chico Fire Department Equipment	
Resource	**Quantity**
Personnel (Career)	59
Personnel (Volunteer)	7
Stations	5
Type 1 Engines (Front Line)	4
Type 1 Engines (Reserve)	2
Aerial (110-foot) Ladder Truck (Front Line)	1
Aerial (105-foot) Ladder Truck (Reserve) (Quint)	1
Type 3 Engine (Department Owned – Cross Staffed)	1
Type 3 Engine (Cal OES Owned – Cross Staffed)	1
Squad	1
Type 2 Medium Rescue (Cross Staffed)	1
Rescue Support Trailer (Cross Staffed)	1
HazMat (Cross Staffed)	1
Air/Light Truck (Cross Staffed)	1
Crash Rescue Apparatus (Cross Staffed)	2
Foam Trailer	1

CITY OF GRIDLEY FIRE DEPARTMENT

Department Overview

The City of Gridley Fire Department serves the incorporated area of Gridley, an area of about 2 square miles with a population of about 7,000 residents, as well as nearby jurisdictions via various aid agreements.

The Gridley fire station is staffed and funded jointly with Butte County Fire Department and is administered as part of Battalion Seven under a cooperative agreement with CAL FIRE.

Under this arrangement, the City of Gridley staffs one ladder truck and cross staffs a Type 3 fire engine and a water rescue support vehicle, while Butte County Fire Department staffs a Type 1 fire engine, with all apparatus responding from the shared fire station in Gridley.

Normal staffing is two Company Officers (Fire Captain or Fire Apparatus Engineer) on the ladder truck and one traditionally staffed Type 1 fire engine (One Fire Captain, one Fire Apparatus Engineer and one Firefighter).

Gridley Fire Department is dispatched under agreement with the CAL FIRE Butte Unit Emergency Command Center.

Gridley Fire Department's resources are shown in Table 4.5.

Collaborators

- Butte County Fire Department
- CAL FIRE
- California Department of Fish and Wildlife
- California Department of Water Resources
- City of Biggs
- City of Marysville
- County of Sutter

Fire History

Historically, Gridley has experienced a number of vegetation fires in and around the city limits. While none have become major incidents, many have threatened structures and the Union Pacific Railroad, especially the recent fires that have occurred between the north city limits and the Gridley-Biggs Cemetery.

Weather

Gridley shares weather patterns with the surrounding valley areas, featuring numerous summer days with highs over 100°F. North winds are the predominant concern for rapid fire growth, necessitating heightened vigilance during these conditions. These weather patterns require effective fire management strategies to mitigate fire risks.

WUI Situation

While Gridley is not within the WUI areas designated in this CWPP, there are still connective fuels in the agricultural lands, open spaces, and ornamental vegetation that can pose a risk to residential structures,

infrastructure, and other values. These fuels require careful management to mitigate potential fire hazards and protect the community.

Fuels

The area around Gridley is characterized by grasslands and agricultural lands. Specific concerns include vegetation management around City-owned and operated overhead power lines, drainage canals, and wastewater retention ponds. Proper fuel management is essential to reduce fire hazards and protect critical infrastructure.

Topography

Gridley is predominantly flat, with an average elevation of 95 feet above sea level. The flat terrain simplifies some aspects of fire management but also allows for the rapid spread of fires in grassy areas. Effective firebreaks and other preventive measures are essential to control potential fire spread.

Department Priorities

- Fuel management in and around City-owned/operated overhead power lines
- Fuel management in and around drainage canals
- Fuel management at wastewater retention ponds
- Municipal weed abatement
- Fireworks sales booth inspections
- Public education
- Spanish language fire prevention programs
- Maintenance and testing of fire hydrants
- Enforcement of Fire Code regulations in the City of Gridley
- School fire prevention education presentations
- Red Suspenders Day community outreach event

Table 4.5. Gridley Fire Department Resources

Gridley Fire Department Resources	
Resource	**Quantity**
Personnel	5
Station	1*
Aerial (110-foot) Ladder Truck (Quint)	1
Type 1 Engine (Reserve)	1
Type 3 Engine (Cross Staffed)	1
Water Rescue Support Vehicle with Boat (Cross Staffed)	1

*The Gridley fire station is a shared facility with Butte County Fire Department; therefore, it is also accounted for in Butte County Fire Department's resource inventory.

CITY OF OROVILLE FIRE DEPARTMENT

Department Overview

The City of Oroville Fire Department serves the incorporated area of Oroville, an area of about 14 square miles with a population of about 18,000 residents, as well as nearby jurisdictions via various aid agreements.

Oroville Fire Department is operated and administered as part of Battalion Nine under a cooperative agreement with CAL FIRE.

Oroville Fire Department staffs one fire station with two apparatus per day: one ladder truck and one Type 1 fire engine. A Type 3 engine and Type 6 engine are cross staffed as necessary.

Daily staffing is three personnel on the Type 1 fire engine, consisting of two Company Officers (typically a Fire Captain and a Fire Apparatus Engineer) and one Firefighter. Staffing on the ladder truck mirrors that of the engine with one Fire Captain, one Fire Apparatus Engineer and one Firefighter. Staffing adjusts dynamically based on operational needs and seasonal demands such as weather conditions.

Oroville Fire Department is dispatched under agreement with the CAL FIRE Butte Unit Emergency Command Center.

Oroville Fire Department's resources are shown in Table 4.6 (CAL FIRE 2024i).

Collaborators

- Berry Creek Rancheria
- Butte County Fire Department
- CAL FIRE
- California Department of Fish and Wildlife
- California Department of Water Resources
- Mooretown Rancheria

Fire History

The City of Oroville has a significant history of wildfires that have posed substantial threats to its infrastructure and residents.

While Oroville’s fire history dates back many decades, there have been numerous fires in recent years that have threatened the city. In 2019, the Grand Fire ignited near Grand Avenue and Highway 70, leading to evacuation orders for areas south of Grand Avenue to Oro-Dam Boulevard and east of Highway 70 to Table Mountain Boulevard. The 2018 Camp Fire and the 2020 North Complex Fire also posed imminent threats to the city's boundaries, underscoring the persistent wildfire risks in the region.

"Stumps Field," an unincorporated 150-acre undeveloped area surrounded by structures, experiences fires almost every summer, sometimes multiple times per year, directly threatening adjacent properties in the incorporated area of Oroville.

In the northern and eastern parts of Oroville, areas adjacent to or just within the city limits have a history of fires endangering or damaging structures. Two examples are the 2024 Bar and 2024 Thompson Fires, which burned a combined 3,789 acres and destroyed 26 structures. While these two fires did not burn within Oroville City, they did burn within a few hundred feet of the city limits and presented an immediate threat to numerous structures in the incorporated area.

In the southern portions of the city, the Highway 70 Industrial Park encompasses three U.S. Environmental Protection Agency (EPA)-designated Superfund Sites: the former Louisiana Pacific Sawmill, the former Koppers Inc. wood processing facility, and the Western Pacific Railyard. These sites are prone to decades-old, deep-seated underground fires that surface multiple times each summer, threatening surrounding vegetation, industrial infrastructure, and nearby commercial and residential structures.

These fires can be difficult to extinguish due to known contamination of the area, as well as the inherent difficulty in achieving full extinguishment of these deep-seated fires.

Weather

Oroville experiences a Mediterranean climate typical of Butte County, with high summer temperatures and low humidity. It is not uncommon to experience multiple consecutive days of temperatures over 100°F with humidities dropping under 15% during the summer months. These weather conditions can significantly influence fire behavior, especially during extended dry periods. The city's weather patterns necessitate proactive fire management and preparedness measures.

WUI Situation

Oroville presents a diverse WUI landscape, with large industrial parks transitioning to residential zones and extensive wildland areas in the eastern foothills. Key infrastructure includes the entire county administration complex (including the county courthouse, jail, and all county department's main offices), the Feather River, Union Pacific Railroad, highways, and telecommunications stations. The City's comprehensive weed abatement program helps minimize fire incidents. Challenges include limited defensible space, narrow access routes, and vulnerable construction materials. Collaborative efforts with Butte County Fire Department, CAL FIRE, and local fire departments enhance preparedness. Public education and enforcement of fire safety regulations are critical components of the City's strategy.

Fuels

The fuel types in Oroville vary significantly across the area. The flat regions are primarily covered with annual grasses, which transition to oak woodlands, manzanita, and diverse pine species as one approaches the eastern city limits. These varied fuel types can influence fire behavior and complicate firefighting efforts.

Topography

Oroville is predominantly flat, but as one moves eastward into the adjoining jurisdictions, the topography begins to slope more significantly, particularly around the Feather River drainage. This transition in slope affects the types of vegetation and fuel loads present in the area, influencing fire dynamics and control strategies.

Department Priorities

- Conduct defensible space compliance inspections in risk areas and heavily populated areas in accordance with PRC 4291 and Oroville City Ordinance 13.08.
- Cooperatively assist the activities of local Prescribed Burn Associations (PBAs), Prescribed Fire Training Exchanges (TREX), and similar organizations.

- Fire prevention education and community outreach: school and community events, burn permit issuance, emphasizing Hardening Your Home, Ready, Set, Go!, defensible space requirements and recommendations, and the “One Less Spark” campaign, the “Help Us Find You” visible address sign campaign, ingress/egress routes, and access to water supplies.
- Maintain Fire Danger warning sign to public.
- Increase collaboration with the Butte County Fire Safe Council.
- Increase community awareness of WUI areas in collaboration with the Butte County Fire Safe Council.
- Evaluate and seek opportunities to improve existing evacuation planning efforts.
- Increase effectiveness and efficiency of weed abatement program via investment in automation and technology.
- Continue working with CAL FIRE crews to assist with vegetation removal of selected areas within City Limits.
- Work with insurance companies to develop a home inspection program with hopes to increase the number of homes insurance companies are willing to insure within the city.
- Increase staffing on fire apparatus, and explore the feasibility of acquiring/building and staffing an additional fire station to meet the needs of the city and effectively mitigate wildland emergencies.
- Improve response by working with Butte County Fire Department, CAL FIRE, and other local public safety agencies to update aid agreements, mutual threat zones, and other agreements to provide the most effective response possible to areas with the most potential.
- Restore and improve the volunteer program to provide support during wildfire emergencies and increase community involvement.
- Increase capabilities by investing in the training and preparation of fire personnel specific to wildland firefighting, command, and control.
- Increase capabilities by investing in wildland specific apparatus, in particular Type 3 and Type 6 fire engines.

Table 4.6. Oroville Fire Department Resources

Oroville Fire Department Resources	
Resource	**Quantity**
Personnel	21
Station	1
Aerial (105-foot) Ladder Truck (Quint)	1
Type 1 Engine (Front Line)	1
Type 1 Engine (Reserve)	2
Type 3 Engine (Cross Staffed)	1
Type 6 Engine (Cross Staffed)	1
Aircraft Rescue Firefighting Vehicle	1
Rescue Boat	1
Rescue Support	1

TOWN OF PARADISE FIRE DEPARTMENT

Department Overview

The Town of Paradise Fire Department serves the incorporated area of Paradise, an area of about 18 square miles with a population of over 10,000 residents, as well as nearby jurisdictions via various aid agreements.

The Town of Paradise Fire Department is operated and administered as part of Battalion Eight under a cooperative agreement with CAL FIRE.

The Town of Paradise Fire Department staffs two fire stations with one Type 1 fire engine per station per day. A Type 3 fire engine is cross staffed at each station as necessary. Daily staffing is three personnel on each Type 1 fire engine, consisting of two Company Officers (typically a Fire Captain and a Fire Apparatus Engineer) and one Firefighter.

The Town of Paradise Fire Department is dispatched under agreement with the CAL FIRE Butte Unit Emergency Command Center.

With the recent fire history in and around the Town of Paradise, the Town is actively implementing a wide range of recovery and resilience efforts that are outlined on Page H-13 of Appendix H.

The Town of Paradise Fire Department's resources are shown in Table 4.7.

Collaborators

- Butte County Fire Department
- Butte County Fire Safe Council
- Butte County Resource Conservation District
- CAL FIRE
- Paradise Ridge Fire Safe Council

Fire History

Notable incidents include the wind-driven Humboldt Fire in June 2008, which started southwest of town and burned 23,344 acres, including 254 structures in and around the southern area of town. In November 2018, the catastrophic Camp Fire, which started east of town near the community of Pulga, burned 153,336 acres, destroyed 18,804 buildings, and resulted in 85 fatalities, including 90% of the structures in the Town of Paradise. Fueled by extreme winds, the fire swept through Concow, Magalia, Butte Creek Canyon, and Paradise before ultimately being contained near Highway 99 to the west. The Camp Fire remains the deadliest and most destructive wildfire in California's history.

Weather

The weather patterns in the Town of Paradise align closely with unit-wide averages, featuring high summer temperatures and low humidity. However, wind events, particularly North Wind events and the gusty winds associated with the Feather River’s down-canyon flow, are a major concern for wildfire spread. These winds have played a critical role in driving destructive fires into Paradise, as demonstrated by the 2008 Humboldt Fire and the 2018 Camp Fire. Such conditions necessitate vigilant fire management practices to mitigate the risk of future wildfires.

WUI Situation

The Town of Paradise represents a typical WUI environment where wildland meets residential areas. The town was significantly affected by the 2018 Camp Fire, leading to a reduced population and ongoing rebuilding efforts. Emergency access remains a concern due to narrow roadways, numerous dead-end roads, and potential high evacuation volumes. The reconstruction of evacuation routes, such as the Skyway, Clark Road, and Pentz Road, aims to improve safety. Collaborative efforts with Butte County Fire Department, fire safe councils, and other agencies enhance preparedness. Public education and enforcement of defensible space regulations are critical components of the Town's strategy.

Fuels

The area features diverse vegetation, including chaparral brush, oak woodlands, and mixed-conifer timber. While the Camp Fire temporarily reduced fuel loading in the Town of Paradise, vegetation regrowth on vacant parcels quickly became problematic. Within months of the fire, much of the burned area was covered with nonnative species, including various types of broom (e.g., scotch and Spanish broom), which are highly flammable. By the following year, these invasive plants had grown over 5 feet tall, completely overtaking many parcels in town. Additionally, the loss of the thick tree canopy, which had shaded the area for centuries, due to direct fire damage and post-fire hazard tree abatement, has allowed ample sunlight to promote the rapid growth of grass and brush. Proper management of these fuels is crucial to reduce fire hazards and protect the community.

Topography

The Town of Paradise is situated on a broad, gently sloping ridge with elevations ranging from approximately 1,000 to 2,300 feet. The town is characterized by several steep canyons near the town's borders, which significantly influence fire behavior. There are also numerous lesser canyons and drainages that run through town, generally running in a north-south or northeast-southeast direction. These features are contiguous with larger drainages south of town and present a significant risk of providing a flow path for fires to burn into and through the town. Effective fire management must account for these topographic challenges.

Department Priorities

- Implement fire prevention education and community outreach programs such as:
  - Hardening Your Home, defensible space requirements and recommendations, the “One Less Spark” campaign, and the Ready, Set, Go! program.
  - “Help Us Find You” visible address sign campaign, ingress/egress routes, and access to water supplies.
  - Burn permit issuance.
- Maintain and improve existing roadside evacuation zone signage and public education programs, reinforcing knowledge of evacuation zones within and surrounding the town.
- Evaluate and seek opportunities to improve existing evacuation planning efforts.
- Maintain existing fuel reduction projects, and seek to develop new projects that will make the Town of Paradise and surrounding areas more fire resilient.
- Implement a variety of fuel reduction methods, including mechanical and manual treatments, grazing, prescribed fire, and other techniques, to reduce hazardous fuels and/or maintain previous hazardous fuel reduction projects.

- Increase collaboration with the Butte County Fire Safe Council, the Paradise Ridge Fire Safe Council, the Paradise Recreation and Park District, Butte County Resource Conservation District, the Prescribed Burn Association, Tribal partners, CAL FIRE, and other entities.
- Support the Paradise Recreation and Park District's Nature-Based Resilience Project.
- Coordinate with the Paradise Irrigation District to maintain and enhance storage, distribution, and hydrant systems for fire suppression.
- Seek opportunities to increase the number of affordable property insurance options in and around the Town of Paradise.
- Conduct and maintain shaded fuel break projects along primary community escape routes.
- Assist the Town of Paradise Fire Department, Paradise Ridge Fire Safe Council, Cal OES, and all other cooperators in rebuilding a safer Paradise.
- Continue testing, maintenance, and enhancement of Early Warning System (EWS) public alert sirens.
- Complete California Environmental Quality Act (CEQA) for the entire town for fuel reduction projects.
- Support South Paradise vegetation management program (VMP).
- Continue to enhance the defensible space inspection and enforcement program pursuant to PRC 4291 and Town of Paradise Code of Ordinances Chapter 8.58.

Table 4.7. Town of Paradise Fire Department Resources

The Town of Paradise Fire Department Resources	
Resource	**Quantity**
Career Firefighters	18
Volunteer Firefighters	2
Station	2
Type 1 Engine (Front Line)	2
Type 1 Engine (Reserve)	1
Type 3 Engine (Cross Staffed)	2



Paradise Fire at scene of a boat fire at Lime Saddle Marina (left) and Paradise Fire Station and Engine 81 (right)

CAL FIRE BUTTE UNIT

The CAL FIRE Butte Unit is responsible for wildland fire protection and prevention for all State Responsibility Areas (SRAs) within Butte County as well as a small portion of southeastern Tehama County (Figure 4.3).

The unit's mission includes wildland fire suppression, fire prevention, vegetation management, public education, and emergency response services. The Unit's resources are listed in Table 4.8.

To effectively carry out its mission, the CAL FIRE Butte Unit is organized into eight battalions, each responsible for a specific area. These battalions work closely with local partners through "Schedule A" cooperative agreements, which support fire protection efforts across the region. Key agreements include partnerships with the Butte County Fire Department and the fire departments for the City of Biggs, City of Gridley, City of Oroville, and the Town of Paradise.

Through long-standing agreements and cooperative arrangements, CAL FIRE and local agencies have developed an integrated approach to fire and emergency response. These partnerships ensure that whether the emergency occurs in a SRA or Local Responsibility Area (LRA), residents benefit from coordinated and comprehensive service delivery.

During periods of extreme fire danger, fire lookout towers located throughout Butte County may be staffed to enhance early fire detection efforts. Additionally, CAL FIRE uses a network of internet-accessible fire cameras installed in collaboration with the ALERTCalifornia consortium for monitoring.

Table 4.8. CAL FIRE Butte Unit Response Resources

Resource	Career
Personnel	250
Stations	11*
Type 3 Engine (Front Line)	16
Type 3 Engine (Reserve)	4
Bulldozers	2
Air Tactical Aircraft	1
Air Tanker	1
Fire Crew (Firefighter 1)	1
Fire Crew (CCC)	4
Fire Crew (Fuel Reduction)	1
Lookout Towers (Staffed as Needed)	5

*Station 55 is owned by Butte County but is staffed and operated by CAL FIRE under agreement. The station is included in the CAL FIRE inventory but is not included in the Butte County Fire Department inventory. Station 63 is jointly staffed by Butte County Fire Department and CAL FIRE and is included in both departments' inventories.

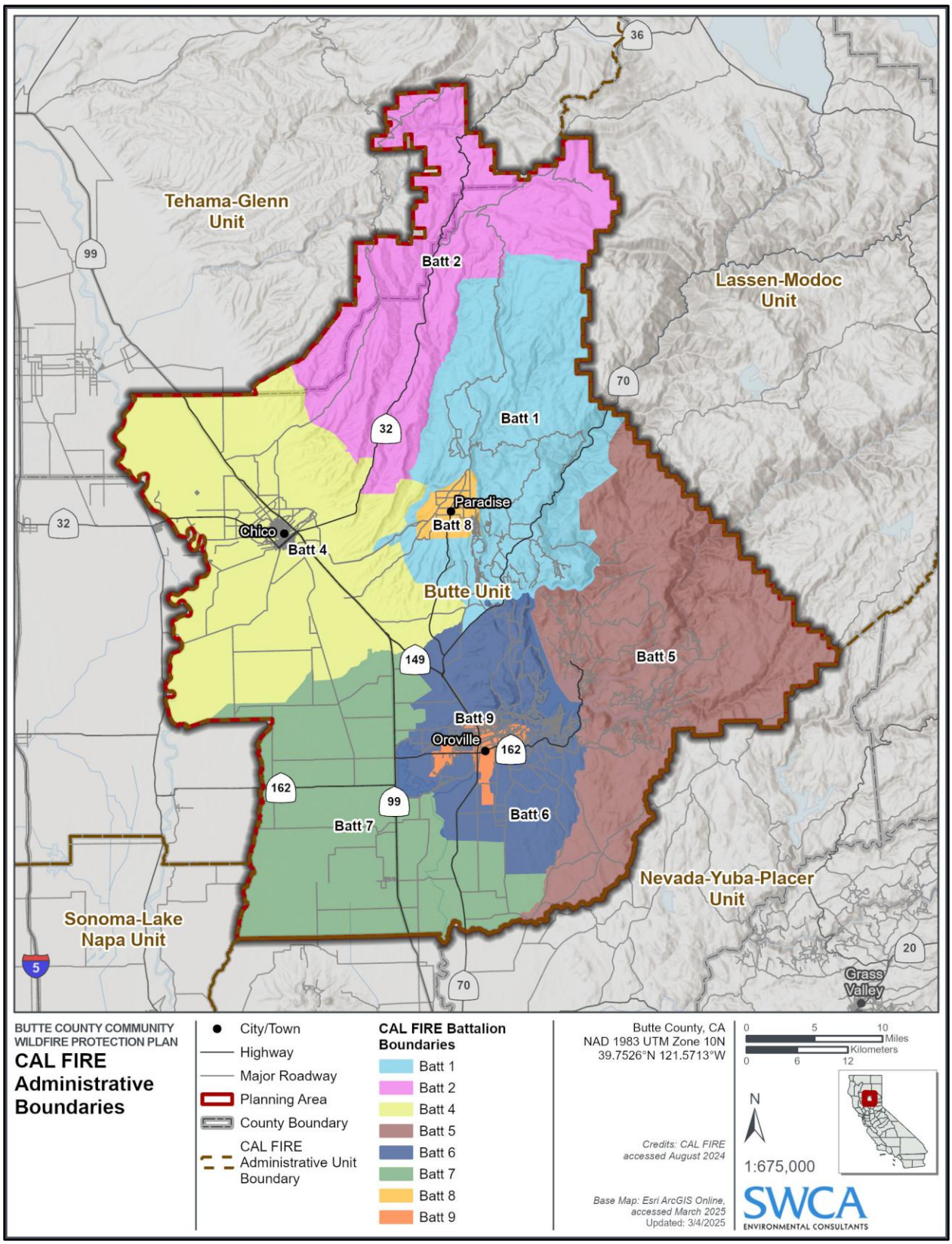


Figure 4.3. CAL FIRE Butte Unit and battalion boundaries within the Butte County CWPP planning area.

Unit Goals and Objectives

The CAL FIRE Butte Unit will continue to follow the goals outlined in the 2018 Strategic Fire Plan for California, as well as the CAL FIRE Strategic Plan 2024. By working alongside local communities and organizations, these objectives aim to strengthen the protection of lives, property, and natural resources from wildfires while boosting the environment's resilience to fire (CAL FIRE 2024i).

CAL FIRE Butte Unit may focus on any of the plan's goals depending on available funding and other factors. However, the unit plans to prioritize the following goals and objectives:

- Collaborate with local stakeholders to assess and prioritize assets at risk, and to identify and implement pre-fire projects.
- Carry out defensible space inspections while encouraging greater compliance with related laws and regulations.
- Inform landowners, residents, and business owners about the risks of living in wildland areas, including their responsibilities, relevant regulations, and steps for prevention and preparedness.
- Align fire protection, resource management, and fire prevention efforts under a unified mission that serves both the State and the local communities.
- Aim to maintain the highest standard of environmental protection across all programs and operations.

Battalion and Program Plans and Priorities

CAL FIRE operates eight battalions across Butte County, each uniquely tailored to address the specific challenges and needs of its communities (CAL FIRE 2024i). These battalions work collaboratively with local agencies, tribal groups, fire safe councils, and other stakeholders to enhance wildfire preparedness, implement fuels reduction projects, and provide vital fire prevention education (CAL FIRE 2024i).
The following sections outline the priorities, programs, and initiatives undertaken by each battalion to safeguard residents, critical infrastructure, and natural resources in this wildfire-prone region.

It should be noted that, while the battalions are numbered sequentially, there is no Battalion Three, which was eliminated as part of a countywide reorganization in the early 2010s.



CAL FIRE Butte Unit personnel (left) and vehicles (right) during the 2024 Park Fire.

Battalion One – Paradise, Magalia, Stirling City, Yankee Hill, Concow

Battalion Overview

Battalion One is located in the central portion of northern Butte County, encompassing numerous small communities, including Magalia, Stirling City, Inskip, Concow, Jarbo Gap, and Yankee Hill, among others.

While the incorporated area within Town of Paradise is not considered to be part of Battalion One, CAL FIRE Station 35 is strategically located inside the Town limits in order to cover the SRA areas surrounding the Town. The incorporated area of the Town of Paradise Fire Department is administered as Battalion Eight and is detailed in the Town of Paradise Fire Department portion of this chapter.

Collaborators

- Butte County Fire Safe Council
- Bureau of Land Management
- Butte County Fire Department
- Butte County Resource Conservation District
- Firewise USA
- Konkow Valley Band of Maidu Indians
- Lassen National Forest
- Mechoopda Indian Tribe of Chico Rancheria
- Pacific Gas & Electric (PG&E)
- Paradise Pines Property Owners Association (PPOA)
- Paradise Ridge Fire Safe Council
- Plumas National Forest
- Sierra Pacific Industries
- Town of Paradise Fire Department
- Yankee Hill Fire Safe Council

Fire History

Battalion One has a history of large fires. The 2021 Dixie Fire, originating in the North Fork Feather River drainage, burned 963,309 acres, making it the largest single-source wildfire in state history. The 2018 Camp Fire, driven by intense winds, devastated Yankee Hill, Concow, Paradise, Magalia, and Butte Creek Canyon, burning 153,336 acres, destroying 18,804 structures, and causing 85 fatalities—the deadliest and most destructive fire in California history. Other notable fires include the North Complex Fire (2020) which burned 152,000 acres, destroyed 2,455 structures, and resulted in 16 fatalities, the Humboldt Fire (2008) at 23,344 acres destroying 254 structures, the Butte Lightning Complex (2008) at 59,440 acres, the Poe Fire (2001) at 8,333 acres, and the Concow Fire (2000) at 1,835 acres, which resulted in one civilian fatality and destroyed 16 homes.

Weather

Battalion One experiences hot, dry summers with low humidity and moderate winds, with north wind events often leading to red flag warnings. The area is known for the "Jarbo Winds", which are down-canyon winds in the Feather River drainage that increase in intensity virtually every night, peaking in the early morning hours, often with gusts of 50 or more miles per hour. The Feather River's steep drainages generate erratic wind patterns, increasing the potential for rapid fire spread. These conditions are typically prevalent in the areas around Yankee Hill and Concow. However, more extreme wind events can drive gusts into Paradise and Magalia, creating a situation conducive to extreme fire behavior.

WUI Situation

Battalion One includes densely populated areas like Paradise Pines as well as numerous scattered intermix zones in the more rural portions of the battalion. The region features critical infrastructure, including hydroelectric facilities and transmission lines. Emergency access is a major concern due to narrow roads and limited routes, especially in densely populated areas. Collaborative efforts with local agencies and fire safe councils enhance preparedness. Public education and enforcement of defensible space regulations are key components. The battalion's strategy focuses on improving evacuation routes and community resilience.

Fuels

The area features diverse vegetation, including grass, chaparral, oak woodlands, and mixed-conifer forests. Post-fire regrowth, including both native and nonnative species, increases the potential for future fires. Proper management of these fuels is crucial to reduce fire hazards and protect the community.

Topography

The terrain is dominated by steep canyons that heavily influence fire behavior. The largest canyons—Butte Creek, West Branch Feather River, and North Fork Feather River—are significant. These topographic features create challenging conditions for fire control, necessitating effective fire management strategies.

Battalion Priorities

- Conduct PRC 4291 and Butte County Code 38A defensible space compliance inspections.
- Cooperatively assist activities of Prescribed Burn Associations (PBAs).
- Maintain Fire Danger warning sign to public.
- Assist with planning and implementing vegetation management projects in and around the Concow area, including the Concow Pyrodiversity project in particular.
- Support the Chipper Program sponsored by Butte County Fire Safe Council.
- Carry out outreach and education at multiple community events, emphasizing:
  - The burn permit process
  - Home hardening
  - Ready, Set, Go!
  - Defensible space requirements
  - The “One Less Spark” campaign
  - The “Help Us Find You” visible address sign campaign
  - Ingress/egress routes
  - Water accessibility
- Conduct fuel reduction projects along primary community escape routes.
- Conduct fuel reduction projects in and around Magalia, Paradise Pines, and Yankee Hill (specifically in the Tikka/Ninshew area and around Paradise Lake).
- Considering future fuel reduction projects in conjunction with the PPOA trail system.
- Assist residents in maintaining visible and reflective address signs.

Battalion Two – Cohasset, Forest Ranch, Butte Meadows, Jonesville

Battalion Overview

Battalion Two is located in the northern portion of Butte County and also includes a small portion of southeastern Tehama County that is part of the CAL FIRE Butte Unit. Communities include Cohasset, Forest Ranch, Butte Meadows, and Jonesville.

Collaborators

- Big Chico Creek Ecological Reserve
- Butte County Fire Safe Council
- Buzztail Community Services District
- Butte County Fire Department
- Butte County Resource Conservation District
- Butte Meadows/Jonesville Community Association
- California Department of Transportation (Caltrans)
- Cohasset Community Association
- Cohasset Fire Safe Council
- Crown Point Road Association
- Firewise USA
- Forest Ranch Fire Safe Council
- Lassen National Forest
- Loafer Creek LLC
- Mechoopda Indian Tribe of Chico Rancheria
- Sierra Pacific Industries

Fire History

Since 1917, the battalion has experienced numerous large fires, with most of the 1,000+ acre fires occurring west of Highway 32. The 1999 Musty Fire burned 16,757 acres, extending from just north of the City of Chico toward the community of Cohasset, while the 2013 Panther Fire scorched 6,896 acres northwest of Butte Meadows. The 2012 Mill Fire burned 1,641 acres at the far northern end of the battalion, and the 2018 Camp Fire was stopped along the southeastern battalion boundary, threatening Forest Ranch and Butte Meadows. Similarly, the Park Fire, which started in the City of Chico, followed a progression similar to the 1999 Musty Fire, leaving a significant impact on the area.

In the eastern portion of the battalion, between Highway 32 and the communities of De Sabla, Inskip, and Butte Meadows, fire activity has been notably sparse since 1926. The only significant event in nearly 100 years was the 947-acre 1-12 Lightning Fire in 2020, just north of Forest Ranch. This creates an area with tens of thousands of acres of heavily forested timberlands with virtually no recorded fire history. This area represents the only significant portion of the county's timberland untouched by fire in the past 7 years. Additionally, the battalion has witnessed devastating regional events, including the 1999 Butte Lightning Complex, which burned over 33,000 acres, and the 2024 Park Fire, an arson-caused blaze that burned more than 429,000 acres across Butte and Tehama Counties.

Weather

Battalion Two experiences high summer temperatures and low humidity with north winds often triggering red flag warnings, presenting a heightened risk for extreme fire behavior. Lightning is cyclic in this area and is generally a minor occurrence, although there have been lighting storms in the past that have started numerous damaging fires as noted in the battalion fire history section above.

WUI Situation

Battalion Two covers the Chico foothills and communities along Highway 32, featuring a mixture of wildland-urban interface and intermix areas. Protecting structures in this area is challenging as they are not densely located. This can require many more resources to accomplish compared with a more urban interface environment where a single resource can potentially protect more than one structure.
The region's steep terrain and dense vegetation complicate firefighting efforts. Cohasset's single access road presents significant evacuation challenges. Collaborative efforts with local agencies and fire safe councils enhance preparedness. Public education and enforcement of defensible space regulations are critical components.

Fuels

Vegetation in Battalion Two ranges from grasses and chaparral brush in the lower elevations to oak woodlands in the middle elevations and timber in the higher elevations. Dense brush understories, including manzanita, scotch broom, ceanothus, and poison oak, complicate firefighting efforts. Some areas of undeveloped lots or greenbelts have very dense brush, which can affect fire behavior. Proper management of these fuels is essential to reduce fire hazards and protect the community.

Topography

The area is characterized by steep canyons and drainages, which limit access for firefighting equipment and reduce options for placing control lines. These challenging topographic features can lead to fires becoming well-established and difficult to control. Effective fire management must account for these topographic challenges.

Battalion Priorities

- Perform PRC 4291 and Butte County Code 38A defensible space compliance inspections in risk areas and heavily populated areas.
- Maintain Fire Danger warning sign in Forest Ranch and Cohasset.
- Conduct fuels reduction work: Doe Mill Ridge in Forest Ranch, Iron Canyon VMP in the Cohasset area, and additional projects in the Cohasset, Forest Ranch, and Butte Meadows communities.
- Continue work on fuel reduction along Cohasset Road with Butte County Roads Department/Public Works.
- Support the Chipper Program sponsored by Butte County Fire Safe Council.
- Continue working with Butte County Fire Safe Council on fuels reduction work in the Cohasset, Butte Meadows, Jonesville, and Forest Ranch communities.
- Enhance cooperative efforts between BCRCD, PBA, and CAL FIRE for prescribed burns, emphasizing the goal of increasing the scale and effectiveness of prescribed burns.
- Cooperatively assist Sierra Pacific Industries with the H-line VMP/Shaded Fuel Break as well as identifying, implementing, and maintaining future shaded fuel breaks to increase public safety.
- Continue to explore future VMP opportunities.
- Work with community and cooperators in providing fuels work along evacuation routes and identifying community assembly areas.
- Support planning efforts and project that encourage the development and/or maintenance of safe ingress and egress routes for residents and fire personnel during emergency incidents.

- Additional planning efforts including post-fire hazard tree removal as well as maintaining fuel breaks that were created during the Park Fire suppression efforts.
- Support the development and implementation of fuel reduction and broadcast burning projects in the Little Chico Creek and Butte Creek drainages near Forest Ranch.
- Carry out outreach and education at multiple community events, emphasizing:
  - The burn permit process
  - Home hardening
  - Ready, Set, Go!
  - Defensible space requirements
  - The “One Less Spark” campaign
  - The “Help Us Find You” visible address sign campaign
  - Ingress/egress routes
  - Water accessibility



2024 Park Fire Response efforts in Butte County.

Battalion Four – Unincorporated Chico Areas, Durham, Nord, Butte Creek Canyon, Butte Valley

Battalion Overview

Battalion Four is located in northwestern Butte County and covers the unincorporated areas in and around the greater Chico area, including the communities of Nord, Durham, Butte Creek Canyon, Centerville, and Butte Valley. This includes the main campus of Butte College. The incorporated area of the City of Chico is detailed in a separate portion of this chapter.

Collaborators

- Butte County Fire Department
- Butte County Resource Conservation District
- Butte County Fire Safe Council
- California State Parks
- City of Chico Fire Department
- Firewise USA Hamilton City Fire Department
- Mechoopda Indian Tribe of Chico Rancheria
- Mendocino National Forest
- National Park Service
- Tehama County Fire Department

Fire History

Wind is the dominant factor in fire spread within the battalion. Notable fires include the 2008 Humboldt Fire (23,344 acres and 254 structures destroyed), and the 2018 Camp Fire, which impacted much of Centerville and Butte Creek Canyon. The 2024 Park Fire (429,603 acres across Butte and Tehama Counties) caused significant devastation in the foothill areas of Butte County, and lead to extensive evacuation warnings and orders throughout the northern portion of Battalion Four. Areas north of Chico and toward Butte Creek Canyon received evacuation orders and warnings.

Weather

Battalion Four experiences typical weather patterns for the region, with high summer temperatures, low humidity, and red flag conditions during north wind events. These conditions necessitate proactive fire management and preparedness measures. The area receives approximately 28 inches of annual rainfall due to its lower elevations.

WUI Situation

Battalion Four includes the greater unincorporated area around Chico, featuring a mix of residential, agricultural, and wildland areas. Key infrastructure includes highways, railroads, and Butte College. The region faces challenges like narrow access routes, steep slopes, and vulnerable building materials. Collaborative efforts with local agencies and fire safe councils enhance preparedness. Public education and enforcement of defensible space regulations are critical components. The battalion's strategy focuses on improving evacuation routes and community resilience.

Fuels

The area is predominantly characterized by oak woodlands and grasses, with some brush occurring above 1,000 feet in elevation. Light to medium fuels, such as annual grasses and chaparral brush, pose

significant fire suppression challenges. Proper management of these fuels is crucial to reduce fire hazards and protect the community.

Topography

The topography is mainly flat in the valley region, while the Chico foothills feature a gentle slope of approximately 15% with a predominantly western aspect. Several watercourses, including Butte Creek and Little Chico Creek, traverse the area, influencing local fire dynamics. Effective fire management must account for these topographic challenges.

Battalion Priorities

- Expand the relationship with local Native Tribes, including projects such as the Mechoopda Indian Tribe of Chico Rancheria's Camelot Equestrian Center VMP.
- Conduct PRC 4291 and Butte County Code 38A defensible space compliance inspections.
- Cooperatively assist activities of Prescribed Burn Associations.
- Maintain Fire Danger warning sign to public.
- Maintain and expand current vegetation management projects in the adjacent Cohasset and Forest Ranch areas in conjunction with the adjacent battalion.
- Continue to explore future VMP opportunities.
- Collaborate with formation of new fire safe council(s) in the lower Butte Creek Canyon/Stilson Canyon/Eastern Chico area.
- Explore opportunities to collaborate with the City of Chico and Big Chico Creek Ecological Reserve (BCCER) vegetation management projects.
- Establish evacuation signage in the Butte Creek Canyon area, clearly identifying evacuation zones and escape routes.
- Carry out outreach and education at multiple community events, emphasizing:
  - The burn permit process
  - Home hardening
  - Ready, Set, Go!
  - Defensible space requirements
  - The "One Less Spark" campaign
  - The "Help Us Find You" visible address sign campaign
  - Ingress/egress routes
  - Water accessibility

Battalion Five – Bangor, Berry Creek, Forbestown, Feather Falls

Battalion Overview

Battalion Five is located in southeastern Butte County and covers the communities of Bangor, Robinson Mill, Forbestown, Feather Falls, and Berry Creek, among others.

Collaborators

- Berry Creek Fire Safe Council
- Butte County Fire Safe Council
- Butte County Fire Department
- Butte County Resource Conservation District
- California Department of Water Resources
- California State Parks
- CHY Company
- Enterprise Rancheria
- Firewise USA
- Forbestown Ridge Fire Safe Council
- Foothill Fire Protection District
- Lake Wyandotte Firewise Community
- Loma Rica/Browns Valley Community Services District
- Plumas National Forest
- Sierra Pacific Industries
- Soper Wheeler Company

Fire History

Battalion Five has experienced numerous significant fires in recent history. The August 1999 Butte Lightning Complex ignited more than a dozen fires across the Butte Unit, burning a total of 60,000 acres, including the 34,236-acre Bucks Fire, the 2,610-acre Bloomer Fire, and the 1,572-acre South Fire. In June 2008, another lightning event sparked more than a dozen fires within Battalion Five, contributing to a total of 32,000 acres burned in the area. Notable incidents included the Scotch Fire (13,008 acres), South-Frey Fire (12,402 acres), Friend-Darnell Fire (4,112 acres), and Fox Fire (1,870 acres).

More recently, in 2013, the Swedes Fire burned 2,462 acres and destroyed seven structures. The area later experienced the Lumpkin Fire in 2015, which burned 1,040 acres. Multiple significant fires occurred in 2017, including the Wall Fire (6,033 acres, 91 structures), and Ponderosa Fire (4,016 acres, 55 structures). The 2020 Lightning Complex ignited several smaller fires within the battalion, many of which were located within the burn perimeter of the later occurring 2020 North Complex Fire, which ultimately burned over 152,000 acres across Butte County, much of it within Battalion Five.

Weather

Battalion Five experiences high to very high summer temperatures, low humidity, and light to moderate south winds influenced by high-pressure systems. North wind events and thunderstorms can significantly heighten the risk of extreme fire behavior. These conditions necessitate vigilant fire management practices.

WUI Situation

Battalion Five encompasses three prominent ridges and includes the communities of Berry Creek, Brush Creek, Mountain House, Feather Falls, Forbestown, Clipper Mills, Bangor/Rackerby, Hurleton, Robinson Mill, Swedes, and several Tribal Rancherias, alongside significant land holdings from Sierra Pacific Industries and other timber companies, as well as state and federal lands.

Berry Creek, while the most compact of these communities, remains a wildland-urban intermix. Its remote location poses challenges for timely emergency response in the event of fast-moving fires, a concern underscored by the destruction of most homes during the 2020 North Complex Fire. The aftermath presents new dynamics for WUI defense strategies, with homes now more sparsely spaced and ongoing rebuilding efforts.

Feather Falls, situated on Lumpkin Ridge, also faces similar challenges, with access provided via Lumpkin Road. Many homes were lost in the North Complex Fire, altering the WUI dynamic. Seasonal traffic from logging trucks and recreational vehicles increases during spring and summer. Although recreational traffic has decreased post-fire, new challenges arise from rebuilding efforts, fire hazard abatement, and tree removal. Many residents live on poorly maintained remote roads, leading to limited address identification, though an evacuation plan has been established.

Forbestown Ridge includes the community of Forbestown, adjacent to Yuba County. Steep mountain roads complicate emergency response times. Critical infrastructure for South Feather Water and Power is located here, including the main office of their Power Division, hydroelectric plants, canals, dams, and tunnels. Major reservoirs in the area consist of Little Grass Valley, Lost Creek, Sly Creek, and Ponderosa. The North Yuba Water District also has infrastructure in Forbestown, including a water treatment plant serving both Butte County and Yuba County residents. The Butte County Fire Department collaborates with the Foothill Fire Protection District and Loma Rica/Brownsville Community Services District in Yuba County through automatic aid agreements.

Active fire safe councils in Berry Creek, Forbestown, and Merry Mountain Village focus on evacuation planning, fuel hazard reduction, and public outreach and education.

Overall, communities within Battalion Five face challenges including limited defensible space, limited turnaround space for emergency vehicles, vulnerable construction materials, roads in rough conditions, and inadequate water supply for fire protection.

Fuels

The area features diverse vegetation types, including annual grasses, oak woodlands, thick brush, and mixed-conifer forests. Post-fire regrowth, including both native and nonnative species, increases the potential for future fires. Proper management of these fuels is crucial to reduce fire hazards and protect the community.

Topography

The elevation varies significantly, ranging from 400 to over 4,000 feet. The landscape is marked by numerous steep canyons, with the two primary canyons forming the Middle and South Forks of Lake Oroville. These topographic features create challenging conditions for fire control, necessitating effective fire management strategies.

Battalion Priorities

- Support the Phoenix VMP and Swedes Flat VMP projects in the Forbestown/Swedes Flat area.
- Support the California Department of Water Resources/California State Parks fuel reduction project in the area of Craig access road.
- Perform PRC 4291 and Butte County Code 38A defensible space compliance inspections in risk areas and heavily populated areas.

- Cooperatively assist activities of Prescribed Burn Associations.
- Maintain Fire Danger warning sign to public.
- Support planning efforts and projects that encourage the development and/or maintenance of safe ingress and egress routes for residents and fire personnel during emergency incidents.
- Conduct additional planning efforts including post-fire hazard tree removal as well as maintaining fuel breaks that were created during the North Complex Fire suppression efforts.
- Continue working on fuels reduction projects in and around the community of Forbestown.
- Support the Chipper Program sponsored by the Butte County Fire Safe Council.
- Development and implementation of emergency notification systems.
- Collaborate with agencies in Butte and Yuba Counties to develop and implement a cross-boundary vegetation management project.
- Carry out outreach and education at multiple community events, emphasizing:
  - The burn permit process
  - Home hardening
  - Ready, Set, Go!
  - Defensible space requirements
  - The “One Less Spark” campaign
  - The “Help Us Find You” visible address sign campaign
  - Ingress/egress routes
  - Water accessibility



Sunset during the 2024 Park Fire.

Battalion Six – Unincorporated Oroville, Palermo, Kelly Ridge

Battalion Overview

Battalion Six is located in south-central Butte County and covers the unincorporated areas surrounding the City of Oroville, as well as the communities of Thermalito, Palermo, Kelly Ridge, and Cherokee. The incorporated area of the city of Oroville is administered as Battalion Nine and is detailed in the City of Oroville Fire Department portion of this chapter.

Collaborators

- Butte County Fire Safe Council
- Butte County Fire Department
- Berry Creek Rancheria
- Butte County Resource Conservation District
- California Department of Fish and Wildlife - Oroville Wildlife Area
- California Department of Parks and Recreation
- California Department of Water Resources
- City of Oroville Fire Department
- Firewise USA
- Mooretown Rancheria

Fire History

Significant fire history since 1990 includes a range of wind-driven grass and riparian fires, as well as topography-driven brush fires in the WUI. Many of these WUI fires have resulted in structural losses, including the 2024 Thompson Fire, which burned approximately 3,789 acres north of Oroville, impacting East Oroville and Kelly Ridge, and destroyed 26 structures while damaging another eight. In 2024, the 1,056-acre Junes Fire burned one structure and the 691-acre Apache Fire burned an additional 14 structures just east of the community of Palermo. Other notable wildfire events in Battalion Six include the 2008 Ophir Fire, which burned 959 acres and destroyed 78 structures, and the 2017 Cherokee Fire, which burned 8,415 acres and destroyed six structures.

Weather

Battalion Six generally aligns with the unit-wide weather patterns, featuring high summer temperatures and low humidity. The eastern foothills, especially areas below the Oroville Dam, experience regular nightly downhill and down-canyon winds. These conditions necessitate vigilant fire management practices.

WUI Situation

Battalion Six includes unincorporated areas around Oroville, featuring a mix of residential, agricultural, and wildland areas. Key infrastructure includes the Oroville Dam, powerhouses, and high-voltage transmission lines. The region faces challenges like narrow roads, limited defensible space, and inadequate water supply. Collaborative efforts with local agencies and fire safe councils enhance preparedness. The battalion's strategy focuses on enhancing community education, enforcing defensible space regulations, and partnering with cooperators to increase the pace and scale of fuel reduction.

Fuels

The area features grasslands transitioning to oak woodlands and brush at higher elevations. The 11,869 acre Oroville Wildlife Area primarily features riparian woodland and grassland habitats. Proper management of these fuels is crucial to reduce fire hazards and protect the community.

Topography

The southern portion of Battalion Six is mostly flat, with slopes increasing as the area extends eastward. The steepest slopes are found near Cherokee adjacent to Table Mountain and the Oregon Gulch drainage, while the northeastern area features gentler slopes but is interspersed with multi-directional drainages. Access throughout the region is challenging due to limited and irregular road placement, which can complicate fire suppression efforts and emergency response. These topographic features create challenging conditions for fire control, necessitating effective fire management strategies.

Battalion Priorities

- Perform PRC 4291 and Butte County Code 38A defensible space compliance inspections in risk areas and heavily populated areas.
- Cooperatively assist activities of Prescribed Burn Associations.
- Maintain Fire Danger warning sign to public.
- Conduct VMP activities in the Oroville Wildlife Area and the Lake Oroville State Park System including Kelly Ridge Point, Loafer Creek, Diversion Pool, and the Forebay.
- Conduct vegetation management on private lands in the Long Bar area adjacent to the Feather River Diversion Pool.
- Reduce debris burning caused vegetation fires by education and enforcement.
- Continue working with the California Department of Water Resources and other agencies on constructing and maintaining fuel breaks in and around the Kelly Ridge community and the “Western Pacific Addition” (WP Addition) area of northern Oroville in the general area of Long Bar Road/Lakeland Boulevard/Canyon Highlands Road.
- Work with property owners in the Wall and Swedes Fire scars to reduce dead fuels by conducting VMP projects.
- Construct community billboard signs for defensible space education in partnership with local fire safe councils.
- Support the Chipper Program sponsored by BCFSC.
- Work with various neighborhood watch groups on defensible space education and what to do when wildfire strikes.
- Work with community and cooperators in providing fuels work along evacuation routes and identifying community assembly areas.
- Continue to develop and implement the Wyandotte Hazardous Fuel Reduction project in the area of Oro Bangor Highway and Miners Ranch Road.

- Provide support to the Berry Creek and Mooretown Rancherias during tribal burns.
- Carry out outreach and education at multiple community events, emphasizing:
  - The burn permit process
  - Home hardening
  - Ready, Set, Go!
  - Defensible space requirements
  - The “One Less Spark” campaign
  - The “Help Us Find You” visible address sign campaign
  - Ingress/egress routes
  - Water accessibility



Ground-level photograph capturing the intensity of the 2024 Thompson Fire and active fire response.

Battalion Seven – Biggs, Gridley, Richvale

Battalion Overview

Battalion Seven encompasses the southwest corner of Butte County and covers the cities of Biggs and Gridley as well as the communities of Richvale and Honcut. While the fire departments of the cities of Biggs and Gridley are administered as part of Battalion Seven, details specific to each of these fire departments are included in their own entries in the fire department section in this chapter.

Collaborators

- Butte County Fire Safe Council
- Butte County Fire Department
- Butte County Resource Conservation District
- California Department of Fish and Wildlife Wildlife-Gray Lodge Wildlife Area
- City of Biggs
- City of Gridley
- Firewise USA
- Hallwood Community Services District
- Live Oak Fire Department
- Loma Rica/Browns Valley Fire Department
- Marysville Fire Department
- Sutter County Fire Department

Fire History

There have been numerous small- to mid-size fires throughout the battalion, especially in the eastern portion in the riparian areas along the Feather River. Large fires include the 1990 Midway (542 acres), 1991 Ranch (517 acres), and the 1991 Grey Lodge (2,643 acres).

Weather

Battalion Seven experiences high summer temperatures, low humidity, and light to moderate southerly winds. North wind events can create red flag conditions, significantly increasing the potential for extreme fire behavior.

WUI Situation

Battalion Seven includes residential zones surrounded by agricultural lands, with key infrastructure such as power lines and wildlife areas. The primary wildfire risk comes from grasslands and vegetation near critical infrastructure. The region faces challenges like limited defensible space and inadequate water supply. Collaborative efforts with local agencies and fire safe councils enhance preparedness. Public education and enforcement of defensible space regulations are critical components.

Fuels

The area features grasslands, oak woodlands, and agricultural lands, with dense fine fuels in riparian areas, especially along the Feather River. Proper management of these fuels is crucial to reduce fire hazards and protect the community. The battalion also includes portions of the Oroville Wildlife Area, where vegetation management and prescribed burns can enhance habitat conditions.

Topography

The topography is predominantly flat, with elevations ranging from 50 to 110 feet. The primary distinguishing feature of the area is the river bottom along the Feather River.

Battalion Priorities

- Perform PRC 4291 and Butte County Code 38A defensible space compliance inspections in risk areas and heavily populated areas such as Honcut, Richvale, and Nelson.
- Cooperatively assist activities of Prescribed Burn Associations.
- Maintain and update Fire Danger warning signs for the public.
- Demonstrate fire-resistant landscaping and building materials at the Butte County Fair.
- Carry out outreach and education at multiple community events, emphasizing:
  - The burn permit process
  - Home hardening
  - Ready, Set, Go!
  - Defensible space requirements
  - The “One Less Spark” campaign
  - The “Help Us Find You” visible address sign campaign
  - Ingress/egress routes
  - Water accessibility



Gridley Fire’s Truck 74 at the Virginia Fire in 2023.

Battalion Eight – Town of Paradise

Battalion Overview

Battalion Eight consists of the entire Town of Paradise incorporated area. While the Town of Paradise Fire Department is administered as Battalion Eight, it is an independent jurisdiction and, as such, is detailed in the Town of Paradise Fire Department portion of this chapter.

Battalion Nine – City of Oroville

Battalion Overview

Battalion Nine consists of the entire City of Oroville incorporated area. While the City of Oroville Fire Department is administered as Battalion Nine, it is an independent jurisdiction and, as such, is detailed in the City of Oroville Fire Department portion of this chapter.



Example of Battalion Nine fire response apparatus.

Unit Programs

The CAL FIRE Butte Unit administers many programs that support the 2018 Strategic Fire Plan for California (CAL FIRE 2024i). These programs are described in detail in the following sections.

Fire Prevention Bureau

The Butte Unit Fire Prevention Bureau oversees various critical functions, including investigating fire origins and causes, public education and information dissemination, fire hazard mitigation, fire planning, issuing burn permits, conducting life safety inspections, and enforcing fire-related laws. Each of these functions plays a vital role in creating a comprehensive fire prevention strategy.

The Bureau addresses the fire investigation needs of the unit, particularly for complex cases such as fire-related fatalities, commercial buildings, arson incidents, and detailed follow-up investigations. Through these investigations, specific trends in fire causes can be identified, leading to targeted prevention initiatives like education and enforcement campaigns (CAL FIRE 2024i). The Bureau has established an enforcement policy for individuals who allow their fires to become uncontrolled. Responsible parties may face administrative actions through a Fire Safety Inspection Legal Notice (LE 38 form), civil actions with a demand letter for fire suppression costs, or criminal charges through court citations.

Additional functions of the Fire Prevention Bureau are Public Information and Education, the Fire Marshal's Office, and the Defensible Space Inspection program. Each of these functions is detailed below.

Public Information and Education

Butte County's Information and Education programs are collaborative initiatives supported by the Fire Prevention Bureau, Volunteers in Prevention, fire station staff, the Butte County Fire Chief’s Association, and the Butte County Sheriff’s Office (CAL FIRE 2024i).

Public Information

The public information function is staffed 24 hours per day by Incident Command System (ICS)-qualified Public Information Officers (PIOs). When a PIO is not immediately available, the CAL FIRE Butte Unit’s Emergency Command Center personnel assume public information duties. The primary goal of this function is to keep the citizens of Butte County informed by providing timely and accurate information. This is achieved through a robust social media presence, a dedicated marketing campaign funded by various grants known as “Be Ready, Butte,” and outreach to a wide range of media outlets across the northern Sacramento Valley, including newspapers and television/radio broadcast media.

Training for the Information Call Center and Joint Information Center is conducted collaboratively with various agencies to enhance interagency relationships and ensure a pool of qualified call-takers.

Butte County also cooperates with 211, a professional call answering and information service, ensuring accurate and official information can be provided to the public 24 hours per day during major incidents.

Public Information Officers plan and coordinate joint information releases covering topics such as Summer Safety and Heightened Fire Danger, Changing Smoke Detector Batteries, Holiday Home Safety, and Fall Home Heating Safety (CAL FIRE 2024i).

Public Education and Outreach

Annually, thousands of residents in Butte County, including both children and adults, participate in numerous events such as school programs, fair exhibits, and community gatherings. Presentations cover

essential topics, including Stop, Drop and Roll; Home Safety; Fire Safety; and Defensible Space, as well as career fairs targeting youth ages 12–22 to provide information about employment opportunities within CAL FIRE.

The success of public education in Butte County is attributed to the dedication and collaboration of multiple agencies, community engagement, and the efforts of fire station personnel. Organizations like the Butte County Fire Safe Council and the Butte County Sheriff's Office partner with CAL FIRE to deliver consistent and impactful safety messages. Approximately 80% of the educational hours contributed each year come from fire station personnel. Their presence at community events adds a personal touch to the messaging, reinforcing CAL FIRE's commitment to customer service (CAL FIRE 2024i).

Additionally, Defensible Space Inspectors (DSIs) travel throughout the county, educating residents on the knowledge and skills needed to comply with defensible space requirements, including California Public Resource Code (PRC) 4291 and Butte County Ordinance Chapter 38A. These inspectors go door-to-door, providing educational materials and guidance on creating the defensible space necessary to protect homes. The goal is to reach every homeowner in Butte County's State Responsibility Area, either through in-person visits or by mail. (CAL FIRE 2024i).

Please see Appendix F for a detailed list of educational resources within the county.

Fire Marshal's Office

The Butte County Fire Marshal's Office is dedicated to protecting life, property, and the environment through proactive fire prevention and safety initiatives. In partnership with CAL FIRE and the Butte County Cooperative Fire Agencies, the office takes a hands-on approach to risk reduction. Staffed by two fire captains, the Fire Marshal's Office collaborates with all CAL FIRE and Butte County Fire Department stations to implement an extensive fire inspection program. The team also works closely with local developers and business owners, offering guidance on fire and life safety engineering, permitting, and inspections. Their mission is to create a safer community through education, leadership, and collaboration.

The Fire Marshal's Office enforces key provisions of the Butte County Improvement Standards and the California Building Standards Code across the county. This includes overseeing use permits, building permits, and enforcing Title 19 of the California Code of Regulations for regulated occupancies in unincorporated Butte County. The Fire Protection Planning Officer ensures compliance with the Public Resources Code, California Minimum Fire Safe Regulations, and other applicable codes related to new construction, land divisions, use permits, and more.

In alignment with the California Wildfire Prevention Plan, the Fire Marshal's Office focuses on both structural fire resilience and pre-fire management strategies. These efforts include improving emergency vehicle ingress and civilian egress, ensuring proper addressing, enforcing ignition-resistant construction, maintaining defensible space, providing adequate fire protection water supplies, and managing vegetation. Additionally, the office employs proven vegetation management practices when reviewing and approving landscaping and fuel modification plans.

By combining inspections, code enforcement, and public education, the Fire Marshal's Office plays a vital role in translating state-level wildfire prevention strategies into practical, actionable goals at the county level. This comprehensive approach enhances community resilience against wildfires through proactive planning and collaboration with various state, county, and local entities.

Defensible Space Inspection Program

The Defensible Space Inspection (DSI) Programs for the CAL FIRE Butte Unit and Butte County Fire Department are operated jointly under the administration of the Fire Prevention Bureau. Staffing for the DSI program includes one Fire Captain who manages the program, five inspectors who work year-round, and three additional inspectors hired on a seasonal basis. One of the year-round inspectors specializes in conducting inspections for real estate transactions in High or Very High Fire Hazard Severity Zones (FHSZs), as mandated by California Civil Code Section 1102.19, which went into effect on July 1, 2021, following the passage of Assembly Bill 38 (California Legislative Information 2019a).

While California Public Resources Code (PRC) 4291 establishes the minimum defensible space requirements statewide, Butte County has further refined these requirements in its Fire Prevention and Protection Ordinance (Chapter 38A of the Butte County Code). This ordinance requires inspections of unincorporated properties in the county for fire hazards along travel routes, in the 5-foot noncombustible zone surrounding structures, and within 100 feet of structures, regardless of property boundaries. The objective of these inspections is to mitigate the risk of uncontrolled fires, limit the spread of fires to neighboring properties, reduce barriers to firefighting efforts, enhance the chances for firefighters to safeguard lives, protect populated areas, and prevent residential fires from spreading into wildland areas.

Properties that fail to meet the standards set by PRC 4291 and Butte County Chapter 38A will undergo follow-up inspections. These follow-ups will be documented, tracked, and prioritized based on the number of violations for each property, potential community impact, inspector availability, and resident requests for follow-up inspections or clarification. Parcels that remain out of compliance may be referred to Butte County Code Enforcement for follow-up action, which may include obtaining a court-ordered abatement.

The regulations outlined in PRC 4291 and Chapter 38A are designed to collaborate in preventing the occurrence of devastating large fires that can threaten entire communities, as witnessed frequently in recent years (CAL FIRE 2024i).

Training and Safety Bureau

The Butte Unit Training, Safety, and EMS Bureau is responsible for the delivery and documentation of training for all career and volunteer personnel. The Bureau is also responsible for coordinating and facilitating the unit-wide training plan, matching training courses with approved personnel training requests, and maintaining a central location for updated training records for all employees.

The Training and Safety Bureau is staffed with a Training Battalion Chief, a Safety Battalion Chief, and four Fire Captains, with one Fire Captain each assigned to Safety, Emergency Medical Services (EMS) training, Volunteer Firefighter program coordination, and oversight of the California Joint Apprenticeship Committee training program for new employees.

The Bureau will ensure that all federal, state, and local training mandates, laws, and regulations are followed as they pertain to training. The Bureau will operate within and enforce the policies, procedures and protocols of CAL FIRE, Butte County Fire Department, and the Butte County Fire Chiefs Association.

Annually, the Training and Safety Bureau provides and/or coordinates approximately 100,000 student instructional hours to over 420 career and 140 volunteer firefighters from CAL FIRE Butte Unit, Butte County Fire Department, and personnel from other Butte County Training Officer Association agencies. A significant amount of staff time is required to coordinate students, courses, instructors, recording and tracking training, and ensuring personnel ICS qualifications are accurately listed in the national Interagency Resource Ordering Capability (IROC). Moreover, the Training and Safety Bureau is charged with ensuring the safety for 29 fire department owned and/or operated facilities throughout Butte County.

Training and Safety Bureau Objectives

- Enforce state/federal law, and CAL FIRE/Butte County Fire Department training policies, procedures, and protocols as they apply to career and volunteer personnel.
- Ensure that all personnel receive the opportunity for training that is required for their specific positions.
- Document and track certification currency of all employees training in a common database (Vector Solutions).
- Work with the CAL FIRE Region Office and the CAL FIRE Training Center regarding the allocation of training for CAL FIRE personnel and the presentation of training at regional training locations.
- Work with cooperators at Butte Community College to ensure communications, cooperation, and coordination of all public safety training.
- Work with cooperators as a member of the Butte County Training Officers Association.
- Meet or exceed those training standards identified in the CAL FIRE Training handbook.
- Implement the training priorities set by the Butte Unit's executive staff.
- Identify the needs of each employee to help achieve career development goals.
- Seek alternative funding sources in the form of grants, participation with universities, and sharing courses with other agencies.
- Provide and ensure safe working conditions and facilities.
- Ensure facilities meet CAL FIRE's Injury & Illness Prevention Program (IIPP) standards, as well as Occupational Safety and Health Administration (OSHA) and environmental requirements.



Aerial view of the Table Mountain Bridge in Oroville, Butte County.

Fire Crew Program

Magalia Fire Center

The Magalia Fire Center started in 1949 as the Magalia Camp under the California Department of Forestry and Fire Protection (then known as the California Division of Forestry, now known as CAL FIRE) and California Department of Corrections (CDC). CAL FIRE and CDC continued to jointly manage the camp until approximately 1973 when CDC withdrew inmates from the camp. In about 1974, the camp again opened as the Butte Ecology Center, this time jointly operated by CAL FIRE and the California Ecology Corps. The Ecology Corps continued to exist until 1978 when the camp became Butte Fire Center under the joint direction of CAL FIRE and the California Conservation Corps (CCC) and remained so until 2003 when the CCC withdrew.



Magalia Fire Center fire crew members work at the "Cave" prescribed burn near Cohasset in 2023.

From 2003 until 2016 the Butte Fire Center (owned by CAL FIRE) was used as a northern region training facility for firefighters throughout California. In 2016, CAL FIRE and CCC rejoined operations as a fire crew facility. In 2020, the Butte Fire Center changed its name to the Magalia Fire Center and continues to be a joint effort between CAL FIRE and the CCC.

CCC crew members go through a rigorous two-week CAL FIRE Fire Crew training program before being assigned to a fire crew. As a CAL FIRE/CCC Type 1 fire crew, they respond statewide to wildland fires, search and rescue, and flood fighting incidents. While not fighting fires, the fire crews work on fire hazard reduction and other community projects.

CAL FIRE staff train and supervise the fire crews, provide forest practice operations, and operate a full vehicle repair shop.

The current staffing model provides 24-hour coverage 7 days per week during peak staffing with Type 1 Fire Crews. During winter periods, crews are typically staffed during daytime hours from Monday through Friday, but can be staffed on a 24-hour, 7-day-per-week basis as emergency response needs dictate.

Magalia Fire Center is currently funded for:

- CAL FIRE Staff
  - 1 Battalion Chief
  - 12 Fire Captains
  - 13 Fire Apparatus Engineers
  - 1 Staff Services Analyst
  - 1 Stationary Engineer
  - 1 Forestry Tech
- CCC Staff
  - 1 District Director
  - 1 Conservation Supervisor
  - 2 "C2" (Conservationist 2) Crew Supervisor
  - 5 "C1" (Conservationist 1) Crew Lead
  - 82 CCC Firefighters
  - 1 Administrative Officer
  - 1 Office Technician
  - 1 Office Administrator
  - 1 Navigator
  - 5 Special Corps Members

Table Mountain Fire Center

The Table Mountain Fire Center started in July of 2023 when CAL FIRE augmented hand crew resources in both the northern and southern regions of the state. With the augmentation of hand crew resources, CAL FIRE Butte Unit was directed to establish a Fire Center in southern Butte County.

The current staffing model provides 24-hour coverage 7 days per week from March to December with Type 1 Fire Crews. Table Mountain Fire Crews provide statewide emergency response as well as fuel reduction work to reduce the overstocked wildland-urban interface (WUI) surrounding the communities in Butte County.

Table Mountain Fire Center is currently funded for:

- 1 Battalion Chief
- 4 Fire Captains
- 3 Fire Apparatus Engineers
- 40 Firefighters
- 1 Staff Services Analyst
- 2 Supervising Cooks
- 2 Food Service Technicians



Table Mountain Fire Crew 1 responding to the 2024 Park Fire.

Resource Management

To support the 2018 Strategic Fire Plan for California, CAL FIRE Butte Unit Resource Management staff administers several programs aimed at reducing wildfire risks through targeted vegetation management. These programs encompass fuels reduction, fire suppression repair, forest and range health assessments, environmental review, and partnerships with private landowners to address fuels management across the unit.

Forest Practice Enforcement

CAL FIRE Resource Management staff are tasked with enforcing the California Forest Practice Act and Forest Practice Rules concerning timber operations on private timberlands. This enforcement process begins with an initial project review and continues throughout the timber harvesting process until its completion. The management of logging slash to minimize overall fuel hazards in timberland areas must adhere to the established rules and regulations, particularly around structures and along roadways.

During the review of commercial timber harvesting plans, CAL FIRE staff can offer written recommendations to project proponents aimed at promoting positive changes in timber operation methods. CAL FIRE's foresters consistently seek ways to enhance fire safety, reduce hazards, improve public safety, ensure vehicular access, maintain water sources, optimize operation timing, benefit wildlife, and implement other site-specific mitigation measures necessary to support the 2018 Strategic Fire Plan for California (CAL FIRE 2024i).

Vegetation Management Project Planning

The Vegetation Management Program (VMP) employs a variety of manual and/or mechanical methods as well as prescribed fire to address wildland fire fuel hazards and other resource management challenges on chaparral-dominated SRA lands. By using prescribed fire, the program mimics natural processes,

reintroducing fire into its historical role within wildland ecosystems, thereby providing significant fire hazard reduction benefits that enhance safety for both the public and firefighters.

Similar to the VMP, the California Vegetation Treatment Program (CalVTP) is a new initiative that streamlines environmental planning and introduces additional management tools for vegetation treatment across all SRA lands, including timberland. Both the VMP and the CalVTP allow private landowners to enter into contracts with CAL FIRE to use prescribed fire and other vegetation management techniques to achieve a mixture of fire protection and resource management objectives.



Big Chico Creek in Upper Bidwell Park.

The California Forest Improvement Program (CFIP) is a state cost-share initiative designed to assist private timberland owners in managing their forest lands. Eligible practices include reforestation projects (providing funding of up to 90% for lands damaged by wildfire) and fuel treatments carried out through thinning, pruning, and follow-up fuel reduction.

Other grant-funded fuel reduction initiatives typically focus on the construction or maintenance of fuel breaks within the WUI. In Butte County, Proposition 40 funding and SRA fee funding were extensively utilized for constructing fuel breaks and implementing other fuel reduction projects. However, Proposition 40 funding expired on June 1, 2014, and SRA fees were discontinued on June 30, 2017. The CAL FIRE Butte Unit continues to collaborate with Sacramento and local grant applicants to secure funding from the California Climate Investments Greenhouse Gas Reduction Fund to advance these projects in the SRA. CAL FIRE currently offers Forest Health grants aimed at large-scale projects and Fire Prevention grants focused on smaller initiatives and fire prevention efforts (CAL FIRE 2024i).

Environmental Review

The California Environmental Quality Act (CEQA) mandates that public agencies evaluate the potential environmental impacts of projects that may lead to physical changes in the environment (CAL FIRE 2024i). As part of its responsibilities, CAL FIRE must ensure compliance with CEQA requirements when funding, approving, permitting, facilitating, or directly implementing projects as the lead agency (CAL FIRE 2024i).

In Butte County, environmental reviews are conducted by the Unit Forester or Environmental Coordinator. These reviews ensure that CAL FIRE's legal obligations are met during the project planning phase and that environmental considerations are integrated into decision making. Examples of CAL FIRE projects in Butte include facility construction, repairs, maintenance, and fire hazard clearance (CAL FIRE 2024i). Fuel reduction projects include shaded fuel breaks, prescribed burns, and live fire training burns (CAL FIRE 2024i).

Fuel Reduction Crew

CAL FIRE Butte Unit Fuels Crew is one of 10 specialized fuels reduction teams within CAL FIRE. The crew is led by a fire captain and includes an engineer, an equipment operator, and up to nine Forestry Technicians. While the crew is trained and qualified for fireline duties and can respond to emergencies, their primary focus is on reducing wildland fuels through techniques such as broadcast burning, pile burning, mastication, and chipping (Figure 4.4) (CAL FIRE 2024i).



Figure 4.4. A CAL FIRE fuel reduction crew working on a hazardous fuel reduction project.

Source: Sierra News Online (2016)

Fire Suppression Repair

CAL FIRE has the authority to carry out fire suppression repair operations during emergencies on SRA lands, as outlined in PRC 4675 and 4676. Fire suppression damage refers to the impacts caused by firefighting activities, which may include issues like soil erosion from dozer and hand lines, road openings, and watercourse crossings. The primary goal of these repair operations is to restore the affected areas as closely as possible to their pre-fire condition (CAL FIRE 2024i). The Unit's Resource Management staff is responsible for these repair efforts. With their expertise in natural resources, fire control, and environmental management, they collaborate with landowners and other stakeholders to provide quick post-fire assessments of affected areas.

Pre-Fire Planning

The Pre-Fire Planning program within the CAL FIRE Butte Unit consists of two Fire Captains, with one each funded by CAL FIRE and Butte County Fire Department.

Responsibilities of the Pre-Fire Planning program include:

- Tracking and reporting progress on CAL FIRE Butte Unit's vegetation management projects
- Reporting fire perimeters to the state database
- Tracking fire ignition locations and trends
- Developing and updating planning documents such as the CAL FIRE Unit Fire Plan, the Fire Danger Operating Plan (FDOP), and the CWPP
- Coordinating with cooperating agencies such as local fire departments and non-governmental organizations to plan and implement vegetation management projects and develop countywide documents such as the CWPP

- Collecting and organizing geographic information system (GIS) data
- Producing mapping products for various fire department functions including dispatch and emergency response
- Maintaining GIS data sets for use on Mobile Data Terminals on fire apparatus
- Organizing data collected on emergency incidents and producing incident-specific mapping
- Producing GIS products for use by various programs within the fire department
- Maintaining the Unit's facility location database
- Representing the fire department in numerous working groups including the Butte County Association of Governments (BCAG) Countywide GIS Working Group, the Butte County RCD's Countywide Mapping Group, the Butte County Collaborative Group (BCCG), and others
- Researching and drafting Fuels Treatment Effectiveness Reports (FTERs)
- Compiling and submitting changes to State Responsibility Area (SRA) and Direct Protection Area (DPA), and a wide range of other vegetation management project tracking and GIS-related tasks.

Chico Air Attack Base

Chico Air Attack Base (CAAB) was established in 1969. Located at the Chico Regional Airport, CAAB is one of 13 CAL FIRE Air Attack Bases in the state. The base sits on 3 acres.

The Chico Regional Airport is a general aviation regional airport situated at the 240-foot elevation. The airport can support Type-1 air tankers, large helicopter operations, and air attack platforms.



Air attack efforts in Butte County.

CAL FIRE's fire protection goal is to contain 95% of all fires to 10 acres or less. Aviation assets are instrumental in meeting and maintaining this goal. Air attack and helitack base locations and aircraft deployment are designed to reduce the number of large fires through the capability of air tankers and helitack crews to drop fire retardant and insert personnel at the fire scene before additional ground forces arrive and to support fire control objectives.

Aircraft initial response criteria have been established to have a state aircraft over fires in SRA within 20 minutes of dispatch and to provide augmented aircraft as needed. This response criteria plan was developed to includes the use of USFS and BLM aircraft on a closest resources concept. Air assets located at CAAB can respond to a fire anywhere in California and even into neighboring states should an unwanted fire threaten California.

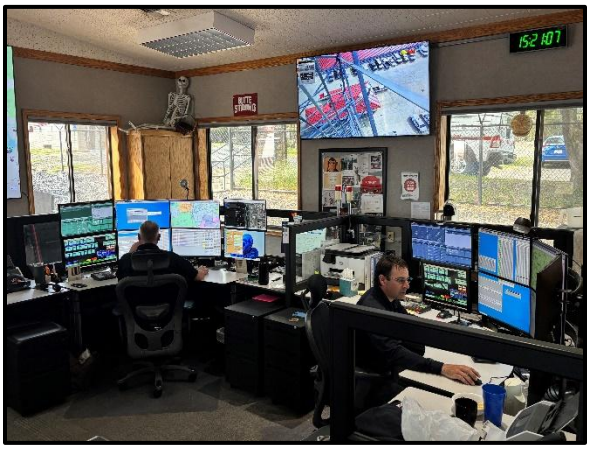
In 2024, CAAB was operational between May 6 and November 16. Aircraft assigned to the base flew 215 flights for a total of 351 combined flight hours in support of fire incident responses; 1,494,442 gallons of retardant were pumped from CAAB during the 2024 fire season, the most ever delivered from the base.

CAAB Resources	
Air Tactical Aircraft (AA 210)	**Airtanker (T93)**
Type: Rockwell OV-10A “Bronco”	Type: Grumman S-2T
Max Speed: 225 knots (258 mph)	Max Speed: 235 knots (270 mph)
Crew: Single Pilot, Single Air Tactical Group Supervisor (ATGS)	Crew: Single pilot
Gallons carried: N/A	Gallons carried: 1,200
Mission: Tactical coordination of aircraft over a fire to achieve incident objectives.	Mission: Fast initial attack delivery of fire retardant or water on wildland fires.

Emergency Command Center

The Oroville Emergency Command Center (ECC) provides command and control services including "pre-arrival" emergency medical dispatch for unincorporated areas of Butte County, the City of Biggs, the City of Gridley, the Town of Paradise, and the City of Oroville.

Through a boundary-drop style aid agreement, the Oroville ECC and Chico Fire Department’s dispatch center can directly dispatch resources from any fire department in the county to calls in their own jurisdiction. Often a single fire dispatch will include resources from multiple local fire agencies, all communicating with a single dispatcher on a common frequency.



Oroville Emergency Command Center.

Additionally, the Oroville ECC serves as the California Governor’s Office of Emergency Services (Cal OES) Fire Operational Area Mutual Aid Coordination Center for Butte County. In this role, it coordinates all fire mutual aid requests within the county, with the authority to acquire resources from neighboring counties such as Yuba, Sutter, Plumas, Glenn, Colusa, Tehama, and Lassen Counties. The Oroville ECC also acts as the air ambulance coordination center for Butte, Tehama, Glenn, and Shasta Counties, handling requests and dispatching the nearest available air ambulance to emergencies (CAL FIRE 2024i).

Objectives

- Continue to provide quality command and control services, as well as excellent customer service, to all customers
- Pursue cooperative agreements with other departments and agencies to enhance efficiency of resource command and control within Butte County
- Pursue available technology to conduct command and control operations more efficiently
- Cooperate fully and effectively with allied agencies

Ignition Management Plan



Access road in Butte County.

The top three fire causes within the CWPP planning area have remained consistent in recent years. These causes are monitored closely by CAL FIRE's Fire Prevention Bureau to address and reduce fire starts. To assist in this effort, CAL FIRE launched the "One Less Spark" campaign—a statewide outreach initiative aimed at reducing wildfire risks. Locally, roadside signs display fire prevention messages from this campaign and other related efforts to raise public awareness.

The Fire Prevention Bureau staff, in coordination with Incident Commander, conducts thorough fire origin and cause investigations. These investigations provide reliable data, helping pinpoint trends and identify high-risk areas. Once these trends are established, the Fire Prevention Bureau implements measures to reduce fire starts through the three E's of fire prevention: education, engineering, and enforcement.

To improve home safety during wildfire events, the CAL FIRE Butte Unit has revised its Defensible Space Inspection Program. Fire station personnel and inspectors conduct residential fire hazard inspections (LE100) in at-risk communities. The number of inspections has steadily increased, with 10,524 inspections completed in 2024. During these inspections, violations of PRC 4291 or Butte County Chapter 38A are recorded, and residents are given an opportunity to correct them. If needed, referrals are provided to support organizations like the Butte County Fire Safe Council.

Parcels that remain non-compliant after outreach efforts may be referred to Butte County Code Enforcement for further action, which can include citations, forced abatement, or other actions. In 2021, 61 parcels were referred to Code Enforcement, with 22 achieving compliance. By 2023, 358 cases were referred, and 107 cases resulted in Code Enforcement involvement, with 47 achieving compliance and others moving through the hearing process. In recent years, court-ordered abatements have also been carried out where necessary.

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CHAPTER 5 – COOPERATOR FIRE MANAGEMENT STRATEGIES

Butte County has been severely impacted by wildfires in recent years. These wildfires affect many geographical aspects of Butte County. Although many communities have been impacted directly, wildfires reverberate far beyond their fire footprints.

Numerous organizations including local governments, tribes, nonprofits, local districts, and community groups, continue to grow their capacity to participate in wildfire mitigation and resilience building in Butte County. These entities work individually and collectively to identify resources to enhance safety and resilience in the face of wildfire threats. Contributing partners extend across jurisdictions and land ownerships from state and local governments to grass roots community groups. Their direct and coordinated initiatives contribute expertise, local knowledge, and partnership strengthening the ability to prepare for, respond to, and recover from wildfires.

This section outlines the correlative efforts of some of these organizations, illustrating how their joint actions effectively reduce wildfire risks and strengthen the overall resilience of Butte County communities. By leveraging shared knowledge, resources, and strategic planning, many organizations in Butte County play a crucial role in protecting communities from the ongoing threat of wildfires.

BUTTE COUNTY COLLABORATIVE GROUP

The Butte County Collaborative Group (BCCG) is composed of over 30 participating organizations and includes nonprofits, special districts, local tribes, community members, county departments, state and federal agencies, and private timber operators.

The mission of the BCCG is to form strategic partnerships for effective collaboration among partners engaged in forest health, ecological restoration, and wildfire safety. The vision of the group is to create landscapes that can be resilient and carry functional capacity in perpetuity. The BCCG online hub site can be accessed here; https://butte-county-collaborative-group-bcrcd.hub.arcgis.com/.

The BCCG formed in 2022 with the development of the Memorandum of Understanding (MOU) and was officially launched in 2023 with quarterly meetings. The BCCG was formed at the suggestion of agencies like CAL FIRE and Sierra Nevada Conservancy. In addition, the Sierra Institute's "Sierra To California All-Lands Enhancement" (SCALE) conference was a great training grounds to gather information about other Collaborative groups in the Sierra Nevada Region. Ernest work to form the BCCG took place after the Camp Fire of November 8, 2018, to adapt to the post-fire landscape and plan for future forest health projects. Many years of collaboration, securing grant funding and partnerships, preceded the official formation of the group. Initial funding for the BCCG came from a grant from the U.S. Forest Service (USFS) and assisted in developing the entity's Memorandum of Understanding (MOU).

One of the primary goals of the BCCG is to showcase an interactive map that partners can use to complement and enhance one another's forest health, wildfire safety, and ecological stewardship projects. Another key goal of the BCCG to is to work with tribes to strengthen traditional ecological knowledge, workforce capacity, and partner building among other opportunities.

Everyone is welcome at the BCCG meetings which are held quarterly. In addition to these meetings, forest health tours, events, socials, and trainings are made available to BCCG participants. Groups that choose to sign the MOU of the BCCG can participate as a voting member. The BCCG is led by an administrative group that assists in setting up the annual calendar, setting up agenda topics, and identifying funding needs for the BCCG's administrative costs, which include meeting facilitation and administrative management.

The BCCG's participating organizations are involved in implementing a wide variety of fuel reduction projects, including establishing fuel breaks, conducting prescribed burns, and implementing defensible space projects to reduce wildfire intensity and improve public safety.

Through regular meetings, collaborative projects, and a comprehensive project tracker, the BCCG ensures transparent access to information and continuous improvement in wildfire resilience. Their collective efforts underscore the critical role of strategic forest management, community engagement, and multifaceted approaches in reducing the risk of catastrophic wildfires in Butte County (BCCG n.d.).

For more information and to explore the collaborative efforts in detail, please visit the BCCG website at https://butte-county-collaborative-group-bcrcd.hub.arcgis.com/

BCCG Signatories (as of 12/31/2024):

Big Chico Creek Ecological Reserve	Konkow Valley Band of Maidu Indians
Butte County	Mechoopda Indian Tribe of Chico Rancheria
Butte County Air Quality Management District	North State Planning & Development Collective
Butte County Fire Safe Council	Northern California Regional Land Trust
Butte County Resource Conservation District	Sierra Pacific Industries
Butte Environmental Council	Plumas National Forest
Enterprise Rancheria	Yankee Hill Fire Safe Council

FIREWISE COMMUNITIES



CAL FIRE Station 36 Jarbo Gap.

The Firewise USA® program is a national initiative developed by the National Fire Protection Association (NFPA) in collaboration with federal and state agencies to help communities reduce the risk of wildfire damage. Designed for residents living in fire-prone areas, the program emphasizes proactive measures to create safer, more resilient neighborhoods. By providing education, resources, and actionable strategies, Firewise USA encourages homeowners to assess their properties and adopt practices such as clearing flammable vegetation (Figure 5.1), creating defensible space, and using fire-resistant building materials. The program also fosters community collaboration, empowering neighborhoods to work together to implement wildfire mitigation plans and reduce the likelihood of property loss. In Butte County, this initiative has been widely embraced, with 50 “In Good Standing” Firewise USA communities as of 2025 (Butte County Fire Safe Council 2025). Firewise communities in Butte County are shown in Figure 5.2.



Figure 5.1. Fuel reduction before and after in Butte County oak woodlands.

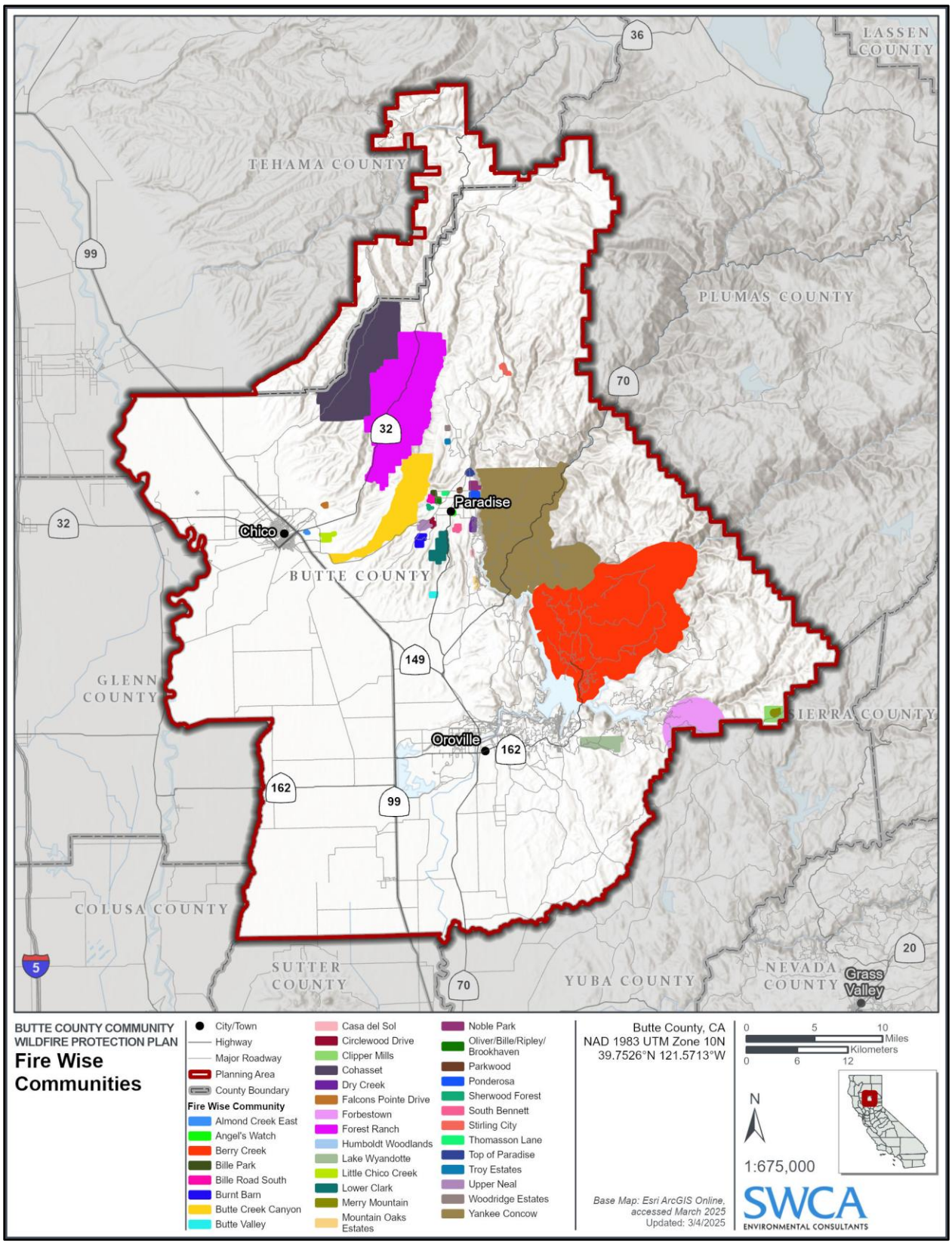


Figure 5.2. Firewise communities throughout the Butte County CWPP planning area.



CHAPTER 6 – RISK REDUCTION RECOMMENDATIONS

This chapter provides project recommendations, implementation guidance, and conceptual fuel treatment recommendations. CWPP recommendations have been structured around the three main goals of the Cohesive Strategy: resilient landscapes; fire-adapted communities; and safe, effective, risk-based wildfire response.

As a non-regulatory document, project and action recommendations in the CWPP are not required to be implemented. Recommendations are put forward to provide guidance and suggestions on actions that will mitigate wildland fire risk. It is at the discretion of Butte County representatives, land managers, homeowners, and stakeholder groups to determine when or if a recommendation will be implemented. Alignment with local planning documents should be considered. Appropriate subject matter experts, lessons learned documentation, and the best available science should be included in decision making regarding project planning, implementation, and maintenance.

Many of the recommendations listed can be implemented at the homeowner or community level. Projects requiring large-scale support can be prioritized based on the Quantitative Wildfire Risk Assessment (QWRA).

Recommendation matrixes are used throughout this chapter to serve as an action plan for implementation. Recommendations have been aligned with the strategies and goals in the 2018 Strategic Fire Plan for California, the 2021 California's Wildfire and Forest Resilience Action Plan, and California's Forests and Rangelands: 2017 Assessment, wherever possible.



GOAL 1: RESTORE AND MAINTAIN LANDSCAPES

Recommendations to restore and maintain landscapes are focused on vegetation management and hazardous fuel reduction.

Resilient landscapes refer to ecosystems that are healthy, diverse, and capable of withstanding and recovering from various disturbances, such as wildfires, climate change, invasive species, and insect infestations. General project recommendations aimed at creating more resilient landscapes in the planning area are in Table 6.1. All recommendations in this section were created through collaboration with Core Team members, stakeholders, and the public.

The CWPP Core Team also used their expertise and the QWRA to delineate broad areas of concern (see Figure 2.14). Areas of concern are regions of the planning area in which more specific mitigation efforts should be prioritized given a variety of attributes.

RECOMMENDATIONS FOR HAZARDOUS FUEL REDUCTION

The purpose of any fuel reduction treatment is to protect life and property by reducing the potential for and outcome of catastrophic wildfire, and to restore landscapes to a sustainable and healthy condition. Moderating extreme fire behavior, reducing structural ignitability, creating defensible space, providing safe evacuation routes, and maintaining all roads for firefighting access can all be outcomes of fuels reduction. Use of multiple treatment methods often magnifies the benefits.

Table 6.1 summarizes the types of treatments recommended throughout the planning area. Most treatments are focused on higher-risk areas, as defined by the QWRA and Core Team input. Many of these treatment recommendations are general across the communities because similar conditions occur in those areas. Tables 6.1, 6.2, and 6.3 addresses the requirement for an action plan and assessment strategy in a CWPP by providing monitoring guidelines and a timeline for implementation. This timeline is obviously dependent on available funding and resources, as well as other factors such as environmental assessment and compliance.

When applying fuel treatments, every effort should be made to align treatments with the 2018 Strategic Fire Plan for California, 2021 California's Wildfire and Forest Resilience Action Plan, and California's Forest and Rangelands: 2017 Assessment (CAL FIRE 2018a, 2018c; California Wildfire and Forest Resilience Task Force 2021) with consideration of all appropriate best management practices and sound science. In addition, treatments should be strategically located in areas to maximize effectiveness of other existing and ongoing projects and to address watershed and forest health. Consideration of environmental challenges should be built into recommendations. For example, treatments may be aimed at reducing the impact of insects and disease, with sensitivity to vegetation communities affected by drought and climate change.

A list and detailed descriptions of fuels treatment types and methods is housed in Appendix G. Treatments and strategies for homeowners to implement defensible space, reduce structural ignitability, and enhance community resilience can be found in Appendix F.

The treatment list is by no means exhaustive and should be considered purely a sample of required projects for the future management of the planning area. Many projects may be eligible for grant funds available from federal and/or state sources. For a list of funding sources, please refer to Appendix E.

TRADITIONAL ECOLOGICAL KNOWLEDGE

There are multiple approaches to reducing fuels in wildland settings. Specific methods often involve people and machinery to mechanically manage vegetation based on a specific management prescription. Another approach involves engaging local tribal entities to integrate traditional ecological knowledge (TEK) into land management practices, promoting and maintaining resilient landscapes (Figure 6.1). TEK practices, such as cultural and prescribed burning, can be highly effective in maintaining natural vegetation composition and fuel loads, especially in fire-adapted landscapes.

While TEK emphasizes cultural and prescribed fire, it is important to consider that contemporary practices can vary significantly from traditional methods. Further, advocating for the benefits of fire is a shared responsibility, not solely that of Native communities. This collaborative approach within the county is demonstrated by the growing use of fire by land-managing entities, such as the Prescribed Burn Association (PBA) and CAL FIRE, working to build support and enhance the safety of fire practices through community involvement, smoke management plans, and collaborations with resource management and public health professionals. Despite these considerations, the ability to implement burning methods may be limited due to structure proximity, potential smoke impacts, or a variety of other factors. For more information on prescribed burning, refer to Appendix G.



Figure 6.1. Image of cultural burning in Butte County.
Photo credit: Big Chico Creek Ecological Reserve.

PRESCRIBED HERBIVORY

Recognizing these limitations, land management agencies have increasingly incorporated prescribed herbivory, the intentional use of domestic livestock to manage vegetation, as a fuel reduction strategy. Prescribed herbivory, supported by the California Vegetation Treatment Program (CalVTP) and the Range Management Advisory Committee, is being implemented in fuel reduction projects statewide

(California Department of Conservation 2024a). This method offers several advantages: it enhances air quality, minimizes noise, can be used near structures and on steep slopes, and reduces soil compaction. However, there are limitations, such as timing constraints for treatment based on vegetation maturity and season, effectiveness (especially on 1-hour and 10-hour fuels), and potential tree girdling by herbivores (California Board of Forestry and Fire Protection 2015).

HERBICIDE APPLICATION

Herbicide application is a valuable tool for maintaining fuel breaks and rights-of-way, helping to reduce vegetation regrowth and limit the spread of invasive plant species that contribute to wildfire risk. When used strategically, herbicides can enhance the long-term effectiveness of fuels treatments by suppressing highly flammable vegetation in areas where mechanical or manual treatments alone may be insufficient or impractical.

However, the use of herbicides also comes with considerations. Potential drawbacks include impacts to non-target plant species, concerns over environmental and water quality, and the necessity for trained professionals to ensure safe and effective application. To mitigate these concerns, the CAL FIRE Butte Unit ensures that herbicide treatments comply with federal, state, and local regulations. Applications follow a written recommendation from a certified Pest Control Advisor and are conducted under the supervision of a Qualified Applicator certified by the Department of Pesticide Regulation.

Various land management strategies implemented by local, county, state, and federal partners in Butte County are discussed in more detail in the Land Management Strategies section of Appendix A.



Caution signage for a fuel reduction project in Butte County.

Table 6.1. Recommendations for Resilient Landscapes

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
RL #1		H	Ongoing	**Maintenance and Monitoring of Existing and Newly Installed Fuel Breaks** Sustain maintenance of existing fuel breaks and progress with execution of planned fuel breaks.	Countywide	Local jurisdictions, BLM, BIA, CAL FIRE, USFS, BCFSC, BCCG, tribal governments, Town of Paradise, City of Oroville, City of Chico, BCRCD, California Department of Water Resources (DWR)	• Execute and sustain planned fuel break projects according to established timelines and priorities. • Implement a routine maintenance schedule and inspection schedule for existing fuel breaks to ensure their effectiveness. • Maintain existing fuel breaks according to specific vegetation conditions, with regular monitoring and criteria-based maintenance. • Investigate prescribed grazing through pilot projects to manage vegetation, identifying potential areas, methods, and evaluating outcomes. • Collaborate with relevant agencies, organizations, and communities to ensure project success. • Integrate the mitigation of hazards, such as dead or diseased trees, into fuel break maintenance plans. • Assess whether existing fuel breaks on national forest and BLM lands are sufficiently wide to be effective; expand fuel breaks where needed. • Explore avenues to implement monitoring programs to improve accountability of fuels reduction projects and enhance landscape resilience.	Provide continued effectiveness of previously installed fuel breaks, reducing wildfire risk and protecting communities and valued resources.	Develop a comprehensive monitoring plan to track the progress and effectiveness of fuel break maintenance and execution. Include specific indicators, data collection methods, and reporting schedules. Ensure transparency by regularly publishing reports on the status and outcomes of fuel break projects.	• USFS Community Wildfire Defense Grant (CWDG) • CAL FIRE Grant Programs • FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • California Fire Safe Council Grants • Landscape Scale Restoration Competitive Grant Program • Butte County General fund

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
RL #2		H	Fall 2025	**Strategic Installation of Fuel Breaks Countywide** Install fuel breaks in high-risk areas based on risk assessment findings to reduce wildfire risk and protect communities.	Countywide	Local jurisdictions (Butte County, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise), BLM, BIA, CAL FIRE, USFS, BCFSC, BCCG, tribal governments, landowners, BCRCD, DWR	• Install fuel breaks in high-risk areas, prioritizing underserved, remote, and isolated areas. Specific factors to consider for potential fuel break locations include: ○ **Community Perimeters**: Establish fuel breaks around community boundaries. ○ **Wind Direction**: Strategically place fuel breaks with respect to average wind conditions and their relationship to fuels and topography in vulnerable areas. ○ **Rights-of-Way**: Install fuel breaks along evacuation corridors and other rights-of-way. ○ **Riparian Corridors**: Reduce ladder fuels and break up fuel continuity along riparian corridors leading into communities. ○ **WUI Protection**: Focus on areas that support the protection of the WUI. ○ **Responder Safety**: Enhance fire responder safety by strategically placing fuel breaks. ○ **Steep Topography**: Target communities surrounded by steep topography and heavy fuels. ○ **Critical Infrastructure**: Protect critical infrastructure and facilities by placing fuel breaks around them. ○ **Strategic Ridge Tops**: Use strategic ridge tops for fuel break placement. ○ **Expansion Opportunities**: Look for opportunities to expand or tie into existing fuel breaks for improved effectiveness. • Assess opportunities to implement fuels reduction projects to align with Potential Operational Delineations (PODs) and/or USFS's Strategic Fire Management Zones. • Collaborate with tribal partners to implement hazardous fuels treatments on tribal lands. • Collaborate with local planning and the Fire Marshal's Office on creation of fuel breaks around new development.	Provide access to fire personnel, establish fuel breaks and fire containment lines, create resilient landscapes, and address potential for extreme wildfire behavior in and around the WUI. Protect communities and critical infrastructure and facilities.	Conduct regular review/evaluations using ground data, satellite imagery, and remote sensing tools to monitor changes in vegetation and fuel break integrity, ensuring fuel break effectiveness. Create a database to record maintenance activities, incidents, and effectiveness metrics, accessible to necessary stakeholders.	• USFS Community Wildfire Defense Grants (CWDG) • CAL FIRE Grant Programs • FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • California Fire Safe Council Grants • Landscape Scale Restoration Competitive Grant Program

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
RL #3		M	Fall 2025	**Watershed-Scale Ecosystem Projects** Enhance wildfire resilience, wildlife habitat, and water quality through cross-jurisdictional ecosystem projects.	Countywide	Butte County, DWR, BLM, BIA, CAL FIRE, USFS, BCFSC, BCCG, Chico State, BCCER, tribal governments and local jurisdictions (City of Chico, City of Oroville, City of Gridley, City of Biggs, Town of Paradise), Butte Environmental Council (BEC), BCRCD	• Partner with agencies, environmental organizations, and community stakeholders to design and implement integrated riparian fuels reduction projects. • Develop comprehensive project plans that clearly outline specific mitigation strategies and ecological restoration goals. • Employ a combination of fuels reduction methods specifically suited to riparian areas, including: ○ Cultural Burns ○ Prescribed burns ○ Mechanical thinning ○ Debris removal ○ Chipping ○ Targeted vegetation management • Ensure that all mitigation efforts comply with environmental regulations and best practices to minimize ecological impacts. • Use existing riparian maintenance documentation to streamline the environmental review and permitting processes. • Incorporate restoration practices that enhance water quality, soil health, and the recovery of native vegetation. • Conduct thorough assessments to prioritize watersheds based on: ○ Wildfire risk ○ Presence of sensitive species ○ Overall watershed health	Reduce hazardous fuels throughout the county, create resilient landscapes, and address potential for extreme wildfire behavior in and around the WUI. Ensure the protection of vulnerable ecosystems and values at risk.	Develop and implement a monitoring program to track the effectiveness of fuels reduction and restoration projects. Regularly review and update methodologies based on monitoring outcomes to ensure continuous improvement.	• CAL FIRE Forest Health Grants • California EPA Loans and Grants • USFS Community Wildfire Defense Grants (CWDG) • California Climate Investments Fire Prevention Grant Program (CAL FIRE) • Landscape Scale Restoration Competitive Grant Program

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
RL #4		H	Fall 2025	**Collaboration with Tribal Governments*** Partner with tribal governments and organizations to identify and implement wildfire resilience and ecosystem restoration projects aligned with tribal land management objectives and stewardship. * This recommendation is intended solely as a resource to highlight potential areas for collaboration and support. Tribal communities are encouraged to define their involvement according to their own priorities, capacities, and resources. Partnering agencies should fully respect and honor the sovereignty and self-determination of each tribal community in considering these strategies.	Countywide	Butte County, tribal governments and organizations, BLM, BIA, CAL FIRE, USFS, BCFSC, BCCG, Chico State, BCCER, City of Chico, City of Oroville, City of Gridley, City of Biggs, Town of Paradise, BCRCD, DWR	• Engage tribal leaders in the development of projects to ensure alignment with tribal land management goals and objectives. • Establish formal agreements and partnerships between the Butte County, land management agencies, and tribal governments and organizations to clearly outline shared objectives and responsibilities. • Conduct assessments of tribal lands and adjacent areas to identify vulnerable regions and ecosystems in need of restoration efforts. • Implement training and education programs to build the capacity of tribal governments, organizations, and local communities in wildfire mitigation, ecosystem restoration, and cultural preservation. • Increase implementation of cultural burns for forest health restoration.	Establish cohesive planning with tribal management approaches and tribal values. Increase organization, efficiency, and effectiveness in achieving the desired outcomes of wildfire resilience and ecosystem restoration.	Develop and implement monitoring programs to track the progress and outcomes of restoration projects. Regularly review and update methodologies based on monitoring results to ensure continuous improvement.	• CAL FIRE Forest Health Grants • California EPA Loans and Grants • USFS Community Wildfire Defense Grants (CWDG) • California Climate Investments Fire Prevention Grant Program (CAL FIRE) • Landscape Scale Restoration Competitive Grant Program • Regional Forest and Fire Capacity Grant Program
RL #5		M	Fall 2025	**Post-Fire Recovery and Restoration Projects** Expedite the completion of post-fire recovery and restoration projects to ensure community safety and enhance environmental resilience.	Butte County burn scar areas	Butte County, BLM, BIA, CAL FIRE, USFS, BCFSC, California State Parks, tribal governments, PG&E, BCCG, City of Chico, City of Oroville, Town of Paradise, BCRCD, DWR	• Conduct a detailed inventory and assessment of all incomplete post-wildfire recovery projects. • Prioritize identified projects based on their importance for achieving ecosystem objectives, ensuring community safety, advancing environmental restoration, and enhancing long-term resilience. • Collaborate with local and regional partners, including nonprofits and volunteer organizations, to supplement staffing and resources. • Coordinate with relevant state and county authorities to streamline the approval and execution of high-priority projects. • Address immediate safety concerns by prioritizing hazard tree mitigation and road maintenance projects to minimize potential post-fire hazards. • Focus on ecological restoration efforts, including post-fire planting in non-forested areas with long-term maintenance plans, to support habitat recovery and strengthen environmental resilience.	Ensure community safety and bolster habitat restoration and environmental resilience in the burned areas of the county.	Implement regular monitoring of the post-fire environment to track recovery progress and assess ongoing post-wildfire risks. Maintain a long-term commitment to tracking post-wildfire recovery and conducting assessments of the WUI and watersheds at risk in the post-fire environment.	• Environmental Quality Incentives Program (EQIP) • Red Cross: Disaster Relief and Recovery Services • Red Cross Before, During & After Wildfire • CAL FIRE Forest Health Grants • California EPA Loans and Grants • Landscape Scale Restoration Competitive Grant Program • U.S. Department of the Interior funding for post-wildfire burn area rehabilitation and restoration

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
RL #6		H	Fall 2026	**Green Waste Disposal Capacity-Building** Enhance green waste disposal capacity by acquiring additional chipping equipment and installing a biomass facility to efficiently manage vegetation disposal.	Countywide	Butte County, NRRWF, USFS, BLM, CAL FIRE, PG&E, SPI, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise	• Assess the volume and types of biomass generated through fuels reduction in the county to determine disposal needs. • Procure additional chippers to significantly enhance green waste disposal capacity and efficiency. • Conduct a comprehensive feasibility study for the use of biomass facilities to manage green waste, evaluating safety, environmental impact, and cost-effectiveness. • Explore and implement options to expand biomass disposal sites, prioritizing accessibility and effectively addressing the needs of the communities they serve. • Actively engage the community in discussions about biomass disposal, gathering input on preferences and addressing any concerns. • Allocate the necessary resources and funding to support the acquisition of equipment and the construction of facilities. • Initiate pilot programs to test the effectiveness of various green waste disposal methods and collect data to inform decision making. ○ Example: Use green waste as part of a garden mulch process to enhance poor soil conditions. • Construct a biomass facility and multi-purpose yard for wood utilization and wood products.	Enhance regional landscape resiliency by increasing viability of environmentally effective green waste disposal and use.	Conduct a comprehensive review of the strategy on an annual basis to evaluate its effectiveness, relevance, and financial sustainability. Make necessary revisions to adapt to changing conditions and incorporate new best practices.	• USFS Wood Innovations Grant Program • FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • California EPA Loans and Grants • CAL FIRE Forest Health Grants • CAL FIRE Grant Programs

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
RL #7		H	Spring 2026	**Hazard Tree and Vegetation Survey and Mitigation** Conduct a comprehensive survey and inventory of hazard trees and areas of dense vegetation, focusing on high-risk areas, to guide targeted efforts for tree removal, maintenance, and risk reduction.	Countywide	Butte County, BLM, BIA, CAL FIRE, USFS, BCFSC, California State Parks, tribal governments, City of Chico, City of Oroville, City of Gridley, City of Biggs, Town of Paradise, BCRCD, DWR	• Initiate a thorough survey and inventory of hazard trees (dead and dying trees) across all jurisdictions, including private, state, and federal lands. • Compile, centralize, and share existing information on hazard trees to create a unified database/hub. ○ Example: Gather detailed data on the location, species, condition, and proximity to infrastructure and buildings of identified hazard trees. • Create a data hub to facilitate information and data sharing between agencies. • Prioritize the assessment of high-risk areas such as communities, roadways, and recreational sites where hazard trees pose an immediate threat. • Create a detailed map and database to record and store information on hazard trees, ensuring accessibility across agencies. • Classify hazard trees into different risk categories to guide mitigation efforts, focusing on the most urgent cases. • Develop a comprehensive hazard tree mitigation plan outlining strategies for tree removal, maintenance, or treatment. • Define responsibilities between collaborating agencies to ensure coordinated efforts. Develop and implement a monitoring system to track the progress of hazard tree mitigation projects. Share results with stakeholders and the public.	Reduce hazards posed by potential trees and stands that contribute to extreme wildfire behavior. Enhance community and firefighter safety and improve wildfire resilience.	Develop and implement a monitoring system to track the progress of hazard tree mitigation projects and ensure continued effectiveness.	• USFS Community Wildfire Defense Grants (CWDG) • CAL FIRE Grant Programs • FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • California Fire Safe Council Grants • NFPA Firewise Grants • Regional Forest and Fire Capacity Grant Program
RL #8		H	Fall 2025	**Firewise USA Communities** Develop Firewise USA recognized communities within Butte County to enhance fire safety and resilience through community engagement and education.	Butte County communities without Firewise designation	Butte County, BLM, BIA, CAL FIRE, USFS, BCFSC, tribal governments, BCCG, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise, DWR	• Collaborate with local community leaders to develop Firewise USA communities. • Conduct community assessments to identify fire safety needs and implement the Firewise USA program. • Educate landowners on fire safety practices. • Form strong community relationships and identify community leaders to champion fire safety initiatives. • Provide incentives such as insurance cost reductions to encourage participation.	Educate landowners, form community relationships, identify community leaders, and provide insurance cost reductions. Enhance community safety and resilience through proactive fire safety measures and community involvement.	Regularly review and update community fire safety plans to ensure they remain current and effective. Continuously monitor the implementation of fire safety measures and conduct periodic reassessments to address evolving risks.	• Community Planning Assistance for Wildfire (CPAW) • FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • FEMA Fire Prevention and Safety Grants (FP&S) • Firewise Grants • California Fire Safe Council Grants • Community Economic Resilience Fund

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
RL #9		H	Fall 2025	**Countywide Chipper Program** Implement a countywide no-cost chipper program for residents in and adjacent to the WUI to reduce hazardous fuels and incentivize landowners to conduct fuels reduction.	Countywide	Butte County, BLM, BIA, CAL FIRE, USFS, BCFSC, tribal governments, BCCG, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise	• Conduct the countywide no-cost chipper program to assist residents in reducing hazardous fuels. ○ Focus on at-risk communities within and adjacent to the WUI. • Provide incentives for landowners to participate in fuels reduction efforts. • Explore integration with biomass utilization and disposal programs.	Reduce hazardous fuels in at-risk communities and encourage landowners to actively participate in fuels reduction.	Monitor participation rates and assess the effectiveness of the chipper program to ensure it meets community needs. Conduct annual evaluations to measure impact and implement improvements as needed.	• FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • USFS Community Wildfire Defense Grants (CWDG) • Firewise Grants • California Fire Safe Council Grants • Good Neighbor Citizenship Grant • CAL FIRE Wildfire Prevention Grants
RL #10		H	Fall 2025	**Countywide Grazing Program** As appropriate, consider countywide grazing for forest health and fuels reduction, using grazing as a maintenance tool in completed project areas and as a pre-fire fuels reduction method.	Countywide	Butte County, BLM, BIA, CAL FIRE, USFS, BCFSC, tribal governments, BCCG, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise	• As appropriate, implement grazing countywide for forest health and fuels reduction. • Explore collaboration options with local homeowner associations (HOAs), school districts, and other landowners for annual grazing programs. • Develop local grazing cooperatives to incentivize landowners to participate or work with contractors. • Conduct research into the effectiveness of grazing in forest health, resource management, and fuels reduction.	Enhance community safety, improve environmental resilience, and reduce wildfire risks through hazardous fuels reduction in at-risk communities. Encourage landowners to conduct fuels reduction treatments.	Regularly monitor grazing activities and their impact to ecosystem processes, forest health, and fuels reduction. Conduct periodic assessments to evaluate the effectiveness and make necessary adjustments.	• USFS Community Wildfire Defense Grants (CWDG) • CAL FIRE Grant Programs • FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • California Fire Safe Council Grants • Landscape Scale Restoration Competitive Grant Program
RL #11	☑	H	Fall 2025	**Success Story Development and Tracking** Develop and track success stories from individual and collaborative projects and wildfire safety efforts to highlight the effectiveness of fuels treatment, forest health restoration, and prescribed fire initiatives.	Countywide	Butte County, BLM, BIA, CAL FIRE, USFS, BCFSC, tribal governments, BCCG, City of Chico, BEC, BCRCD, DWR	• Work with partnering agencies, stakeholders, community members, and local media to implement a system to track the overall progress and outcomes of various projects. • Develop and document success stories that showcase the effectiveness of fuels treatment, forest health restoration, prescribed fire, and other collaborative projects. • Highlight both individual and collaborative efforts across the county. • Conduct comprehensive research on the effectiveness of different treatment types and the impacts of wildfire on completed projects. • Analyze data to identify most effective practices and areas for improvement. • Regularly update stakeholders and the public on successful initiatives through detailed reports and presentations.	Increase awareness of successful wildfire safety and forest health initiatives, promote best practices, and encourage continued collaboration and innovation.	Consistently track the progress and impact of documented projects, updating success stories with new data and outcomes as they emerge. Maintain a curated repository of success stories to serve as a valuable resource for reference and inspiration.	• CAL FIRE Forest Health Grants • California EPA Loans and Grants • USFS Community Wildfire Defense Grants (CWDG) • California Climate Investments Fire Prevention Grant Program (CAL FIRE) • Landscape Scale Restoration Competitive Grant Program • Regional Forest and Fire Capacity Grant Program

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
RL #12		H	Fall 2025	**Hazardous Fuels Reduction Along Evacuation Routes** Implement hazardous fuels reduction along evacuation routes and maintain completed roadside fuels reduction projects.	Countywide	Butte County, BLM, BIA, CAL FIRE, USFS, BCFSC, tribal governments, BCCG, City of Chico, City of Oroville, City of Gridley, City of Biggs, Town of Paradise, BCRCD, DWR	• Conduct comprehensive risk assessments to identify high-risk evacuation routes that require hazardous fuels reduction. ○ Prioritize routes based on factors such as population density, historical wildfire data, and proximity to critical infrastructure. • Implement fuels reduction projects along prioritized routes, using methods such as mechanical thinning, prescribed burns, and debris removal to reduce fuel loads. • Ensure that all activities comply with environmental regulations and best practices to minimize ecological impacts. • Implement adaptive management practices to refine and improve maintenance strategies based on monitoring data, vegetation regrowth, and changing conditions. • Engage with tribal partners to conduct treatments in and around tribal communities.	Enhance the safety of residents and emergency responders during wildfire events by ensuring that evacuation routes are free from hazardous fuels and well-maintained.	Develop a monitoring system to track the condition of evacuation routes and the effectiveness of fuels reduction efforts. Conduct regular reassessments and maintenance to ensure that evacuation routes remain safe and clear of hazardous fuels.	• USFS Community Wildfire Defense Grants (CWDG) • CAL FIRE Wildfire Prevention Grants • FEMA Fire Prevention and Safety Grants (FP&S) • California Fire Safe Council Grants • Community Planning Assistance for Wildfire (CPAW)

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
RL #13		H	Fall 2025	**Invasive Species Control** Implement a comprehensive invasive species control program to manage and reduce the spread of invasive plant species.	Countywide	Butte County, BLM, BIA, CAL FIRE, USFS, BCFSC, tribal governments, PG&E, BCCG, Chico State, BCCER, City of Chico, City of Oroville, City of Gridley, City of Biggs, Town of Paradise, BEC, BCRCD, DWR	• Conduct comprehensive surveys to identify and map the distribution of invasive species across the county, prioritizing post-fire areas where invasive species infestation is common. ○ Use GIS technology to create detailed maps of invasive species hotspots and prioritize areas for control efforts. • Develop and implement an Integrated Pest Management Plan that combines mechanical, chemical, prescribed fire and biological control methods. ○ Mechanical control: Manual removal, mowing, and tilling to physically remove invasive plants. ○ Chemical control: Application of herbicides in a targeted and environmentally responsible manner. ○ Biological control: Introduction of natural predators or pathogens to control invasive species populations. ○ Prescribed fire: Application of controlled fire to the landscape. Consider prescribed fire as a treatment option (see Chico Park's Department use to control yellow star thistle). • After invasive species removal, implement restoration projects to re-establish native vegetation and ensure long-term habitat health. • Engage and educate the community about the importance of invasive species control and encourage participation in volunteer removal efforts.	Protect native ecosystems and biodiversity by reducing the spread of invasive species. Enhance wildfire resilience by managing invasive species that contribute to increased fuel loads. Improve soil health and water quality by restoring native vegetation.	Conduct regular surveys and assessments to detect new invasions and monitor the success of restoration projects. Implement adaptive management practices to adjust control strategies based on monitoring data, vegetation regrowth, and changing conditions.	• USFS Community Wildfire Defense Grants (CWDG) • FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • California EPA Loans and Grants • CAL FIRE Forest Health Grants • Landscape Scale Restoration Competitive Grant Program

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
RL #14		H		**Workforce Development and Training** Conduct training for agencies and organizations to increase capacity in implementing forest health and fuels reduction projects.	Countywide	Butte County, BLM, BIA, CAL FIRE, USFS, BCFSC, Chico State, BCCER, tribal governments, PG&E, BCRCD, BCCG, BEC, DWR	• Develop and deliver comprehensive training programs that focus on forest health and fuels reduction techniques, incorporating a blend of practical hands-on training, classroom instruction, and field demonstrations. ○ Topics to include prescribed burning, mechanical thinning, invasive species control, and ecological restoration. • Provide essential resources and support to agencies and organizations to strengthen their ability to implement projects effectively. • Foster strategic partnerships to leverage expertise, facilitate knowledge exchange, and promote collaboration. • Establish mentorship programs to guide and develop the next generation of professionals in the field.	Build a skilled workforce capable of addressing wildfire risks and promoting ecological health. Enhance the capacity of local agencies and organizations to manage and implement complex projects.	Evaluate training programs to ensure they meet the needs of participants and adapt based on feedback. Track the implementation of skills and knowledge gained through training to measure impact. Provide ongoing support and advanced training opportunities to maintain and enhance skill levels.	• FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • USFS Community Wildfire Defense Grants (CWDG) • FEMA Fire Prevention and Safety Grants (FP&S) • EPA Environmental Education Grants • CAL FIRE Grant Programs • California Fire Safe Council Grants
RL #15		H		**Implement Intentional Fire and Sustain Countywide Prescribed Burn Association (PBA)** Implement intentional fire (e.g., broadcast burning, pile burning, cultural fire, biochar) as a maintenance tool for completed project areas and as an initial treatment in untreated areas to promote ecological health and reduce hazardous fuels throughout the county.	Countywide	Butte County RCD, Butte County, BLM, CAL FIRE, USFS, BCFSC, BCCG, Chico State, BCCER, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise, Tribal Fire Practitioners	• Implement prescribed burns with landowners to increase community capacity to re-introduce fire. • Develop detailed plans for prescribed fire and cultural burning, including clear objectives, methods, and safety protocols. ○ Coordinate with tribal groups to incorporate cultural burning practices and traditional ecological knowledge (TEK). • Secure necessary permits and approvals from relevant authorities and ensure all burns are carried out under optimal weather conditions to minimize risks. • Conduct prescribed and cultural burns in targeted areas to reduce hazardous fuels, enhance ecological health, and promote carbon sequestration through biochar production. • Support local community-scale prescribed burning year-round, increasing the pace and scale of prescribed fire and offering education to landowners.	Empower landowners to conduct burns reducing wildfire risks and promoting ecological health. Enhance the capacity of local organizations and community members to create resilient communities.	Monitor burn areas to assess the effectiveness and ecological impact using remote sensing and field surveys. Conduct follow-up treatments as necessary to maintain desired conditions. Regularly review and update burn plans based on monitoring data and community feedback.	• USFS Community Wildfire Defense Grants (CWDG) • FEMA Fire Prevention and Safety Grants (FP&S) • EPA Environmental Education Grants • CAL FIRE Grant Programs • California Fire Safe Council Grants

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
RL #16		H		**Butte County Prescribed Fire Resource Team** Establish and train professional teams to implement prescribed fire projects, support Tribal and community-led efforts, provide education and outreach, and enhance wildfire resilience while increasing the pace, scale, and affordability of prescribed fire treatments.	Countywide	Butte County RCD, BCFSC, USFS, BLM, Tribal Fire Practitioners, City of Chico, City of Oroville, City of Gridley, City of Biggs, Town of Paradise	• Create specialized teams with trained professionals. ○ Coordinate with tribal groups to incorporate cultural burning practices and traditional ecological knowledge (TEK). • Build a professional workforce pipeline through certifications, hands-on training, mentorship, and ongoing development in prescribed fire management. • Provide workshops, toolkits, and technical assistance to empower landowners, community groups, and volunteers to conduct safe and effective prescribed burns. • Simplify the permitting process though effective cross-agency coordination. • Develop comprehensive safety plans, conduct risk assessments, and train team members and volunteers in fireline safety and emergency response. • Cross-train teams for wildfire suppression and establish partnerships with local fire agencies to support emergency response during peak wildfire season.	Increase the pace and scale of prescribed fire implementation, while lowering costs for landowners and agencies. Build a skilled workforce capable of addressing wildfire risks and promoting ecological health.	Ensure ongoing training and skill development for the prescribed fire resource teams. Regularly review and update burn plans based on monitoring data and community feedback.	• USFS Community Wildfire Defense Grants (CWDG) • FEMA Fire Prevention and Safety Grants (FP&S) • EPA Environmental Education Grants • CAL FIRE Grant Programs • California Fire Safe Council Grants

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
RL #17		H		**Wildfire Hazard and Invasive Species Reduction Project** Use alternative treatments and methods for controlling the annual growth of nonnative species.	Town of Paradise	Town of Paradise, BCFSC, Butte County RCD, CAL FIRE and Paradise Ridge Fire Safe Council	• The methods and practices for multi-year plans to break the cycle of annual growth are already being developed in a project between the Town of Paradise, Paradise Ridge Fire Safe Council, and Butte County Fire Safe Council with technical assistance from the Butte County Resource Conservation District and Tribal communities. The methods being developed will use all tools available such as grazing, mastication, mowing, spraying, pulling, soil sterilization, biochar, and land clearing and planting of selected strategic trees and native vegetation to develop site-specific multiyear prescriptions to reduce or eliminate the immediate return of invasive species and encourage native species for the following growing periods. • This project will provide incentives to the owners of lots to employ methods that break the annual return cycle of flammable vegetation. These methods will often be multiyear and multi-method applications to change the current paradigm of a vigorous annual return of highly flammable vegetation.	Protect homes and thousands of people.	As needed.	• Hazard Mitigation Grants • CAL FIRE California Climate Investments (CCI) Grants
RL #18		H		**Development of strategic land conservation of wildfire resilient landscapes** -Utilize conservation easements and fee-title acquisitions where appropriate to prevent land conversion that would reduce ecosystem health or limit future fuels reduction. -Focus on key parcels that support community buffers, continuous treatment areas, and long-term stewardship.	Private lands surrounding communities	Private lands, Northern California Regional Land Trust, BCFSC, Butte County RCD, CWPP partners, public agencies	• Identify priority areas for community wildfire resilience. • Use conservation easements to maintain undeveloped land uses compatible with fuels reduction and ecosystem health. • Use fee-title ownership where perpetual stewardship of fire-adapted ecosystems is needed. • Align planning with the Butte County General Plan Housing Element and state land-conservation priorities. • Incentivize landowners financially to continue beneficial land-management practices.	Maintain long-term landscape wildfire resilience, preserving treatment continuity across private lands, support and protect communities with buffers of fuel reduction, reduce risk from incompatible land conversion, protect ecosystem health, support cooperative fuels reduction with private landowners.	Periodic review of land-use compatibility with fuels reduction goals, continued coordination with landowners and stewardship entities, long-term fuels treatment and re-treatment planning	• Conservation easement funding • State land conservation programs • Federal wildfire resilience or land conservation grants • Mitigation funding • Partner contributions from land trusts or conservation organizations

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
RL #19		M		**Expand and maintain outdoor recreation opportunities as part of community wildfire resilience** -Increase sustainable trail access and nature-based programming which assists residents in rebuilding a connection to a place after wildfire. -Use recreation and education to support community connection of fire-adapted landscapes	Local recreation agencies, Park and open space managers, land trusts, Fire Safe Councils, CWPP partners, community based organizations, outdoor education providers	Northern California Regional Land Trust	• Maintain and expand sustainable trail access • Develop targeted educational programs focused on nature, wildfire, and fire-adapted landscapes. • Coordinate recreation planning with fuels treatment and land stewardship efforts	Support community recovery after catastrophic wildfire events, restore a sense of place by building connection to the landscape, foster place-based education around fire and nature, strengthen social resilience in fire-adapted communities.	Ongoing maintenance of trail systems, monitoring trail resource impacts, evaluation of educational programming participation and effectiveness, coordination with fuels management and land stewardship, periodic review of recreational access needs following wildfire events	• Outdoor recreation grants • Trail funding through state parks • Community wildfire resilience grants • Public health or trauma recovery funding • Environmental education grants • Local agency funding • Philanthropic or nonprofit partner support



GOAL 2: FIRE-ADAPTED COMMUNITIES

In this CWPP, recommendations for fire-adapted communities include public education and outreach actions and actions to reduce structural ignitability.

RECOMMENDATIONS FOR PUBLIC EDUCATION AND OUTREACH

Actions on the landscape are only a partial solution to reducing wildfire hazard; public education and action are critical for reducing human-caused ignitions, reducing the ignition potential of homes, and community wildfire resilience. Lack of knowledge, lack of positive actions (e.g., failing to create adequate defensible space within the home ignition zone), and negative actions (e.g., keeping leaf litter and exposed propane tanks close to structures) all contribute to increased risk of loss.

Table 6.2 lists public education recommendations to be implemented in the county.

RECOMMENDATIONS FOR ENGINEERING AND REDUCING STRUCTURAL IGNITABILITY

In addition to recommendations for public education and outreach, Table 6.2 also provides a list of community-based recommendations to reduce structural ignitability. Studies have shown that burning vegetation beyond 120 feet of a structure is unlikely to ignite that property through radiant heat (Butler and Cohen 1996). Maintaining defensible space and protecting the home from ignition from embers, including maintaining covers over vents and other openings, is strongly advised to protect a home from ignition. If property owners have failed to provide mitigation efforts on their own land, the risk of home ignition remains high, and firefighter lives are put at risk when they carry out structural defense.

The importance of maintaining defensible space and reducing structural ignitability around residences is highlighted by the outcomes of recent inspections conducted within the Park Fire perimeter. A total of 173 defensible space inspections were conducted within the Park Fire perimeter 6 months before ignition, revealing that 105 residences were compliant and 68 were non-compliant. The survival rate for compliant residences was 89%, significantly higher than the 60% survival rate for non-compliant residences. Historical data suggest that recent inspections could have potentially increased compliance among the non-compliant parcels. Furthermore, a review of 283 inspections older than 6 months shows a survival rate of 61% for compliant residences and 34% for non-compliant ones, underscoring the critical importance of recent defensible space inspections in enhancing the survivability of both compliant and non-compliant residences.

Supplemental detailed information regarding defensible space practices as well as a list of actions for reducing structural ignitability can be found in Appendix F.

Structural Ignitability Ordinances and Regulations

A crucial element of the 2018 Strategic Fire Plan for California is safeguarding structures in the event of a wildfire, as this is one of the most challenging and expensive assets to protect. The term "structural

ignitability" refers to how likely a structure is to catch fire during a wildland fire. Factors that can contribute to igniting a fire include any materials that can easily catch fire from embers (CAL FIRE 2024i).

All landowners aiming to reduce the ignitability of their property should follow the regional guidelines tailored to their specific geographic and legislative context.

The Butte County Fire Prevention and Protection Ordinance Chapter 38A mandates that all structures in unincorporated areas maintain a 5-foot perimeter free of combustible materials. This 5-foot perimeter, commonly referred to as the Ember Ignition Zone, is a critical area 5 feet from a structure where embers can ignite structures even before the main fire arrives (CAL FIRE 2024i). Maintaining this zone free of combustible materials significantly reduces the risk of ember ignition and subsequent structural loss.

At the state level, Chapter 7A of the California Building Code establishes regulations for building materials and construction methods to enhance wildfire resistance. These standards aim to increase a building’s resistance to flames and embers by specifying requirements for roofing, exterior walls, vents, windows, doors, and other exterior components. The regulations apply to new buildings in any Fire Hazard Severity Zone and WUI areas. Chapter 7A also outlines the requirements for vegetation management to create defensible space around structures.

California Public Resource Code (PRC) 4291 mandates that property owners in mountainous, forest, brush, and grass-covered areas maintain defensible space around structures to reduce wildfire risk. New or rebuilt structures must comply with all applicable building standards. The code provides guidance and requirements for best practices in carrying out fuel reduction activities aimed at reducing the risk of structure ignition and wildfire impacts to property. For a detailed summary of the practices specified in PRC 4291, please refer to Figure 6.2.

The implementation of any recommendations aimed at reducing structural ignitability must comply with Chapter 7A of the California Building Code and CA PRC 4291. A list of pertinent legislation is provided in Appendix A, Legislative Direction.

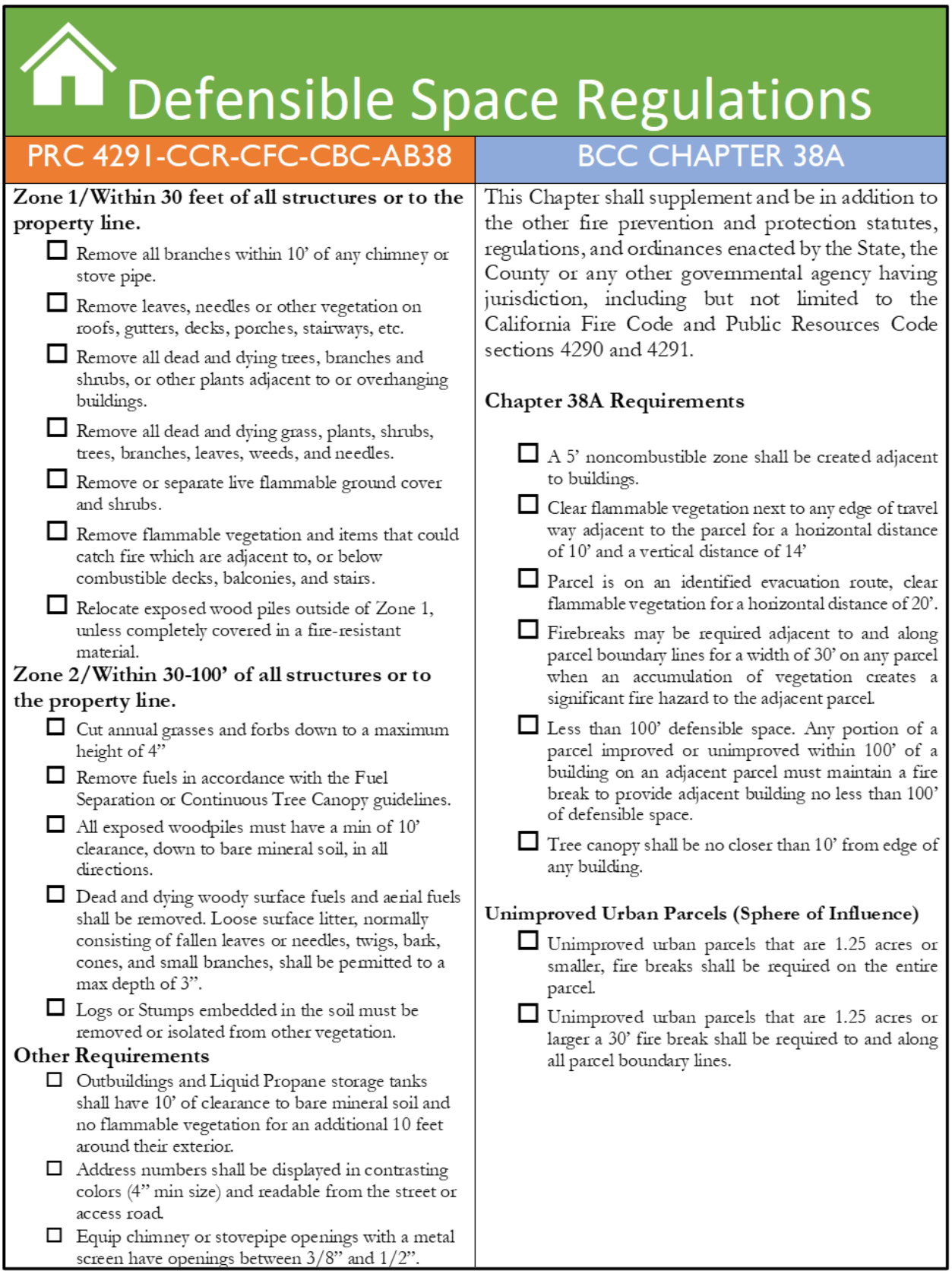


Figure 6.2. California PRC 4291 Requirements vs. Butte County Chapter 38A.

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Table 6.2. Recommendations for Creating Fire-Adapted Communities (Public Education and Reducing Structural Ignitability)

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
FAC #1		H	Ongoing	**Public Education and Community Engagement Program** Continue to develop a comprehensive public education and community engagement program to reduce wildfire risks and educate citizens about wildfire hazards.	Countywide	Butte County, local fire safe councils, CAL FIRE, BIA, local fire jurisdictions, USFS, BLM, local nonprofit organizations, tribal governments, Butte County Resource Conservation District, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise, BEC, DWR	• Continue the Be Ready Butte campaign with a comprehensive outreach plan that addresses the County's unique challenges. Use a mix of online and offline communication channels (e.g., social media, local organization websites, bulk mailing, radio, local newspapers) to ensure messaging reaches all residents and visitors. • Develop and distribute materials on topics such as riparian fuels, buffer strips, defensible space, fire-safe landscaping, structural hardening, and prescribed burning. • Raise awareness about common human ignition sources and the wildfire risks associated with invasive plants. • Ensure inclusivity and support for vulnerable populations (e.g., disabled residents, low-income individuals, tribal members, non-English speakers) in wildfire planning, preparedness, and response efforts. • Continue to expand collaborations with local organizations such as Master Gardeners and UC Extension. • Partner with federal agencies, special districts, community associations, fire safe councils, schools, and nonprofits to facilitate outreach efforts. ○ Conduct educational campaigns for prescribed fire and smoke impacts and awareness. • Engage with tribal communities in the planning process to create targeted outreach efforts and programs. • Host evacuation preparedness workshops, and test evacuation plans through community-wide evacuation tests.	Reduce the risk of human-caused wildfires and build resilient communities by educating citizens on wildfire hazards and safety measures and fostering community involvement.	Conduct regular reviews and timely updates of outreach materials to keep information relevant and impactful. Monitor local engagement levels and track participation in educational programs to assess community reach and effectiveness.	• FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • USFS Community Wildfire Defense Grants (CWDG) • FEMA Fire Prevention and Safety (FP&S) Grants • EPA Environmental Education Grants • CAL FIRE Grant Programs • California Fire Safe Council Grants

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
FAC #2		H		**Defensible Space Resident Assistance Program, Fuels Reduction Assistance Program, and Small Forest Landowner Assistance Program** Implement the Resident Assistance Program, Fuels Reduction Assistance Program, and Small Forest Landowner Assistance Program for defensible space clearance countywide to reduce hazardous fuels in the defensible space zone.	Countywide	Butte County, BLM, BIA, CAL FIRE, USFS, BCFSC, BCRCD, tribal governments, BCCG, DWR	• Establish clear eligibility criteria to determine which residents qualify for the no-cost defensible space clearance services, prioritizing low-income, elderly, and disabled individuals. • Ensure a streamlined application process to ensure accessibility and ease for residents. • Identify priority residents (low-income, elderly, or disabled) who require assistance with defensible space clearance. ○ Engage in outreach efforts to inform eligible residents about the program and the application process. ○ Partner with local organizations to identify and reach those in need of assistance. • Offer no-cost defensible space clearance services to priority residents, using trained personnel and specialized equipment to ensure safe and effective clearance. • Develop forest management plans and reduce fuels to support landowners with community resilience. • Involve and engage tribal communities.	Reduce hazardous fuels around homes, reducing the likelihood of wildfire spreading to structures and increasing countywide resilience. Support vulnerable populations in maintaining defensible space.	Track and monitor program outcomes to assess the effectiveness of clearance efforts and ensure the program meets its goals. Offer periodic program updates and feedback opportunities to residents, ensuring continuous effectiveness and improvement.	• FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • USFS Community Wildfire Defense Grants (CWDG) • Firewise Grants • California Fire Safe Council Grants • Good Neighbor Citizenship Grant • CAL FIRE Wildfire Prevention Grants
FAC #3		H		**Countywide Home Hardening** Implement countywide home hardening techniques to increase structure resilience to wildfire.	Countywide	Butte County, BLM, BIA, CAL FIRE, USFS, BCFSC, tribal governments, BCCG, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise	• Provide personalized recommendations and education on home hardening techniques, including the use of fire-resistant materials and design modifications. • Assist landowners with the implementation of home hardening measures, such as replacing vents, windows, siding, and roofing materials. • Use skilled contractors to ensure high-quality installations and provide financial assistance or incentives where possible. • Establish bulk purchasing programs for fire-resistant materials to reduce costs for homeowners. • Develop comprehensive educational materials and conduct workshops to inform residents about the benefits and methods of home hardening. • Promote the program through community events, local media, and social media platforms to reach a wide audience. ○ Create demonstration projects to showcase effective home hardening techniques on social media and at events.	Enhance home resilience to wildfires by educating residents on effective home hardening techniques to reduce the risk of structural damage during wildfires.	Conduct follow-up assessments to ensure the effectiveness of home hardening measures. Provide ongoing support and education to residents, including updates on new technologies and best practices. Establish a feedback mechanism for homeowners to report issues or improvements.	• FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • USFS Community Wildfire Defense Grants (CWDG) • Community Development Block Grants (CDBG) • Firewise Grants • California Fire Safe Council Grants • Good Neighbor Citizenship Grant • CAL FIRE Wildfire Prevention Grants

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
FAC #4		H		**Intentional Fire Education** Conduct education and outreach to spread awareness and understanding regarding prescribed burning and smoke impacts.	Countywide	Butte County, BLM, CAL FIRE, USFS, BIA, BCFSC, BCRCD, tribal governments, BCCG, Chico State, BCCER, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise, BEC, DWR	• Engage the community through public meetings, workshops, and educational materials to raise awareness about the benefits and safety of intentional fire. • Develop and implement public education programs that explain the benefits of prescribed fire, including its role in wildfire risk reduction, ecological restoration, and cultural preservation. • Offer training and resources to landowners interested in using prescribed fire on their properties (i.e., Prescribed Fire Training Exchange). • Host community events, such as open houses and live burn demonstrations, to increase public understanding and support for prescribed fire efforts. • Engage volunteers in the Butte County Prescribed Burn Association and Butte County Prescribed Fire Resource Team.	Promote public knowledge and safety through increased education relating to prescribed fire.	Track participation and feedback regarding educational materials. Update materials as necessary with changing conditions.	• CAL FIRE Grant Programs • USFS Community Wildfire Defense Grants (CWDG) • California Fire Safe Council Grants
FAC #5		H		**Butte County Collaborative Group Coordination** Conduct quarterly meetings for wildfire safety and forest health coordination, planning, and education, and monthly forest health tours to educate community members, partners, and agencies.	Countywide	Butte County, BLM, BIA, CAL FIRE, USFS, BCFSC, tribal governments, PG&E, Butte County RCD, BCCG, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise, DWR	• Conduct quarterly meetings to coordinate wildfire safety and forest health initiatives, involving all relevant stakeholders. • Develop and update comprehensive plans based on collaborative input and new information. • Establish working groups to address specific issues and projects. • Organize monthly forest health tours to educate community members, partners, and agencies. • Provide hands-on learning opportunities and demonstrations of best practices in forest management and wildfire mitigation. • Develop and distribute educational materials to support ongoing learning.	Enhance coordination and collaboration among stakeholders and foster a culture of continuous learning and adaptation. Increase community knowledge and involvement in forest health and wildfire safety.	Track participation and feedback from meetings and tours to assess the effectiveness of the program. Adjust the program based on participant input and evolving needs. Maintain records of meeting outcomes and action items for accountability and follow-up.	• FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • USFS Community Wildfire Defense Grants (CWDG) • FEMA Fire Prevention and Safety (FP&S) Grants • EPA Environmental Education Grants • CAL FIRE Grant Programs • California Fire Safe Council Grants
FAC #6		H		**Development of Forest Management Plans** Collaboratively develop Forest Management Plans.	Countywide	Butte County, BLM, BIA, CAL FIRE, USFS, BCFSC, tribal governments, PG&E, Butte County RCD, BCCG, City of Chico, City of Oroville, and Town of Paradise, DWR	• Develop community-scale forest management plans to educate landowners on land management techniques. • Address specific needs and goals of landowners, such as timber production, wildlife habitat conservation, or recreational use. • Integrate best practices in sustainable forest management, including selective logging, prescribed burns, and invasive species management. • Ensure plans are aligned with local, state, and federal regulations and policies.	Educate community members on ecological benefits of forest management. Provide technical, digestible guidance on forest management practices applied for community protection and resilience.	Develop a monitoring framework to track the progress and effectiveness of the management plans. Conduct regular field assessments to evaluate forest health, biodiversity, and other key indicators. Use remote sensing and GIS tools to monitor changes in forest cover and land use patterns.	• FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • USFS Community Wildfire Defense Grants (CWDG) • FEMA Fire Prevention and Safety (FP&S) Grants • EPA Environmental Education Grants • CAL FIRE Grant Programs • California Fire Safe Council Grants

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GOAL 3: WILDFIRE RESPONSE

Goal 3 of the Cohesive Strategy/Western Regional Action Plan is Wildfire Response: All jurisdictions coordinate to implement safe, effective, risk-based management decisions.

RECOMMENDATIONS FOR IMPROVING FIRE RESPONSE CAPABILITIES

This section provides recommended actions that various agencies, as well as the public, could implement to support safe, effective wildfire response (Table 6.3). Recent wildfires in and around the county underscore the importance of safe and effective wildfire response and highlight the multifaceted challenges in responding to wildfire throughout the diverse landscapes present in the planning area. This intricate issue requires cooperation and collaborative efforts between various levels of government, response agencies, and the public.

Often during wildfire incidents, resources are stretched thin due to fire personnel committed to other ongoing fires. Increased community preparedness through education is a key factor in supporting local fire departments, in particular education regarding emergency notifications and evacuation protocols.

To learn more about public education and outreach programs, see Appendix F.

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Table 6.3. Recommendations for Safe and Effective Wildfire Response

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
FR #1		H		**CWPP Project Implementation** Support implementation of projects identified in local, county, and tribal CWPPs.	Countywide	Butte County, CAL FIRE, BIA, USFS, BCCG membership organizations, BCFSC, local fire departments, federal and tribal governments, private organizations and companies, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise	• Promote continuous support and implementation of various wildfire management projects identified. • Conduct regular reviews of the CWPPs to identify priority projects. • Coordinate with local agencies and stakeholders to ensure alignment and support. • Implement identified projects through a collaborative approach, leveraging available resources and expertise.	Protect life and property through coordinated wildfire management. Establish a cohesive planning approach regarding wildfire management.	Conduct annual maintenance and updates to materials and project plans. Monitor progress through regular reporting and evaluations, and adjust strategies based on feedback and changing conditions.	• Community Planning Assistance for Wildfire (CPAW) • FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • FEMA Fire Prevention and Safety (FP&S) Grants • Firewise Grants • National Urban and Community Forest Program • California Fire Safe Council Grants • Regional Forest and Fire Capacity Grant Program • Landscape Scale Restoration Competitive Grant Program (USFS) • Butte Strong Fund • California Climate Investments Program • California Forest Improvement Program
FR #2		H		**Code Enforcement** Vegetation Abatement and other local codes and ordinance enforcement.	Countywide	Butte County, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise	• Enhance enforcement capacity of Butte County Code 38A and other local ordinances by securing increased funding and personnel resources to effectively follow through with court-ordered hazardous vegetation abatement orders. ○ Identify necessary funding allocations required to cover the costs of court-ordered abatement operations. • Provide specialized training for code enforcement officers on wildfire risk reduction, hazardous vegetation identification, and effective abatement practices. • Establish an efficient system for tracking violations, enforcement actions, and compliance progress, ensuring accountability and timely follow-up. • Provide educational resources to landowners on vegetation management requirements and compliance expectations, fostering proactive community involvement. ○ Outline clear consequences and issue court-ordered hazardous vegetation abatement orders.	Protect life and property through effective vegetation management. Provide a mechanism for enforcement of Chapter 38A on chronically non-compliant parcels.	Implement routine inspections in high-risk areas to identify hazardous vegetation early and prevent escalation of risks. Regularly update training and resources for code enforcement officers. Conduct routine monitoring and evaluation of enforcement activities.	• Community Planning Assistance for Wildfire (CPAW) • FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • FEMA Fire Prevention and Safety (FP&S) Grants Firewise grants • National Urban and Community Forest Program • California Fire Safe Council Grants • Regional Forest and Fire Capacity Grant Program • Landscape Scale Restoration Competitive Grant Program (USFS) • Federal Earmark • Butte Strong Fund • California Climate Investments Program • California Forest Improvement Program

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
FR #3		H		**Public Assembly Points** Establish signage for public assembly points in alignment with local planning efforts.	Countywide	Butte County Office of Emergency Management, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise	• Use existing planning and resources from local agencies to identify high-risk areas and address needs for signage and opportunities for public assembly points. • Conduct joint planning sessions to ensure all stakeholders are aligned with the evacuation strategies and understand their roles and responsibilities. • Engage with local emergency management agencies, fire departments, law enforcement, and community organizations. • Incorporate input from community members to address specific needs and concerns. • Install clear, durable, and reflective signage that can be easily seen in various conditions, including low visibility due to smoke or darkness. • Identify safe locations within the community that can serve as public assembly points for individuals who may not be able to evacuate immediately. • Conduct community education programs and distribute printed and digital materials.	Improve the efficiency and safety of evacuations for residents and first responders.	Conduct periodic maintenance and replacement of signage. Update sign locations as the evacuation plan is updated. Regularly review and improve evacuation plans based on feedback and drills.	• Community Planning Assistance for Wildfire (CPAW) • FEMA Building Resilient Infrastructure and Communities (BRIC) Grants Firewise grants • National Urban and Community Forest Program • Challenge Cost Share Grant Program • California Fire Foundation Grant Program • Federal Earmark • FEMA Assistance to Firefighters Grants (AFG) • FEMA Fire Prevention and Safety (FP&S) Grants • FEMA Hazard Mitigation Grant Program (HMGP) • USFS Community Wildfire Defense Grant (CWDG) • Butte Strong Fund
FR #4		H		**Fire Department Staffing** Increase fire department career personnel staffing to meet newly established minimum standards.	Countywide	All Fire Departments Countywide	• Conduct a staffing needs assessment to determine optimal personnel levels based on response times, call volume, and community risk factors. • Increase current staffing model minimum staffing needs: ○ Three firefighters per apparatus, in alignment with other local municipal fire departments. ○ Provide for one career-staffed water tender every day, year-round. • Evaluate fire station staffing needs based on populations growth. • Implement a mentorship program to support new hires, increase retention, and foster career development within the department. • Develop retention initiatives like continuous training, career advancement opportunities, and wellness programs to ensure long-term workforce stability. • Provide training and resources to ensure readiness and effectiveness.	Improve wildland fire initial and extended attack capabilities. Reduce damage caused by wildfires through increased response times and resource availability. Reduce likelihood of firefighter injuries and fatalities through increased support.	Leverage technology and data to monitor staffing impacts on response times and adjust staffing goals as community needs evolve. Regularly review and adjust staffing models based on needs and budget.	• FEMA Assistance to Firefighters (AFG) Grants • Firewise grants • National Urban and Community Forest Program • GSA-Federal Excess Personal Property (GSA) • California Fire Foundation Grant Program • Federal Earmark • FEMA Staffing for Adequate Fire and Emergency Response (SAFER) Grants • Revenue measures such as sales or property tax

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FR #5		H		**Fire Department Volunteer Personnel Staffing** Increase the number of volunteer firefighters through enhanced recruitment and retention activities.	Countywide	Butte County Fire Department	• Increase recruitment and retention activities such as: ○ Billboard advertising ○ Radio advertising ○ TV advertising ○ Newspaper advertising ○ Social media advertising ○ Direct community outreach ○ Certification incentive program • Regularly recognize and celebrate the contributions of volunteer firefighters through awards, public acknowledgments, and appreciation events. • Establish a mentorship program where experienced volunteers guide and support new recruits.	Augment career firefighter staffing structure to ensure timely response to emergencies when career firefighters are committed to other emergencies.	Track metrics such as the number of new recruits, retention rates, and volunteer satisfaction surveys. Stay informed about best practices and innovative approaches in volunteer recruitment and retention. Maintain open lines of communication with volunteers to understand their needs, concerns, and suggestions.	• FEMA Assistance to Firefighters (AFG) Grants • Firewise Grants • National Urban and Community Forest Program • GSA-Federal Excess Personal Property (GSA) • California Fire Foundation Grant Program Grant Funding • Federal Earmark • FEMA Staffing for Adequate Fire and Emergency Response (SAFER) Grants
FR #6		H		**Defensible Space Inspection (DSI) Positions** Establish dedicated (permanent) DSI positions, including a Defensible Space Fire Captain and Defensible Space Inspectors.	Countywide	Butte County Fire Department, Chico Fire Department, Paradise Fire Department, and Oroville Fire Department.	• Assess the current need for dedicated DSI positions by analyzing wildfire risk data, community compliance levels, and existing inspection capacities. ○ Determine the optimal structure and number of DSI positions required to effectively cover the county. • Launch a targeted recruitment campaign to attract qualified candidates through job boards, professional networks, and local advertising. • Equip DSI personnel with the necessary tools and technology, such as GIS mapping software, mobile inspection apps, and communication devices, to enhance their efficiency and effectiveness. • Conduct regular inspections of properties to ensure compliance with Butte County Code Chapter 38A and PRC 4291. • Organize community workshops staffed with new DSI employees, informational sessions, and outreach programs to educate residents about the importance of defensible space and how to achieve compliance. ○ Develop and distribute educational materials.	Strengthen fire prevention and protection efforts to safeguard communities and valuable resources using proactive code enforcement and strategic mitigation measures.	Establish a system for routine monitoring and evaluation of the DSI program's effectiveness, including key performance indicators. Conduct regular reviews and audits of inspection reports and enforcement actions to ensure accuracy and consistency. Solicit feedback from property owners and community members.	• Federal Earmark • FEMA Fire Prevention and Safety (FP&S) Grants • Cal OES Proposition 4 (Prop 4) Grants • USFS Community Wildfire Defense Grant (CWDG) • FEMA Staffing for Adequate Fire and Emergency Response (SAFER) Grants • California Fire Safe Council Grants • California Fire Foundation Grant Program • Action, Implementation, & Mitigation Grant Funding

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
FR #7		H		**Wildfire Preparedness Positions** Establish a dedicated (permanent) Community Wildfire Preparedness battalion within the current Resource and Vegetation Management office.	Countywide	Butte County Fire Department, CAL FIRE	• Conduct feasibility studies to determine the need and structure for the Community Wildfire Preparedness battalion. • Recruit and hire a Battalion Chief, GIS specialist, and administrative assistant. ○ Implement programs to manage Pre-Fire and Defensible Space Programs, coordinate efforts, and provide administrative and GIS support.	Redirect workload from Fire Prevention Bureau and VMP Battalion Chiefs. Enhance code enforcement coordination with a single point of contact. Provide administrative and GIS support to specialized personnel, alleviating non-specialized tasks.	Conduct routine monitoring and evaluation of the battalion's activities and effectiveness. Regularly update training and resources for battalion personnel. Ensure continuous funding and support for the battalion's programs.	• Federal Earmark • FEMA Fire Prevention and Safety (FP&S) Grants • Cal OES Proposition (Prop 4) Grants • USFS Community Wildfire Defense Grant (CWDG) • FEMA Staffing for Adequate Fire and Emergency Response (SAFER) Grants • California Fire Safe Council Grants • California Fire Foundation Grant Program • Action, Implementation, & Mitigation Grant Funding
FR #8		H		**WUI Pre-Plans** Use GIS data and specialized software to develop WUI pre-plans for public safety agencies.	Countywide	Butte County Fire Department, CAL FIRE, Chico Fire Department, Paradise Fire Department, and Oroville Fire Department.	• Use GIS data and specialized software to display community-specific attributes pertinent to responding resources such as: ○ Water sources ○ Evacuation zones and routes ○ Public gathering points ○ Historical fire line data ○ Recently completed fuel treatments ○ Target hazards ○ Routes of travel ○ Building footprints ○ Radio frequencies • Collaborate with fire departments, emergency management, local government, and community groups to gather insights and define roles. • Create contingency plans for high-risk scenarios, including limited access routes, roadblocks, and challenging terrain. • Develop digital and printed copies of data and maps for responding resources. • Post data to common operating platforms such as Mobile Data Terminals (MDTs) on vehicles. • Conduct hands-on training and simulated exercise.	Improve situational awareness and operational efficiency of responders and improve coordination of efforts amongst agencies.	Conduct annual reviews of the WUI pre-plan to ensure data accuracy and incorporate lessons learned from recent fire events. Adjust the plan as community demographics, vegetation conditions, and fire risk factors evolve.	• Emergency Management Performance Grant (EMPG) (FEMA) • FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • FEMA Fire Prevention and Safety (FP&S) Grants • Firewise Grants • CAL Fire Grant Programs • California EPA Loans and Grants Grant Funding • Federal Earmark

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
FR #9		H		**Communication Infrastructure Repairs** Repairing, upgrading, and maintaining the public safety communications infrastructure.	Countywide	Butte County; Butte County Fire Department, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise	• Evaluate the current condition of public safety communications infrastructure, identifying weak points, outdated equipment, and areas with inadequate coverage. • Repair existing infrastructure damaged or rendered inoperable due to recent disasters. • Develop a phased plan to address the most critical repairs first, ensuring that essential systems are operational and reliable. • Upgrade existing equipment and install new equipment in strategic locations to support countywide multi-agency interoperability both amongst fire protection agencies and between various public agencies such as law enforcement, public works, etc. • Update communication protocols to reflect the capabilities of the enhanced infrastructure.	Enhance emergency response efficiency, responder safety, and communication during mutual aid and multi-jurisdictional incidents.	Create a routine inspection and maintenance schedule to ensure continuous functionality of communication equipment and infrastructure. Perform regular testing, calibration, and upgrades to prevent system failures and maintain optimal performance.	• Action, Implementation, & Mitigation Grant Funding • Federal Earmark • FEMA Hazard Mitigation Grant Program (HMGP) • FEMA Assistance to Firefighters Grants (AFG) • California Fire Foundation Grant Program • FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • USFS Community Wildfire Defense Grant (CWDG) • FEMA Rehabilitation Program for Communities (RPC)

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
FR #10		H		**Countywide Water Supply Needs** Evaluate the level of need and potential solutions for water supply throughout the county, including rural area, urban areas, and particularly where water resources are limited of difficult to access. Install remote area water supply systems for firefighting and develop redundant water supply systems to ensure continuous availability during hydrant outages or reservoir repairs.	Countywide	Butte County; Butte County Fire Department, City of Chico, City of Oroville, City of Gridley, City of Biggs, Town of Paradise, BEC, and local water service providers	• Analyze rural and urban areas near critical infrastructure for water shortages during emergencies, considering population density, wildfire risk, and proximity to water sources. • Collaborate with local fire departments, emergency agencies, water districts, and community leaders to gather input on water supply challenges. • Explore solutions such as ○ Additional hydrants or hydrant backup systems ○ Water storage tanks or reservoirs in strategic locations ○ Draft sites at natural water sources, ○ Partnerships with private water sources. • Develop and install redundant water supply systems throughout the county, prioritizing rural areas and locations with challenging access. ○ Ensure this system includes temporary water storage solutions, such as dip tanks, pumps, and cisterns, strategically placed to meet firefighting demands. • Establish a backup plan for hydrant outages and explore residential water storage options, such as tanks or pools, to assist with structure protection during emergencies. • Create a phased implementation plan, establish a maintenance schedule, update emergency response plans, and train responders on using rural water supply infrastructure. ○ Develop a countywide GIS map cataloging all water resources, accessible to all firefighting agencies.	Enhance the resilience and safety of rural and urban areas near critical infrastructure through reliable water supply options for emergency response. Alleviate public and agency concerns for limited water supply in certain areas during times of drought or hydrant outages.	Conduct periodic reviews of water supply needs and adjust plans and infrastructure to meet evolving requirements. Monitor the effectiveness of implemented solutions and evaluate the efficiency of redundant systems.	• Action, Implementation, & Mitigation Grant Funding • Federal Earmark • FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • California EPA Loans and Grants • California Fire Foundation Grant Program • Firewise Grants • Emergency Management Performance Grant (EMPG) (FEMA)
FR #11		H		**Fleet Modernization** Evaluate, modernize, and expand the firefighting fleet to enhance response capabilities.	Countywide	All fire departments countywide	• Conduct a comprehensive evaluation of the fleet to identify vehicles nearing the end of their useful life or requiring frequent maintenance. • Develop a strategic plan for replacing or acquiring vehicles based on operational needs, usage patterns, and anticipated service demands. • Decommission or reassign underutilized vehicles to locations where they can be used more effectively, improving response capability and fleet efficiency. • Focus on updating the fleet with modern, reliable vehicles to enhance performance and reduce maintenance needs. • Increase the availability of specialized wildland response vehicles, including: ○ ICS Type 3 fire engines ○ ICS Type 6 fire engines ○ Water tenders	Enhance cost-effective fleet management through proactive assessment, maintenance, and modernization. Improve community resilience through greater response capabilities.	Regularly evaluate fleet condition and performance. Implement a strategic maintenance and upgrade schedule to ensure all fleet vehicles remain in peak operational condition. Continuously monitor and assess the impact of fleet modernization and expansion initiatives to ensure they meet performance goals.	• FEMA Assistance to Firefighters Grants (AFG) • Firewise Grants • National Urban and Community Forest Program • GSA-Federal Excess Personal Property (GSA) • California Fire Foundation Grant Program Grant Funding • California Air Resources Board Carl Moyer Grant Program • Federal Earmark

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
FR #12		H		**Fire Line Qualified Bulldozer Team** Acquire a bulldozer that meets fire line specifications, along with a transport truck, and hire sufficient heavy fire equipment operators to provide 24-hour coverage throughout the year.	Countywide	Butte County Fire Department	• Purchase a bulldozer that meets fire line specifications similar to those used by CAL FIRE. • Acquire a transport truck capable of moving the bulldozer to various locations as needed. • Recruit and hire qualified heavy fire equipment operators. • Ensure staffing levels are sufficient to provide 24-hour coverage year-round. • Ensure a bulldozer is always staffed and available for deployment in Butte County.	Build community resilience. Increase capacity to implement fuel reduction projects throughout the county.	Conduct regular maintenance and inspections of the bulldozer and transport truck to ensure operational readiness.	• Butte Strong Fund • FEMA Assistance to Firefighters Grants (AFG) • California Air Resources Board Carl Moyer Grant Program • Firewise Grants • Federal Earmark
FR#13		H		**Establish and Maintain a County/Local Government Level Aerial Firefighting Program** Ensure availability of locally dispatched firefighting aircraft for use within Butte County.	Countywide	Butte County Fire Department	• Collaborate with private, local, state, and federal agencies to establish and maintain Exclusive Use Aircraft Agreements. • Explore opportunities to expand existing Exclusive Use Aircraft Agreements to include additional aircraft and resources. • Ensure that firefighting aircraft are locally dispatched and available for immediate response within Butte County. • Explore opportunities to acquire firefighting aircraft such as helicopters and establish an aerial firefighting program capable of water dropping and fire personnel transportation, as well as rescue (longline, hoist, etc.) and emergency transportation of injured firefighters. • Explore opportunities to acquire remote sensing aircraft that provides advanced intelligence data such as Fire Integrated Real-Time Intelligence System (FIRIS) and infrared (IR) imagery. • Recruit and hire qualified aircraft pilots and fire suppression personnel to operate and staff aircraft.	Ensure the availability of firefighting aircraft within Butte County, even when local CAL FIRE or USFS aircraft are committed to other incidents, to maintain rapid response capability and enhance local fire suppression resources.	Conduct routine maintenance and inspections to ensure aircraft are operational and ready for deployment. Evaluate feedback mechanism with incident commanders.	• Butte Strong Fund • FEMA Assistance to Firefighters Grants (AFG) • Firewise Grants • Federal Earmark

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FR #14		H	Fall 2025	**Limited Access Issues** Resolve limited access issues and incorporate solutions into the General Plan's Safety Element (circulation) for improved safety and accessibility.	Countywide	Butte County, private landowners, CAL FIRE, USFS, BCFSC, SPI, tribal governments, BCCG, BIA, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise	• Conduct periodic reevaluation of high-risk roads for maintenance and clearance efforts, focusing on roads critical for safe ingress and egress. ○ Identify new high-risk roads as environmental conditions change throughout the county. • Prioritize projects for fire access roads, and establish regular maintenance schedules to address vegetation, debris, regrowth cycles, and road surface conditions. • Establish partnerships with private entities (e.g., PG&E, SPI). • Promote resident involvement in clearing vegetation along rights-of-way. • Maintain and improve turnarounds for first responders, enhance alternative access routes on backroads, and ensure bridges meet load-bearing safety standards through assessment and necessary upgrades. • Establish vegetation management programs and existing plans from agencies responsible for right-of-way management. • Work with local planners, media, and community figures to communicate evacuation plans for communities with limited access. • Install clear and informative directional signage in communities with dead ends, cul-de-sacs, and complex layouts to aid navigation for emergency responders. • Continue to collaborate with Butte County and local jurisdiction planners and community stakeholders to ensure that future development accounts for improved access and safety considerations. • Establish an active communication channel allowing residents to file concerns to authorities regarding road maintenance and access issues. ○ Consider hosting community meetings, opening up phone lines, and establishing webpages for online submittals.	Provide safe and effective means of evacuation in case of emergencies. Enhance community and firefighter safety. Improve accessibility and infrastructure resilience.	Establish feedback mechanism to allow the public to identify concerns and express needs. Conduct regular monitoring and maintenance to keep roads accessible for resident vehicles and necessary emergency response vehicles. Reassess and update evacuation plans and make targeted infrastructure improvements to enhance emergency preparedness and safety.	• FEMA Building Resilient Infrastructure and Communities (BRIC) Grants • FEMA Fire Management Assistance Grant (FMAG) • USFS Community Wildfire Defense Grant (CWDG) • FEMA Assistance to Firefighters Grants (AFG)

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
FR #15		M		**Fire Facility Modernization and Relocation** Upgrade and modernize fire stations to current standards in order to accommodate current and future staffing models and relocate existing facilities to more strategic locations.	Countywide	Butte County, CAL FIRE	• Relocate Station 41 north of Chico to existing county-owned land that is strategically located. ○ Identify and secure the county-owned land for the new station. ○ Design and construct the fire station with modern facilities and equipment. • Relocate station 44 in South Chico to strategically located land to be determined. ○ Identify and secure strategically located land for the new station. ○ Design and construct the fire station with modern facilities and equipment. • Evaluate need to update and modernize existing facilities to meet current industry standards and provide appropriate facilities for current and future staffing needs. • Evaluate existing administrative facilities and acquire, lease, or otherwise obtain sufficient office, storage, training, and parking space to support current fire department administrative needs for fire suppression, fire prevention, fire law enforcement, vegetation management, defensible space inspection, public information/community engagement, and other community wildfire protection related programs.	Protect life and property through improved response times and resource availability.	Conduct continuous monitoring of available funding sources to ensure project completion. Conduct regular maintenance and updates to the station and its equipment. Evaluate response times and effectiveness periodically to ensure objectives are met.	• FEMA Assistance to Firefighters Grants (AFG) • Firewise Grants • National Urban and Community Forest Program • GSA-Federal Excess Personal Property (GSA) • California Fire Foundation Grant Program • Federal Earmark • Butte Strong Fund
FR #16				**Install and Maintain Remote Automated Weather Stations (RAWS)** Install RAWS throughout the county to ensure comprehensive weather data coverage and accurate collection.	Countywide	Butte County, CAL FIRE, USFS	• Conduct a comprehensive assessment to identify optimal locations for RAWS installation based on historical fire data, topography, and vegetation. • Integrate RAWS data into the county's emergency management and wildfire monitoring systems. • Establish a centralized data management system to collect, store, and analyze weather data from all RAWS units.	Improve the county's ability to detect and respond to wildfire threats through real-time weather monitoring. Support long-term wildfire research and planning efforts with comprehensive weather data.	Conduct periodic reviews and maintenance of RAWS units to ensure they are functioning correctly and providing accurate data.	• FEMA Assistance to Firefighters Grants (AFG) • Firewise Grants • National Urban and Community Forest Program • GSA-Federal Excess Personal Property (GSA) • California Fire Foundation Grant Program • Federal Earmark • Butte Strong Fund
FR #17				**Command and Control Redundancy** Ensure continuity of operations and increase in capabilities during expanding incidents.	Countywide	CAL FIRE, Butte County, City of Chico, City of Oroville, City of Gridley, Town of Paradise, and City of Biggs	• Establish a facility containing a backup dispatch center for continuity of operations (COOP). • Acquire and equip a site for an Emergency Operations Center (EOC). • Ensure capabilities for the implementation of a Virtual Emergency Operations Center (VEOC).	Provide robust and failsafe communications and dispatching systems in the event of system failure or disaster requiring evacuation of emergency command center. Ensure that command and control can be expanded to meet needs of growing incidents.	Regularly reevaluate personnel, equipment, and facilities capabilities while implementing updates and training as required. Ensure a maintenance schedule is followed.	• FEMA Emergency Management Performance Grant (EMPG) • FEMA Building Resilient Infrastructure and Communities (BRIC) • California Fire Safe Council Grant Programs • California Department of Conservation – Regional Forest and Fire Capacity Grant Program • FEMA Hazard Mitigation Grant Program (HMGP) • Butte Strong Fund

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
FR #18				**UAS Capabilities** Expand and maintain UAS capabilities.	Countywide	CAL FIRE, Butte County, City of Chico, City of Oroville, City of Gridley, Town of Paradise, and City of Biggs	• Increase drones and pilots for operations. • Maintain UAS fleet. • Expand capabilities of UAS fleet providing increase in mission parameters.	Allow agencies to gather, process, and utilize aerial sensory information for fire planning and operational suppression of fire and mitigation of other emergencies. Give UAS pilots the ability to move equipment and supplies to line personnel in a timely manner. Enable aerial ignitions with UAS.	Ensure consistent training of personnel. Maintain and upgrade UAS hardware and software to meet the needs of the agencies. Continually research and implement new technologies that would benefit the mission.	• FEMA Assistance to Firefighters Grants (AFG) • FEMA Hazard Mitigation Grant Program (HMGP) • Federal Excess Personal Property (FEPP) • California Fire Foundation Grant Program • Environmental Systems Research Institute (Esri), Inc. Grants
FR #19				**Fire Lookout Cameras** Increase the number of and maintain fire lookout cameras.	Countywide	CAL FIRE, Butte County, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise	• Install new camera locations and maintain current cameras. • Implement new and emerging technologies such as artificial intelligence.	Provide real-time information to dispatch centers and field personnel for early warning detection of fire, tactical operations, and safety.	Repair or replace cameras as necessary. Install new cameras where needed to ensure full coverage.	• FEMA Fire Prevention and Safety Grants (FP&S) • FEMA Assistance to Firefighters Grants (AFG) • California Department of Conservation – Regional Forest and Fire Capacity Grant Program • California Fire Safe Council Grant Programs • USFS Community Wildfire Defense Grant (CWDG) • Butte Strong Fund
FR #20				**Incident Call Center** Establish a 211 system for increased information sharing with the public.	Countywide	CAL FIRE, Butte County, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise, BEC	• Establish a facility and provide staffing.	Provide the public information about emergency incidents in a timely manner.	Regularly review of staffing and training. Upgrade and maintain equipment and facilities as needed. Engage in regular training exercises.	• FEMA Building Resilient Infrastructure and Communities (BRIC) • FEMA Emergency Management Performance Grant (EMPG) • California Fire Safe Council Grant Programs • FEMA Hazard Mitigation Grant Program (HMGP) • Butte Strong Fund
FR #21				**Emergency Apparatus Information Delivery** Increased communications and safety during an incident for responding personnel.	Countywide	CAL FIRE, Butte County, City of Chico, City of Oroville, City of Gridley, City of Biggs, and Town of Paradise	• Improve Automatic Vehicle Locator (AVL) and Mobile Data Terminal (MDT) functionality and data availability. • Upgrade and update connectivity to field resources. • Expand GIS capabilities to deliver additional mapping products to field personnel.	Ensure the communications network during an incident, providing safety and tactical information. Ensure situational awareness for responding personnel.	Upgrade and maintain communications equipment regularly. Ensure the most effective technology are implemented for safety and efficacy.	• FEMA Assistance to Firefighters Grants • FEMA Hazard Mitigation Grant Program • FEMA Emergency Management Performance Grant • GSA-Federal Excess Personal Property (GSA) • Federal Excess Personal Property (FEPP) • California Fire Foundation Grant Program

Project ID	Status	Priority (H,M,L)	Timeline for Action	Project Description	Location	Land Ownership/ Lead Agency	Methodology/Approach	Serves To:	Monitoring/Maintenance Requirements	Funding Sources
FR #22				**Improve County GIS Capacity** Bolster GIS capacity for improved data sharing and maintenance.	Countywide	Butte County, Chico State, NSPDC	• Provide damage inspection (DINS) data to county entities. • Improve County GIS ability to process structure damage data for building department during incidents. • Provide additional training and capacity for GIS personnel. • Expand GIS resources available during emergencies by increasing GIS department staffing and providing GIS cross-training to existing staff members. • Replace and upgrade GIS software, hardware, and other infrastructure to support modern and emerging GIS functionality.	Provide for timely evaluation of damaged structures facilitating expedited repopulation of affected areas.	Regularly assess GIS software and staffing needs for adequacy.	• USFS Community Wildfire Defense Grant (CWDG) • FEMA Hazard Mitigation Grant Program (HMGP) • FEMA Emergency Management Performance Grant (EMPG) • California Fire Safe Council Grant Programs • Esri Environmental Systems Research Institute, Inc. Grants
FR #23				**Evacuation Routes and Zone Planning** Establish evacuation planning for increased safety for the public.	Countywide	CAL FIRE, Butte County, City of Chico, City of Oroville, City of Biggs, City of Gridley, and Town of Paradise	• Establish and maintain an up-to-date evacuate plan throughout Butte County.	Provide for public safety by ensuring they are informed about escape routes, safety zones, temporary refuge areas. Ensure zones and routes are up to date.	Monitor changes in the local transportation system and fire environment to understand when plan updates are necessary.	• FEMA Building Resilient Infrastructure and Communities (BRIC) • FEMA Hazard Mitigation Grant Program (HMGP) • FEMA Emergency Management Performance Grant (EMPG) • USFS Community Wildfire Defense Grant (CWDG) • California Fire Safe Council Grant Programs
FR #24		H		**TOP Emergency Operations Center Information Project** Research and purchase equipment for the TOP Emergency Operations Center that would provide the highest level of information gathering and displays to maintain real-time operational awareness during emergency situations.	Town of Paradise	Town of Paradise in cooperation with the Butte County Sheriff's Office and Butte County Office of Emergency Management, CAL FIRE	• Design the system to provide redundancy and resilience to communication system breakdowns and cyber threats. Provide multiple channels for communicating with the public using platforms from low to high tech. Examples include Alert FM and General Mobile Service Radio (GMRS) radio and HAM radio. • Integrate the project into the existing communication and notification systems such as Code Red, IPAWS, the Town's 21 Tower Early Warning System and the Town's Emergency Management Program.	Save lives during wildfire evacuations and other emergencies that require immediate notification of threats to the public.	As needed.	• FEMA Hazard Mitigation Grant Program (HMGP) • CAL FIRE CCI Grants

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CHAPTER 7 – MONITORING AND EVALUATION

All stakeholders and signatories to this CWPP desire worthwhile outcomes. It is also known that risk reduction work on the ground, for the most part, is often not attainable in a few months—or even years. The amount of money and effort invested in implementing a plan such as this requires that there be a means to describe, quantitatively and/or qualitatively, whether the goals and objectives expressed in this plan are being accomplished according to expectations.

Monitoring and reporting contribute to the long-term evaluation of changes in ecosystems, as well as the knowledge base about how natural resource management decisions affect both the environment and the people who live in it. Furthermore, as the CWPP evolves over time, there may be a need to track changes in policy, requirements, stakeholder changes, and levels of preparedness. These can be significant for any future revisions and/or addendums to the CWPP and will be facilitated through use of the project tracker.

Developing an action plan and an assessment strategy that identifies roles and responsibilities, funding needs, and timelines for completing highest-priority projects is an important step in organizing the implementation of the Butte County CWPP. The previous chapter identifies tentative timelines and monitoring protocols for project recommendations, the details of which are outlined below. The CWPP hub site and associated story map and project tracking tool are designed to help sustain the plan and encourage frequent updates and monitoring of the recommended projects. They also increase transparency to the public, showing the actions of land managers and agencies toward wildfire mitigation and thereby building community buy-in and support.

It is recommended that project monitoring be a collaborative effort. There are many resources for designing and implementing community-based, multi-party monitoring that could support and further inform a basic monitoring program for the CWPP (Egan 2013).

Table 7.1 identifies monitoring strategies for various aspects of all categories of CWPP recommendations and the effects of their implementation, both quantifiable and non-quantifiable, for assessing the progress of the CWPP and increasing sustainability of projects. It must be emphasized that these strategies are 1) not exhaustive and 2) dependent on available funds and personnel to implement them.

Table 7.1. Recommended Monitoring Strategies

Strategy	Task/Tool	Suggested Lead	Remarks
Project tracking system	*Online web app to track hazardous fuels projects spatially, integrating wildfire risk layer to show progress towards wildfire hazard and risk reduction. Web app will include attribute tables that outline project details.*	BCFSC	Interactive tool will be easily updated and identify areas that require additional efforts.
Photographic record (documents pre- and post-fuels reduction work, evacuation routes, workshops, classes, field trips, changes in open space, treatment type, etc.)	*Establish field GPS location; photo points of cardinal directions; keep photos protected in archival location.*	CAL FIRE Butte Unit, Butte County, BCFSC	Relatively low cost; repeatable over time; used for programs and tracking objectives.
Number of acres treated (by fuel type, treatment method, location, effectiveness, changes in wildfire hazard)	*GPS/GIS/fire behavior prediction system*	CAL FIRE Butte Unit, BCFSC	Evaluate costs, potential fire behavior.
Number/percentage of home ignition zones/defensible space treated to reduce structural ignitability	*GPS*	Property owners	Structure protection
Community participation and engagement in wildfire risk reduction activities	*Meetings, media interviews, articles*	CAL FIRE Butte Unit, BCFSC	Evaluate culture change objective.
Number of property owner contacts (brochures, flyers, posters, etc.)	*Visits, phone*	CAL FIRE Butte Unit, Butte County, BCFSC	Evaluate objective.
Number of jobs created and investments made in staff/organizational capacity for program implementation	*Contracts and grants*	CAL FIRE Butte Unit, Butte County, BCFSC	Evaluate local job growth and capacity for implementation.
Education outreach: launch mitigation program campaign (track number of participants in person and online, kinds of involvement)	*Workshops, classes, field trips, signage, social media, website*	CAL FIRE Butte Unit, Butte County, BCFSC	Evaluate objectives.
Track investments in local per capita spending on hazard mitigation projects	*Contracts, local/state/federal funding sources and grants*	CAL FIRE Butte Unit, Butte County, BCFSC	Ensure adequate funding.
Emergency management: changes in agency response capacity, efficiencies in emergency response and evacuation planning times	*Collaboration*	Agency representative	Evaluate response capabilities and mutual aid.
Codes and policy changes affecting CWPP	*Qualitative*	Butte County	CWPP changes
Number of stakeholders	*Added or dropped*	CAL FIRE Butte Unit, Butte County, BCFSC	CWPP changes
Wildfire acres burned, human injuries/fatalities, structure loss, infrastructure loss, environmental damage, suppression, and rehabilitation costs	*Wildfire records, DINS data*	Local fire agency representatives	Compare with 5- or 10-year average.

FUELS TREATMENT MONITORING

It is important to evaluate whether fuel treatments have accomplished their defined objectives and whether any unexpected outcomes have occurred.

When implementing the strategies outlined in this section, it is essential to make the following considerations:

1. Monitoring protocols can help determine whether treatment priorities align with the plan's goals.
2. Ecological consequences, such as soil movement and invasive species, can result from fuel treatments. Cost-effective monitoring can mitigate long-term impacts.
3. Vegetation regrowth necessitates periodic assessment of fuel breaks and modifications. Monitoring helps identify appropriate treatment intervals.
4. Comprehensive monitoring of all fuel treatments, including mechanical and burned areas, is essential for adaptive management and understanding ecological impacts. It also addresses economic and legal questions and provides educational opportunities.
5. Tracking changes in policy, codes, requirements, stakeholder dynamics, and preparedness is crucial for future revisions of the CWPP.

The monitoring of each fuels reduction project would be site-specific, and decisions regarding the timeline for monitoring and the type of monitoring to be used would be determined by the project. The most important part of choosing a fuels project monitoring program is selecting a method appropriate to the people, place, and type of project. Several levels of monitoring activities meet different objectives, have different levels of time intensity, and are appropriate for different groups of people. They include the following:

Minimum—Level 1: Pre- and Post-project Photographs

Appropriate for many individual property owners who conduct fuels reduction projects on their properties.

Moderate—Level 2: Multiple Permanent Photo Points

Permanent photo locations are established using rebar or wood posts, GPS-recorded locations, and photographs taken on a regular basis. Ideally, this process would continue over several years. This approach might be appropriate for more enthusiastic property owners or for agencies conducting small-scale, general treatments.

High—Level 3: Basic Vegetation Plots

A series of plots can allow monitors to evaluate vegetation characteristics such as species composition, percentage of cover, and frequency. Monitors then can record site characteristics such as slope, aspect, and elevation. Parameters would be assessed pre- and post-treatment.
The monitoring agency should establish plot protocols based on the types of vegetation present and the level of detail needed to analyze the management objectives. This method is appropriate for foresters or other personnel monitoring fuel treatments on forested lands.

Intense—Level 4: Basic Vegetation Plus Dead and Downed Fuels Inventory

The protocol for this level would include the vegetation plots described above but would add more details regarding fuel loading. Crown height or canopy closure might be included for live fuels. Dead and downed fuels could be assessed using other methods, such as Brown’s transects (Brown 1974),

an appropriate photo series (Ottmar et al. 2000), or fire monitoring (Fire Effects Monitoring and Inventory System [FIREMON]) plots. This method is ideal for foresters or university researchers tracking vegetation changes in forested lands.

More information regarding fuel treatment types and methods can be found in Appendix G.

LANDOWNER GUIDANCE

Landowners play a crucial role in maintaining fuel mitigation projects on their properties, ensuring these efforts remain effective over time. Establishing and maintaining effective fuel treatments, such as shaded fuel breaks and defensible space, is essential for reducing wildfire risk and protecting both property and natural resources. Regular monitoring and maintenance prevent ladder fuels and maintain reduced vegetation density, ensuring effective fuel breaks. The BCFSC provides guidance on how to effectively monitor and maintain these treatments through their *Maintaining Defensible Space and Your Shaded Fuel Break* pamphlet (BCFSC 2020).

Monitoring Procedures:

- **Regular Inspections:** Conduct at least twice per year to identify dense vegetation or thigh-height growth needing treatment.
- **Evaluating Fire Ladder Potential:** Assess for shrubs and low branches that could allow fire to reach tree canopies; branches should be three times the height of surrounding shrubs.
- **Compliance with Local Requirements:** Ensure a minimum of 100 feet of cleared area around structures, as required by state, county, and local laws or requirements.

Maintenance Methods:

- **Lop and Scatter:** Cut and disperse branches and smaller trees on the ground.
- **Chipping:** Convert limbs, brush, and small trees into wood chips for mulch.
- **Mastication:** Use mechanized shredding and grinding of vegetation to leave mulch on the ground.
- **Brush Cutting:** Use weed eaters with brush blade attachments to control small-diameter shrubs and trees.
- **Hand Pile and Burn:** Safely burn piles of cleared brush under regulated conditions.
- **Prescribed Fire:** Conduct planned and permitted burns to reduce regrowth.

Optimal Timing for Maintenance:

- Conduct maintenance during the winter and early spring months when fire danger is lower.
- During times of increased fire danger, typically late spring through summer and fall, avoid red flag conditions (if possible, work in the morning when ignition potential is lessened), and keep a water source nearby.

Using Herbicides and Browsing for Control:

- **Herbicide Application:** Use herbicides to control regrowth, following label instructions.
- **Animal Browsing:** Use goats, sheep, and other livestock to manage regrowth by grazing on vegetation, effective for invasive species.

By following these practices, landowners and managers can maintain shaded fuel breaks while following local guidelines and fostering a healthier forest ecosystem throughout the county.

PROJECT TRACKER

As described previously, within the hub site is a project tracking system designed to provide real-time updates and the ability for multi-agency coordination and collaboration. The tracking system is available for internal use and comes with the following features:

- Project database
- Project entries and sub-entries into the database
- Funding tracking
- Milestone and goal tracking
- Project constraint/opportunity tracking
- Project progress tracking
- Agency delegation
- Ability to attach images or other files to project records
- Spatially delineated project locations/working areas

Externally, the project tracker holds the ability to display statistics to the public, such as acres treated, dollars spent, or the number of meetings held.

CWPP EVALUATION

CWPPs are intended to reduce the risk of wildfire for a community and the surrounding environment. However, over time, communities change and expand, vegetation grows back, and forests and wildlands evolve. As such, the risk of wildfire to communities is constantly changing. The plans and methods to reduce risk must be dynamic to keep pace with the changing environment. An evaluation of the CWPP will gather information and identify whether the plans and strategies are on course to meet the desired outcomes or if modifications are needed to meet expectations. Figure 7.1 identifies four general steps that can be used to evaluate the CWPP.

TIMELINE FOR UPDATING THE CWPP AND UNIT PLAN

The HFRA allows for maximum flexibility in the CWPP planning process, permitting the Core Team to determine the time frame for updating the CWPP. Historically, the Core Team has provided prompt updates to the CWPP to ensure that the most up-to-date information and data for wildfire planning within the county are available for planning purposes. To ensure that this CWPP continues to stay relevant across Butte County, the Core Team members are encouraged to continue frequent updates to review the project list, discuss project successes, and strategize regarding project implementation funding. CAL FIRE Butte Unit will lead the facilitation and oversight of the comprehensive update of the CWPP, ensuring it incorporates up-to-date wildfire risk factors, reflects the latest fire hazards, considers community input, and identifies best practices in fire mitigation and emergency response.

Since this plan also serves as a Unit Fire Plan, the CAL FIRE Butte Unit will conduct annual updates. These updates will include annual accomplishment reporting (Appendix K), minor revisions (noted on the second page of this document), and updates to relevant statistics and priorities.

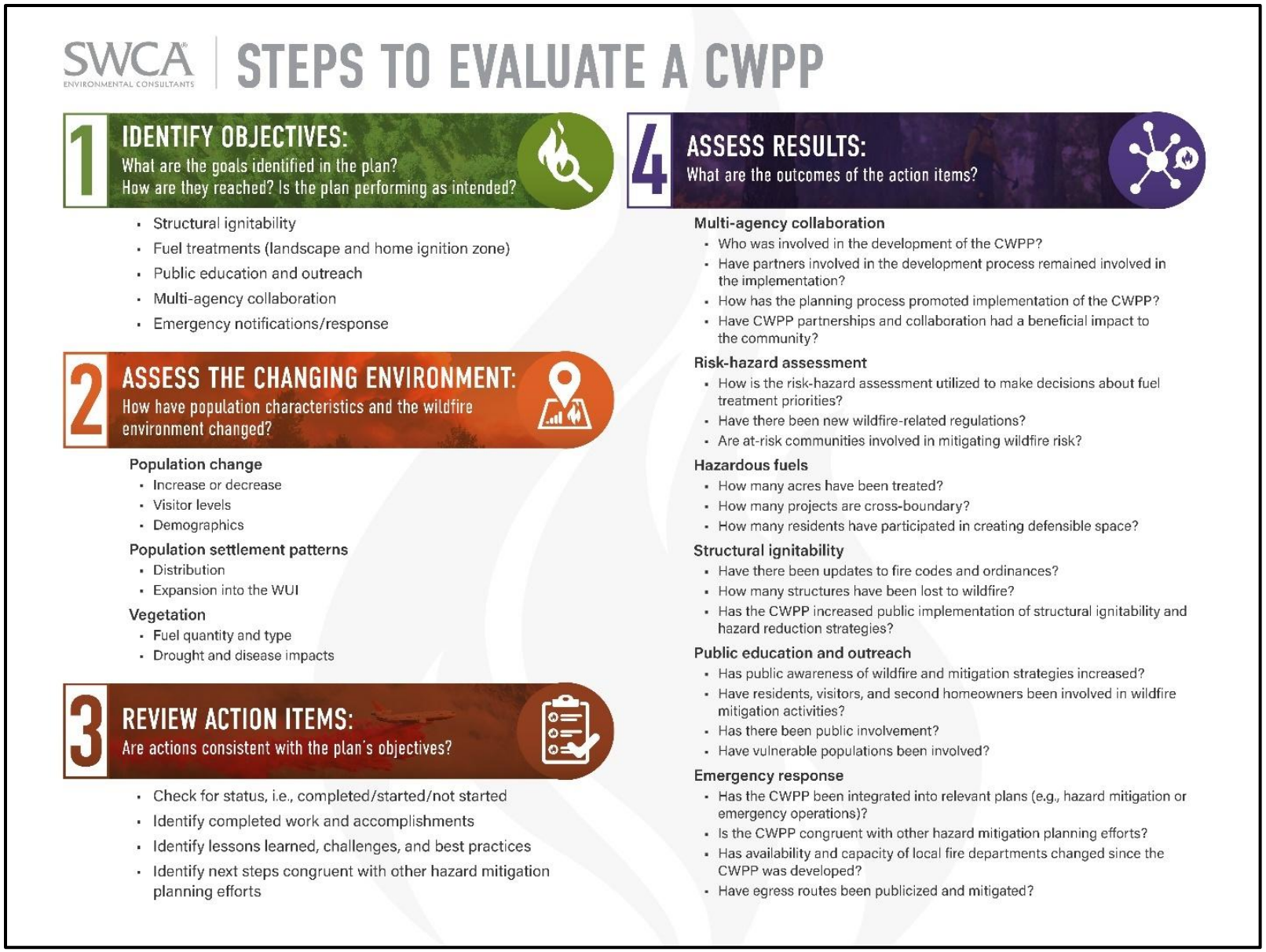


Figure 7.1. Four-step CWPP evaluation process.



CHAPTER 8 – QUANTITATIVE WILDFIRE RISK ASSESSMENT

PURPOSE

The completion of a Quantitative Wildfire Risk Assessment (QWRA) provides land use managers, fire officials, and planners with critical information to develop targeted strategies for reducing wildfire threats. This assessment not only guides planning efforts but also supports outreach and education initiatives to engage community members in minimizing fire-related risks. For this community wildfire protection plan (CWPP) update, areas of high wildfire hazard and risk are identified using the QWRA process through the modeling of fire behavior, burn probability, and fire intensity, along with evaluating the exposure and susceptibility of structures, critical infrastructure, and highly valued resources and assets (HVRAs).

Stakeholder and expert input further guides the QWRA process, ensuring recommended fuel treatments are prioritized according to wildfire risk. For further details on fuels treatments, refer to Chapter 6 (Risk Reduction Recommendations) and Appendix I (Fuel Treatment Activities).

The QWRA provides a community- and landscape-level overview of wildfire risk and is not recommended for use at smaller scales (such as for a property-level analysis). It is also not recommended for use in determining insurance rates or policies. This QWRA is a model, and as such has inherent biases, missing data, and other shortcomings, though every effort has been made to include the best available data and use the most robust scientific processes. Also note that just because an area is shown as high or low risk does not mean that that area will be burned or not burned in a wildfire—a low-risk area can still be affected by wildfire under certain conditions. This QWRA is also not intended for use during active wildfire events, but rather only as a tool for pre-fire planning. It is not recommended that this QWRA be used for any other purpose than what is stated here.

In addition to the desktop QWRA, this CWPP also leverages a field wildfire hazard and risk assessment, completed in October 2024, which is discussed below and in Appendix C.

FIELD-BASED COMMUNITY HAZARD ASSESSMENTS

Community Hazard Assessments were conducted in October 2024 using the National Fire Protection Association (NFPA) Wildland Fire Risk and Hazard Severity Form 1144 (see Appendix C). This form is based on the NFPA Standard for Reducing Structure Ignition Hazards from Wildland Fire 2013 Edition. The purpose of the Community Hazard Assessment and subsequent ratings is to identify fire hazard and risks and prioritize areas requiring mitigation and more detailed planning. These assessments should not be seen as tactical pre-suppression or triage plans. The Community Hazard Assessment helps to drive the recommendations for mitigation of structural ignitability, community preparedness, and public education.

Each area was rated based on conditions within the community and immediately surrounding structures, including access, adjacent vegetation (fuels), defensible space, adjacent topography, roof and building characteristics, available fire protection, and placement of utilities. Each score was given a corresponding adjective rating of low, moderate, high, or extreme (Table 8.1).

It is imperative to note that these assessments demonstrated a challenge with private bridges oftentimes serving as the sole access points to several properties. These bridges are often constructed without permits, lack regular maintenance, and have unknown load capacities, posing significant challenges for emergency response and evacuation. This concern is particularly relevant in isolated areas of the county, such as Butte Creek Canyon and Berry Creek, where access limitations further exacerbate wildfire risks.



Example of aboveground utility with hazardous vegetation observed during field-based assessments.

Table 8.1. Field-Based Community Hazard Assessment Summaries

Community Name	Total Risk Score	Hazard Rating
Bangor/Rackerby	114	Extreme
Berry Creek	114	Extreme
Big Bend	122	Extreme
Biggs/Gridley	67	Moderate
Butte Creek Canyon	112	Extreme
Butte Meadows	102	High
Butte Valley	89	High
Chico	93	High
Clipper Mills	95	High
Cohasset	118	Extreme
Concow	110	High
East Oroville	101	High
Feather Falls	119	Extreme
Forbestown	105	High
Forest Ranch	105	High
Honcut	77	High
Hurleton	123	Extreme
Jonesville	115	Extreme
Magalia/Paradise Pines/De Sabla	105	High
Nelson/Richvale	76	High
Nord	82	High
North Chico	84	High
Oroville	89	High
Palermo	97	High
Paradise	86	High
Pentz	90	High
Richardson Springs	111	High
Robinson Mill	117	Extreme
Southwest Chico/Durham	52	Moderate
Stirling City	102	High
Swedes	114	Extreme
Table Mountain/Cherokee	128	Extreme
Thermalito	77	High
Yankee Hill	119	Extreme

Note: More detailed information is provided in Appendix C.

COMMUNITIES AT RISK DESIGNATION

The National Fire Plan allocates funding to reduce wildfire risks to communities, with an initial list of high-risk communities within the WUI published in the Federal Register in 2001, designated through collaboration between states and federal agencies. Briefly after its inception, states took over the responsibility for updates. For California, the State Forester (CAL FIRE Director) manages the list, and it is important to note that California's unique WUI situation has resulted in an extension of the list beyond communities adjacent to federal lands (CAL FIRE 2024i). Table 8.2 outlines Butte County's communities listed as high-risk.

Table 8.2. Communities at Risk within Butte County

Community Name	Year	Community Name	Year
Bangor	2001	Inskip	2001
Berry Creek	2001	Jonesville	2001
Butte Creek	2001	Kelly Ridge	2013
Butte Meadows	2001	Magalia	2001
Butte Valley	2013	Oroville	2001
Cherokee	2013	Oroville East	2001
Chico	2001	Palermo	2001
Clipper Mills	2013	Paradise	2001
Cohasset	2001	Paradise Pines - De Sabla	2013
Concow	2001	Pentz Butte	2001
Durham	2001	Robinson Mills	2001
Feather Falls	2001	South Oroville	2001
Forbestown	2010	Stirling City	2001
Forest Ranch	2001	Thermalito	2001
Honcut	2013	Yankee Hill	2013
Hurleton	2001		

Source: CAL FIRE (n.d.)

EXISTING HAZARDS INFORMATION

CALIFORNIA FIRE HAZARD SEVERITY ZONES

In accordance with PRC 4202, CAL FIRE maintains Fire Hazard Severity Zone (FHSZ) data for the entire state. The FHSZs rely on advanced scientific data and are determined by considering key factors such as vegetation, topography, and weather (CAL FIRE 2024g). There are three classes of fire hazard severity ratings within FHSZs: moderate, high, and very high (California Governor’s Office of Planning and Research [Cal OPR] 2022a). These zones represent hazards across the landscape, with "hazard" defined by physical conditions that indicate the likelihood and expected fire behavior over a 30- to 50-year period,

excluding mitigation measures such as home hardening, recent wildfires, or fuel reduction efforts. It is important to note that hazard levels do not directly indicate the potential damage a fire may cause.

Figure 8.1 shows the SRA FHSZs for Butte County based on data available at the time of plan development. Many areas within the county are classified as having high or very high FHSZs, with the eastern and northern portions of the county having considerably higher proportions of very high hazard areas. In fact, there are 17,126 structures in SRA high or very high FHSZs. The LRA FHSZs are currently being updated, thus the structure count in very high FHSZs will be updated once the LRA FHSZs are finalized and adopted. Additionally, many urban centers such as Chico, Paradise, and Oroville are bordered by or in proximity to SRA very high hazard landscapes.

CAL FIRE released the updated draft LRA FHSZs for Butte County in February 2025. **The LRA FHSZs are in draft format until they are formally adopted by each local jurisdiction,** which may take up to 120 days plus additional time for finalization by the State Board of Forestry. The draft LRA FHSZ web map can be accessed at: https://experience.arcgis.com/experience/6a9cb66bb1824cd98756812af41292a0.

CAL FIRE reviewed and updated FHSZs for State Responsibility Areas (SRAs) in 2023 and approved the final SRA FHSZ maps to be effective April 1, 2024. The most up-to-date FHSZ maps and an interactive viewer can be found on CAL FIRE's website at: https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones.

This CWPP is designed to focus on areas within the county with the highest wildfire risk (as evaluated in the "Quantitative Wildfire Risk Assessment" section below); it is therefore important to note that FHSZs evaluate wildfire "hazard" and not "risk." As defined by CAL FIRE:

> "Hazard" is based on the physical conditions that create a likelihood and expected fire behavior over a 30- to 50-year period without considering mitigation measures such as home hardening, recent wildfire, or fuel reduction efforts. "Risk" is the potential damage a fire can do to the area under existing conditions, accounting for any modifications such as fuel reduction projects, defensible space, and ignition-resistant building construction (CAL FIRE 2023a, 2023b).

Thus, while FHSZs help guide the community fire planning and mitigation process by assessing hazards, this CWPP enhances the "hazard only approach" by considering the hazard and risk dynamic across the county.

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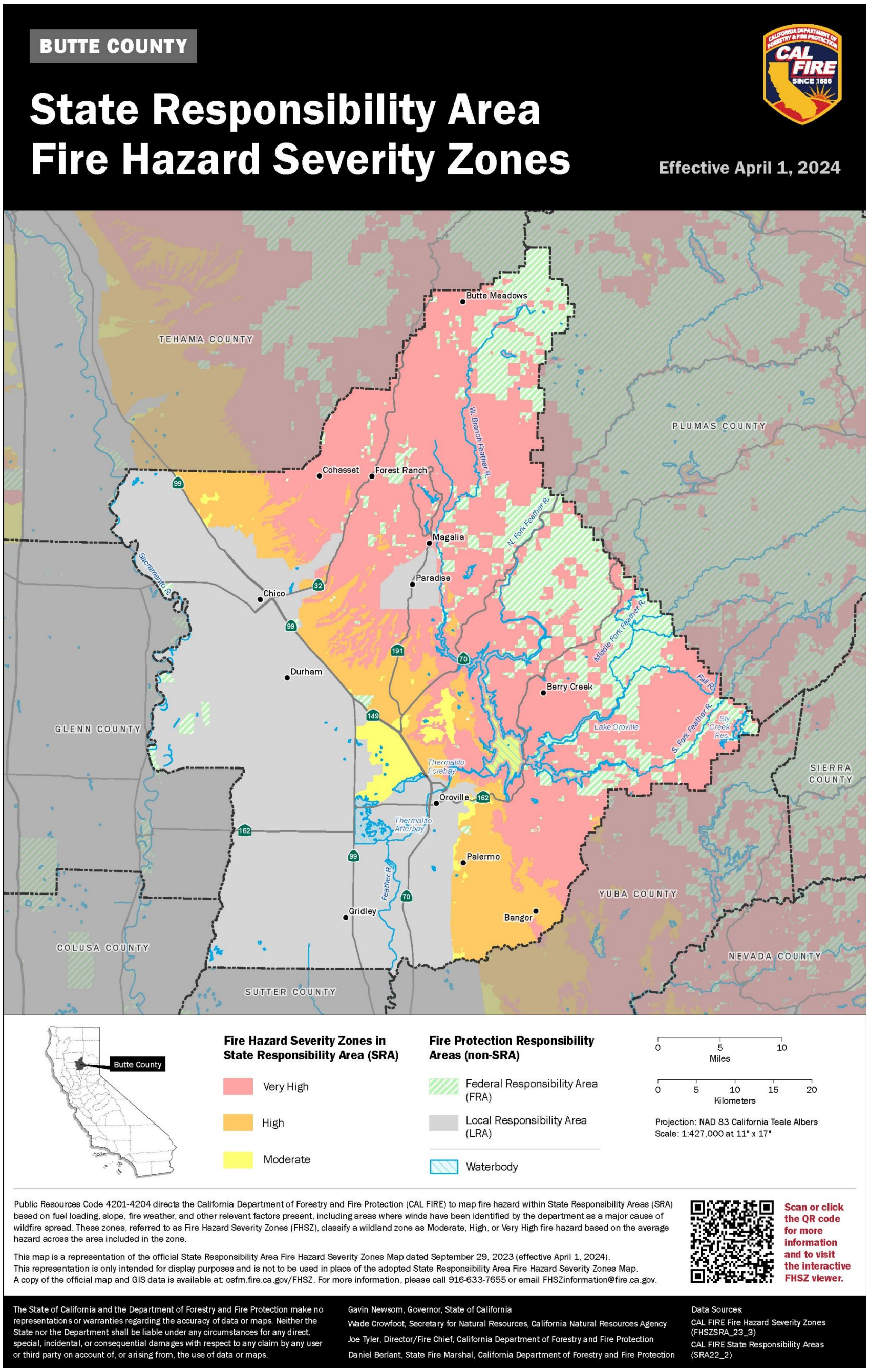


Figure 8.1. CAL FIRE's FHSZs in the SRA within Butte County.

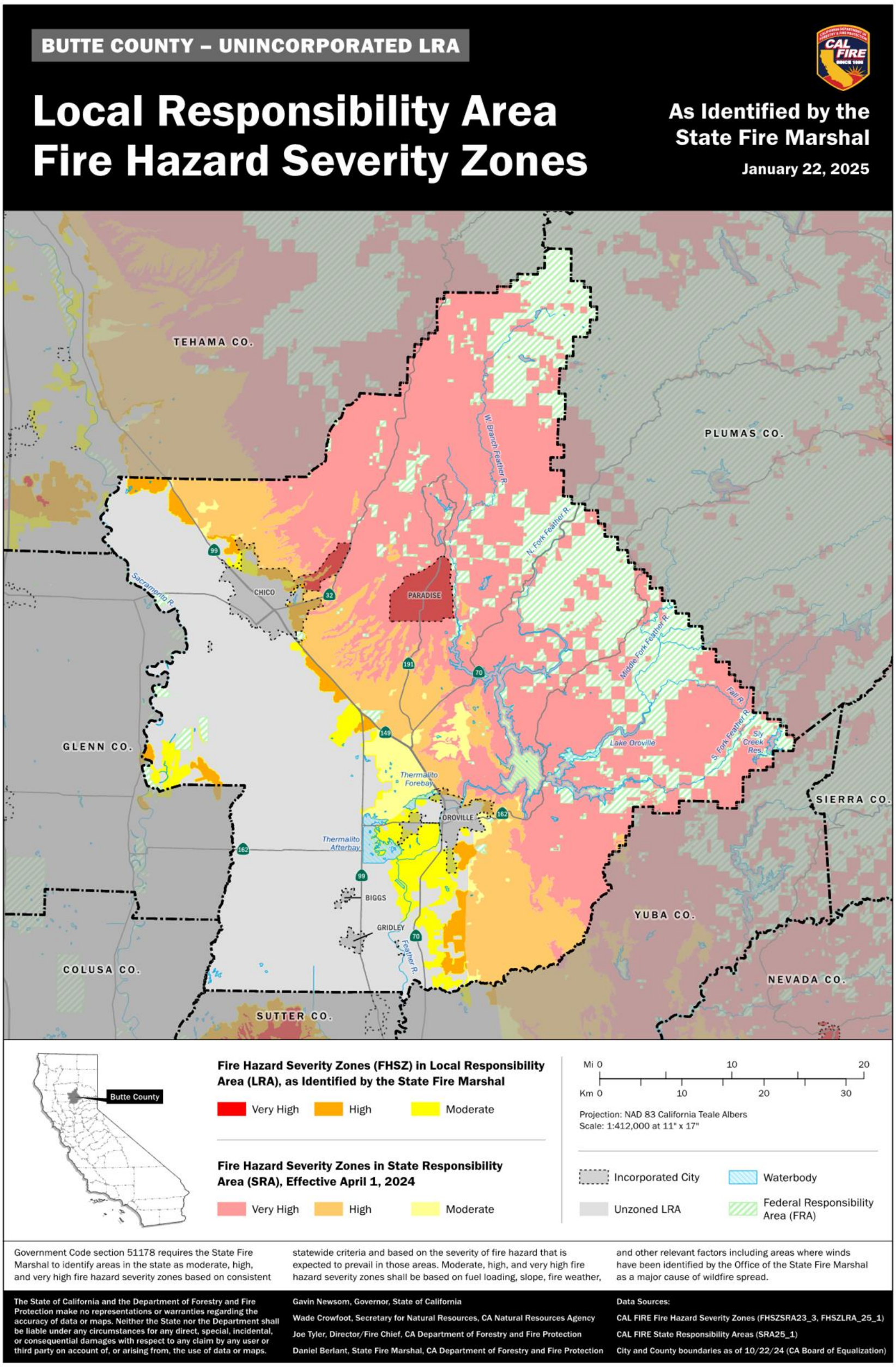


Figure 8.2. 2025 LRA Fire Hazard Severity Zones in unincorporated Butte County.

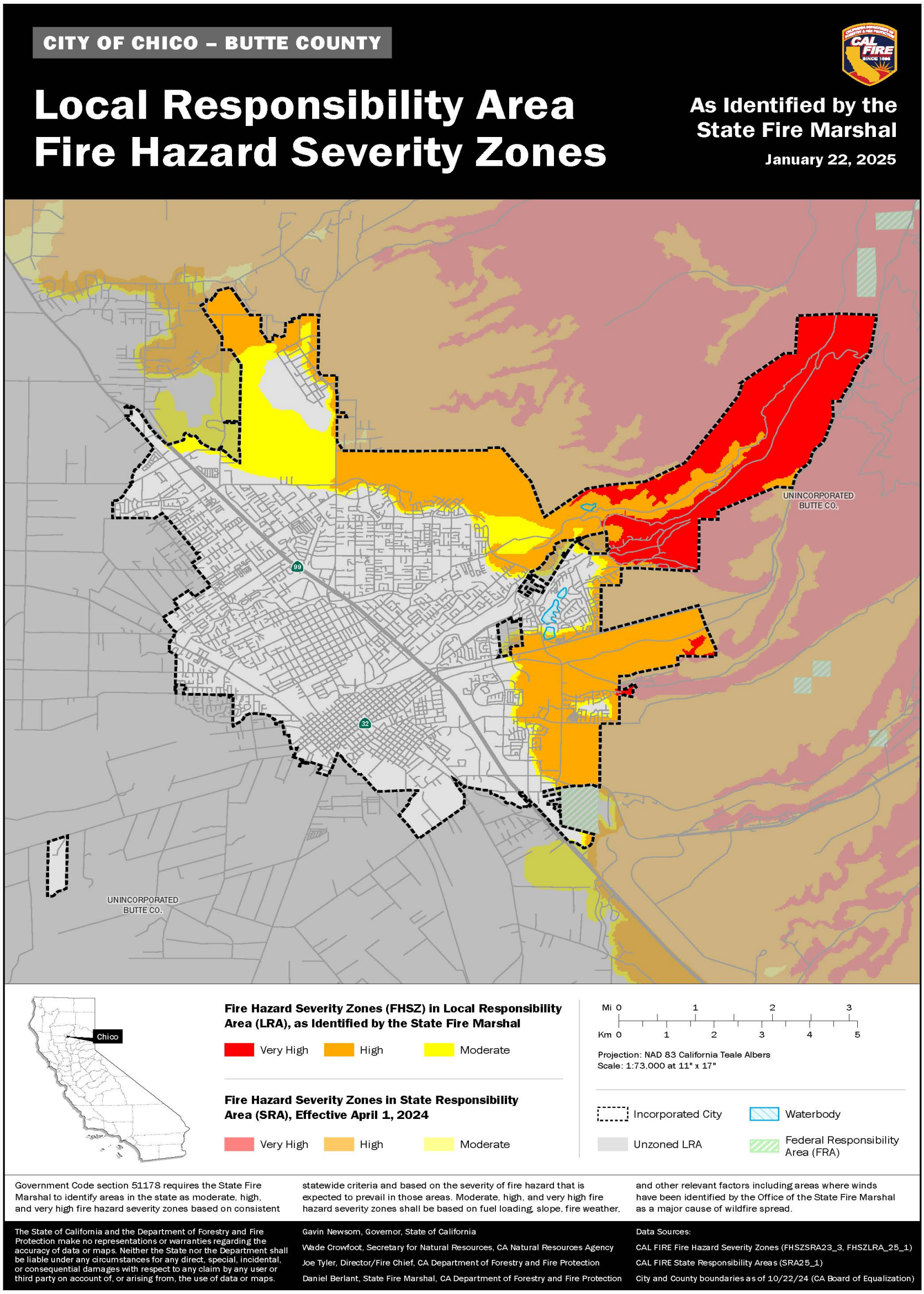


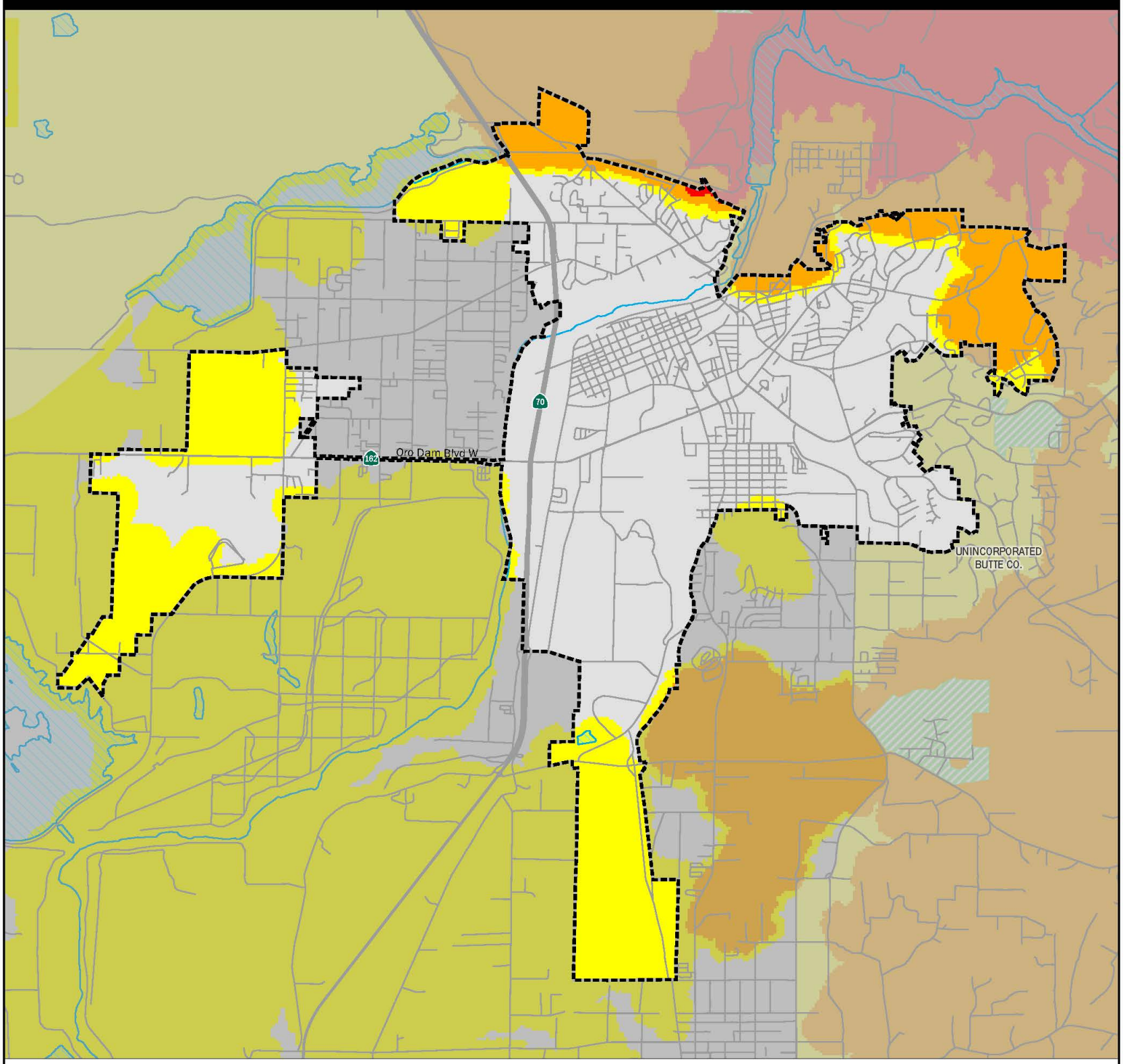
Figure 8.3. 2025 LRA Fire Hazard Severity Zones in the City of Chico.

CITY OF OROVILLE – BUTTE COUNTY

Local Responsibility Area Fire Hazard Severity Zones

As Identified by the State Fire Marshal

January 22, 2025





Fire Hazard Severity Zones (FHSZ) in Local Responsibility Area (LRA), as Identified by the State Fire Marshal

Very High | High | Moderate

Fire Hazard Severity Zones in State Responsibility Area (SRA), Effective April 1, 2024

Very High | High | Moderate

Mi 0 1 2

Km 0 1 2 3 4

Projection: NAD 83 California Teale Albers
Scale: 1:50,000 at 11" x 17"

Incorporated City | Waterbody | Unzoned LRA | Federal Responsibility Area (FRA)

Government Code section 51178 requires the State Fire Marshal to identify areas in the state as moderate, high, and very high fire hazard severity zones based on consistent statewide criteria and based on the severity of fire hazard that is expected to prevail in those areas. Moderate, high, and very high fire hazard severity zones shall be based on fuel loading, slope, fire weather, and other relevant factors including areas where winds have been identified by the Office of the State Fire Marshal as a major cause of wildfire spread.

The State of California and the Department of Forestry and Fire Protection make no representations or warranties regarding the accuracy of data or maps. Neither the State nor the Department shall be liable under any circumstances for any direct, special, incidental, or consequential damages with respect to any claim by any user or third party on account of, or arising from, the use of data or maps.

Gavin Newsom, Governor, State of California
Wade Crowfoot, Secretary for Natural Resources, CA Natural Resources Agency
Joe Tyler, Director/Fire Chief, CA Department of Forestry and Fire Protection
Daniel Berlant, State Fire Marshal, CA Department of Forestry and Fire Protection

Data Sources:
CAL FIRE Fire Hazard Severity Zones (FHSZSRA23_3, FHSZLRA_25_1)
CAL FIRE State Responsibility Areas (SRA25_1)
City and County boundaries as of 10/22/24 (CA Board of Equalization)

Figure 8.4. 2025 LRA Fire Hazard Severity Zones in the City of Oroville.

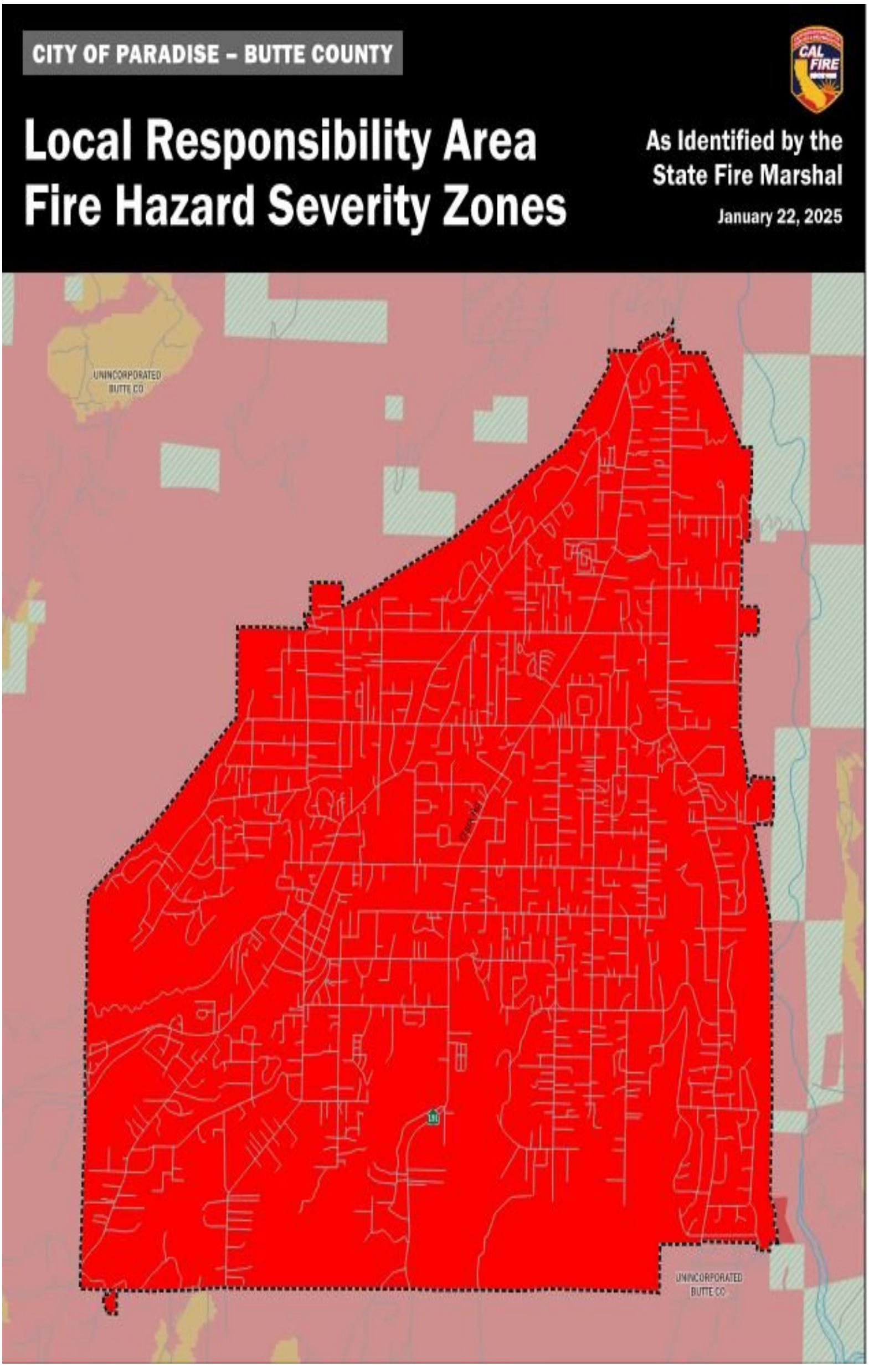


Figure 8.5. 2025 LRA Fire Hazard Severity Zones in the Town of Paradise.

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ASSESSING HAZARDS VS. RISK

SWCA's QWRA evaluates key factors such as flame length (intensity), burn probability, buildings, and highly valued resources and assets (HVRAs). Flame length is modeled by analyzing vegetation type, density, and condition; topography, including slope, aspect, and elevation; and meteorological conditions like wind, temperature, and humidity. Burn probability is generated by running thousands of simulations, considering ignition locations, fire size, weather patterns, fuel types, and topography. These flame length and burn probability outputs represent hazards, while buildings and HVRAs represent susceptible values.

This QWRA categorizes the landscape into four risk levels: low, moderate, high, and very high. In comparison, CAL FIRE's FHSZs reflect vegetation, topography, and weather patterns to indicate burn likelihood and potential fire behavior, ranging from moderate to very high hazard levels. Updated FHSZs incorporate land use changes, recent fire history, new wind data, and local climate information (CAL FIRE 2024i).

The primary distinction between SWCA's QWRA and CAL FIRE's FHSZs is that FHSZs assess hazard only, while SWCA's QWRA accounts for both hazard and the likelihood of resulting damage (risk).

Regulatory background regarding the development and updates of FHSZs are summarized in Appendix A.

QUANTITATIVE WILDFIRE RISK ASSESSMENT

FRAMEWORK

The QWRA is a specialized tool for evaluating the risk that wildland fires pose to communities within the county. Risk is defined as a combination of hazard and vulnerability (Figure 8.6). For the purposes of this document, risk is conceptualized using four key factors within the QWRA Framework (Scott et al. 2013):

- **Burn Probability**: The likelihood of a 30-square-meter pixel burning within a specified time period.
- **Intensity**: The rate of energy release during combustion, which can be measured by flame length—a direct indicator of fire intensity.
- **Exposure**: The proximity of HVRAs to hazards within the landscape, such as homes located in the WUI.
- **Susceptibility**: The degree to which an HVRA is likely to be damaged by wildfire.



Figure 8.6. QWRA Framework.
Derived from Scott et al. 2013.

PROCESS OVERVIEW

Flame length (intensity) and burn probability were assessed using established models including FARSITE, FlamMap, BehavePlus, and FireFamily Plus, integrated within the Interagency Fuel Treatment Decision Support System (IFTDSS) and ArcGIS Desktop Spatial Analyst tools. The QWRA data were sourced primarily from LANDFIRE and supplemented by additional datasets (LANDFIRE 2023).

SWCA generated a landscape file for the county in IFTDSS, with Core Team input guiding the refinement of fuel models, response functions, and relative importance values, resulting in tailored fire behavior outputs and risk scoring. The datasets (flame lengths, building footprints, HVRAs, and burn probability) were processed and reclassified in ArcGIS Pro. The raster calculator in ArcGIS Pro then produced the conditional Net Value Change (cNVC) and expected Net Value Change (eNVC) risk outputs, with the eNVC serving as the final risk layer in the QWRA. The cNVC evaluates wildfire impacts to values assuming a fire has occurred (i.e., it assumes 100% probability), whereas the eNVC evaluates the likelihood of impacts to values based on fire probability (IFTDSS n.d.a).

DATA COLLECTION

The spatial data required for this QWRA are summarized in Table 8.3. It's important to note that burn probability considers factors such as landscape characteristics (e.g., topography and fuels), weather conditions (e.g., humidity and wind), and historical ignition patterns. Similarly, flame length calculations incorporate fuels, topography, and weather conditions.

Table 8.3. Spatial Data Inputs for the QWRA

Inputs	Source	Type/Subtype
Burn Probability	IFTDSS, LANDFIRE	Hazard/Probability
Flame Length	IFTDSS, LANDFIRE	Hazard/Intensity
Critical Infrastructure HVRAs	Butte County and Homeland Infrastructure Foundation-Level Data (HIFLD)	Vulnerability/Exposure
Building Footprint HVRAs	Microsoft	Vulnerability/Exposure

Identification of Hazards and Vulnerability

Hazards

Burn Probability

Figure 8.7 illustrates the likelihood of a specific location on the landscape burning, which is represented as burn probability. Burn probability takes into account several factors, including fire size, frequency, rate of spread, and weather conditions (IFTDSS n.d.b). Burn probability is modeled as low in the eastern and western portions of the county, with higher ratings in the central area.

Recent large fires, such as the 2020 North Complex and the 2021 Dixie Fire, have significantly influenced burn probability in Butte County's higher elevations. Areas within these fire perimeters exhibit reduced burn probabilities in the model due to changes in fuel conditions; post-fire landscapes with less combustible material burn less readily under simulated peak fire season conditions compared to pre-fire conditions. If this analysis had been conducted prior to these major fires, burn probabilities in these areas would likely have been much higher. It should also be noted that low burn probability does not mean "no" probability. For example, a 20% burn probability means that one in five ignitions under very high fire danger conditions would reach and burn that location.

Flame Length

Figure 8.8 illustrates the flame length classifications for Butte County. Flame lengths are determined by fuels, weather, and topography. Flame length is a measure of the intensity of the hazard in the QWRA equation. Direct attack by hand lines is usually limited to flame lengths less than 4 feet. For flames between 4 and 8 feet, indirect suppression (dozers, engines, etc.) is the dominant tactic. In excess of 8 feet, control efforts will be extremely challenging.

Flame lengths vary across the county. Lower-elevation grass fuels typically produce shorter flame lengths and have the highest likelihood of successful suppression, while higher-elevation timber fuels are more susceptible to crown fires that can be challenging to control. Mid-elevation brush and timber fuels exhibit flame lengths and suppression potentials that fall between these extremes.

Directly related to flame length is fire intensity. Fire intensity was modeled for various critical infrastructure and natural resources in Butte County; these maps are shown in Figures B.1 through Figure B.5. They represent fire intensity adjacent to the railroads, small community water resources, and critical habitat areas.

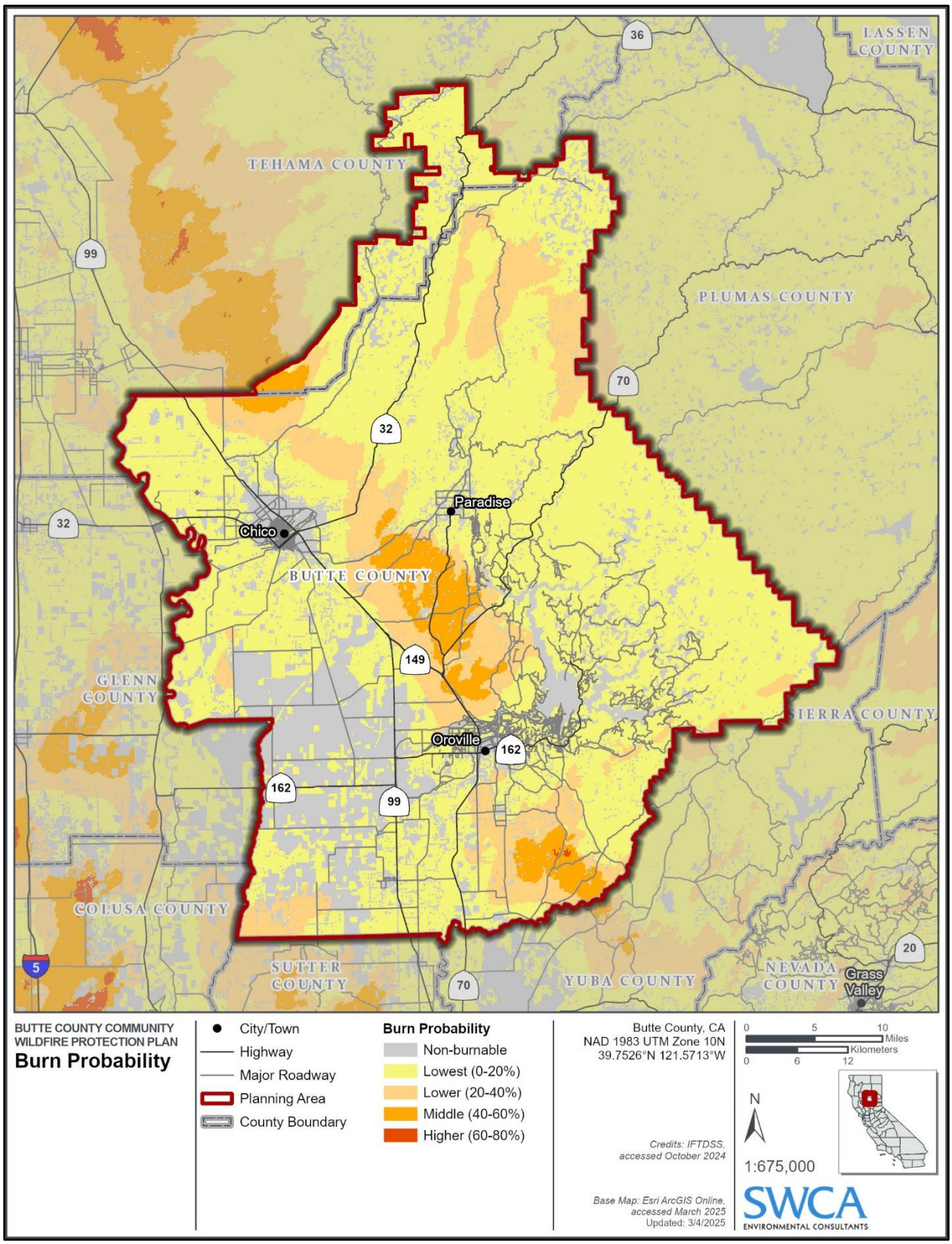


Figure 8.7. Burn probability in the Butte County CWPP planning area.

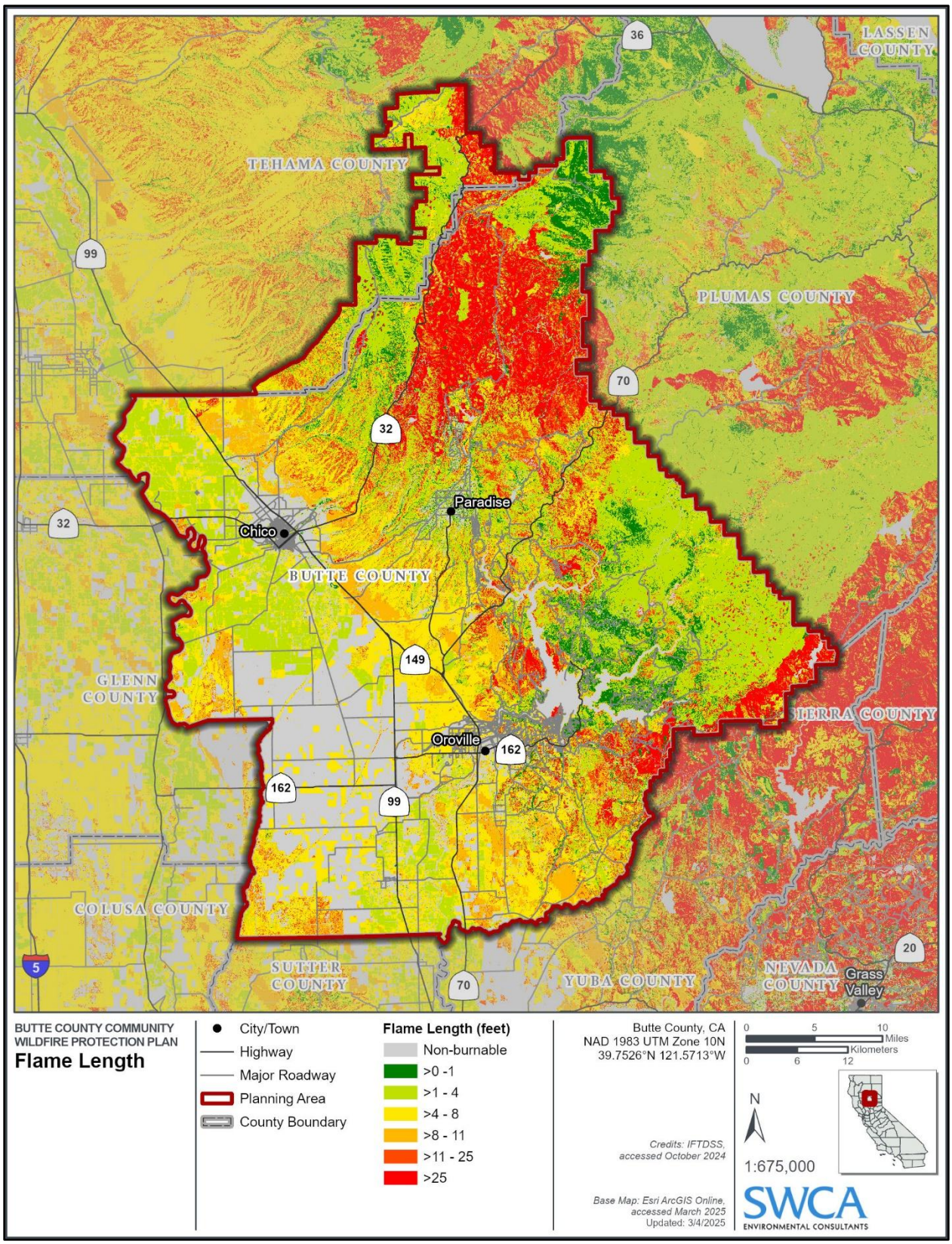


Figure 8.8. Flame length in the Butte County CWPP planning area.

Vulnerability

Response Functions

Response Functions (RFs) measure the susceptibility of highly valued resources and assets (HVRAs) to wildfire, indicating how fire affects these resources based on intensity (IFTDSS n.d.c). Defined by experts, RFs assign a value change ranging from -100 to +100, where -100 represents significant loss and +100 denotes substantial benefit. The RFs assigned to each HVRA are based on flame length classes, which represent different levels of fire intensity. Generally, the longer the flame length, the higher the intensity and the flame's impact to structures and HVRAs.

HIGHLY VALUED RESOURCES AND ASSETS (HVRAs)

Infrastructure

The infrastructure dataset (Figure 8.9) for the QWRA was developed through a comprehensive process that combined data from critical infrastructure inventories, community assessments, public outreach efforts, and Core Team input. This dataset was further supplemented with HVRA data acquired from the Homeland Infrastructure Foundation-Level Data (HIFLD). The identified infrastructure HVRAs include structures, power lines, transmission lines, substations, power plants, pipelines, communication towers, and communication sites. These data are essential to the QWRA, as they indicate key locations on the landscape where values that support the community are present.

Critical infrastructure was buffered by 30 meters to address areas classified as 'unburnable' around these assets. Frequently, a nonburnable space exists between HVRAs and adjacent fuels; adding this buffer effectively classifies the HVRAs adjacent to fuels as 'burnable' features. Though the fire spread models do not simulate structure burning (‘urban’ fuels show as ‘unburnable’) this allows the risk to be projected into the most threatened developments on the edge of the WUI.

Buildings

The Microsoft Building Footprints (Figure 8.10) dataset was used to identify the locations and extents of structures, including residences and businesses, across the planning area. This dataset, created using artificial intelligence (AI) algorithms applied to high-resolution satellite imagery, provides detailed polygonal representations of buildings (ArcGIS Online 2022). Incorporating these data into the QWRA allows for accurate mapping of structures across the landscape and helps assess the exposure of built environments to wildfire risks.

Since the model typically classifies the immediate areas around buildings as 'unburnable,' building footprints were buffered by 0.25 mile to ensure this area is treated as 'burnable' in the analysis.

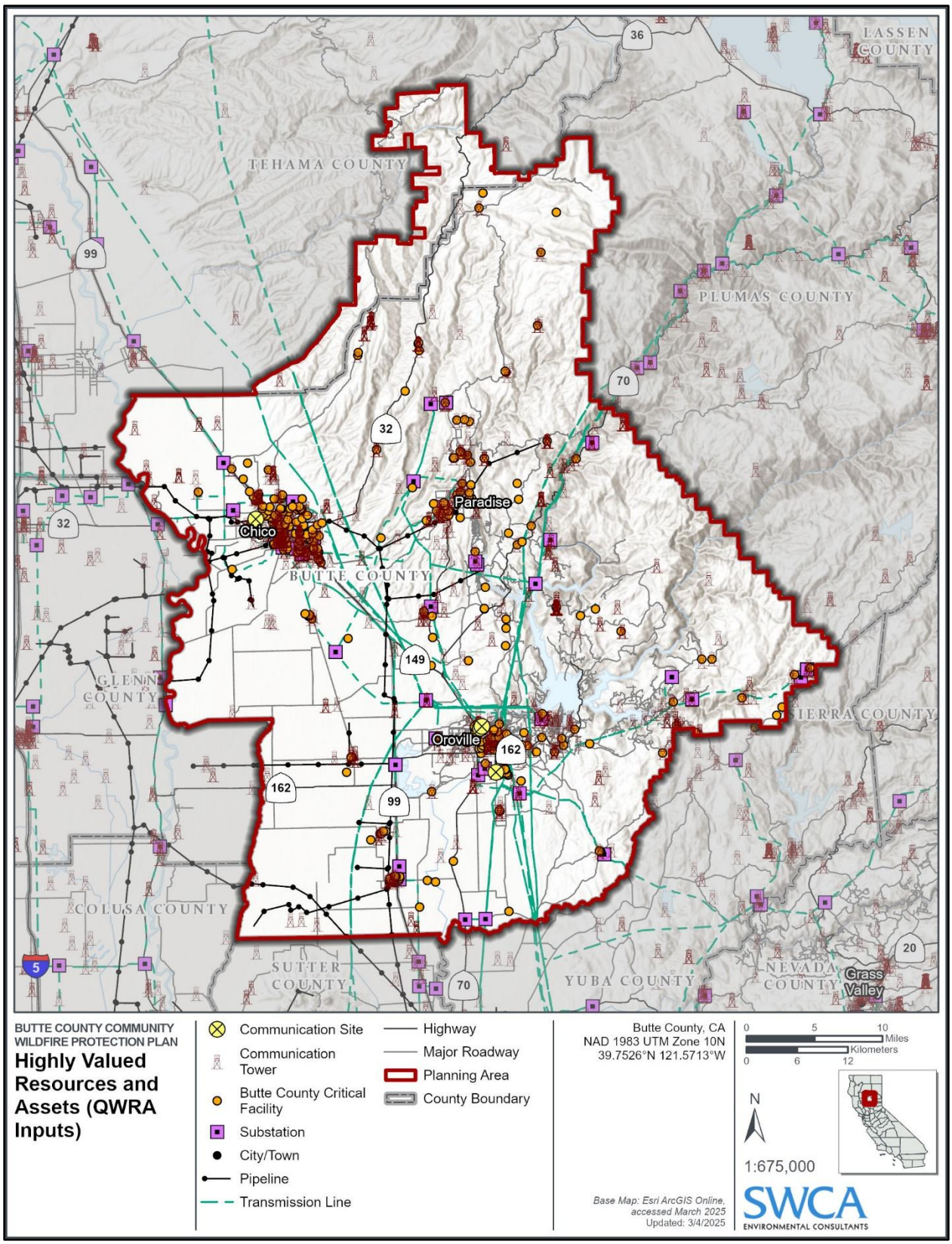


Figure 8.9. Butte County CWPP planning area QWRA input – HVRA: infrastructure.

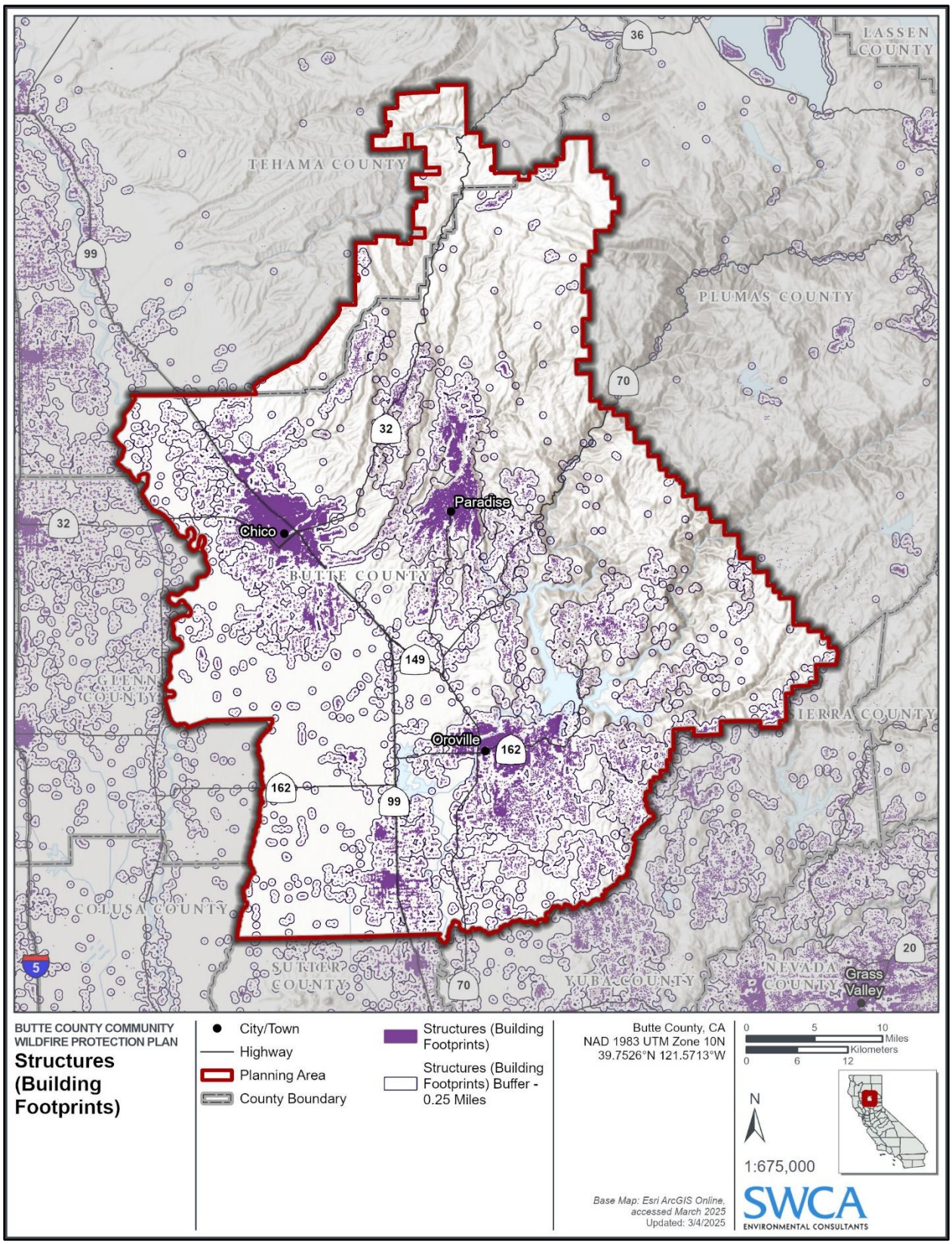


Figure 8.10. Butte County CWPP planning area QWRA input – building footprints.

RISK MODELING AND SCORING

Landscape Fire Behavior

Landscape fire behavior modeling was executed in IFTDSS (FlamMap) using the Automatic 97th Percentile Landscape Fire Behavior (Auto 97th) parameters (IFTDSS n.d.d). The Auto 97th setting models fire behavior under very high fire weather conditions. Auto 97th uses data from nearby remote automated weather stations (RAWS) to determine conditions for fuel moisture and wind speed and direction.

Weighting and Relative Importance

To develop a quantitative risk product (Wildfire Risk to Structures and Infrastructure) the HVRAs must be weighted with a relative importance value (Scott et al. 2013). The HVRAs were broken into two categories and weighted as shown in Figure 8.11.

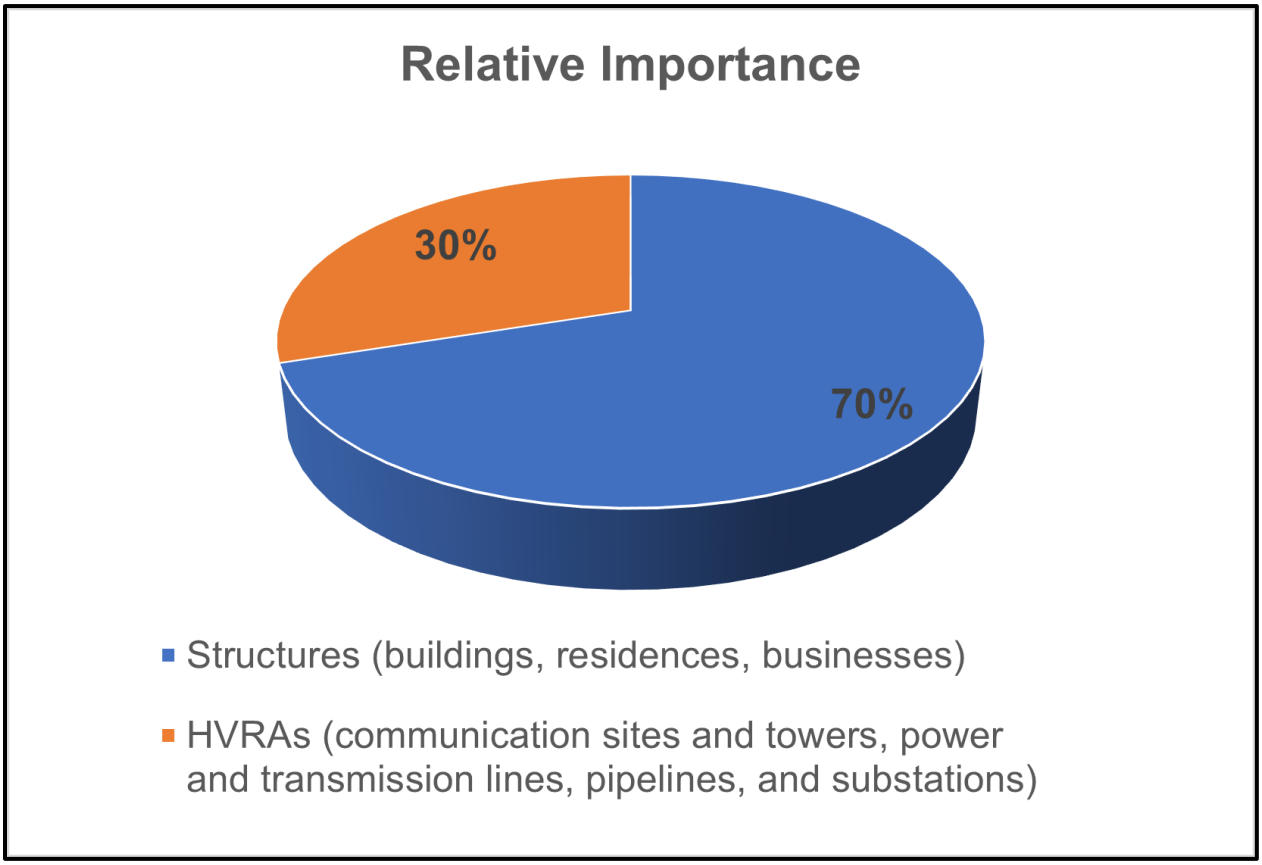


Figure 8.11. Relative importance of collaboratively selected HVRAs for the Butte County CWPP planning area.

VALIDATION AND CALIBRATION

LANDFIRE is a national remote sensing project that provides land managers with a data source for all inputs needed for fire behavior models (fuels, topography, and canopy characteristics). The database is managed by the USFS and the U.S. Department of the Interior and is widely used throughout the United States for land management planning. More information can be obtained from http://www.landfire.gov.

The fire modeling for the Wildfire Risk to Assets products used the LANDFIRE 2023 layers (released in May 2024 and updated through the end of 2023). Because 2024 fires had not yet been incorporated into the standard data, edits were made to incorporate the Park, Thompson, Junes, and Apache Fire perimeters. Within the burn perimeters, grass, grass-shrub, shrub, timber litter, and timber understory layers were modified to reflect slower future rates of spreads and shorter flame lengths in the 2024 fire footprints. Calibrations made in LANDFIRE to recent local fires such as the 2020 Dixie and 2021 North Complex were used for the 2024 burn perimeters. It takes several years to understand how post-fire regeneration will respond. The burn area calibrations were made to represent likely fire activity in the various fuel types within the burn areas for a 3- to 5-year period. They will likely overestimate spread for 2025 and could underestimate spread beyond 2029. Rerunning the risk analysis on LANDFIRE 2029, and any time after major fires or fuel changes, is recommended.

QWRA RESULTS

The QWRA map (Figure 8.12) highlights high and very high wildfire risk in the central portion of the county, where wildland fuels overlap infrastructure and buildings. Areas with elevated risk typically have both a high density of structures (buildings and residences) and fuels. It’s important to note that this QWRA assesses wildfire risks specifically to structures and HVRAs; therefore, areas without these assets show no data. This focus aligns with the CWPP’s objective of prioritizing communities and the critical infrastructure that supports them, though other values may also hold significance.

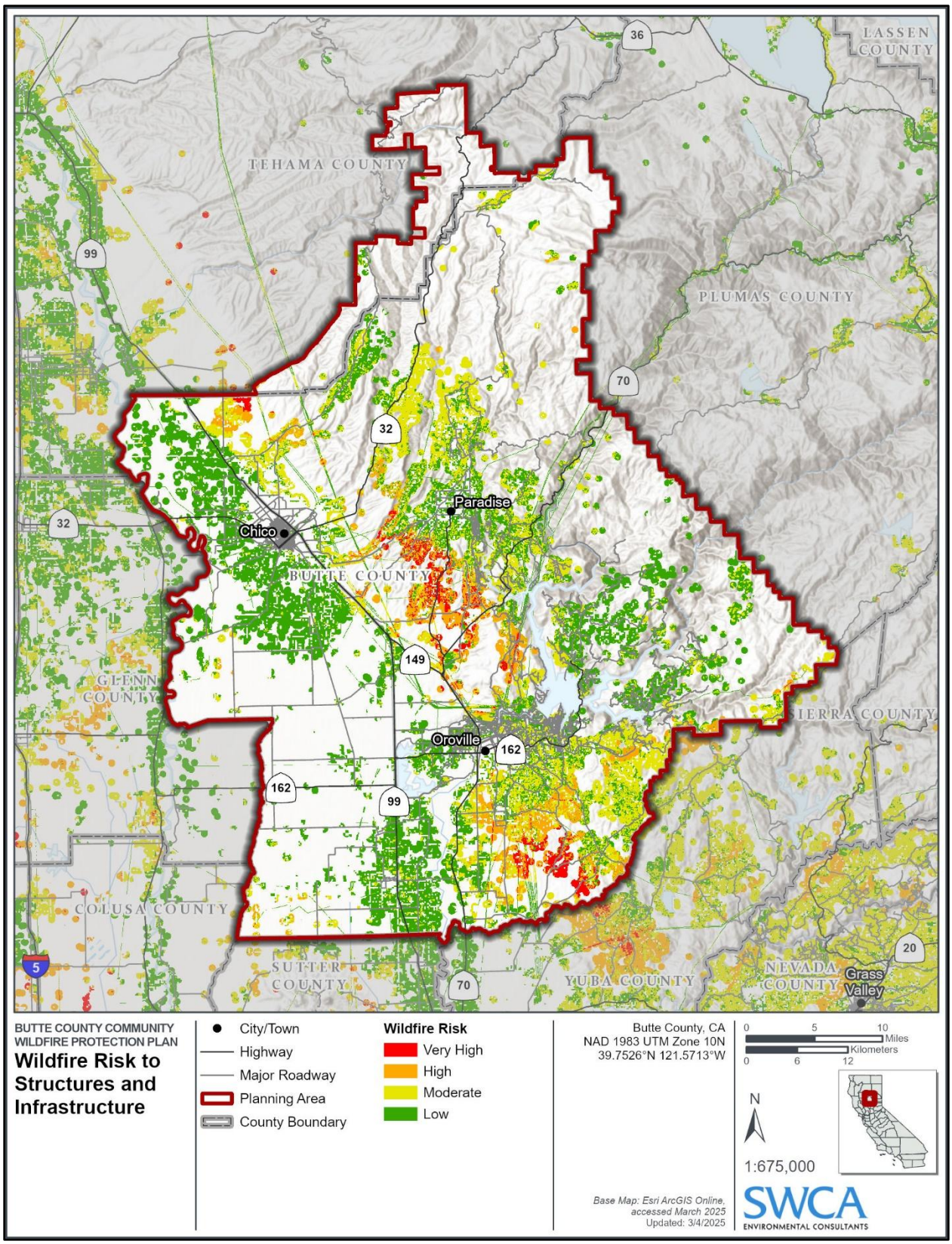


Figure 8.12. Wildfire risk to structures and infrastructure in the Butte County CWPP planning area.

ABBREVIATIONS AND ACRONYMS

°F	Degrees Fahrenheit
ATSDR	Agency for Toxic Substances and Disease Registry
BAER	Burned Area Emergency Rehabilitation
BCCER	Big Chico Creek Ecological Reserve
BCCG	Butte County Collaborative Group
BCFSC	Butte County Fire Safe Council
BCRCD	Butte County Resource Conservation District
BEC	Butte Environmental Council
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
CAAB	Chico Air Attack Base
CAL FIRE	California Department of Forestry and Fire Protection
California SJT	California Silver Jackets Team
Cal OES	California Governor’s Office of Emergency Services
Cal OPR	California Governor’s Office of Planning and Research
CDC	Centers for Disease Control and Prevention
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
Cohesive Strategy	National Cohesive Wildland Fire Management Strategy
County	Butte County
CWPP	Community Wildfire Protection Plan
DWR	California Department of Water Resources
ECC	Emergency Command Center
EPA	U.S. Environmental Protection Agency
Esri	Environmental Systems Research Institute, Inc.
FAC	Fire-Adapted Community
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FRA	Federal Responsibility Area
FRAP	CAL FIRE's Fire and Resource Assessment Program
FSC	Fire Safe Council
FTER	Fuels Treatment Effectiveness Report
GIS	Geographic Information System
HFRA	Healthy Forests Restoration Act of 2003

HVRAs	Highly Valued Resources and Assets
IFTDSS	Interagency Fuel Treatment Decision Support System
LRA	Local Responsibility Area
MMAA	Master Mutual Aid Agreement
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NIFC	National Interagency Fire Center
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NWCG	National Wildfire Coordinating Group
PBA	Prescribed Burn Association
PRC	Public Resources Code
QWRA	Quantitative Wildfire Risk Assessment
RAWS	Remote Automated Weather Station
RCD	Resource Conservation District
SRA	State Responsibility Area
SVI	Social Vulnerability Index
SWCA	SWCA Environmental Consultants
TEK	Traditional Ecological Knowledge
UC ANR	University of California, Agriculture and Natural Resources
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
VHFHSZs	Very High Fire Hazard Severity Zones
VMP	Vegetation Management Program
WUI	Wildland-Urban Interface

GLOSSARY

Aspect: Cardinal direction toward which a slope faces in relation to the sun (NWCG 2021a).

Active Crown Fire: A crown fire in which the entire fuel complex is involved in flame, but the crowning phase remains dependent on heat released from surface fuel for continued spread. An active crown fire presents a solid wall of flame from the surface through the canopy fuel layers. Flames appear to emanate from the canopy as a whole rather than from individual trees within the canopy. Active crown fire is one of several types of crown fire and is contrasted with **passive crown fires**, which are less vigorous types of crown fire that do not emit continuous, solid flames from the canopy (SWCA).

Available Canopy Fuel: The mass of canopy fuel per unit area consumed in a crown fire. There is no postfrontal combustion in canopy fuels, so only fine canopy fuels are consumed. We assume that only the foliage and a small fraction of the branch wood is available (Wooten 2021).

Available Fuel: The total mass of ground, surface and canopy fuel per unit area available fuel consumed by a fire, including fuels consumed in postfrontal combustion of duff, organic soils, and large woody fuels (Wooten 2021).

Backfiring: Intentionally setting fire to fuels inside a control line to contain a fire (Wooten 2021).

Biochar: A type of charcoal created from burning woody debris, often sourced from management activities like thinning, harvesting, or fuels reduction. Biochar is used as a soil amendment to enhance soil health and productivity, while also offering climate change and pollution mitigation benefits (USFS 2022b)

Biomass: Organic material. Also refers to the weight of organic material (e.g., biomass roots, branches, needles, and leaves) within a given ecosystem (Wooten 2021).

Burn Severity: A qualitative assessment of the heat pulse directed toward the ground during a fire. Burn severity relates to soil heating, large fuel and duff consumption, consumption of the litter and organic layer beneath trees and isolated shrubs, and mortality of buried plant parts (SWCA).

Canopy: The more or less continuous cover of branches and foliage formed collectively by adjacent trees and other woody species in a forest stand. Where significant height differences occur between trees within a stand, formation of a multiple canopy (multi-layered) condition can result (SWCA).

Chain: Unit of measure in land survey, equal to 66 feet (20 m) (80 chains equal 1 mile). Commonly used to report fire perimeters and other fireline distances. Popular in fire management because of its convenience in calculating acreage (example: 10 square chains equal 1 acre) (New Mexico Future Farmers of America 2010).

Climate adaptation: Adaptation is an adjustment in natural or human systems to a new or changing environment. Adaptation to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities (CA GOPR 2020).

Climate Change: A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods (Cal OPR 2020).

Community Assessment: An analysis designed to identify factors that increase the potential and/or severity of undesirable fire outcomes in WUI communities (SWCA).

Communities at Risk: Defined by the HFRA as “Wildland-Urban Interface Communities within the vicinity of federal lands that are at high risk from wildfire.”

- CAL FIRE expanded on this definition for California including all communities (regardless of distance from federal lands) for which a significant threat to human life or property exists as a result of a wildland fire event. California uses the following three factors to determine at risk communities: 1) high fuel hazard, 2) probability of a fire, and 3) proximity of intermingled wildland fuels and urban environments that are near fire threats (Cal OPR 2020).

Community Emergency Response Team: The Community Emergency Response Team program educates volunteers about disaster preparedness for the hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. The team offers a consistent, nationwide approach to volunteer training and is an organization that professional responders can rely on during disaster situations, allowing them to focus on more complex tasks (Ready 2021).

Community Wildfire Protection Plan (CWPP): A planning document that seeks to reduce the threat to life and property from wildfire by identifying and mitigating wildfire hazards to communities and infrastructure located in the WUI. Developed from the HFRA, a CWPP addresses issues such as wildfire response, hazard mitigation, community preparedness, or structure protection (SWCA).

Contain: A tactical point at which a fire's spread is stopped by and within specific contain features, constructed or natural; also, the result of stopping a fire's spread so that no further spread is expected under foreseeable conditions. For reporting purposes, the time and date of containment. This term no longer has a strategic meaning in federal wildland fire policy (Wooten 2021).

Control: To construct fireline or use natural features to surround a fire and any control spot fires therefrom and reduce its burning potential to a point that it no longer threatens further spread or resource damage under foreseeable conditions. For reporting purposes, the time and date of control. This term no longer has a strategic meaning in federal wildland fire policy (Wooten 2021).

Cover Type: The type of vegetation (or lack of it) growing on an area, based on cover type minimum and maximum percent cover of the dominant species, species group or non-living land cover (such as water, rock, etc.). The cover type defines both a qualitative aspect (the dominant cover type) as well as a quantitative aspect (the abundance of the predominant features of that cover type) (Wooten 2021).

Creeping Fire: A low-intensity fire with a negligible rate of spread (Wooten 2021).

Cross Staffed: Personnel who are not assigned as the primary responding resource on a daily basis. Instead, these resources are staffed by the crew of another apparatus at the same station. The crew members switch between apparatus as the nature of emergency activity dictates, ensuring flexibility and optimal response to varying emergency situations (direct communication, CAL FIRE, 2025).

Crown Fire: A fire that advances at great speed from crown to crown in tree canopies, often well in advance of the fire on the ground (National Geographic 2021).

Cultural Fire: Cultural fire refers to the Indigenous practice of intentionally setting controlled burns to achieve specific ecological and cultural outcomes. For thousands of years Native American, Alaskan Native, and Native Hawaiian communities have used fire as a tool to promote biodiversity, manage landscapes for resources, support wildlife habitat, and reduce the risk of catastrophic wildfires. Cultural fire practices are deeply rooted in Indigenous philosophies, enhancing the productivity and health of ecosystems while sustaining cultural traditions and values (National Park Service 2024).

Defensible Space: An area around a structure where fuels and vegetation are modified, cleared, or reduced to slow the spread of wildfire toward or from a structure. The design and distance of the defensible space is based on fuels, topography, and the design/materials used in the construction of the structure (SWCA).

- In California, PRC Section 4291, “defensible space” refers to a 100-foot perimeter around a structure in which vegetation (fuels) must be maintained in order to reduce the likelihood of ignition. This space may extend beyond property lines, or 100 feet as required by State law as well as local ordinances, rules, and regulations (Cal OPR 2020).

Duff: The layer of decomposing organic materials lying below the litter layer of freshly fallen twigs, needles, and leaves and immediately above the mineral soil (SWCA).

Ecosystem: An interacting natural system including all the component organisms together with the abiotic environment and processes affecting them (SWCA).

Environmental Conditions: That part of the fire environment that undergoes short-term changes: weather, which is most commonly manifest as windspeed, and dead fuel moisture content (Wooten 2021).

Escape Route: A preplanned and understood route firefighters take to move to a safety zone or other reduced-risk area. When escape routes deviate from a defined physical path, they should be clearly marked (flagged) (SWCA).

Evacuation: The temporary movement of people and their possessions from locations threatened by wildfire (SWCA).

Federal Responsibility Area (FRA): A term specific to California, designating areas where the federal government is responsible for fire response efforts. These areas include lands under federal ownership (Cal OPR 2020).

Fire-Adapted Community: A fire-adapted community collaborates to identify its wildfire risk and works collectively on actionable steps to reduce its risk of loss. This work protects property and increases the safety of firefighters and residents (U.S. Fire Administration 2021b).

Fire Behavior: The manner in which fuel ignites, flame develops, and fire spread and exhibits other related phenomena as determined by the interaction of fuels, weather, and topography (Fire Research and Management Exchange System 2021).

Fire Break: Areas where vegetation and organic matter are removed down to mineral soil (SWCA).

Fire Environment: The characteristics of a site that influence fire behavior. In fire modeling the fire environment is described by surface and canopy fuel characteristics, windspeed and direction, relative humidity, and slope steepness (Wooten 2021).

Fire Frequency: A broad measure of the rate of fire occurrence in a particular area. For historical analyses, fire frequency is often expressed using the fire return interval calculation. For modern-era analyses, where data on timing and size of fires are recorded, fire frequency is often best expressed using fire rotation (SWCA).

Fire Hazard: Fire hazard is the potential fire behavior or fire intensity in an area, given the type(s) of fuel present – including both the natural and built environment – and their combustibility (Cal OPR 2020).

Fire Hazard Severity Zone (FHSZ): Fire Hazard Severity Zones are defined based on vegetation, topography, and weather (temperature, humidity, and wind), and represents the likelihood of an area

burning over a 30- to 50-year time period without considering modifications such as fuel reduction efforts. In California, CAL FIRE maintains FHSZ data for the entire state. There are three classes of fire hazard severity ratings within FHSZs: Moderate, High, and Very High (Cal OPR 2020).

Fire History: The chronological record of the occurrence of fire in an ecosystem or at a specific site. The fire history of an area may inform planners and residents about the level of wildfire hazard in that area (SWCA).

Fire Intensity: A general term relating to the heat energy released in a fire (SWCA).

Fireline Intensity: Amount of heat release per unit time per unit length of fire front. Numerically, the product of the heat of combustion, quantity of fuel consumed per unit area in the fire front, and the rate of spread of a fire, expressed in kilowatts per minute (SWCA). This expression is commonly used to describe the power of wildland fires, but it does not necessarily follow that the severity, defined as the vegetation mortality, will be correspondingly high (Wooten 2021).

Fire Prevention: Activities such as public education, community outreach, planning, building code enforcement, engineering (construction standards), and reduction of fuel hazards that is intended to reduce the incidence of unwanted human-caused wildfires and the risks they pose to life, property, or resources (Cal OPR 2020).

Fire Regime: A measure of the general pattern of fire frequency and severity typical to a particular area or type of landscape: The regime can include other metrics of the fire, including seasonality and typical fire size, as well as a measure of the pattern of variability in characteristics (SWCA).

Fire Regime Condition Class: Condition classes are a function of the degree of fire regime condition class departure from historical fire regimes resulting in alterations of key ecosystem components such as composition structural stage, stand age, and canopy closure (Wooten 2021).

Fire Return Interval: Number of years (interval) between two successive fires in a designated area (SWCA).

Fire Severity: A qualitative measure of the immediate effects of fire on the fire severity ecosystem. It relates to the extent of mortality and survival of plant and animal life both aboveground and belowground and to loss of organic matter. It is determined by heat released aboveground and belowground. Fire Severity is dependent on intensity and residence dependent of the burn. For trees, severity is often measured as percentage of basal area removed. An intense fire may not necessarily be severe (Wooten 2021).

Fire Risk: “Risk” takes into account the intensity and likelihood of a fire event to occur as well as the chance, whether high or low, that a hazard such as a wildfire will cause harm. Fire risk can be determined by identifying the susceptibility of a value or asset to the potential direct or indirect impacts of wildfire hazard events (Cal OPR 2020).

Flammability: The relative ease with which fuels ignite and burn regardless of the quantity of the fuels (SWCA).

Flame Length: The length of flames in the propagating fire front measured along the slant of the flame from the midpoint of its base to its tip. It is mathematically related to fireline intensity and tree crown scorch height (Wooten 2021).

Forest Fire: Uncontrolled burning of a woodland area (National Geographic 2021).

Fuel Break: A natural or manmade change in fuel characteristics which affects fire behavior so that fires burning into them can be more readily controlled (NWCG 2021b).

Fuel Complex: The combination of ground, surface, and canopy fuel strata (Wooten 2021).

Fuel Condition: Relative flammability of fuel as determined by fuel type and environmental conditions (SWCA).

Fuel Continuity: A qualitative description of the distribution of fuel both horizontally and vertically. Continuous fuels readily support fire spread. The larger the fuel discontinuity, the greater the fire intensity required for fire spread (Wooten 2021).

Fuel Loading: The volume of fuel in a given area generally expressed in tons per acre (SWCA). Dead woody fuel loadings are commonly described for small material in diameter classes of 0 to 0.25, 0.25 to 1, and 1 to 3 inches and for large material greater than 3 inches (Wooten 2021).

Fuel Management/Fuel Reduction: Manipulation or removal of fuels to reduce the likelihood of ignition and to reduce potential damage in case of a wildfire. Fuel reduction methods include prescribed fire, mechanical treatments (mowing, chipping), herbicides, biomass removal (thinning or harvesting of trees, harvesting of pine straw), and grazing. Fuel management techniques may sometimes be combined for greater effect (SWCA). More information about fuel management and fuel reduction can be found in Appendix G.

Fuel Model: A set of surface fuel bed characteristics (load and surface-area-to-fuel model volume-ratio by size class, heat content, and depth) organized for input to a fire model (Wooten 2021).

Fuel Modification: The manipulation or removal of fuels (i.e., combustible biomass such as wood, leaves, grass, or other vegetation) to reduce the likelihood of igniting and to reduce fire intensity. Fuel modification activities may include lopping, chipping, crushing, piling, and burning, including prescribed burning. These activities may be performed using mechanical treatments or by hand crews. Herbicides and prescribed herbivory (grazing) may also be used in some cases. Fuel modification may also sometimes be referred to as “vegetation treatment” (Cal OPR 2020).

Fuel Moisture Content: This is expressed as a percent or fraction of oven dry fuel moisture content weight of fuel. It is the most important fuel property controlling flammability. In living plants, it is physiologically bound. Its daily fluctuations vary considerably by species but are usually above 80% to 100%. As plants mature, moisture content decreases. When herbaceous plants cure, their moisture content responds as dead fuel moisture content, which fluctuates according to changes in temperature, humidity, and precipitation (Wooten 2021).

Fuel Treatment: The manipulation or removal of fuels to minimize the probability of ignition and/or to reduce potential damage and resistance to fire suppression activities (NWCG 2021c). Synonymous with fuel modification.

Grazing: There are two types of grazing: 1) traditional grazing, and 2) targeted grazing. Traditional grazing refers to cattle that are managed in extensive pastures to produce meat. Targeted grazing involves having livestock graze at a specific density for a given period of time for the purpose of managing vegetation. Even though both kinds of grazing manage fuel loading in both rangelands and forested lands, targeted grazing is different in that its sole purpose is to manage fuels. Targeted grazing is done by a variety of livestock species such as sheep, goats, or cows (University of California, Agriculture and Natural Resources [UC ANR] 2019).

Ground Fire (subsurface): Fire that burns organic matter in the soil, or humus; usually does not appear at the surface (National Geographic 2021).

Ground Fuels (subsurface): Fuels that lie beneath surface fuels, such as organic soils, duff, decomposing litter, buried logs, roots, and the below-surface portion of stumps (Wooten 2021).

Hazard: A “hazard” can be defined generally as an event that could cause harm or damage to human health, safety, or property (Cal OPR 2020).

Hazardous Areas: Those wildland areas where the combination of vegetation, topography, weather, and the threat of fire to life and property create difficult and dangerous problems (SWCA).

Hazardous Fuels: A fuel complex defined by type, arrangement, volume, condition, and location that poses a threat of ignition and resistance to fire suppression (NWCG 2021d).

Hazardous Fuels Reduction: Any strategy that reduces the amount of flammable material in a fire-prone ecosystem. Two common strategies are mechanical thinning and prescribed burning (Wooten 2021).

Hazard Reduction: Any treatment that reduces the threat of ignition and spread of fire (SWCA).

Highly Valued Resources and Assets: Landscape features that are influenced positively and/or negatively by fire. Resources are naturally occurring, while assets are human-made (IFTDSS 2021).

Ignition: The action of setting something on fire or starting to burn (SWCA).

Incident: An occurrence or event, either natural or person-caused, which requires an emergency response to prevent loss of life or damage to property or natural resources (Wooten 2021).

Influence Zone: An area that, with respect to wildland and urban fire, has a set of conditions that facilitate the opportunity for fire to burn from wildland fuels to the home and or structure ignition zone (NWCG 2021e).

Initial Attack: The actions taken by the first resources to arrive at a wildfire to protect lives and property, and prevent further extension of the fire (SWCA).

Invasive Species: An introduced, nonnative organism (disease, parasite, plant, or animal) that begins to spread or expand its range from the site of its original introduction and that has the potential to cause harm to the environment, the economy, or to human health (U.S. Geological Survey 2021).

Ladder Fuels: Fuels that provide vertical continuity allowing fire to carry from surface fuels into the crowns of trees or shrubs with relative ease (SWCA).

Litter: Recently fallen plant material that is only partially decomposed and is still discernible (SWCA).

Local Responsibility Area (LRA): A term specific to California, designating areas where the local government is responsible for wildfire protection. The LRA includes incorporated cities, cultivated agricultural lands, and portions of the desert. LRA fire protection is typically provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to local government (Cal OPR 2020).

Manual Treatments: Felling and piling of fuels done by hand. The volume of material generated from a manual fuel treatment is typically too small to warrant a biomass sale therefore collected material is disposed of by burning or chipping. The work can be performed by either a single individual or a large, organized crew with powered equipment (UC ANR 2021a).

Mechanized Treatments: Mechanical treatments pulverize large continuous patches of fuel to reduce the volume and continuity of material. Mechanical treatments can be applied as either mastication or chipping

treatments. Both treatments shred woody material, but mastication leaves residue on-site while chipping collects the particles for transportation off site. Similar to manual treatments, mechanical treatments can target specific areas and vegetation while excluding areas of concern. In addition, mechanical treatment is easily scalable to large areas (>30 acres) with little added cost (UC ANR 2021b).

Mitigation: Action that moderates the severity of a fire hazard or risk (SWCA).

Mutual Aid: Assistance in firefighting or investigation by fire agencies, irrespective of jurisdictional boundaries (NWCG 2021f).

Native Revegetation: The process of replanting and rebuilding the soil of disturbed land (e.g., burned) with native plant species (USDA 2005).

Native Species: A species that evolved naturally in the habitat, ecosystem, or region as determined by climate, soil, and biotic factors (USDA 2005).

National Cohesive Strategy: The National Cohesive Wildland Fire Management Strategy is a strategic push to work collaboratively among all stakeholders and across all landscapes, using best science, to make meaningful progress toward three goals:

- Resilient Landscapes
- Fire-Adapted Communities
- Safe and Effective Wildfire Response

Vision: To safely and effectively extinguish fire when needed; use fire where allowable; manage our natural resources; and as a nation, to live with wildland fire (Forests and Rangelands 2021).

Overstory: That portion of the trees in a forest which forms the upper or uppermost layer (SWCA).

Passive Crown Fire: A type of crown fire in which the crowns of individual trees or small groups of trees burn, but solid flaming in the canopy cannot be maintained except for short periods. Passive crown fire encompasses a wide range of crown fire behavior, from occasional torching of isolated trees to nearly active crown fire. Passive crown fire is also called torching or candling. A fire in the crowns of the trees in which trees or groups of trees torch, ignited by the passing front of the fire. The torching trees reinforce the spread rate, but these fires are not basically different from surface (SWCA).

Prescribed Burning: Any fire ignited by management actions under specific, predetermined conditions to meet specific objectives related to hazardous fuels or habitat improvement. Usually, a written, approved prescribed fire plan must exist, and environmental and other requirements must be met, prior to ignition (USFS 2021a).

Prescribed Herbivory: Prescribed herbivory for hazardous fuel reduction is the intentional use of domestic livestock to remove, rearrange, or convert vegetation on wildlands to reduce the costs and losses associated with wildfires and to enhance the condition of forests, rangelands, and watersheds. The types of domestic livestock considered include sheep, goats, and cattle.

Rate of Spread: The relative activity of a fire in extending its horizontal dimensions. It is expressed as rate of increase of the total perimeter of the fire, as rate of forward spread of the fire front, or as rate of increase in area, depending on the intended use of the information. Usually, it is expressed in chains or acres per hour for a specific period in the fire's history (NWCG 2021g).

Resilience: Resilience is the capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience (Cal OPR 2020).

Response: Movement of an individual firefighting resource from its assigned standby location to another location or to an incident in reaction to dispatch orders or to a reported alarm (SWCA).

Safety Element: One of the seven mandatory elements of a local general plan (a county plan that forms the foundation for future development), the safety element must identify hazards and hazard abatement provisions to guide local decisions related to zoning, subdivisions, and entitlement permits. The element should contain general hazard and risk reduction strategies and policies supporting hazard mitigation measures (Cal OPR 2020).

Slash: Debris left after logging, pruning, thinning, or brush cutting. Slash includes logs, chips, bark, branches, stumps, and broken trees or brush that may be fuel for a wildfire (SWCA).

Slope Percent: The ratio between the amount of vertical rise of a slope and horizontal distance expressed as a percentage. One hundred feet of rise to 100 feet of horizontal distance equals 100 percent (NWCG 2021h).

Suppression: The most aggressive fire protection strategy, it leads to the total extinguishment of a fire (SWCA).

Surface Fire: Fire that typically burns only surface litter and undergrowth (National Geographic 2021).

Surface Fuel: Fuels lying on or near the surface of the ground, consisting of leaf and needle litter, dead branch material, downed logs, bark, tree cones, and low stature living plants (SWCA).

Structural Ignitability: The susceptibility of a structure (such as homes or fences) to catch fire (SWCA).

Topography: The arrangement of the natural and artificial physical features of an area (SWCA).

Total Fuel Load: The mass of fuel per unit area that could possibly be consumed in a hypothetical fire of the highest intensity in the driest fuels (Wooten 2021).

Tree Crown: The primary and secondary branches growing out from the main stem, together with twigs and foliage (SWCA).

Understory: Low-growing vegetation (herbaceous, brush or reproduction) growing under a stand of trees. Also, that portion of trees in a forest stand below the overstory (SWCA).

Understory Fire: A fire burning in the understory, more intense than a surface fire with flame lengths of 1 to 3 m (Wooten 2021).

Values and Assets at Risk: The elements of a community or natural area considered valuable by an individual or community that could be negatively impacted by a wildfire or wildfire operations. These values can vary by community and can include public and private assets (natural and manmade) – such as homes, specific structures, water supply, power grids, natural and cultural resources, community infrastructure-- as well as other economic, environmental, and social values (Cal OPR 2020).

Vulnerable Community: Vulnerable communities experience heightened risk and increased sensitivity to natural hazard and climate change impacts and have less capacity and fewer resources to cope with, adapt to, or recover from the impacts of natural hazards and increasingly severe hazard events because of climate change. These disproportionate effects are caused by physical (built and environmental), social, political, and/ or economic factor(s), which are exacerbated by climate impacts. These factors include, but are not limited to, race, class, sexual orientation and identification, national origin, and income inequality (Cal OPR 2020).

Wildfire: A “wildfire” can be generally defined as any unplanned fire in a “wildland” area or in the WUI (Cal OPR 2020).

Wildfire Exposure: During fire suppression activities, an exposure is any area/property that is threatened by the initial fire, but in National Fire Incident Reporting System (NFIRS) a reportable exposure is any fire that is caused by another fire, i.e., a fire resulting from another fire outside that building, structure, or vehicle, or a fire that extends to an outside property from a building, structure, or vehicle (U.S. Fire Administration 2020).

Wildfire Influence Zone: A wildland area with susceptible vegetation up to 1.5 miles from the interface or intermix WUI (Cal OPR 2020).

Wildland: Those unincorporated areas covered wholly or in part by trees, brush, grass, or other flammable vegetation (Cal OPR 2020).

Wildland Fire: Fire that occurs in the wildland as the result of an unplanned ignition (Cal OPR 2020).

Wildland Fuels (aka fuels): Fuel is the material that is burning. It can be any kind of combustible material, especially petroleum-based products, and wildland fuels. For wildland fire, it is usually live or dead plant material, but can also include artificial materials such as houses, sheds, fences, pipelines, and trash piles. In terms of vegetation, there are six wildland fuel types (Fuel Type: An identifiable association of fuel elements of distinctive species, form, size, arrangement, or other characteristics that will cause a predictable rate of spread or resistance to control under specified weather conditions.) The six wildland fuel types are (NWCG 2021i):

- Grass
- Shrub
- Grass-Shrub
- Timber Litter
- Timber-Understory
- Slash-Blowdown

Wildland-Urban Interface (WUI): The WUI is the zone of transition between unoccupied land and human development. It is the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels (U.S. Fire Administration 2021a). In the absence of a CWPP, Section 101 (16) of the Healthy Foresters Restoration Act defines the WUI as “(I) an area extending ½ mile from the boundary of an at-risk community; (II) an area within 1 ½ miles of the boundary of an at-risk community, including any land that (1) has a sustained steep slope that creates the potential for wildfire behavior endangering the at-risk community; (2) has a geographic feature that aids in creating an effective fire break, such as a road or ridge top; or (3) is in condition class 3, as documented by the Secretary in the project-specific environmental analysis; (III) an area that is adjacent to an evacuation route for an at-risk community that the Secretary determines, in cooperation with the at-risk- community, requires hazardous fuels reduction to provide safer evacuation from the at-risk community.” A CWPP offers the opportunity to establish a localized definition and boundary for the WUI (USFS 2021a, 2021b).



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APPENDIX A:

Planning and Policy Background

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PLANNING PROCESS

The Society of American Foresters, in collaboration with the National Association of Counties and the National Association of State Foresters, developed a guide entitled *Preparing a Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities* (Society of American Foresters 2004) to provide communities with a clear process in developing a community wildfire protection plan (CWPP). While this guide is now dated, the eight steps for developing a CWPP are still relevant and have been followed in preparing the Butte County CWPP:

Step One: Convene Decision-Makers. Form a Core Team made up of representatives from the appropriate local governments, local fire authorities, and state agencies responsible for forest management.

Step Two: Involve Federal Agencies. Identify and engage local federal representatives and contact and involve other land management agencies as appropriate.

Step Three: Engage Interested Parties. Contact and encourage active involvement in plan development from a broad range of interested organizations and stakeholders.

Step Four: Establish a Community Base Map. Work with partners to establish a base map(s) defining the community's wildland-urban interface (WUI) and showing inhabited areas at risk, wildland areas that contain critical human infrastructure, and wildland areas at risk for large-scale fire disturbance.

Step Five: Develop a Community Risk-Hazard Assessment. Work with partners to develop a community Risk-Hazard Assessment that considers fuel hazards; risk of wildfire occurrence; homes, businesses, and essential infrastructure at risk; other values at risk; and local preparedness capability. Rate the level of risk for each factor and incorporate this information into the base map as appropriate.

Step Six: Establish Community Priorities and Recommendations. Use the base map and Community Risk-Hazard Assessment to facilitate a collaborative community discussion that leads to the identification of local priorities for treating fuels, reducing structural ignitability and other issues of interest, such as improving fire response capability. Clearly indicate whether priority projects are directly related to the protection of communities and essential infrastructure or to reducing wildfire risks to other community values.

Step Seven: Develop an Action Plan and Assessment Strategy. Consider developing a detailed implementation strategy to accompany the CWPP as well as a monitoring plan that will ensure its long-term success.

Step Eight: Finalize Community Wildfire Protection Plan. Finalize the CWPP and communicate the results to community and key partners.

In 2024, CAL FIRE published the California CWPP Toolkit, which provides important guidance and resources for developing CWPPs in California, including an overview of California CWPP requirements (CAL FIRE 2024h). The Toolkit was used to ensure that this CWPP meets specific considerations required by CAL FIRE: https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/california-cwpp-toolkit.

FIRE MANAGEMENT POLICY

The responsibility for fire prevention and protection lies with a combination of property owners, state, county, and municipal governments. Property owners are expected to comply with applicable state statutes and local regulations. These efforts should be coordinated with federal agencies and the private sector to ensure a comprehensive approach to fire management. The current federal fire policy prioritizes the protection of 1) life, 2) property, and 3) natural resources. These priorities often limit flexibility in the decision-making process, especially when a wildland fire occurs within the wildland-urban interface (WUI).

LEGISLATIVE DIRECTION

Local Direction

Fire management policy within Butte County emphasizes a comprehensive approach to reducing wildfire risk and improving fire prevention measures. This strategy includes locally tailored policies and statewide legislation, focusing on enforcing fire protection standards, supporting vegetation management, enforcing weed abatement programs, and ensuring that all properties and development projects address wildland fire risks, particularly in areas identified by CAL FIRE or the local jurisdiction as being at increased risk.

One local ordinance that demonstrates Butte County's fire management approach includes Chapter 38A of the Butte County Code of Ordinances, titled "Fire Prevention and Protection," which mandates property owners maintain defensible space and manage hazardous vegetation to prevent the rapid spread of fire. This chapter builds off the state-level Public Resources Code 4291 and outlines administrative procedures for addressing fire hazards. The overall goal of Chapter 38A is voluntary compliance. Often, non-compliant properties can be referred to a local organization, such as the Fire Safe Council or Resources Conservation District, that can provide additional guidance and support in achieving compliance. For those parcels that remain out of compliance, Chapter 38A provides for issuing legal notices, enforcing compliance through abatement hearings, forced abatement of hazardous properties, and civil penalties. There are also provisions for Butte County to abate urgent fire hazards without formal hearings when immediate threats to public safety exist (Butte County 2024b).

Butte County's Building Code Ordinance (Ordinance No. 4172) adopts the 2019 California Building Standards Code (Title 24) and other relevant codes to establish minimum construction standards, promote fire safety, and ensure compliance with state requirements.

In response to recent devastating wildfires, Butte County has enacted two key chapters in its Code of Ordinances to support recovery efforts. Chapter 53 - Camp Fire Recovery, enacted as an urgency ordinance, addresses the aftermath of the 2018 Camp Fire by relaxing zoning and building restrictions to alleviate the housing shortage for displaced residents, permitting temporary housing solutions such as RVs, modular homes, and tiny houses. Similarly, Chapter 54 - North Complex Fire Recovery, implemented after the 2020 North Complex Fire, mandates the removal of hazardous structural debris and trees to ensure public safety and facilitate rebuilding efforts, providing property owners with options to participate in state-managed cleanup programs or choose private removal under county supervision. Chapter 56 – Park and Thompson Fire Recovery outlined mandatory requirements for debris and hazard tree removal, interim housing provisions, and enforcement measures to address the public health and safety risks caused by the Park Fire and Thompson Fire disasters (Butte County 2024b).

The passage of Measure H in Butte County's 2024 General Election signifies the securing of essential public services and community resources for regional public safety entities. This measure, which

implements a 1% sales tax, is expected to generate $44,000,000 annually toward maintaining emergency 911 response times; preparing for and recovering from wildfires and natural disasters; protecting abused and neglected children; addressing homelessness and mental health challenges; retaining and attracting qualified firefighters, EMTs, and sheriff's deputies; preventing thefts and property crimes; and supporting library services. The tax will be applied to both incorporated and unincorporated areas of the county and includes strict accountability measures such as public spending disclosures and annual audits (Butte County 2024c).

State Direction

The 2021 California Wildfire and Forest Resilience Action Plan recognizes that California faces continued and urgent threats from catastrophic wildfire. The purpose of this plan is to provide a foundation for supporting healthy, resilient, fire-adapted forests. The plan is organized into four overarching goals with sub-goals and their correlated action items. Some of the goals/strategies specific to wildfire include:

- **Increase fuel breaks:** Reduce the risk of wildfire and slow fire spread within the wildland-urban interface (WUI).
- **Protect wildfire-prone homes and neighborhoods:** Expand and extend defensible space programs.
- **Improve utility-related wildfire risk:** Ensure electrical corporations are compliant with wildfire regulations.
- **Create fire-safe roadways:** Ensuring emergency evacuation routes that can function as a fuel break.

Like the 2014 National Strategy, the 2018 Strategic Fire Plan for California, California's Wildfire and Forest Resilience Action Plan, CAL FIRE's 2024 California CWPP Toolkit, and the Federal Emergency Management Agency's (FEMA's) Disaster Mitigation Act of 2000 all mandate community-based planning efforts with full stakeholder participation, coordination, project identification, prioritization, funding review, and multiagency cooperation. In compliance with Title 1 of the Healthy Forests Restoration Act, a community wildfire protection plan must be mutually agreed upon by the local government, local fire departments, and the state agency responsible for forest management. See Figure A.1 for an overview of California's wildfire regulatory environment.

California Proposition 4, which passed in California's 2024 General Election, authorizes the state to sell a $10 billion bond for natural resources and climate activities. Of this amount, $1.95 billion is specifically allocated for wildfire prevention and extreme heat mitigation. This funding will support activities such as thinning overgrown forests, clearing vegetation near residential areas, and helping homeowners make their properties more resistant to wildfire damage. The measure prioritizes projects that benefit disadvantaged communities and mandates annual audits. The bond will be repaid from the State General Fund, with an estimated annual cost of $400 million over 40 years. This initiative is expected to significantly enhance California's wildfire management by providing substantial resources for prevention and mitigation efforts, potentially reducing the severity and impact of future wildfires (California Secretary of State 2024).

An overview of California CWPP requirements is included as part of the California CWPP Toolkit published by CAL FIRE. To access the Toolkit, visit: https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/california-cwpp-toolkit.

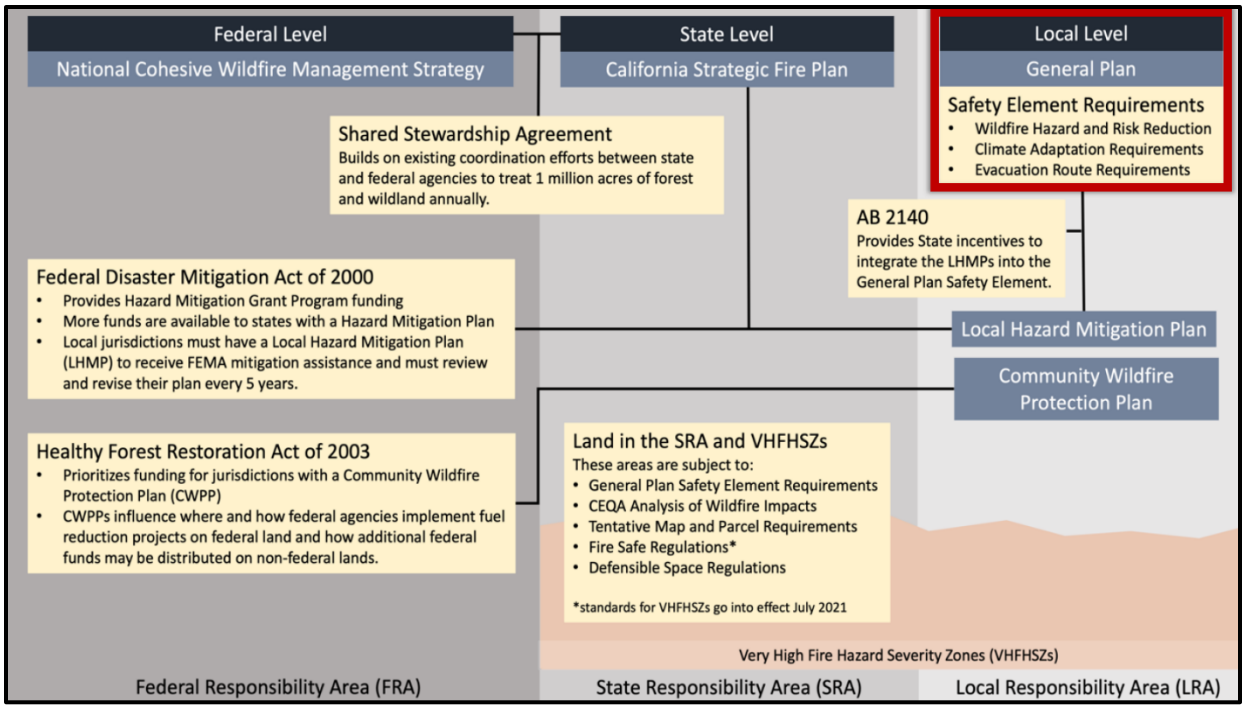


Figure A.1. California's wildfire regulatory framework. Source: Cal OPR (2022a)

California Bills and Regulations

Assembly Bill 38 (2019): Assembly Bill 38 creates a financial support program for wildfire mitigation, focusing on home hardening, retrofitting, and defensible space improvements in high-risk wildfire areas (Cal OPR 2022a). The bill also requires a disclosure of the defensible space status by the seller whenever improved property is sold anywhere in the High or Very High Fire Hazard Severity Zones (FHSZs) in both the State Responsibility Area (SRA) and Local Responsibility Area (LRA). This requirement does not apply to unimproved parcels (direct communication, CAL FIRE, 2025).

Assembly Bill 179 (2022): In September 2022, Governor Newsom signed Assembly Bill 179, allocating $1.3 billion over 2 years to enhance wildfire resilience and forest health across California (California Wildfire and Forest Resilience Task Force [CA WFRTF] 2024).

Assembly Bill 1550 (2016): Assembly Bill 1550 requires state agencies to prioritize investments in disadvantaged communities facing environmental and economic challenges (California Environmental Protection Agency 2022).

Assembly Bill 1823 (2019): This bill requires the State Board of Forestry and Fire Protection to establish a "Fire Risk Reduction Community" list by July 1, 2022, for local agencies in high fire risk areas (Cal OPR 2022a).

Evacuation Planning Requirements: Assembly Bill 747 (2019), **Assembly Bill 1409** (2020), and **Senate Bill 99** (2019) require local agencies to assess evacuation routes and identify communities with fewer than two routes (Cal OPR 2022a).

Public Resource Code (PRC) 4290: Establishes minimum wildfire protection standards for building, construction, and development in the SRA, effective since 1991 (California Legislative Information 2019b). Additionally, PRC 4290 grants the State Board of Forestry and Fire Protection authority to adopt fire safety regulations in the SRA and very high FHSZs (Cal OPR 2022a).

PRC 4291: Mandates defensible space around structures in the SRA or very high FHSZs, including clearing vegetation and debris near homes. An update in January 2021 added an ember-resistant zone requirement within 5 feet of structures, commonly referred to as “Zone 0” (California Legislative Information 2022; Cal OPR 2022a). In February 2025, in response to the Los Angeles Fires, Governor Newsom signed an executive order to direct the State Board of Forestry and Fire Protection to accelerate its work to adopt Zone 0 regulations.

PRC 4292–4296: These sections set vegetation management standards around overhead power lines to prevent fires (Cal OPR 2022a).

Senate Bill 246 (2015): Senate Bill 246 established the Integrated Climate Adaptation and Resiliency Program (ICARP), responsible for coordinating responses to climate change impacts across California (Cal OPR 2022a).

Senate Bill 379 (2015): Senate Bill 379 requires all California general plans to address climate change adaptation and resilience in the safety element (Cal OPR 2022a).

Senate Bill 535 (2012): Senate Bill 535 allocates funds from California Climate Investments to benefit communities identified as “Disadvantaged Communities” (DACs), based on pollution burden and federal land status (California Office of Environmental Health Hazard Assessment 2023).

Senate Bill 901 (2018): Senate Bill 901 updated the California Emergency Services Act, allowing the governor, with the advice of the Office of Emergency Services, to divide the state into mutual aid regions for wildfire response coordination (Cal OPR 2022a).

Senate Bill 1035 (2018): Senate Bill 1035 mandates that local agencies update the climate adaptation section of their general plan every 8 years, incorporating new information on fire hazards, climate resilience, and adaptation strategies (Cal OPR 2022a).

Senate Bill 1241 (2012): Senate Bill 1241 mandates that cities and counties in the SRA or Very High Fire Hazard Severity Zones (VHFHSZs) include wildfire hazard strategies in their safety elements (Cal OPR 2022a).

2022 Fire Hazard Severity Zones (FHSZs) Update: In 2023, CAL FIRE updated the FHSZs within the SRA, considering factors like vegetation, wind, and fire history. The 2023 FHSZ update for the SRA became effective April 1, 2024. FHSZs in the LRA are currently in the update process, with final maps expected in spring 2025 (CAL FIRE 2024g).

California Proposition 4: Proposition 4 authorizes a $10 billion bond with $1.5 billion dedicated to forest health and wildfire prevention. This funding is crucial for reducing wildfire risks by supporting forest thinning, vegetation clearing, and home hardening. These measures aim to decrease the severity of wildfires, protect communities, and potentially save state and local governments significant costs in disaster response and recovery (California Legislative Analyst Office 2024).

Federal Direction

The National Fire Plan was established after the 2000 fire season to foster collaboration between state, federal, and tribal agencies, ensuring preparedness for severe wildland fires. It was followed by a 2001 report, and was updated in 2002 and 2006, which emphasized restoring fire-adapted ecosystems, reducing hazardous fuels, and improving fire prevention. The 2006 update introduced a landscape-level vision for restoration, continued improvements in collaboration, and the importance of using fire as a

management tool. Annual reports track progress in community fire prevention efforts (Forests and Rangelands 2006).

In 2003, the Healthy Forests Restoration Act (HFRA) was enacted to expedite hazardous fuels reduction on federal lands, encouraging collaboration between agencies and communities. Revised in 2009, it introduced new funding provisions and refocused on wildfire mitigation. A key feature of the HFRA is the development of community wildfire protection plans, which allow communities to define their wildland-urban interface (WUI) and prioritize treatment areas for funding and hazard reduction projects (H.R. 4233 - Healthy Forest Restoration Amendmen

ts Act of 2009).

In 2023, the Wildfire Leadership Council updated the National Cohesive Wildland Fire Management Strategy through an Addendum Update. This update highlighted new emphasis areas, including climate change, workforce capacity, community resilience, and environmental justice. The updated strategy also outlined management options and addressed challenges faced by the 2014 framework (Forests and Rangelands 2023).

PLANNING EFFORTS

LOCAL

2024 Butte County Local Hazard Mitigation Plan (LHMP): This comprehensive hazard mitigation plan identifies the primary risks faced by Butte County, including wildfires, floods, and earthquakes. Mitigation goals are aligned with Federal Emergency Management Agency's (FEMA's) guidelines to ensure eligibility for federal disaster assistance and grant funding (Butte County 2024a). The LHMP contains more than 20 annexes for jurisdictions, special districts, and nonprofits and can be found here: https://www.buttecounty.net/808/Local-Hazard-Mitigation-Plan.

2025 CAL FIRE Butte Unit Fire Danger Operating Plan (FDOP): The CAL FIRE Butte Unit FDOP serves as a critical framework for managing wildfire risks, providing standardized procedures for assessing, communicating, and responding to fire danger levels. It uses local data, weather forecasts, and historical fire behavior to understand the magnitude of local fire danger, guiding decisions on staffing, resource allocation, and public advisories. By outlining clear protocols for various fire danger levels, the FDOP helps fire management agencies implement measures to prevent and mitigate wildfires, protect communities, and coordinate effectively among multiple agencies.

Butte County Community Health Assessment: The 2023 Community Health Assessment, updated in 2024 and led by the Butte County Department of Public Health, provides a comprehensive overview of health and social factors impacting county residents. It also underscores the county's efforts to address the lingering effects of disasters such as wildfires and the COVID-19 pandemic, emphasizing the need for targeted public health initiatives to improve the overall well-being of the population (Butte County 2024c).

2021 Butte County Climate Action Plan: The Butte County Climate Action Plan aims to reduce greenhouse gas emissions and prepare for the impacts of climate change, including the increased threat of wildfires. This document serves as a guide for aligning wildfire prevention with broader environmental goals, such as enhancing carbon sequestration through forest management and improving air quality (Butte County 2021).

Upper Ridge Community Plan: The Upper Ridge Community Plan focuses on the recovery and redevelopment of the communities affected by the Camp Fire, including strategies for reducing wildfire risks in the wildland-urban interface. The plan includes recommendations for land use, infrastructure improvements, and community resilience, aiming to rebuild in a way that mitigates future fire risks while fostering economic and social recovery (Butte County 2022).

California Department of Water Resources Oroville Facilities Fuel Load Management Plan (FLMP): The Oroville Facilities FLMP was developed by the California Department of Water Resources and outlines strategies to manage and reduce wildfire risks within the Federal Energy Regulatory Commission project boundary. The plan focuses on reducing fuel loads through various treatments like prescribed burns, thinning, grazing, and herbicide application (California Department of Water Resources 2023).

Butte County CWPP/CAL FIRE Butte Unit Fire Plan: The Butte County CWPP and the CAL FIRE Butte Unit Fire Plan are a single, integrated document that serves as both the countywide CWPP and Unit Fire Plan for Butte County. This plan identifies and prioritizes pre- and post-fire management strategies in collaboration with federal, state, city, town, and county agencies, as well as tribal entities, private companies, nonprofits, and other non-governmental organizations. It provides a comprehensive framework for wildfire prevention, preparedness, and response by addressing the unique wildfire hazards of the local region while aligning with CAL FIRE's statewide goals. The 2025 CWPP/Fire Plan is a complete rewrite of the 2020 document that was last revised in May 2024. The plan ensures coordinated, localized strategies and tactics to effectively manage wildfire risks and enhance community safety (CAL FIRE 2024i).

All-At-Once Evacuation Plan: The Town of Paradise All-At-Once Evacuation Plan was developed based on findings from the Camp Fire After Action Review and Corrective Action reports. The plan is designed to move traffic off the ridge and onto Highway 99 without interruption. The plan includes the Town of Paradise Public Works, Butte County Public Works, the City of Chico, the California Highway Patrol (CHP), and the California Department of Transportation (Caltrans).

Butte County Emergency Evacuation Report: In 2021, Butte County received a grant from the California Department of Housing and Community Development to enhance emergency evacuation planning. Partnering with a transportation consulting firm in 2022, the County conducted traffic pattern analyses and evacuation modeling scenarios to develop an Emergency Evacuation Report and detailed evacuation maps for unincorporated communities. Completed in 2025, these resources were informed by community input gathered through public meetings and provide critical guidance for safe evacuations (Butte County 2025).

2022 Butte Forested Watersheds Plan: The Butte Forested Watersheds Plan aims to create a resilience framework for Butte County's forested watersheds, focusing on health and sustainability amidst wildfire risks and climate change. Key objectives include fire adaptation through reduced fuel loads, promoting biodiversity, ensuring climate resilience, maintaining water quality, and managing herbivory. The plan emphasizes a shift from project-based to programmatic management, collaboration with local tribes, and community-based fire management. Additionally, it seeks to develop biomass capacity to use forest thinning byproducts and reduce wildfire risks. Access the plan at: https://www.bcrcd.org/files/dcf88caf7/Butte+Forested+Watersheds+Plan+Final+Revised+2-18-22.pdf.

City of Chico Vegetative Fuels Management Plan (VFMP): The City of Chico's 2021 VFMP provides a comprehensive framework for managing over 6,400 acres of parks, greenways, and open spaces to reduce wildfire risk while improving ecological health and community values. The plan outlines specific goals and objectives, focusing on minimizing fire hazards, protecting native biodiversity, enhancing

wildlife habitat, and maintaining ecosystem services like water quality. It prioritizes key projects but also authorizes vegetation management across all City-owned lands (City of Chico 2021).

STATE

Strategic Fire Plan for California: The 2018 Strategic Fire Plan for California is a comprehensive document developed by CAL FIRE and the State Board of Forestry and Fire Protection. It aims to enhance the state's ability to manage and mitigate wildfire risks through a combination of fire prevention, suppression activities, and natural resource management (CAL FIRE 2018a).

Key Focus Areas

- *Fire Prevention and Suppression*: The plan emphasizes activities to protect lives, property, and ecosystem services.
- *Natural Resource Management*: Maintaining the state's forests as a resilient carbon sink is crucial.
- *Community Engagement and Education*: Increasing public awareness and education on fire prevention and safety is a significant component.

Goals and Objectives

The 2018 Strategic Fire Plan for California outlines eight primary goals, supported by 66 specific objectives. These goals include identifying and evaluating wildland fire hazards, integrating land use planning, enhancing collaborative community fire protection planning, increasing fire prevention awareness, integrating fire and fuels management practices with landowner/land manager priorities across jurisdictions, determining the adequate level of fire suppression and fire planning resources, and implementing post-fire assessment programs (CAL FIRE 2018a).

California State Hazard Mitigation Plan: The 2023 California State Hazard Mitigation Plan outlines California's strategy to reduce the impacts of disasters through a multi-sector and community-wide approach to risk reduction (Cal OES 2023).

Fire Hazard Planning Technical Advisory: In 2022, the California Governor's Office of Planning and Research (Cal OPR) updated the Fire Hazard Planning Technical Advisory. The goal of the guide is to provide a framework for planners and decision-makers in addressing hazards, increasing resilience, and reducing risks associated with fire (Cal OPR 2022a).

Wildland-Urban Interface Planning Guide: In 2022, in accordance with the requirements of Assembly Bill 75, the California Governor's Office of Planning and Research (Cal OPR), together with the Community Wildfire Planning Center and CAL FIRE, created the wildland-urban interface (WUI) planning guide. The guide serves as a supplement to the Fire Hazard Planning Technical Advisory. The regulation section of the guide provides required and recommended codes for resilient WUI planning as well as rationale for how these measures promote a fire-safe community (Cal OPR 2022b).

California's Forests and Rangelands: 2017 Assessment: In 2018, CAL FIRE published California's Forests and Rangelands: 2017 Assessment. CAL FIRE's Fire and Resource Assessment Program evaluates California's forests and rangelands and analyzes their condition to establish management and regulatory guidelines (CAL FIRE 2018c).

Community Wildfire Prevention & Mitigation Report: In 2019, CAL FIRE published the Community Wildfire Prevention & Mitigation Report in response to Executive Order N-05-19, which directs CAL FIRE

and other state agencies to recommend administrative, regulatory, and policy changes to prevent and mitigate wildfires (CAL FIRE 2019a).

California's Wildfire and Forest Resilience Action Plan: In 2021, the California Wildfire and Forest Resilience Task Force (CA WFRTF) developed California's Wildfire and Forest Resilience Action Plan. The purpose of the plan was to sustain economic strength of the forests, improve forest health and resilience, and increase the level of fire safety within communities (CA WFRTF 2021).

Vegetation Management Program: In addition to the 2018 Strategic Fire Plan for California, CAL FIRE operates a Vegetation Management Program (VMP) that focuses on addressing resource management and wildfire fuel hazards within State Responsibility Area (SRA) lands. The VMP utilizes cost-sharing methodology, prescribed fire, and mechanical fuels treatments to address wildland fuel hazards on SRA lands. Landowners can apply for participation in the VMP program and once approved as a VMP project, CAL FIRE assumes liability for conducting treatments (CAL FIRE 2022c).

California Vegetation Treatment Program: The State of California operates the California Vegetation Treatment Program (CalVTP). This program was developed by the Board of Forestry and Fire Protection to create healthy fire regimes, reduce hazardous vegetation that increases wildfire risk, and reduce risk within communities (California Department of Conservation 2024a).

PUBLIC LAND MANAGEMENT

LAND MANAGEMENT STRATEGIES

Forest managers in the region are addressing land management objectives through the use of prescribed fire, mechanical, and manual treatments to promote more resilient forest lands. Private, state, and federal lands are interspersed, creating a matrix of land ownership, which is often a hurdle to implementation of landscape-level treatments. By working with private landowners, forest managers are enhancing landscape-scale efforts to create more resilient forest communities.

Local Land

At a broad level, the guiding principles for management of public local lands are established in the Butte County General Plan 2040 (Butte County 2023).

Butte County's parks and recreational facilities are managed by five municipalities and five large, independent special districts. The five key recreation and park districts are Chico Area, Durham, Feather River, Paradise, and Richvale Recreation and Park Districts (Butte County 2023). Notably, the Gridley and Biggs areas are not served by a special park district. Instead, the Cities of Gridley and Biggs provide recreation facilities. Additionally, the City of Chico owns and manages Bidwell Park, one of the largest city-owned parks in the United States.

State Land

California and the federal government currently are in a shared stewardship agreement for California forests and rangelands. This agreement sets goals for fuels treatment, forest management, and watershed health (California Governor 2020). More information on this shared stewardship agreement can be found under the Stewardship Agreements subsection of this appendix.

Priority Landscapes

Priority landscapes, as defined by the California Fire and Resource Assessment Program, are areas where ecosystems, infrastructure, or economic assets face high risks from wildfires, pests, or climate change. Ranked by asset value and threat severity, high-priority landscapes, particularly in the WUI, demand immediate action to mitigate wildfire risks through strategies like forest thinning and defensible space.

For more information on the Fire and Resource Assessment Program, visit the following webpage: https://www.fire.ca.gov/what-we-do/fire-resource-assessment-program/.

California Department of Parks and Recreation

The California Department of Parks and Recreation (commonly referred to as California State Parks) is the largest state park system in the United States, spanning approximately 1.4 million acres across 279 park units. The system is divided into 21 districts, each responsible for the upkeep and management of their respective regions (California State Parks 2024a). Butte County falls under the Northern Buttes District.

The primary objectives of land management within California State Parks include preserving biological diversity, protecting cultural resources, providing recreational opportunities, and offering educational programs. In response to the state's wildfire risks, the parks have implemented various mitigation strategies such as fuel reduction, prescribed burns, and the creation of firebreaks (California State Parks 2024b).

Lake Oroville State Recreation Area

Lake Oroville State Recreation Area is a scenic destination in Butte County, managed by California State Parks and the California Department of Water Resources. The area spans approximately 15,500 acres of lake surface with 167 miles of shoreline. The park's goals include water conservation, flood control, recreation, and environmental protection. In July 2024, parts of the park were affected by the Thompson Fire, leading to temporary closures of some trails (California State Parks 2024c).

The Lake Oroville State Recreation Area includes the Thermalito North and South Forebays. The 300-acre North Forebay offers a day-use area with manicured turf, diverse shade trees—including European sycamore, olive, valley oak, and zelkova—a sandy swimming beach, picnic sites with ramadas, and a fishing pier. The South Forebay features a parking area, a four-lane boat ramp, picnic tables, and a sandy beach. Though it lacks shade and drinking water, it remains a popular spot for power boating and fishing.

Clay Pit State Vehicular Recreation Area

Clay Pit State Vehicular Recreation Area (SVRA) is located about 2 miles west of Oroville in Butte County. This 220-acre area is characterized by its unique topography that was formed when clay was mined from the area during construction of the nearby Oroville Dam. This area provides recreational opportunities for a wide range of Off Highway Vehicles, including motorcycles, 4x4s, and all-terrain vehicles (ATVs) (California State Parks 2024d; direct communication, CAL FIRE, 2025).

Bidwell-Sacramento River State Park

Bidwell-Sacramento River State Park, located near Chico, spans more than 355 acres of picturesque riparian habitat along the Sacramento River and Big Chico Creek. The park is characterized by its lush oak woodlands, cottonwood trees, and scenic river landscapes (California State Parks 2024e).

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) manages well over 1 million acres of fish and wildlife habitat across 749 properties throughout California. These properties serve as habitat for a great diversity of fish, wildlife, and plant species and include varied habitats from major ecosystems in the state (CDFW 2023). In 2021, the CDFW initiated the largest wildfire protection and resiliency endeavor in its history, with a focus to improve wildfire protection and resiliency in most of its ecological reserves, wildlife areas, and surrounding communities. Methods employed by the CDFW to accomplish its wildfire resiliency goals include the installation of fire breaks, brush removal, vegetation thinning, livestock grazing, and prescribed burns (CDFW 2021b).

CDFW-managed lands in Butte County are listed below:

- Butte Creek Canyon Ecological Reserve
- Butte Creek House Ecological Reserve
- Coon Hollow Wildlife Area
- Feather River Fish Hatchery
- Gray Lodge Wildlife Area
- North Table Mountain Ecological Reserve
- Oroville Wildlife Area
- Upper Butte Basin Wildlife Area

California Department of Water Resources

The California Department of Water Resources (DWR), a key agency in managing the state's water resources, oversees approximately 1,200 miles of levees and 700 miles of canals. The DWR system is divided into several regions, each responsible for the maintenance and management of their respective areas. Butte County falls under the Northern Region.

The primary objectives of water management within the DWR include ensuring water supply reliability, protecting water quality, providing flood protection, and supporting ecosystem health.

Oroville Facilities

The Oroville facilities, designated as FERC Project No. 2100 (P-2100), are situated along the Feather River in Butte County. Key components include Oroville Dam and Reservoir, Edward Hyatt Powerplant, Thermalito facilities, Feather River Fish Hatchery, and various recreational and conservation areas. The hydroelectric system has a licensed capacity of approximately 762 megawatts, generating an average of 2.2 billion kilowatt-hours annually.

Federal Land

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) manages over 150 million acres across more than 560 national wildlife refuges as part of the National Wildlife Refuge System, dedicated to conserving fish, wildlife, plants, and their habitats (USFWS n.d.a). In Butte County, the two USFWS-managed areas are the Sacramento River National Wildlife Refuge and the Steve Thompson North Central Valley Wildlife

Management Area. The USFWS manages a total of 4,004 acres of land in the Butte County planning area.

A key part of the USFWS mission is its fire management program, which employs 498 professionals who manage prescribed fires to reduce combustible materials and prevent large wildfires. These prescribed burns, which treat about 342,845 acres annually nationwide, promote native vegetation and improve wildlife habitats (USFWS n.d.b). In addition, the fire management team responds to wildfires, protecting natural resources and human communities. The USFWS collaborates with other agencies to conduct prescribed burns and manage wildfire risks (USFWS n.d.b).

Bureau of Land Management

The Bureau of Land Management (BLM) oversees the largest fire program in the U.S. Department of the Interior, managing over 245 million acres of public lands, primarily in the western United States and Alaska. The BLM's Redding Field Office manages 13,814 acres in Butte County as part of the Northern California District, mostly in the northwestern portion of the county. The BLM Fire Program prioritizes public safety through fire suppression, preparedness, fuels management, community assistance, and education (BLM n.d.a).

In California, the BLM faces challenges from diverse landscapes, increasing wildland development, unpredictable weather, and tree mortality from drought and bark beetles. The BLM California Fire Management Program protects people, property, and resources across over 2,000 communities at risk. BLM California collaborates with federal, state, and local agencies through a cooperative fire protection agreement that coordinates statewide fire suppression efforts (BLM n.d.b).

U.S. Forest Service

The U.S. Forest Service (USFS) manages 193 million acres of national forests and grasslands, focusing on public safety, ecosystem health, and resource protection. For over 100 years, the USFS has employed a comprehensive fire management approach that includes fire suppression, prescribed burning, and community protection, guided by the National Cohesive Wildland Fire Management Strategy (USFS n.d.a).

In California, the USFS faces significant challenges due to diverse ecosystems and frequent wildfires. The USFS California Fire Management Program, part of the Pacific Southwest Region (Region 5), protects people and resources across 18 national forests, covering 20 million acres. The USFS collaborates with federal, state, and local agencies, participating in the California Wildfire and Forest Resilience Task Force and utilizing strategies such as fuel breaks, fuel load reduction, and prescribed burns to manage fire risk and promote ecosystem health (USFS n.d.b).

In Butte County, parts of two national forests—Plumas National Forest (1,146,000 total acres, and 141,915 acres in the planning area) and Lassen National Forest (1,200,000 total acres, and 55,480 acres in the planning area)—are located in the eastern and northeastern portions of the county, respectively. These portions fall under two ranger districts: the Almanor Ranger District (Lassen National Forest) and the Feather River Ranger District (Plumas National Forest).

Bureau of Indian Affairs

The Bureau of Indian Affairs manages fire through its Division of Wildland Fire Management. The goal of this program is to protect lives, property, and resources while restoring and maintaining healthy ecosystems and promoting Indian self-determination. The Division provides wildland fire protection for

federally recognized tribes and individual Indians through collaboration with other agencies where applicable under Public Law 93-638 (Bureau of Indian Affairs 2024).

Services provided by the Division of Wildland Fire Management include, but are not limited to, ecosystem improvements, wildland firefighter and safety training, fuels management, prescribed fire, and post-wildfire recovery. The Bureau of Indian Affairs oversees 637 acres in the southern portion of Butte County.

Stewardship Agreements

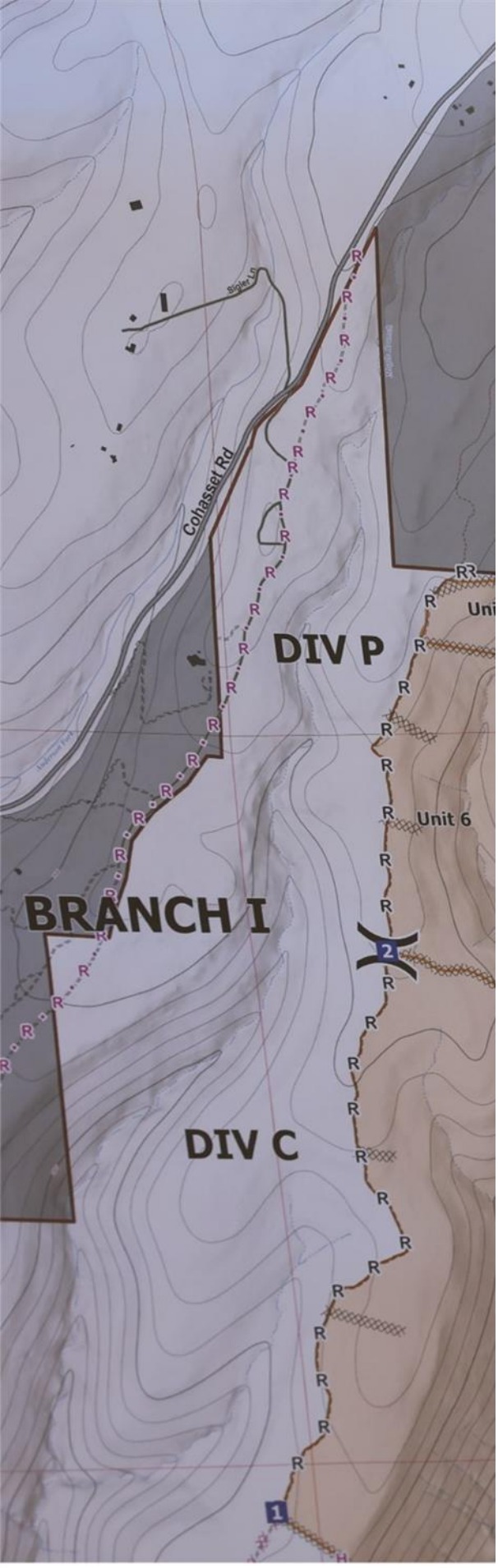
Land stewardship agreements are vital for the sustainable management and preservation of our natural resources. These agreements foster collaborative efforts between various stakeholders, including government agencies, tribal nations, nonprofit organizations, and private landowners, to ensure that land is managed in a way that balances ecological health, cultural values, and community needs. By pooling resources and expertise, stewardship agreements enable the implementation of comprehensive land management practices that address critical issues such as wildfire prevention, habitat restoration, and water quality protection.

In 2020, California and the federal government signed an agreement of the shared stewardship for California forests and rangelands. The agreement sets many goals for the state of California and the federal government to accomplish together (California Governor 2020). These goals include treating at least 1 million acres of California lands per year to reduce the risk of wildfires, developing a 20-year cooperative forest management plan, which will outline projects and priorities, encouraging and increasing the use of sustainable land management practices such as prescribed fire, increase the forest management workforce and in turn increase the pace and scale of forest management, and prioritizing forest health benefits such as carbon sequestration and healthy watersheds. Funding for this agreement is provided from the Great American Outdoors Act (California Governor 2020). You can find the stewardship agreement here: https://www.gov.ca.gov/wp-content/uploads/2020/08/8.12.20-CA-Shared-Stewardship-MOU.pdf

In a landmark collaboration, the Bureau of Land Management (BLM) and Mooretown Rancheria have signed a co-stewardship agreement to manage over 1,300 acres of public and tribal lands near Lake Oroville in Butte County. This agreement, the first of its kind between BLM California and a federally recognized tribe, aims to enhance natural and cultural resource protection by integrating tribal management practices with federal land management. The Mooretown Rancheria, with its robust forestry department, has been actively managing forested lands to protect against wildfires and improve ecosystem resilience. This partnership, stemming from a 2021 Secretarial Order, underscores the commitment to protect the treaty, religious, subsistence, and cultural interests of federally recognized tribes (BLM 2023).

Further, the Northern California Regional Land Trust and the Butte County Collaborative Group (BCCG) are working together on wildfire preparedness and recovery, emphasizing community involvement and the use of advanced planning tools to mitigate wildfire risks and enhance land stewardship (Northern California Regional Land Trust 2024).

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APPENDIX B:

Mapping

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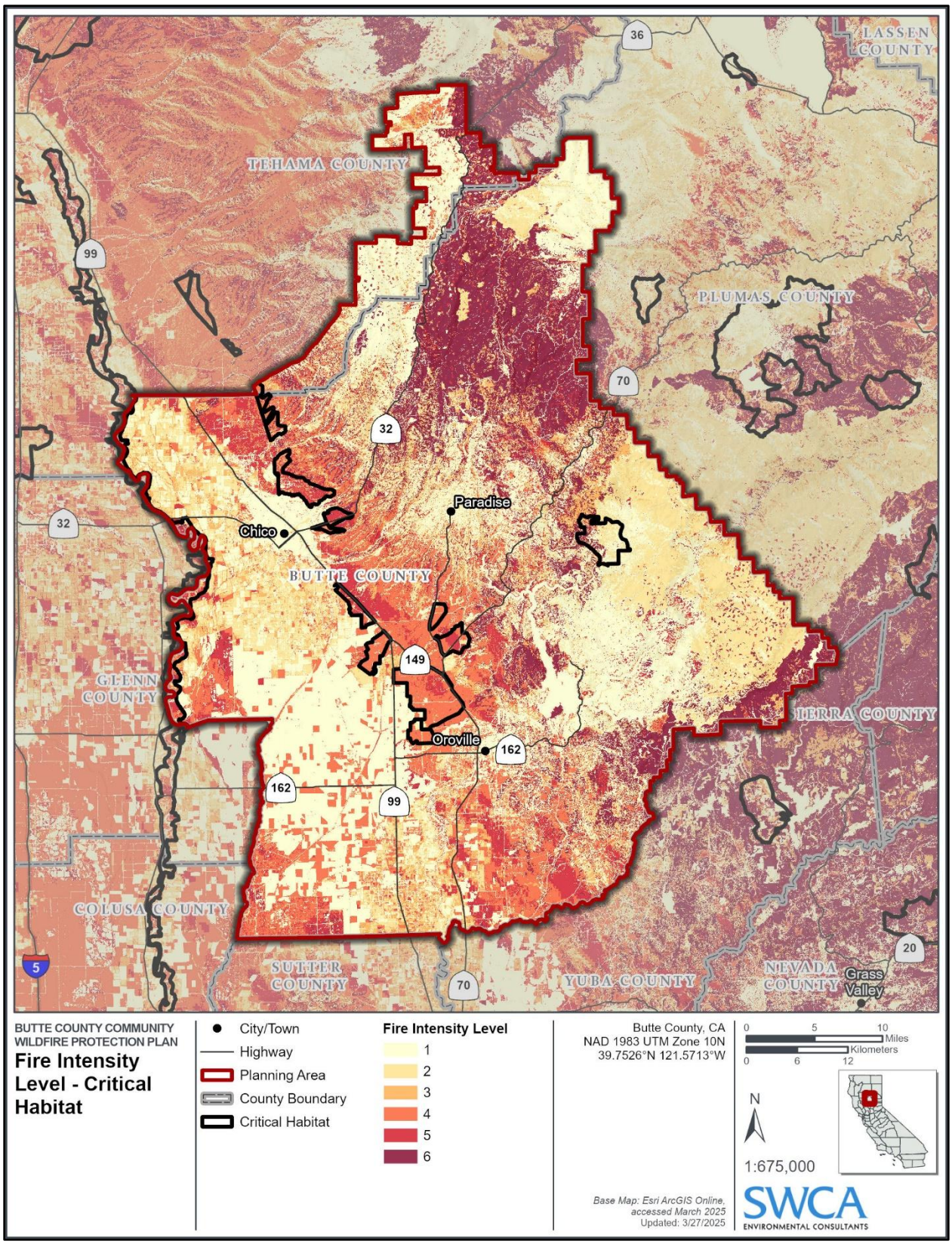


Figure B.1. Fire intensity levels across critical habitat areas in the Butte County CWPP planning area.

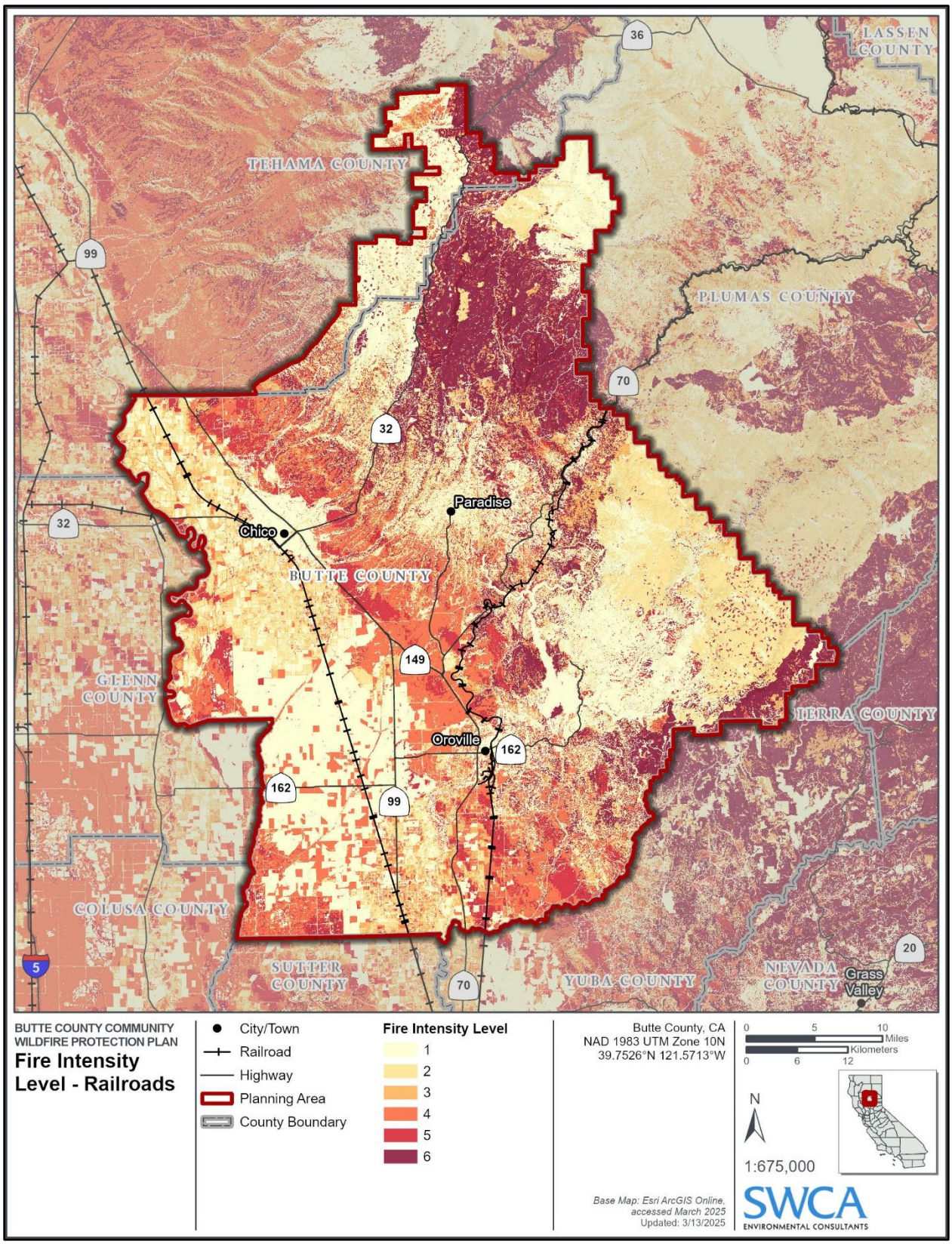


Figure B.2. Fire intensity levels around railroads in the Butte County CWPP planning area.

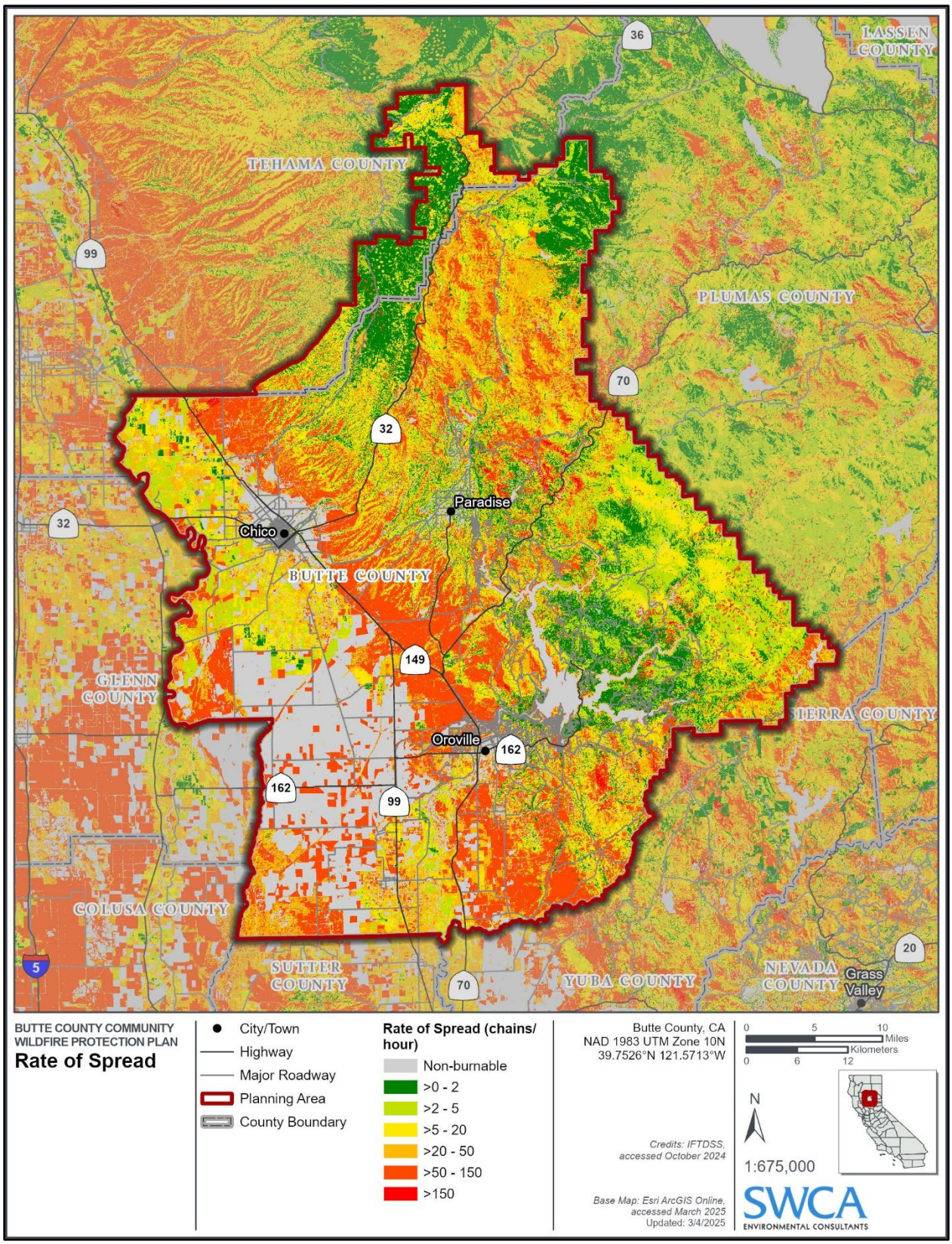


Figure B.3. Rate of wildfire spread potential in the Butte County CWPP planning area, measured in chains per hour.

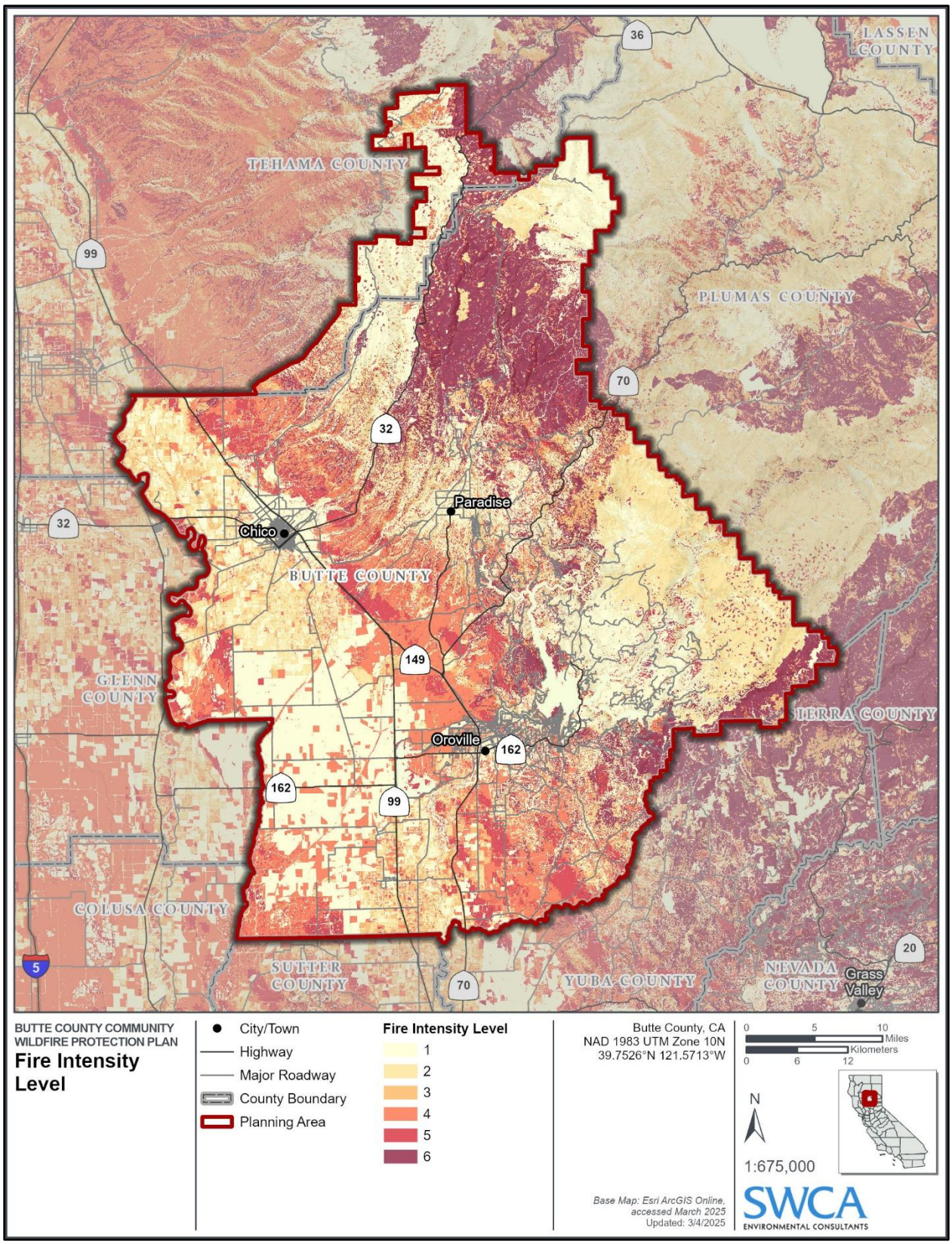


Figure B.4. Fire intensity levels across the Butte County CWPP planning area, indicating areas where wildfires are likely to burn with greater severity.

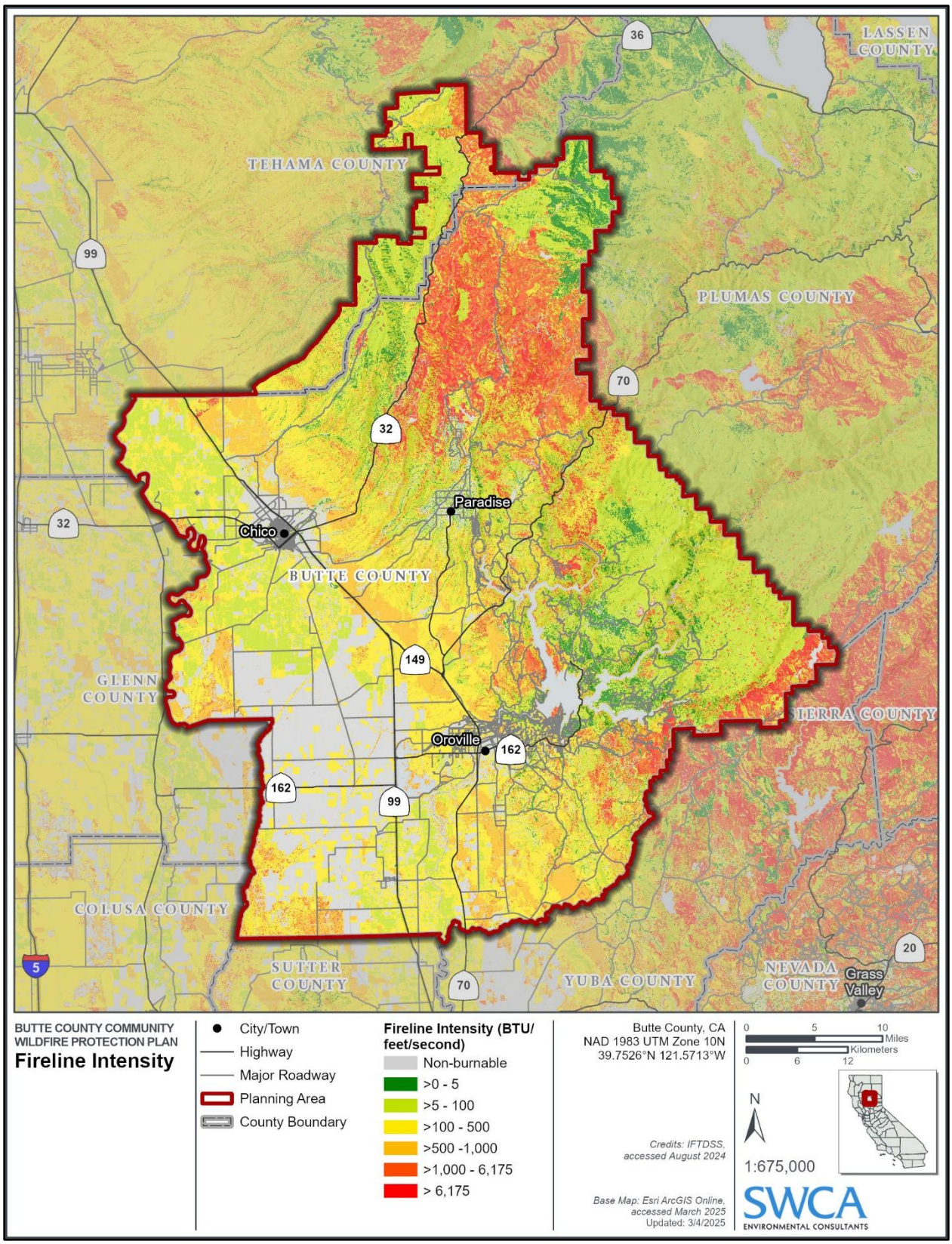


Figure B.5. Estimated fireline intensity across the Butte County CWPP planning area, measured in British thermal units (BTU) per foot per second, showing areas likely to experience severe fire behavior.

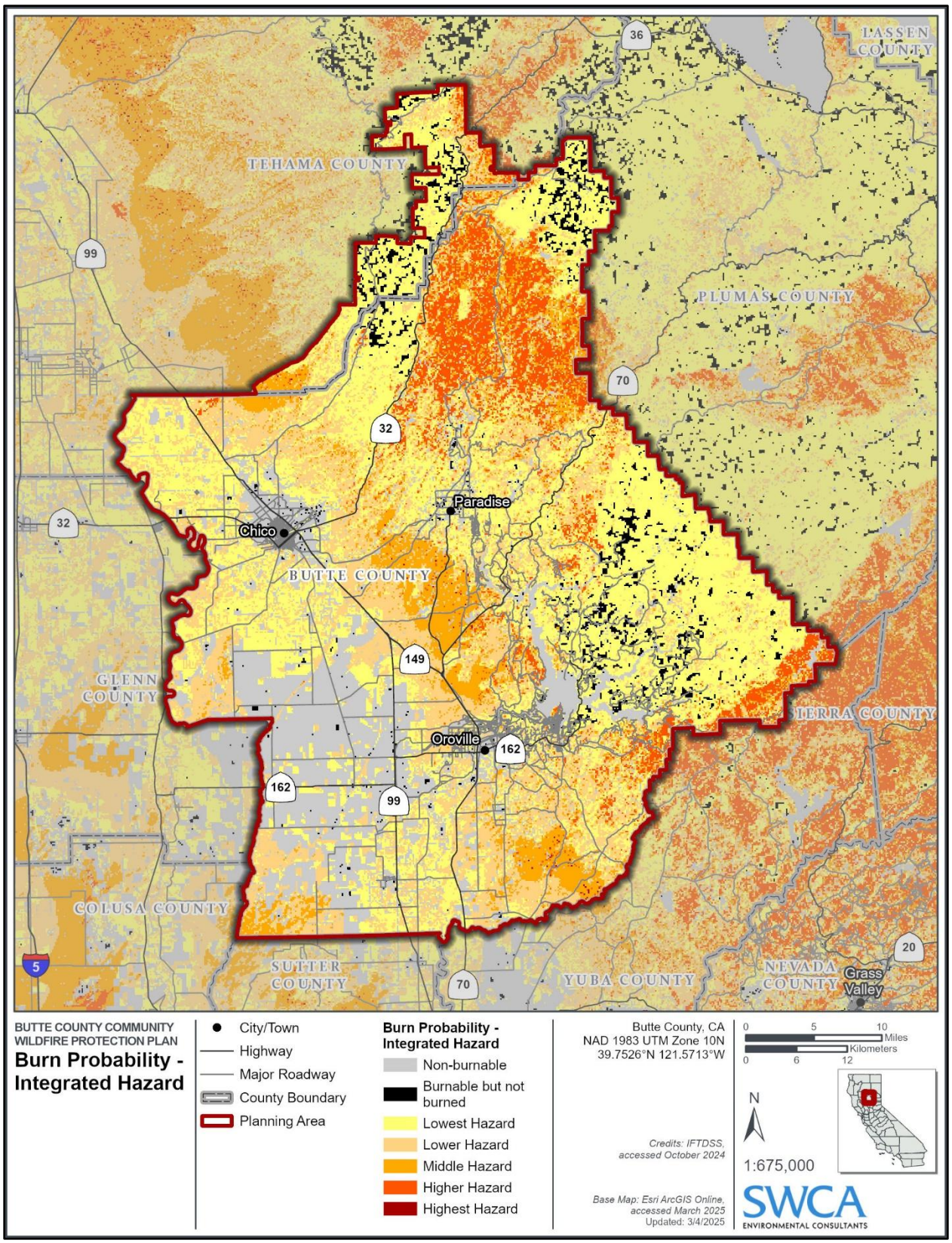


Figure B.6. Burn probability and integrated hazard levels across the Butte County CWPP planning area, categorizing areas based on their likelihood of burning and potential hazard level.

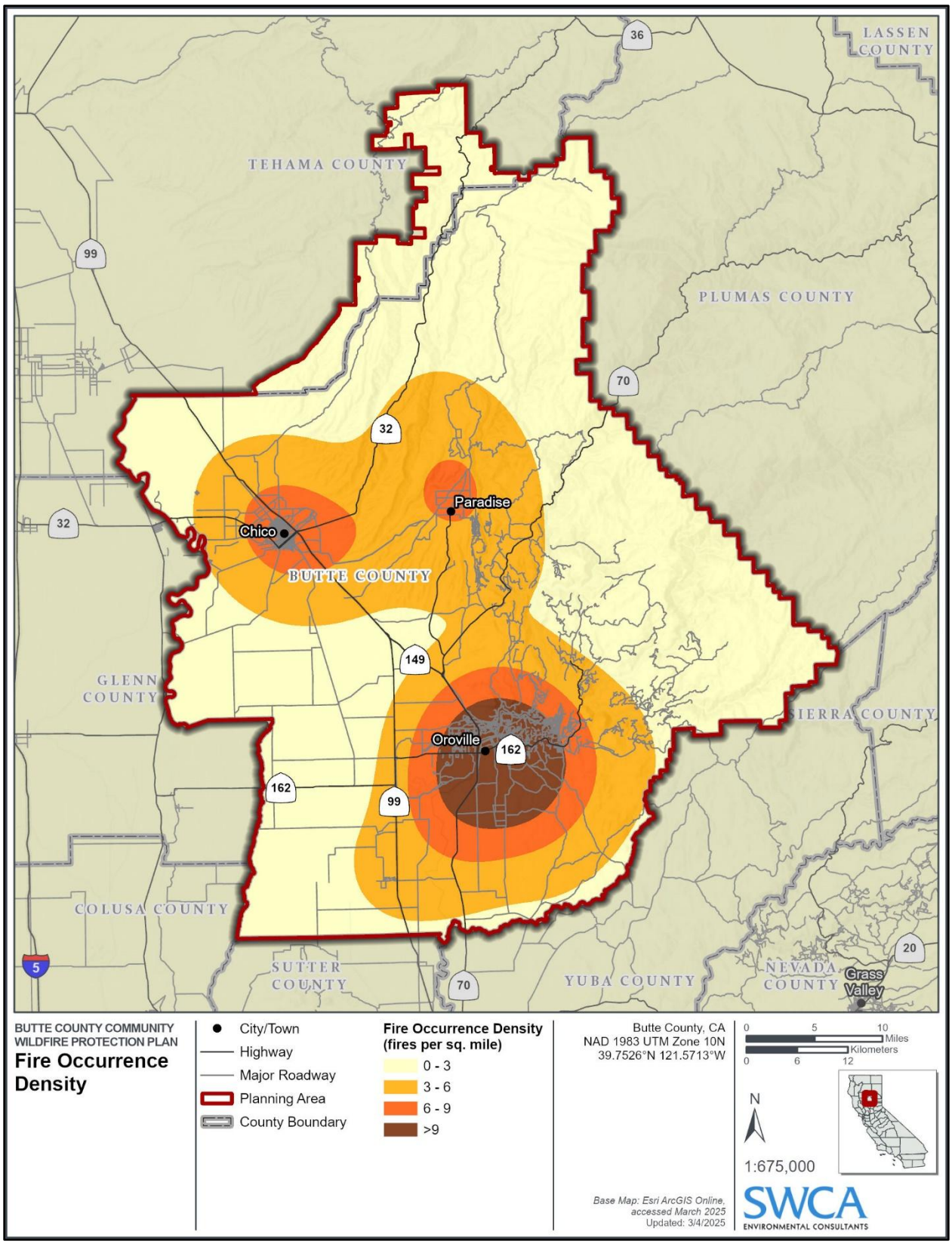


Figure B.7. Density of historical fire occurrences (2000–2024) in the Butte County CWPP planning area, with areas shaded by frequency.

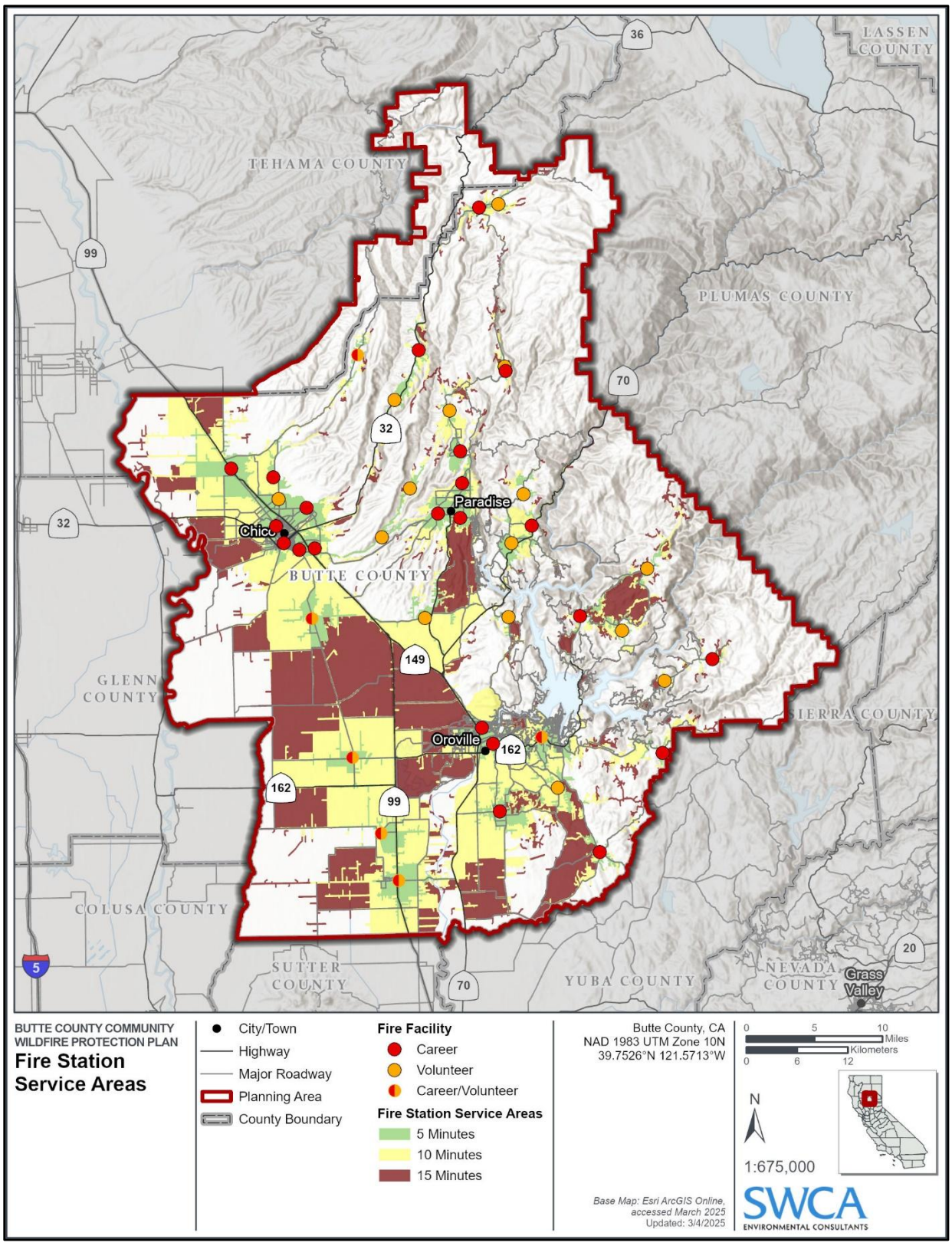


Figure B.8. Fire station service areas in the Butte County CWPP planning area, illustrating response times of 5, 10, and 15 minutes from each station.

Note: This analysis does not differentiate between Local, State, and Federal Responsibility Areas, nor does it account for cooperative agreements. It is limited to areas accessible by road within a maximum 15-minute drive time from a fire station.

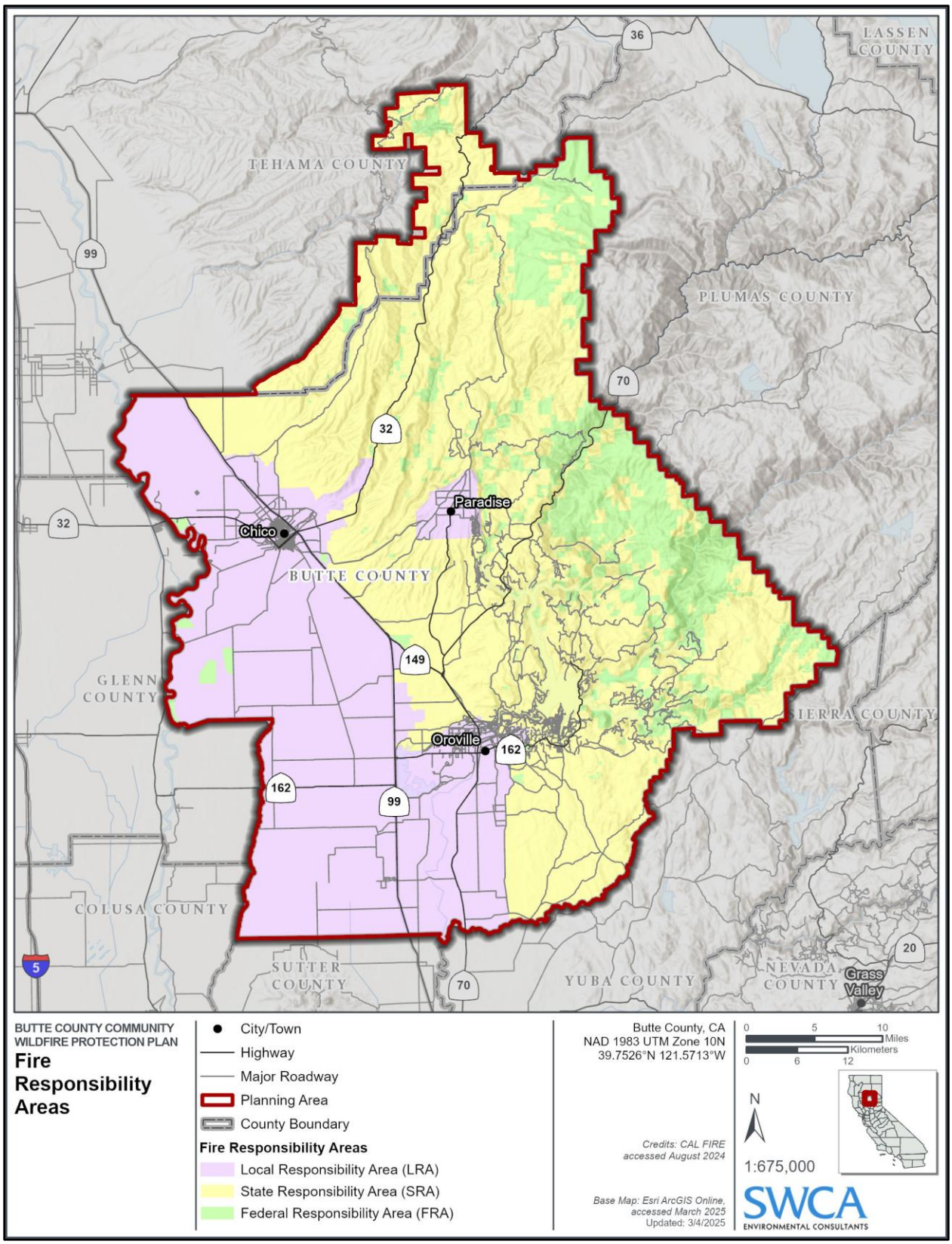


Figure B.9. Division of fire responsibility areas in the Butte County CWPP planning area, indicating federal, state, and local jurisdictions.

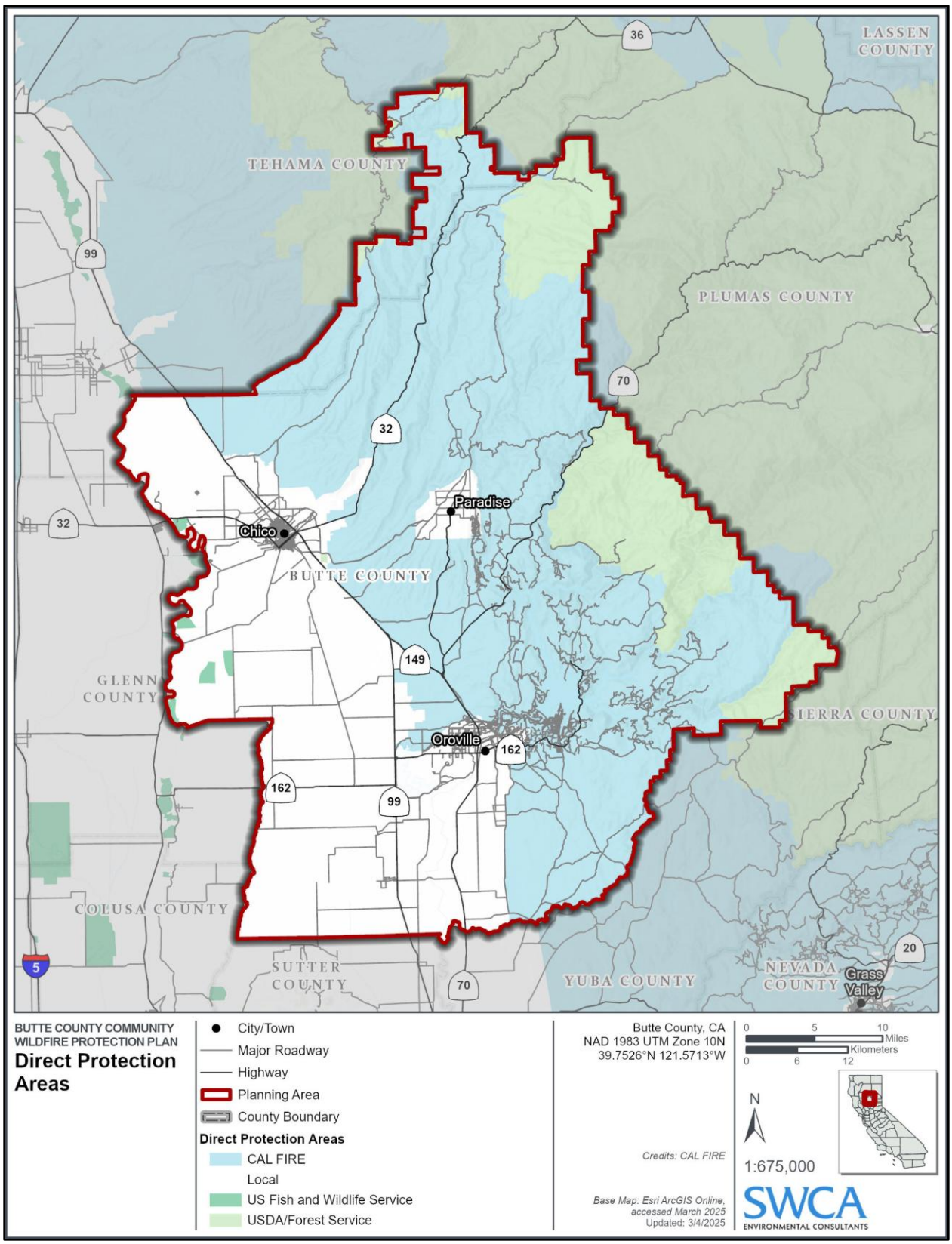


Figure B.10. Direct protection areas for fire response within the Butte County CWPP planning area.

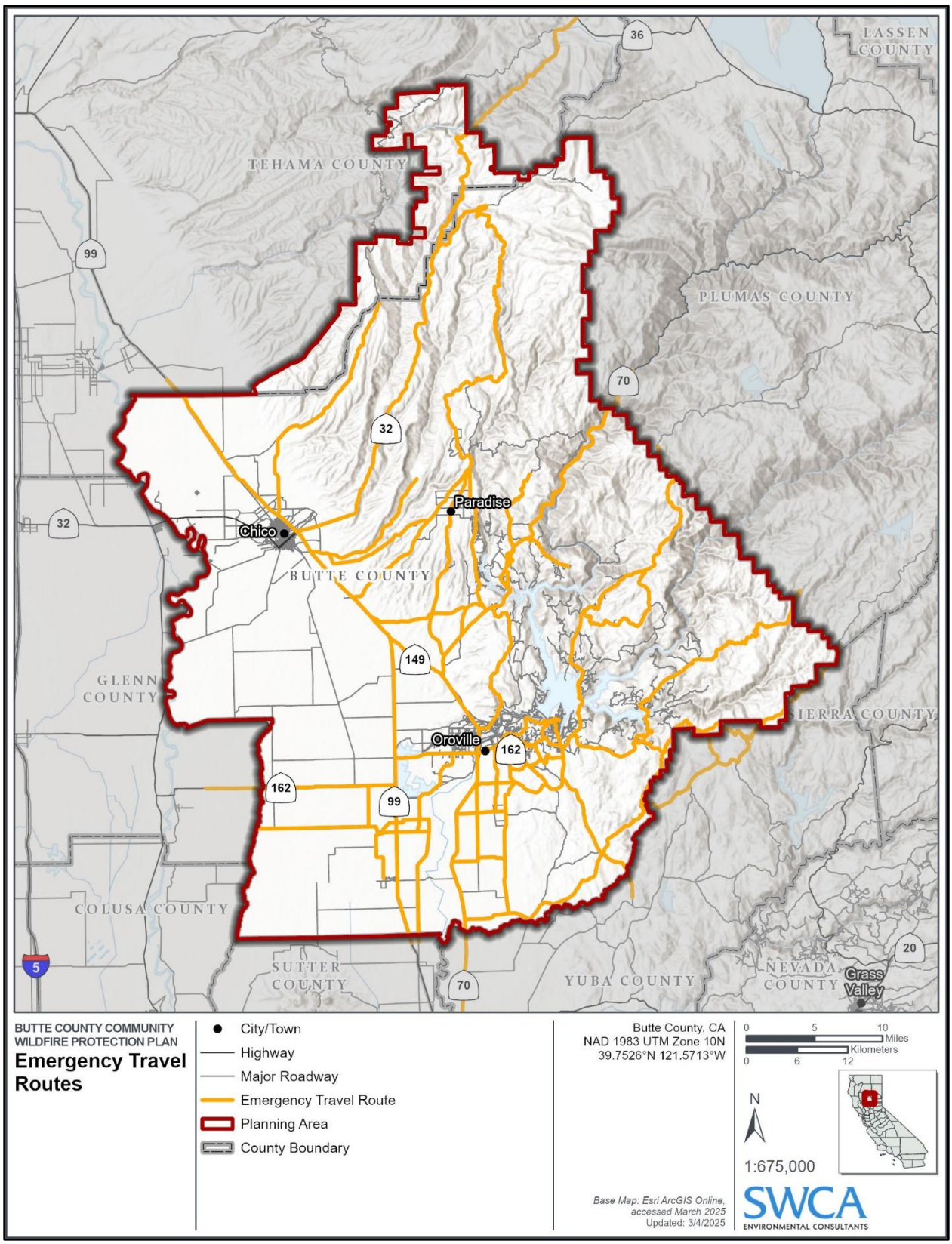


Figure B.11. Designated emergency travel routes within the Butte County CWPP planning area.

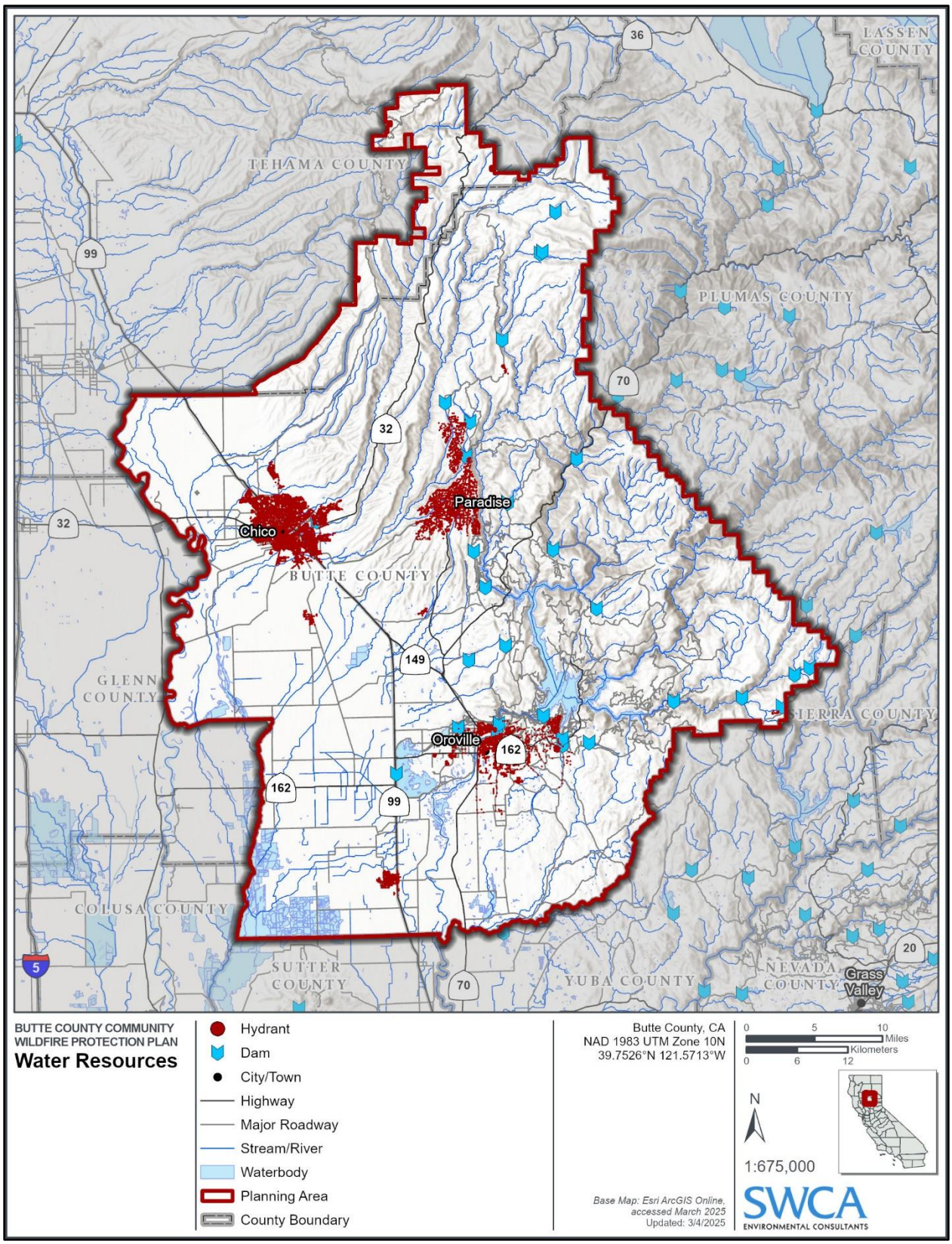


Figure B.12. Water resources, including hydrants, dams, streams, and waterbodies, within the Butte County CWPP planning area.

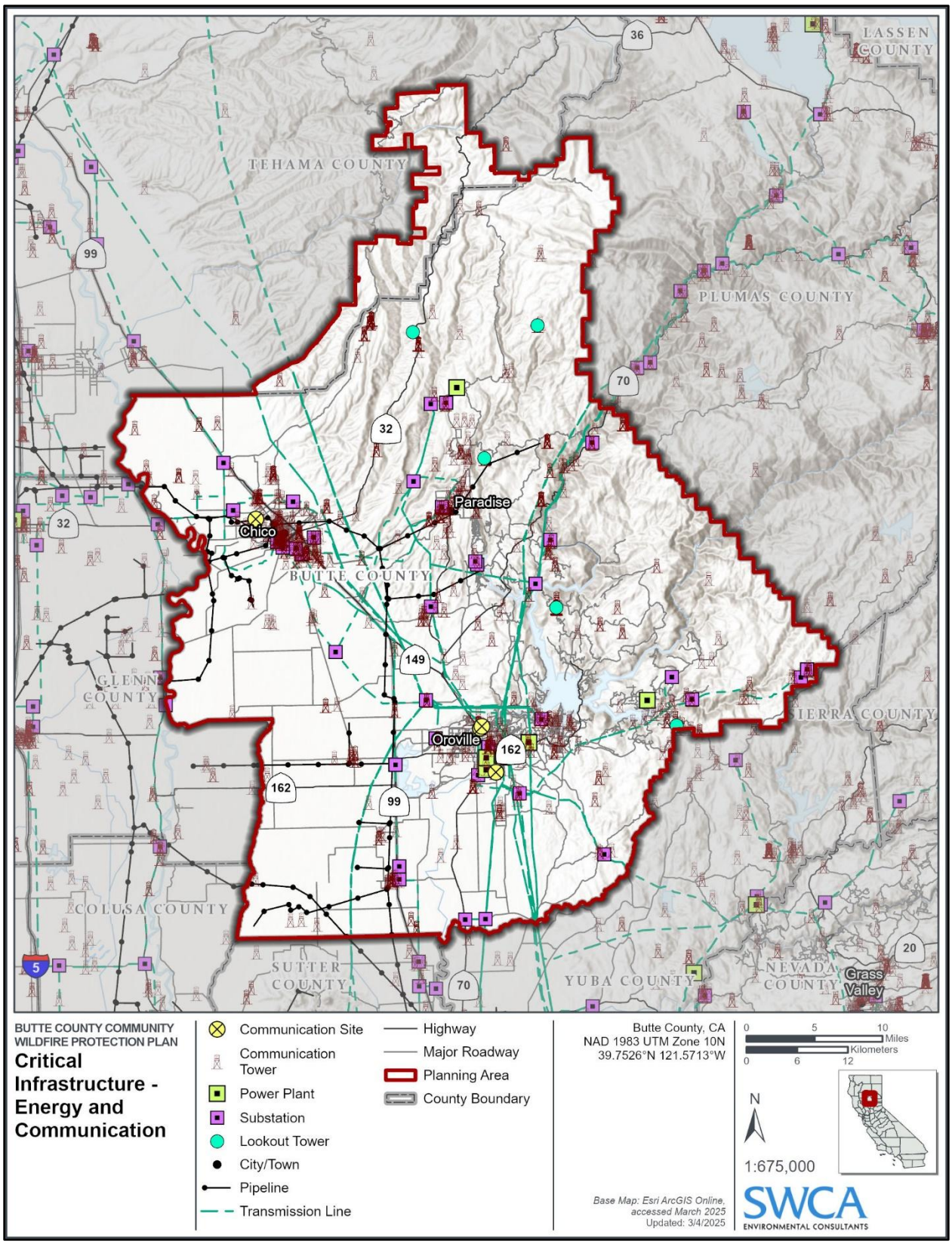


Figure B.13. Critical infrastructure related to energy and communication in the Butte County CWPP planning area, including power plants, substations, pipelines, transmission lines, and communication sites.

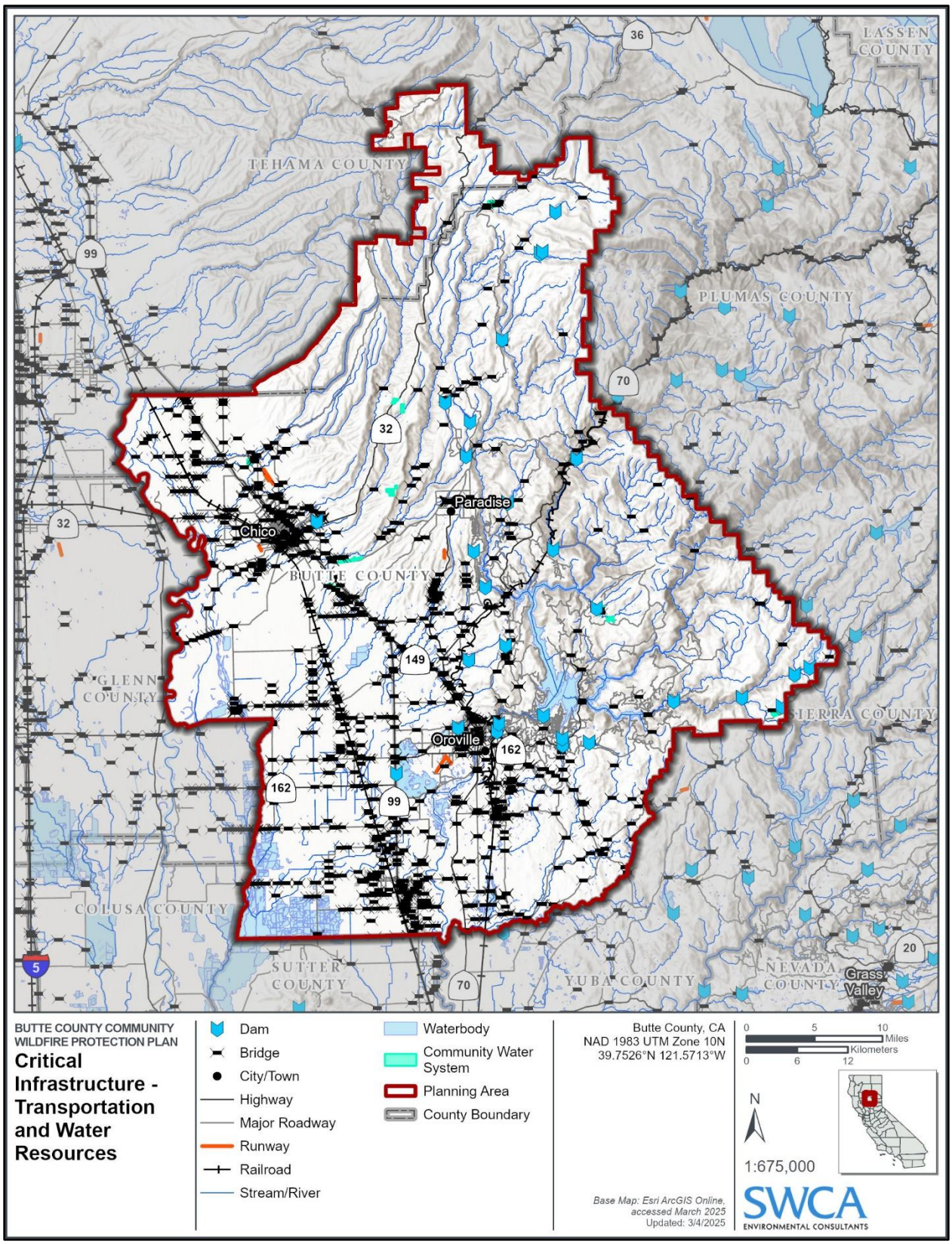


Figure B.14. Key transportation routes and water resources in the Butte County CWPP planning area, including highways, bridges, railroads, dams, and community water systems.

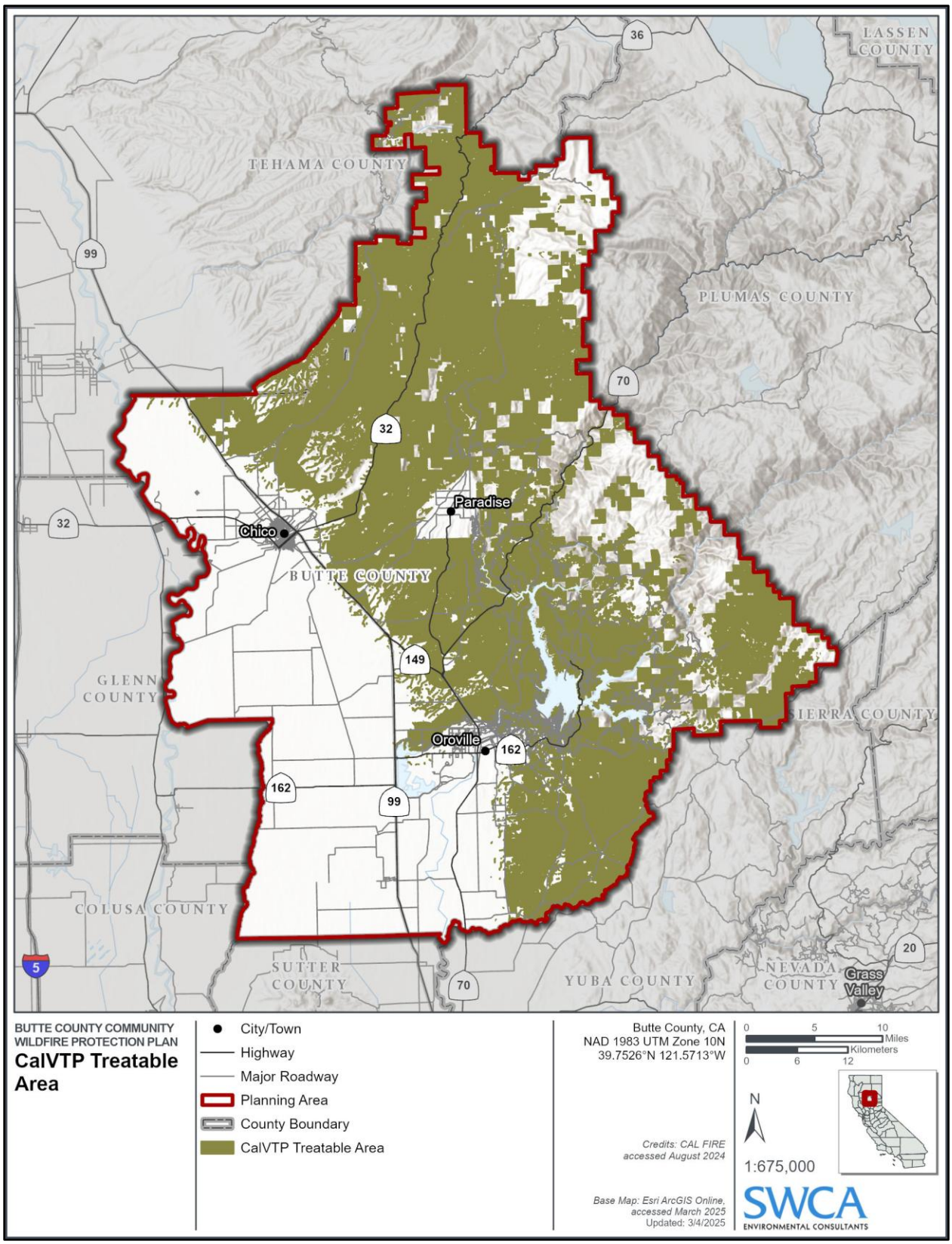


Figure B.15. Areas in the Butte County CWPP planning area eligible for treatment under the California Vegetation Treatment Program, which focuses on reducing wildfire risk through vegetation management practices.

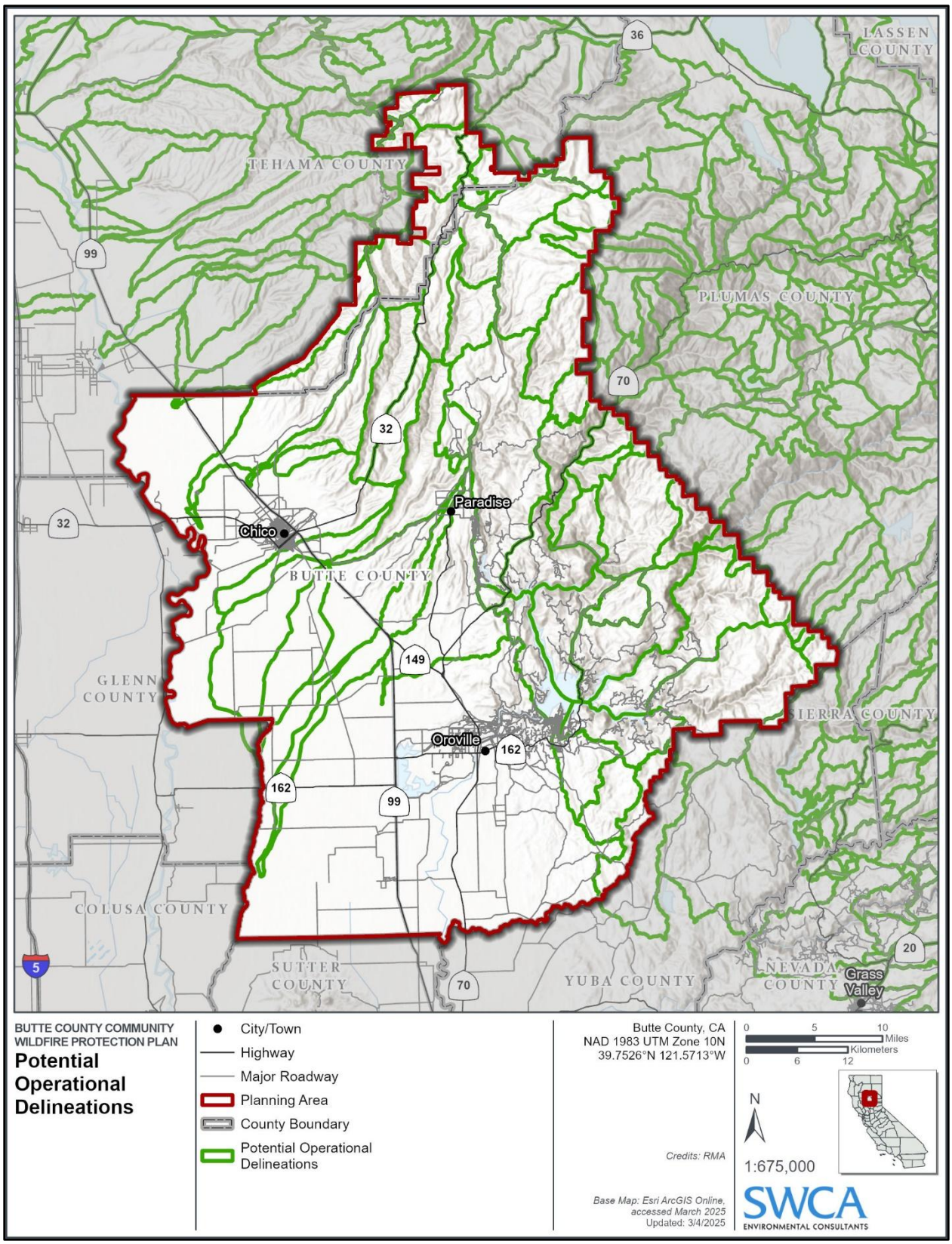


Figure B.16. Potential operational delineations (PODs) in the Butte County CWPP planning area, which help define areas where fire control efforts could be prioritized, providing strategic locations for containment and management operations.

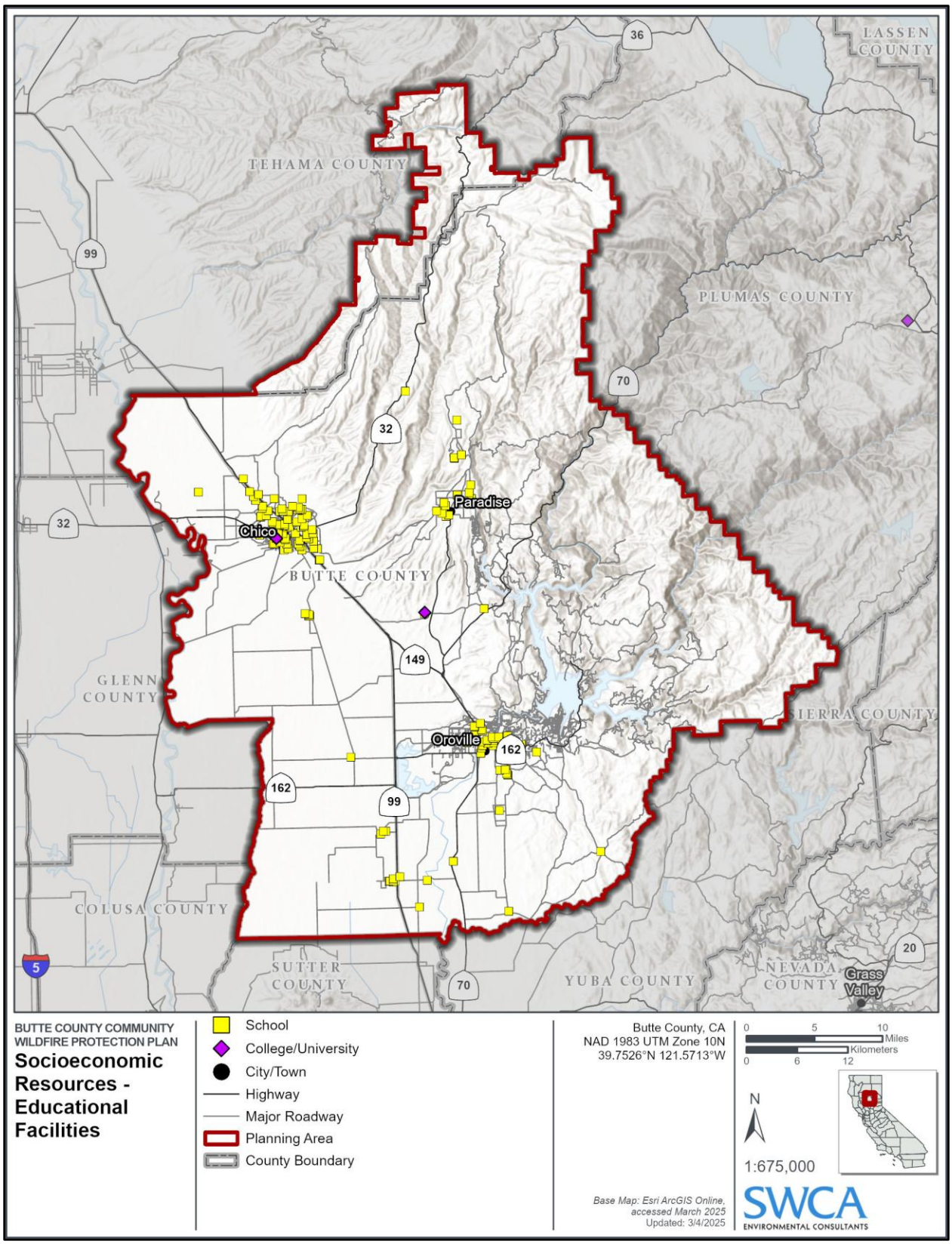


Figure B.17. Distribution of educational facilities in the Butte County CWPP planning area.

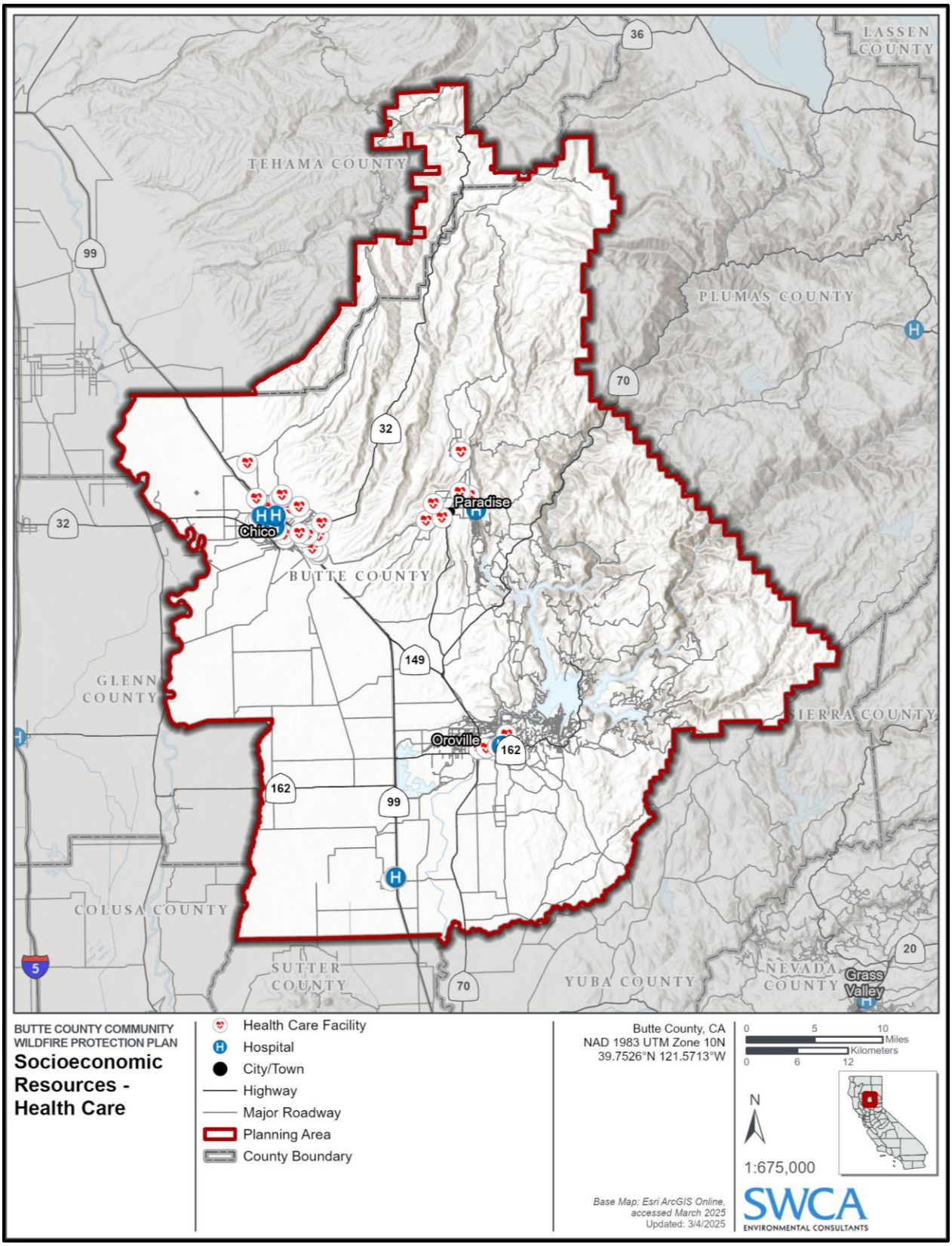


Figure B.18. Locations of health care facilities in the Butte County CWPP planning area.

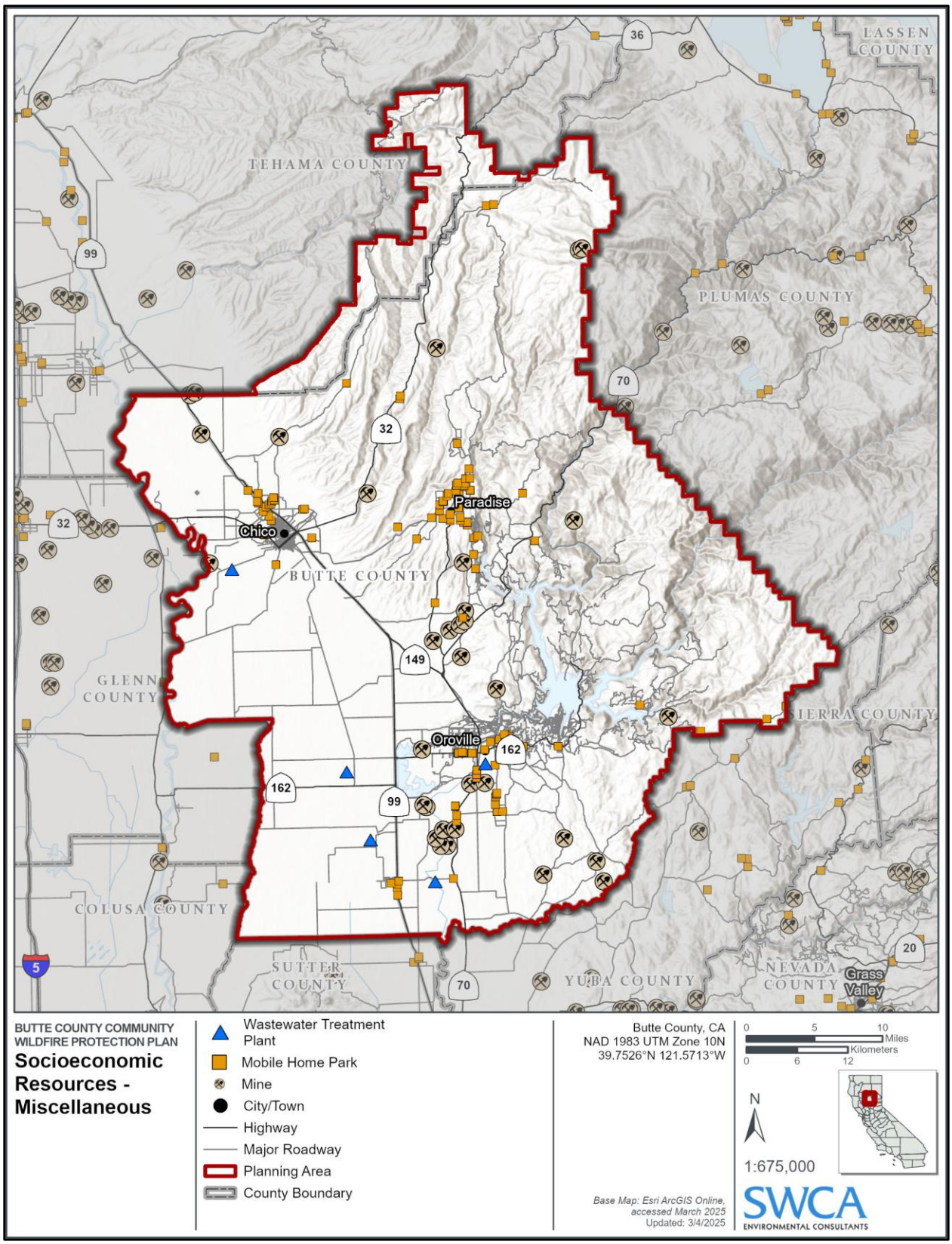


Figure B.19. Key socioeconomic infrastructure in the Butte County CWPP planning area, including wastewater treatment plants, mobile home parks, and mines.

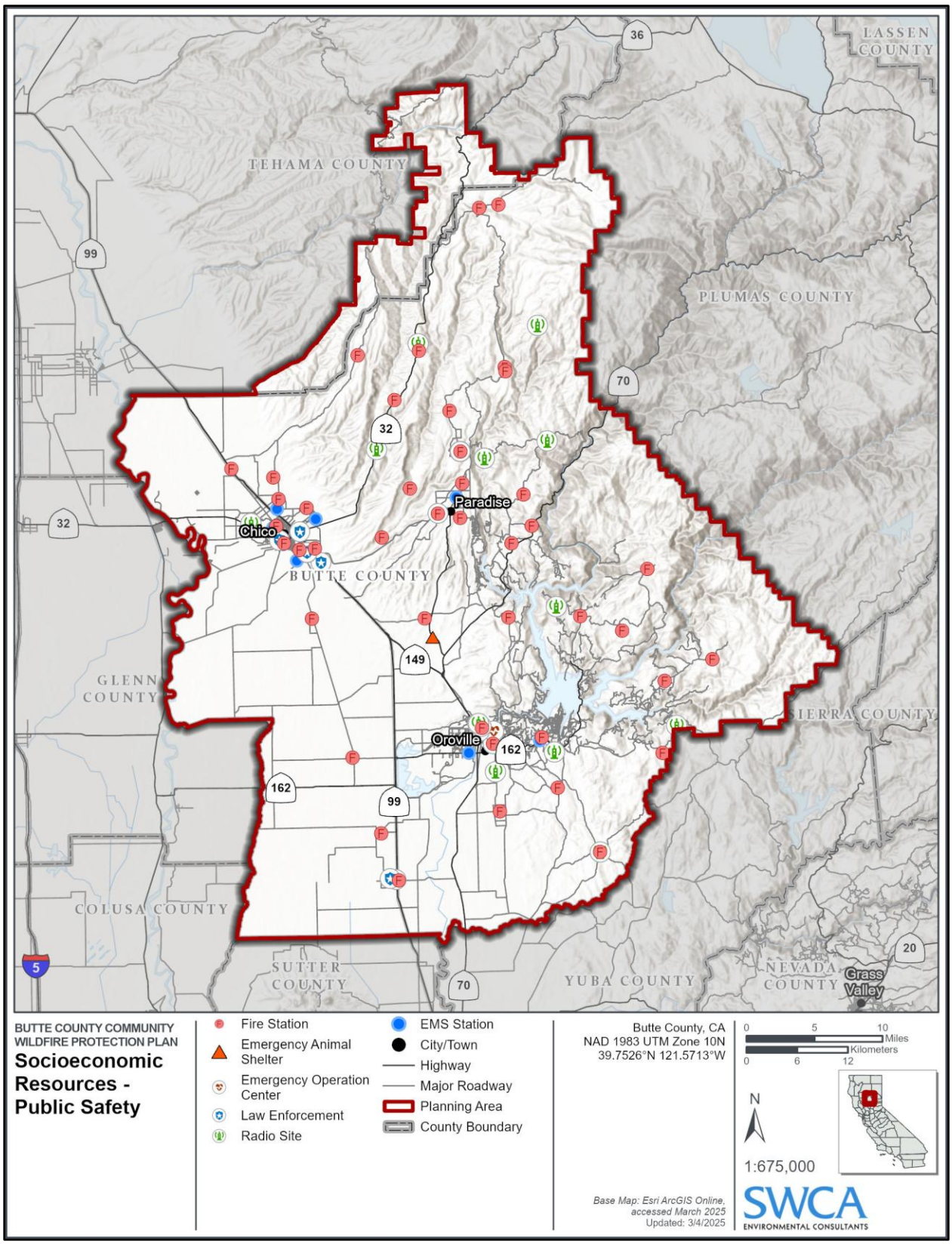


Figure B.20. Public safety resources within the Butte County CWPP planning area, including fire stations, EMS stations, law enforcement facilities, emergency operation centers, and radio sites.

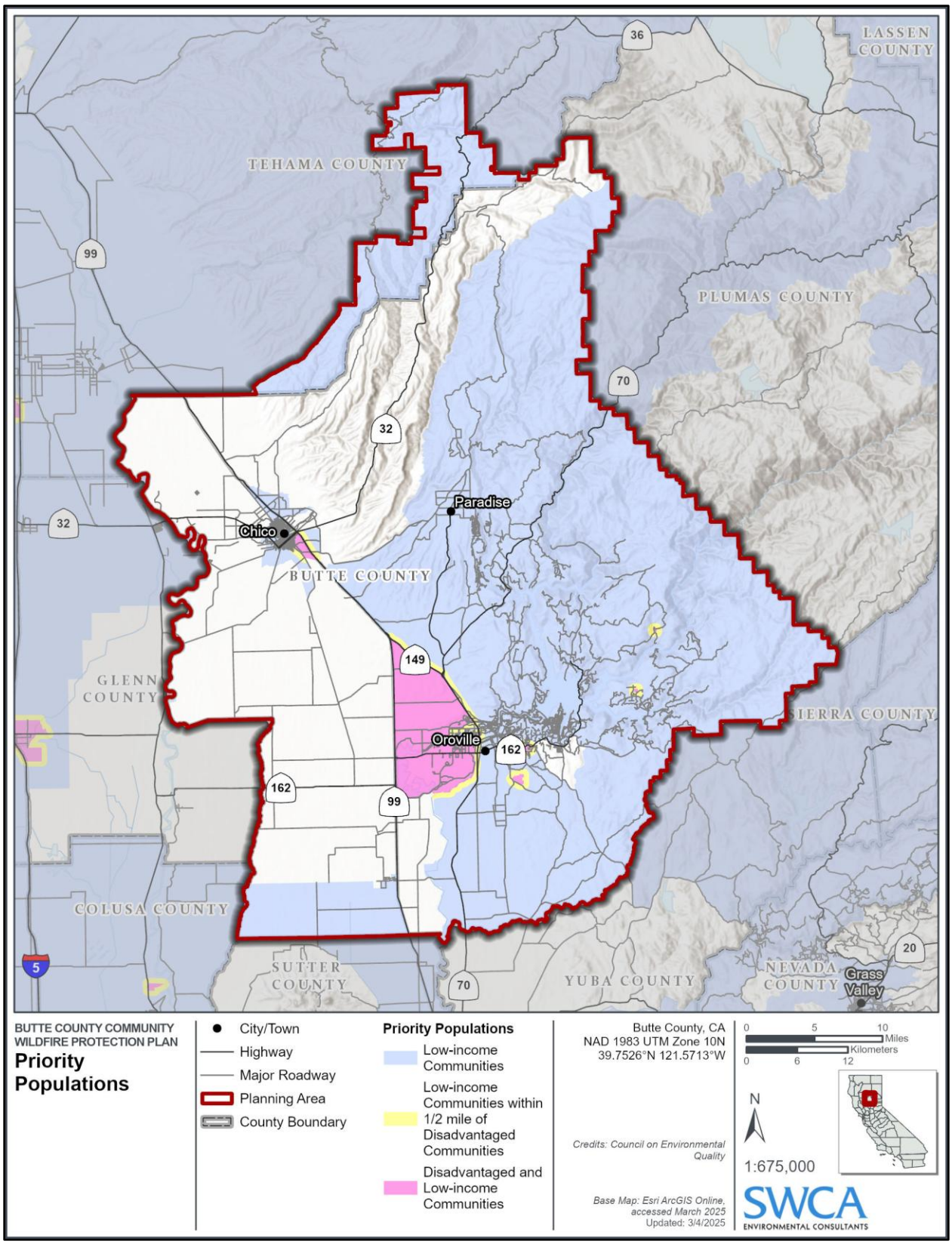


Figure B.21. Priority populations within the Butte County CWPP planning area, as determined by the California Environmental Protection Agency.

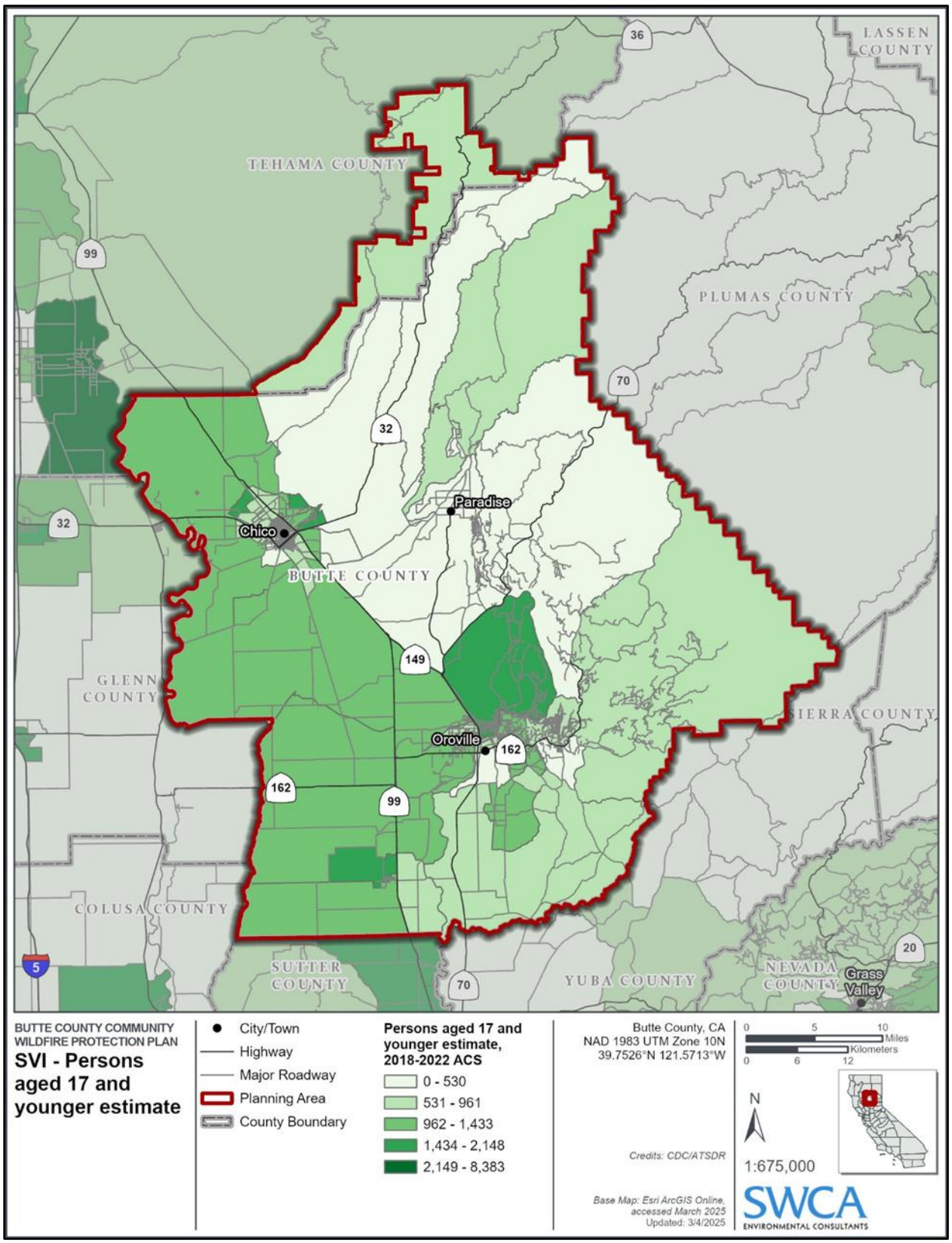


Figure B.22. Estimate of persons aged 17 and younger in the Butte County CWPP planning area.
Source: CDC (2022)

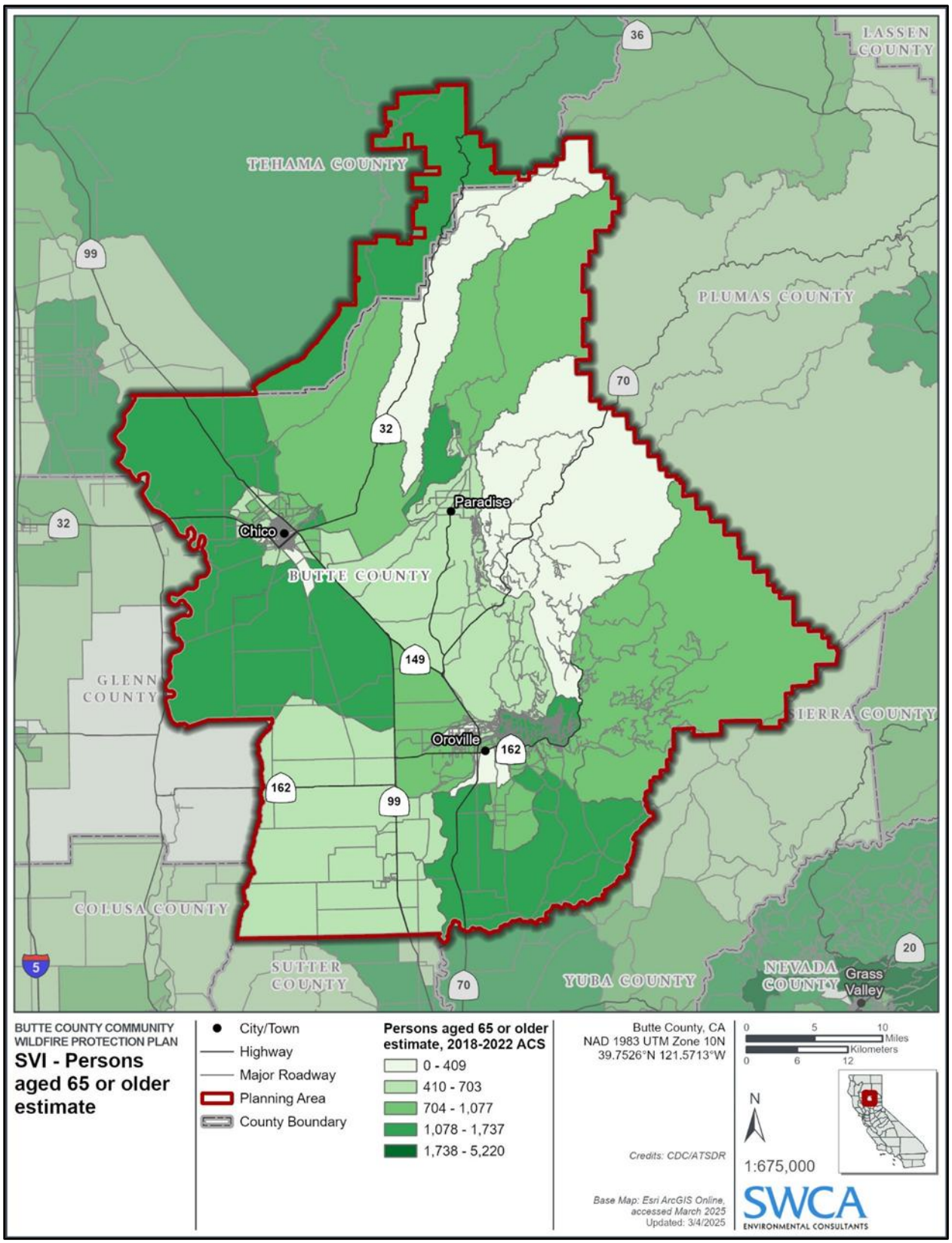


Figure B.23. Estimate of persons aged 65 and older in the Butte County CWPP planning area.
Source: CDC (2022)

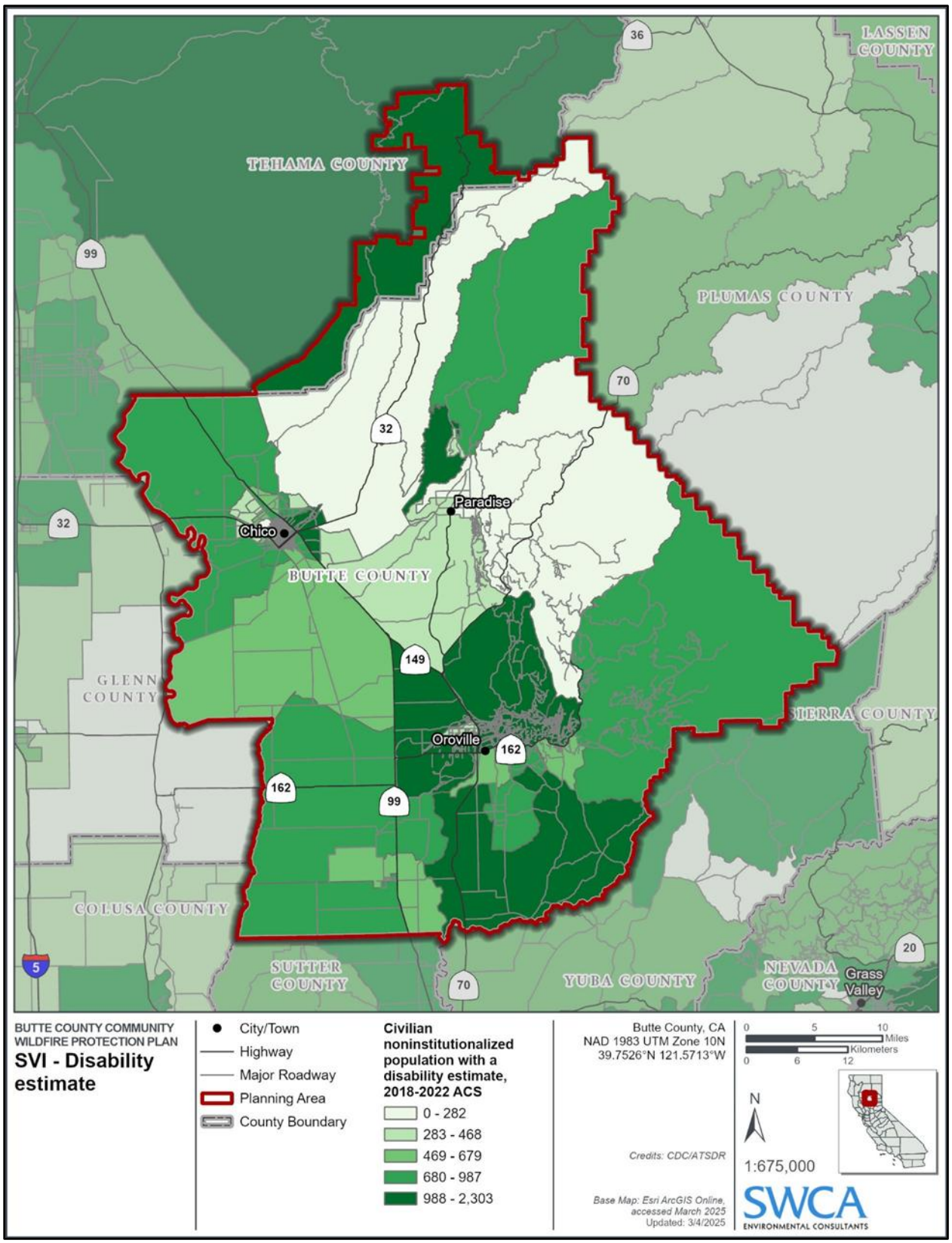


Figure B.24. Estimate of the civilian noninstitutionalized population with a disability in the Butte County CWPP planning area.

Source: CDC (2022)

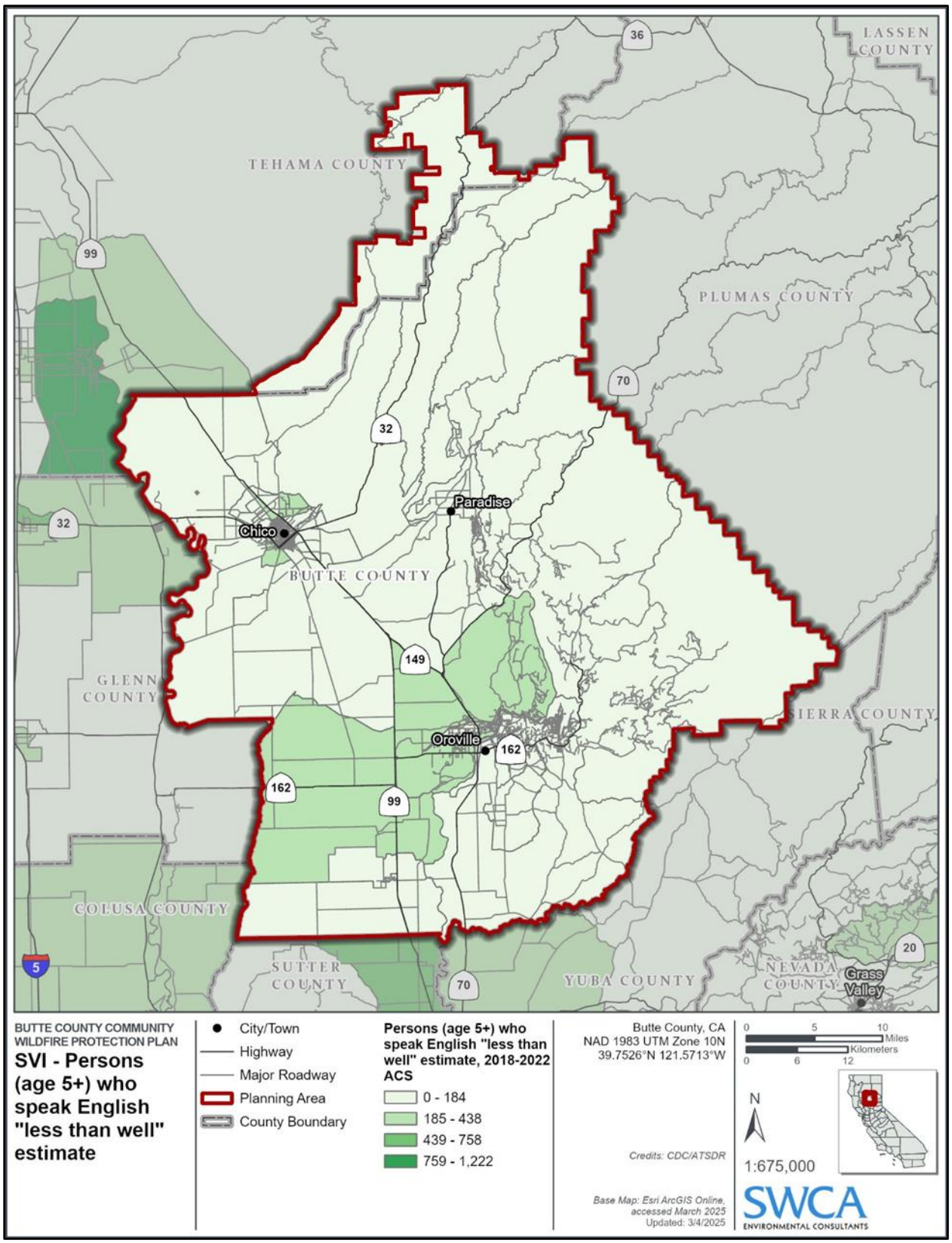


Figure B.25. Estimate of persons (age 5+) who speak English "less than well" in the Butte County CWPP planning area.

Source: CDC (2022)

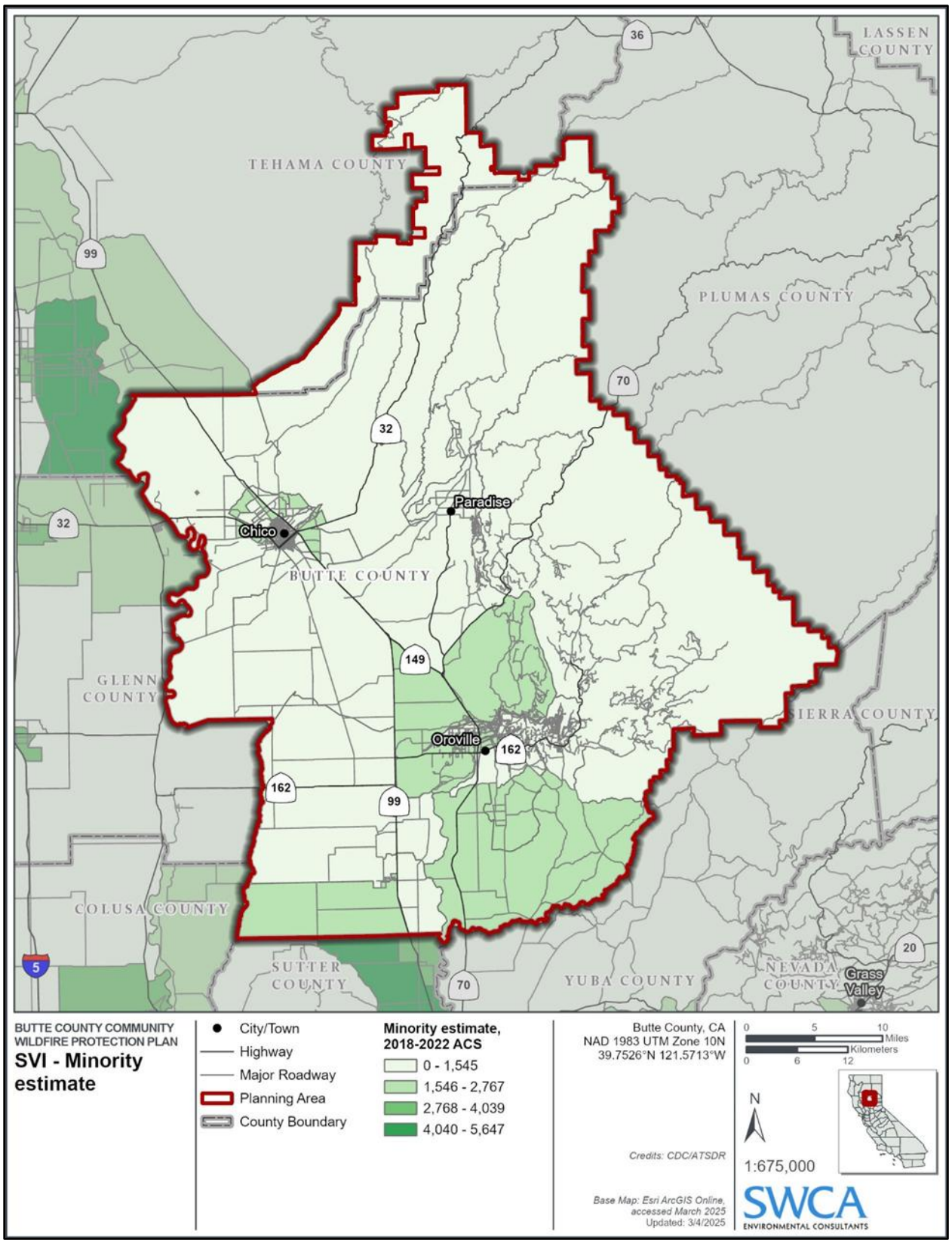


Figure B.26. Estimate of minority populations in the Butte County CWPP planning area.
Source: CDC (2022)

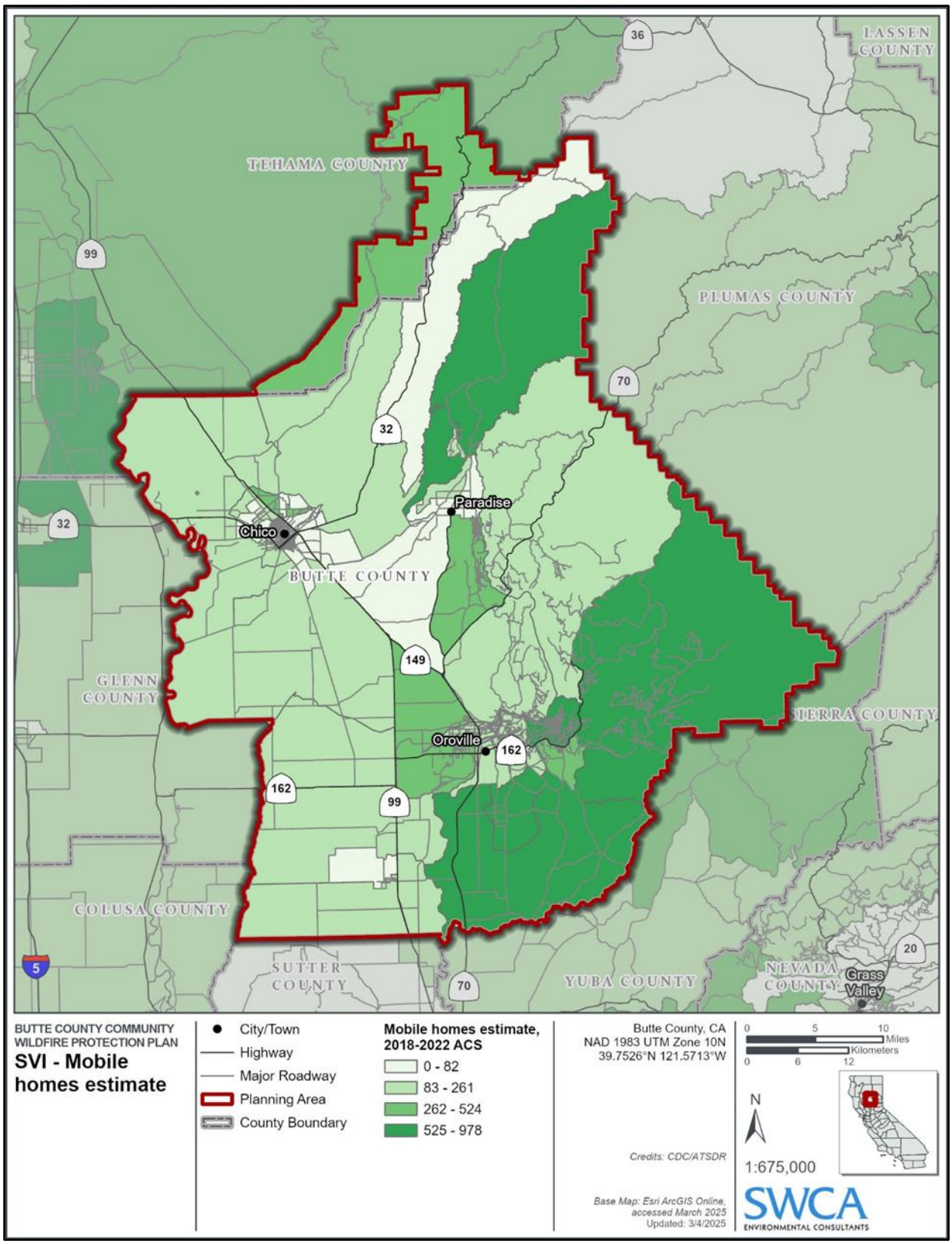


Figure B.27. Estimate of mobile homes in the Butte County CWPP planning area.

Source: CDC (2022)

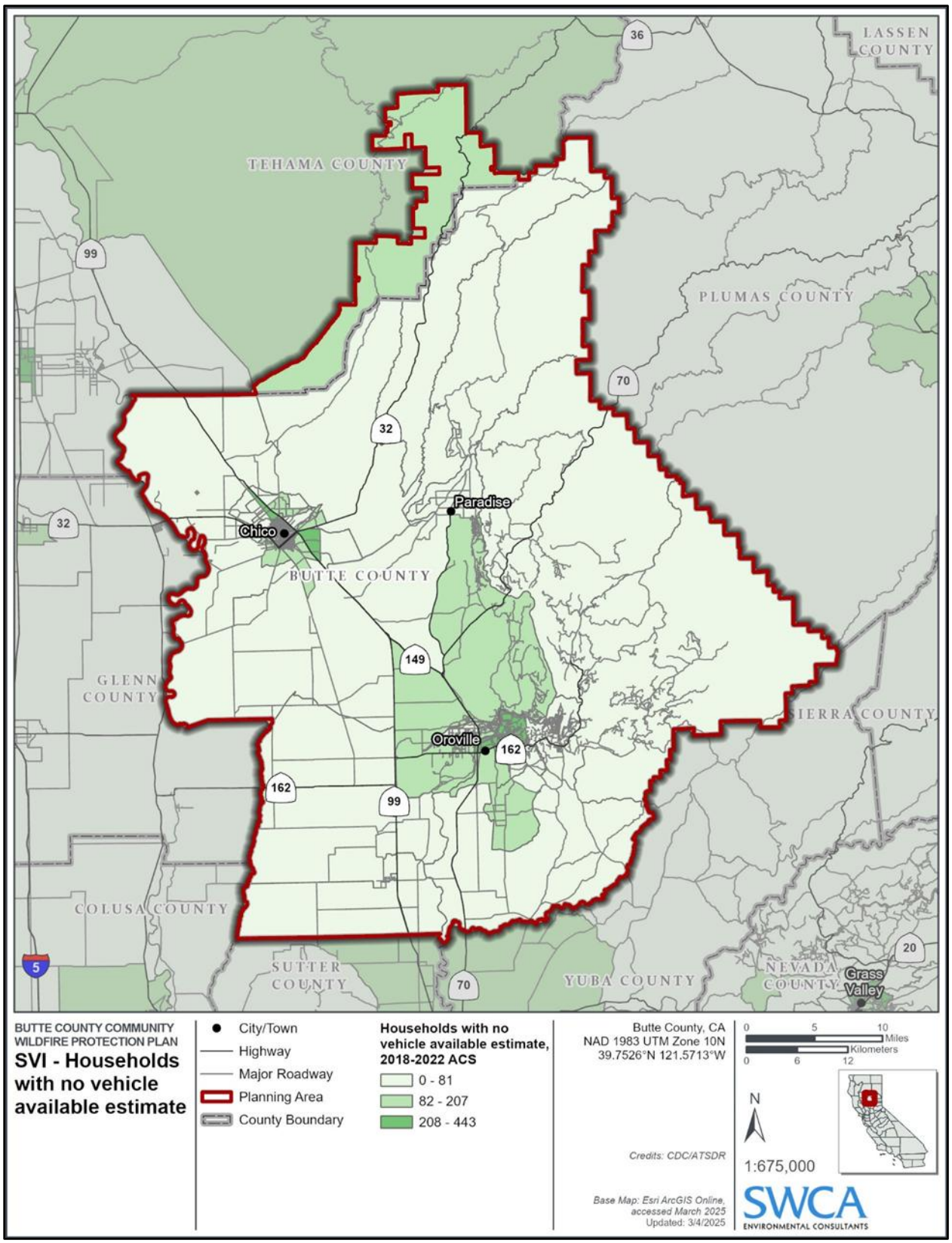


Figure B.28. Estimate of households with no vehicle available in the Butte County CWPP planning area.

Source: CDC (2022)

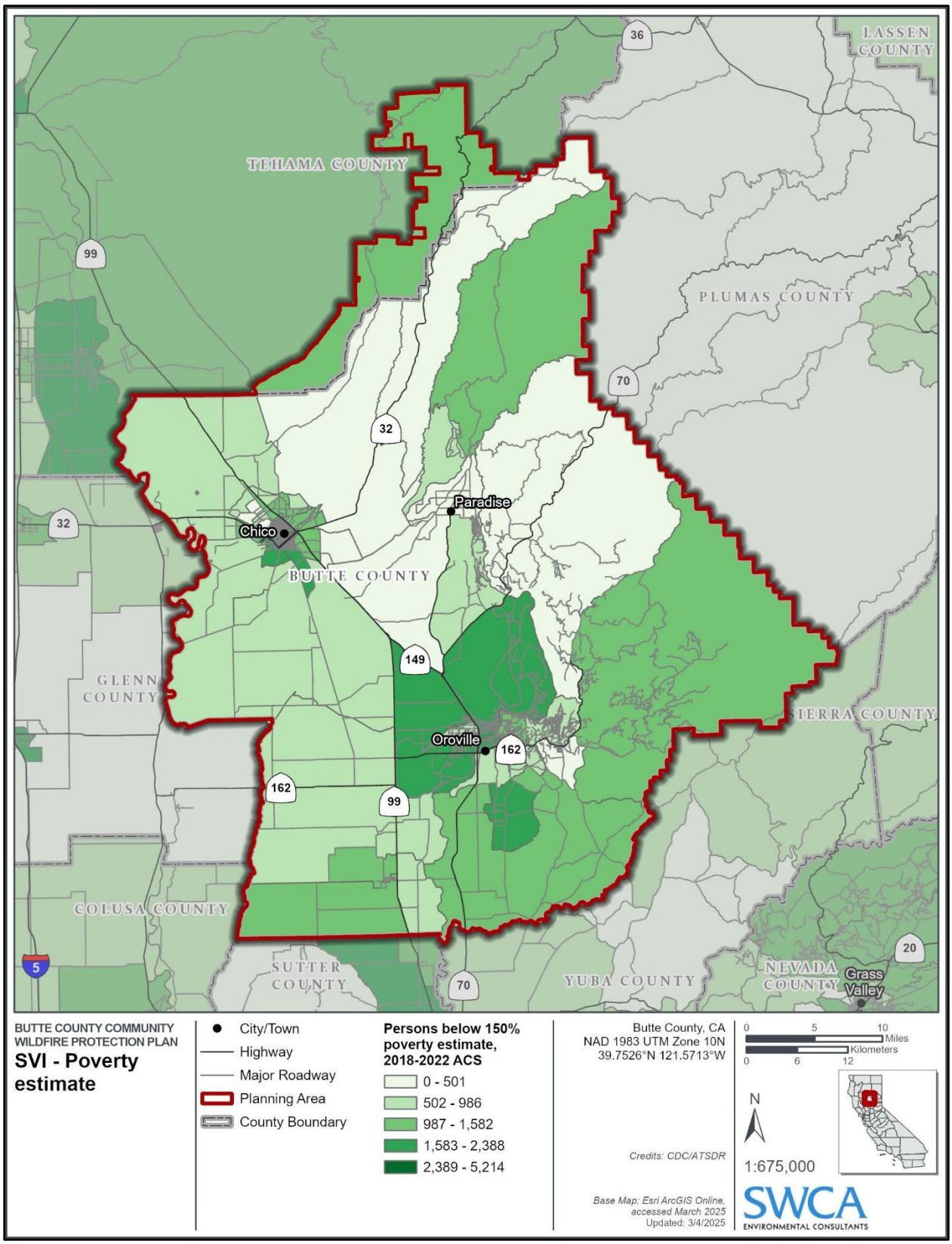


Figure B.29. Estimate of persons below 150% of the poverty line in the Butte County CWPP planning area.

Source: CDC (2022)

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APPENDIX C:

Field Assessments for Community Wildfire Protection Plan Community Polygons

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CWPP FIELD ASSESSMENTS

This appendix provides a summary of the data gathered in each community (Figures C.1–C.5) during on-the-ground assessments. The creation of these community polygons was based on the CWPP planning area cities and towns as well as the Battalion boundaries. The intent of these community polygons is to break the larger CWPP planning area into smaller regions to provide more focused information.

The community assessment summaries below capture average conditions within each community boundary; therefore, the provided ratings (e.g., moderate, extreme, etc.) may not universally apply to every parcel within the community. It's important to note that these ratings reflect the collective evaluation of the community as an entity and may be used to guide strategies for informed mitigation actions.

Community assessments were completed using adapted methodology described by the National Fire Protection Association (NFPA) Code 1144: *Standard for Reducing Structure Ignition Hazard for Wildland Fire* *(https://www.nfpa.org/codes-and-standards/nfpa-1144-standard-development/1144).*
The assessment rates categories numerically to determine a composite risk rating ranging from low to extreme. Assessed categories include means of access, topography, fuels, roof and construction materials, response resources, and utility locations. Assessors examine these conditions across the entire community and score the community based on the most common conditions. Individual properties may have components that rate above or below these generalized assessment scores. The score is calculated by trained SWCA staff using a field assessment form hosted on ArcGIS Survey123; the form is available at the end of this appendix. The NFPA 1144 field assessments were completed in October 2024 by trained SWCA staff with assistance from CAL FIRE.

Each line of the form is filled with a number evaluation with lower numbers indicating a lower risk factor for that category. To make these assessments more approachable and easier to comprehend, each risk level score was assigned a color to demonstrate risk ranging from low to high as described below:

- A **green score** corresponds with **low risk**.
- A **yellow score** corresponds to a **moderate risk**.
- An **orange score** corresponds to a **high risk**.
- A **red score** indicates **extreme risk**

Using this method, residents and preparedness planners can quickly identify each community's main risk factors and opportunities for resilience improvements.

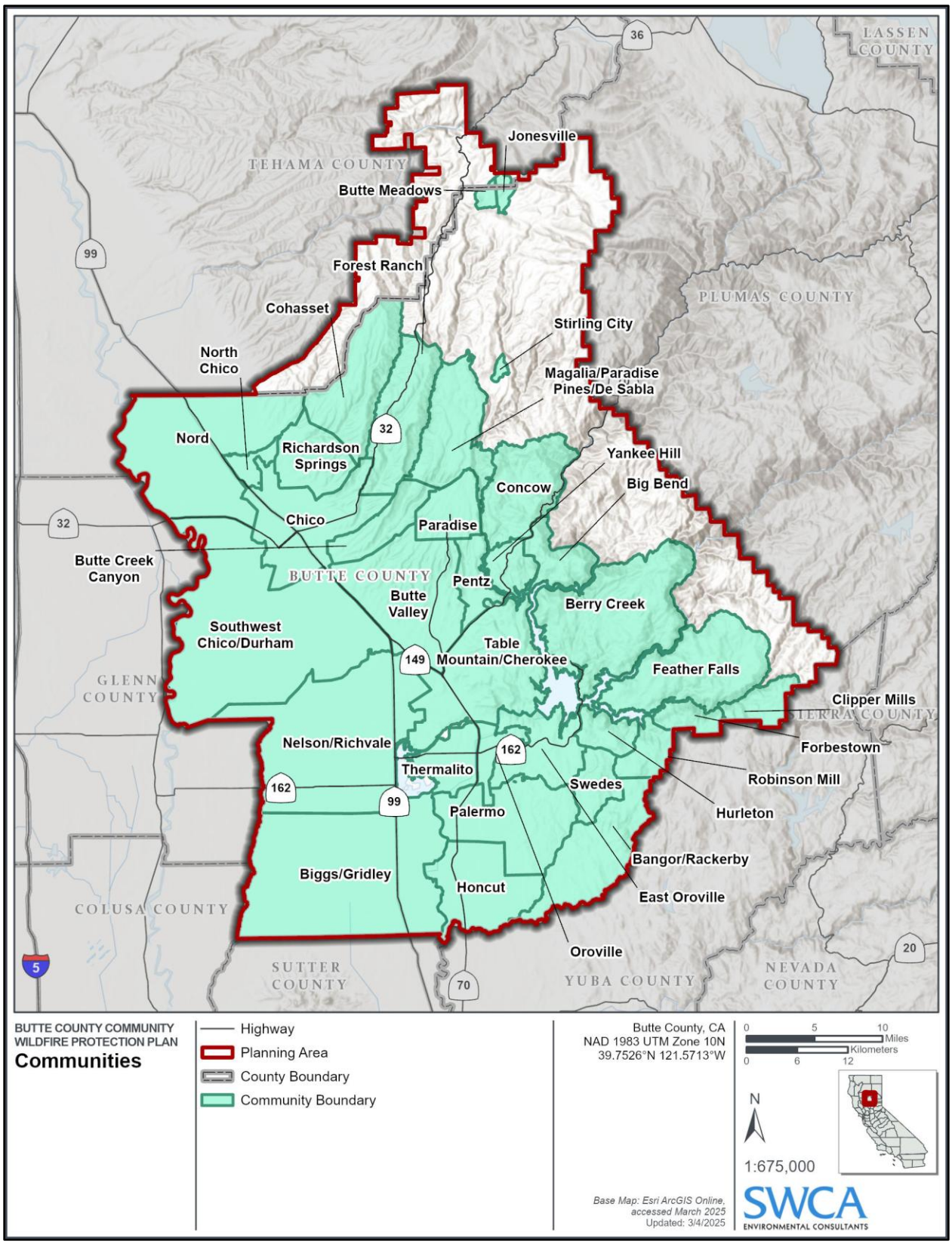


Figure C.1. Butte County CWPP community polygon delineations.

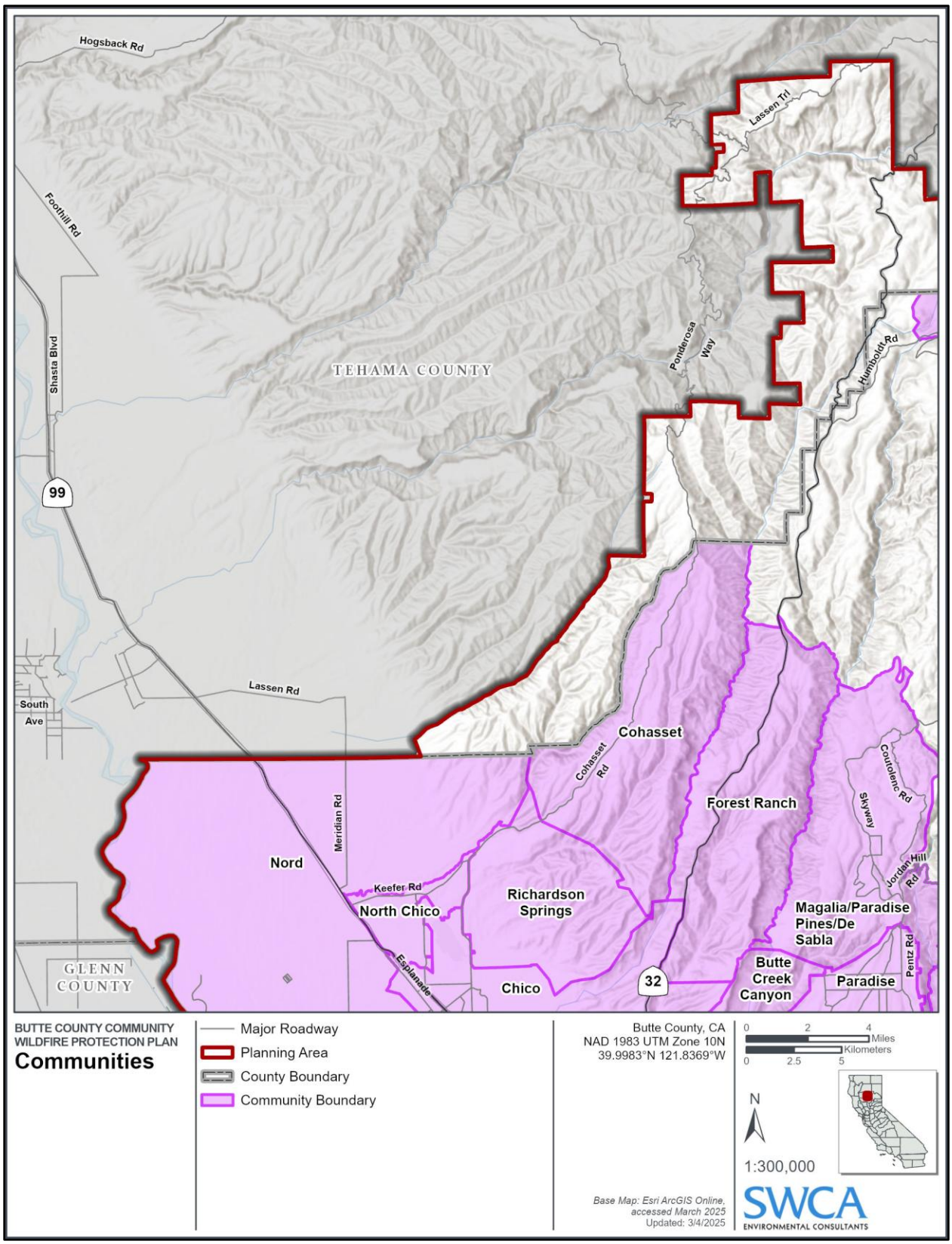


Figure C.2. Community boundaries in the northwestern portion of the planning area.

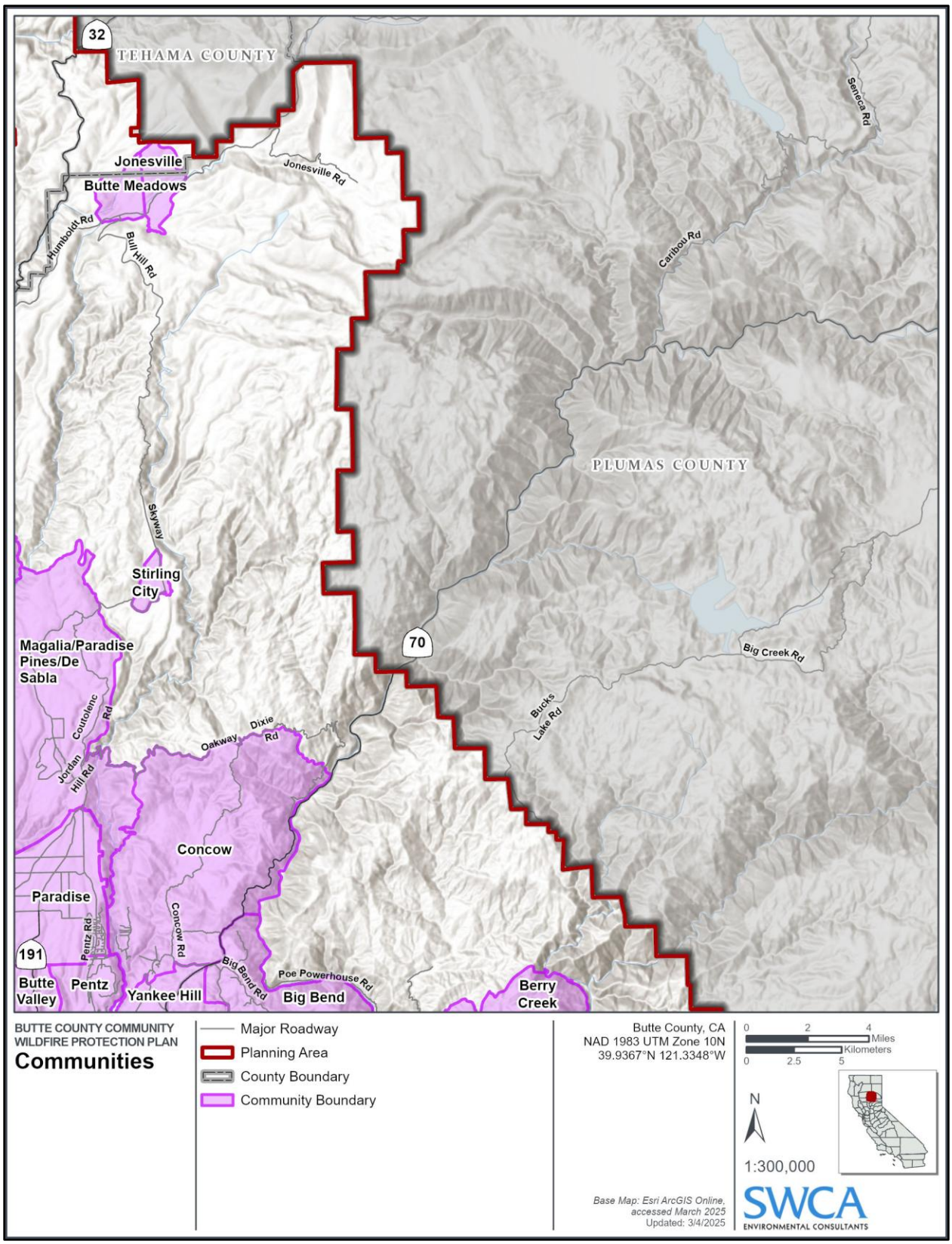


Figure C.3. Community boundaries in the northeastern portion of the planning area.

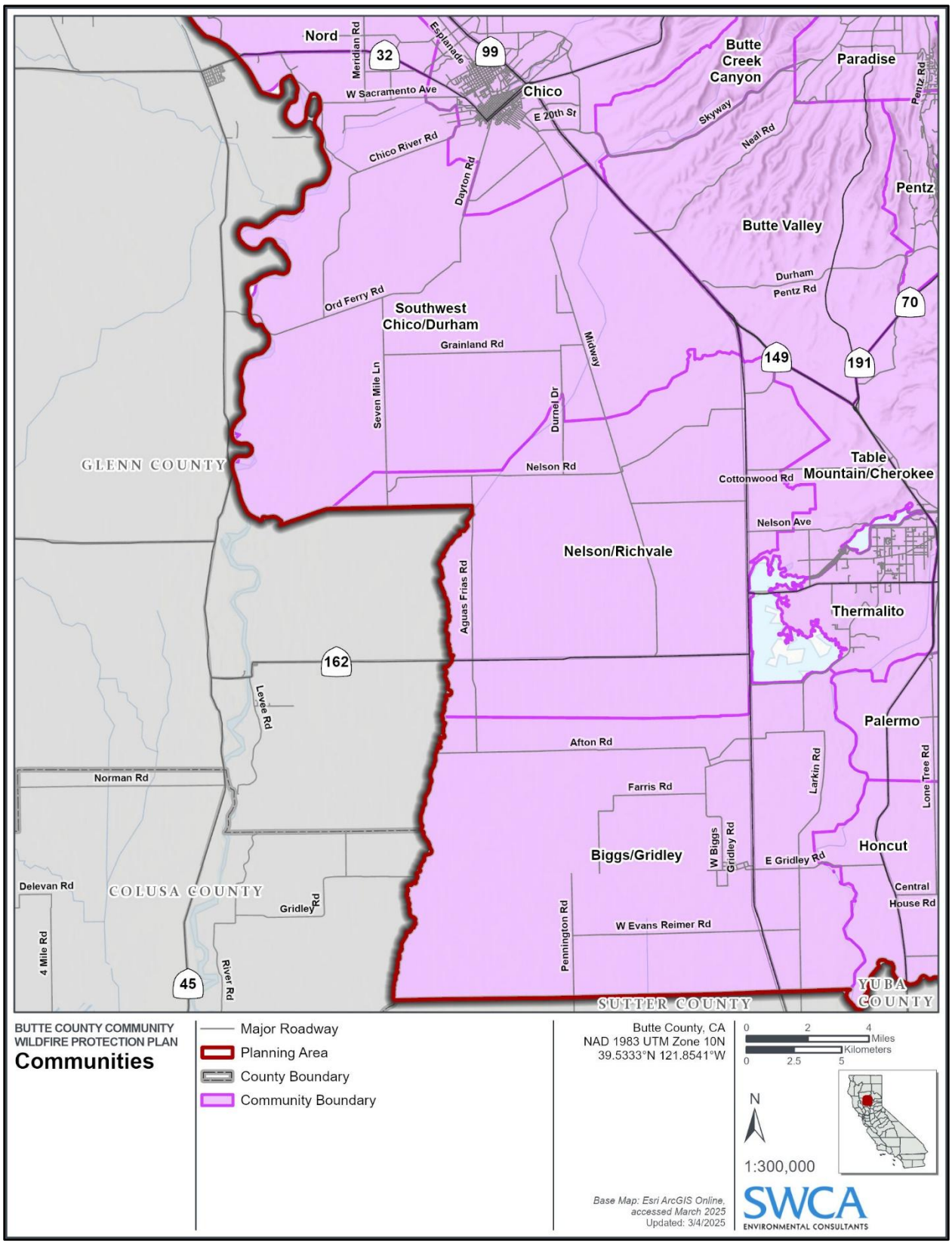


Figure C.4. Community boundaries in the southwestern portion of the planning area.

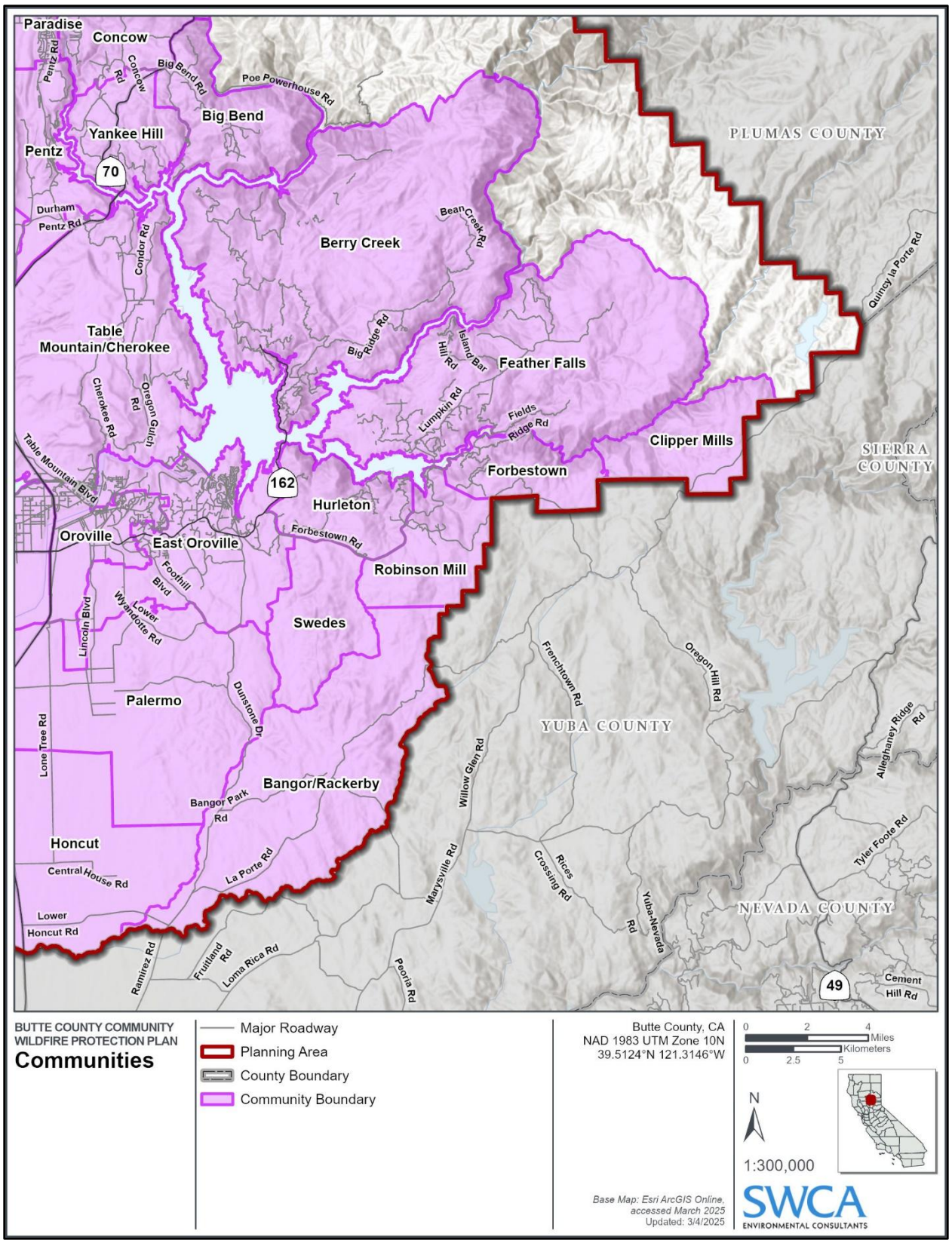


Figure C.5. Community boundaries in the southeastern portion of the planning area.

BATTALION 1

BIG BEND

Big Bend		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	1 road in and out	Extreme
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Not present	Extreme
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	21% to 30%	High
Topographic Features Rating	5	Extreme
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	2	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***122***	***Extreme***

CONCOW

Concow		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	1 road in and out	Extreme
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Non-surfaced road, grade >5%	High
Fire Truck Access	>300 feet with no turnaround	Extreme
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	21% to 30%	High
Topographic Features Rating	5	Extreme
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***110***	***High***

MAGALIA/PARADISE PINES/DE SABLA

Magalia/Paradise Pines/De Sabla		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade >5%	High
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – non-reflective	Moderate
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	10% to 20%	Moderate
Topographic Features Rating	4	High
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	Yes	Low
Water Source Type	Hydrant	Low
Water Source Score	1	Low
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***105***	***High***

PENTZ

Pentz		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	>30 feet <70 feet around structure	High
Topography within 300 feet of Structures		
Slope	21 to 30%	High
Topographic Features Rating	4	High
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	4	High
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	Yes	Low
Water Source Type	Hydrant	Low
Water Source Score	1	Low
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	One above, one below	Moderate
Community Hazard Rating	***90***	***High***

STIRLING CITY

Stirling City		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Non-surfaced road, grade >5%	High
Fire Truck Access	<300 feet with no turnaround	Moderate
Street Signs	Present – non-reflective	Moderate
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	10% to 20%	Moderate
Topographic Features Rating	5	Extreme
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Moderate
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	>30 feet to slope	Low
Available Fire Protection		
Water Sources	Yes	Low
Water Source Type	Hydrant	Low
Water Source Score	1	Low
Organized Response	1	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***102***	***High***

YANKEE HILL

Yankee Hill		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out score	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Non-surfaced road, grade >5%	High
Fire Truck Access	>300 feet with no turnaround	Extreme
Street Signs	Present – non-reflective	Moderate
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	21% to 30%	High
Topographic Features Rating	5	Extreme
History of High Fire Occurrence Rating	4	High
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	One above, one below	Moderate
Community Hazard Rating	***119***	***Extreme***

BATTALION 2

BUTTE MEADOWS

Butte Meadows		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out score	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	10% to 20%	Moderate
Topographic Features	3	Moderate
History of High Fire Occurrence	5	Extreme
Severe Fire Weather Potential	5	Extreme
Separation of Adjacent Structures	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	>30 feet to slope	Low
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***102***	***High***

COHASSET

Cohasset		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	1 road in and out	Extreme
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Non-surfaced road, grade >5%	High
Fire Truck Access	>300 feet with no turnaround	Extreme
Street Signs	Present – non-reflective	Moderate
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 around structure	Extreme
Topography within 300 feet of Structures		
Slope	10% to 20%	Moderate
Topographic Features Rating	5	Extreme
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	3	Moderate
Separation of Adjacent Structures Rating	1	Low
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Moderate
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	>30 feet to slope	Low
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***118***	***Extreme***

FOREST RANCH

Forest Ranch		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out score	Low
Road Width	<20 feet	Extreme
Road Conditions	Non-surfaced road, grade >5%	High
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	>30 feet <70 feet around structure	High
Topography within 300 feet of Structures		
Slope	21% to 30%	High
Topographic Features	5	Extreme
History of High Fire Occurrence	4	High
Severe Fire Weather Potential	5	Extreme
Separation of Adjacent Structures	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***105***	***High***

JONESVILLE

Jonesville		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	1 road in and out	Extreme
Road Width	<20 feet	Extreme
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	31% to 40%	High
Topographic Features	4	High
History of High Fire Occurrence	5	Extreme
Severe Fire Weather Potential	5	Extreme
Separation of Adjacent Structures	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***115***	***Extreme***

BATTALION 4

BUTTE CREEK CANYON

Butte Creek Canyon		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	1 road in and out	Extreme
Road Width	<20 feet	Extreme
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – non-reflective	Moderate
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	>30 feet <70 feet around structure	High
Topography within 300 feet of Structures		
Slope	31% to 40%	High
Topographic Features	5	Extreme
History of High Fire Occurrence	5	Extreme
Severe Fire Weather Potential	5	Extreme
Separation of Adjacent Structures	2	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Extreme
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***112***	***Extreme***

BUTTE VALLEY

Butte Valley		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	10% to 20%	Moderate
Topographic Features Rating	4	High
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	Yes	Low
Water Source Type	Hydrant	Low
Water Source Score	1	Low
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***89***	***High***

CHICO

Chico		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out score	Low
Road Width	>24 feet	Low
Road Conditions	Surfaced road, grade <5%	Low
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	<9%	Low
Topographic Features Rating	2	Moderate
History of High Fire Occurrence Rating	2	Moderate
Severe Fire Weather Potential Rating	3	Moderate
Separation of Adjacent Structures Rating	5	Extreme
Roofing Assembly		
Roofing	Class B - pressure treated composite shakes and shingles	Moderate
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	Yes	Low
Water Source Type	Hydrant	Low
Water Source Score	1	Low
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	One above, one below	Moderate
Community Hazard Rating	***93***	***High***

NORD

Nord		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out score	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Non-surfaced road, grade <5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – non-reflective	Moderate
Vegetation (Fuel Model)		
Predominate Vegetation	Shrub (SH)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	<9%	Low
Topographic Features Rating	1	Low
History of High Fire Occurrence Rating	2	Moderate
Severe Fire Weather Potential Rating	2	Moderate
Separation of Adjacent Structures Rating	1	Low
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	>30 feet to slope	Low
Available Fire Protection		
Water Sources	Yes	Moderate
Water Source Type	Other: Irrigation	Moderate
Water Source Score	3	Moderate
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	One above, one below	Moderate
Community Hazard Rating	***82***	***High***

NORTH CHICO

North Chico		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>24 feet	Moderate
Road Conditions	Surfaced road, grade >5%	High
Fire Truck Access	<300 feet with no turnaround	Extreme
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	<9%	Low
Topographic Features Rating	1	Low
History of High Fire Occurrence Rating	1	Low
Severe Fire Weather Potential Rating	2	Moderate
Separation of Adjacent Structures Rating	4	High
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	>30 feet to slope	Low
Available Fire Protection		
Water Sources	Yes	Low
Water Source Type	Hydrant	Low
Water Source Score	1	Low
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	One above, one below	Moderate
Community Hazard Rating	***84***	***High***

RICHARDSON SPRINGS

Richardson Springs		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	1 road in and out	Extreme
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Non-surfaced road, grade <5%	Moderate
Fire Truck Access	>300 feet with no turnaround	Extreme
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	<9%	Low
Topographic Features Rating	3	Moderate
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	3	Moderate
Separation of Adjacent Structures Rating	2	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	>30 feet to slope	Low
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station >5 miles from community	Extreme
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***111***	***High***

SOUTHWEST CHICO/DURHAM

Southwest Chico/Durham		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out score	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade <5%	Low
Fire Truck Access	<300 feet with no turnaround	Moderate
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Grass (GR)	Low
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	<9%	Low
Topographic Features Rating	1	Low
History of High Fire Occurrence Rating	2	Low
Severe Fire Weather Potential Rating	3	Moderate
Separation of Adjacent Structures Rating	2	Low
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	>30 feet to slope	Low
Available Fire Protection		
Water Sources	Yes	Moderate
Water Source Type	Water tank	Moderate
Water Source Score	3	Moderate
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	One above, one below	Moderate
Community Hazard Rating	***52***	***Moderate***

BATTALION 5

BANGOR/RACKERBY

Bangor/Rackerby		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	<20 feet	Moderate
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – non-reflective	Moderate
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	10% to 20%	Moderate
Topographic Features Rating	4	High
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	>30 feet to slope	Low
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station >5 miles from community	Extreme
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***114***	***Extreme***

BERRY CREEK

Berry Creek		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – non-reflective	Moderate
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU) Score	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	31% to 40%	High
Topographic Features	5	Extreme
History of High Fire Occurrence	5	Extreme
Severe Fire Weather Potential	5	Extreme
Separation of Adjacent Structures	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***114***	***Extreme***

CLIPPER MILLS

Clipper Mills		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out score	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	10% to 20%	Moderate
Topographic Features	4	High
History of High Fire Occurrence	5	Extreme
Severe Fire Weather Potential	5	Extreme
Separation of Adjacent Structures	4	High
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	No deck or fence/noncombustible	Low
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	Yes	Low
Water Source Type	Hydrant	Low
Water Source Score	1	Low
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***95***	***High***

FEATHER FALLS

Feather Falls		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	1 road in and out	Extreme
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Non-surfaced road, grade <5%	Moderate
Fire Truck Access	>300 feet with no turnaround	Extreme
Street Signs	Present – non-reflective	Moderate
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	10% to 20%	Moderate
Topographic Features Rating	5	Extreme
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	3	Moderate
Roofing Assembly		
Roofing	Class B - pressure treated composite shakes and shingles	Moderate
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	Yes	Moderate
Water Source Type	Water tank	Moderate
Water Source Score	3	Moderate
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***119***	***Extreme***

FORBESTOWN

Forbestown		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	<20 feet	Moderate
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	21% to 30%	High
Topographic Features Rating	5	Extreme
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	4	High
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	No deck or fence/non-combustible	Low
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	Yes	Low
Water Source Type	Hydrant	Low
Water Source Score	1	Low
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***105***	***High***

HURLETON

Hurleton		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	1 road in and out	Extreme
Road Width	<20 feet	Extreme
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	31% to 40%	High
Topographic Features Rating	5	Extreme
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***123***	***Extreme***

ROBINSON MILL

Robinson Mill		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Non-surfaced road, grade >5%	High
Fire Truck Access	>300 feet with no turnaround	Extreme
Street Signs	Present – non-reflective	Moderate
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	21% to 30%	Moderate
Topographic Features Rating	4	High
History of High Fire Occurrence Rating	3	Moderate
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	2	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***117***	***Extreme***

SWEDES

Swedes		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	21% to 30%	High
Topographic Features	4	Extreme
History of High Fire Occurrence	5	Extreme
Severe Fire Weather Potential	5	Extreme
Separation of Adjacent Structures	2	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***114***	***Extreme***

BATTALION 6

EAST OROVILLE

East Oroville		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade <5%	Low
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	21% to 30%	High
Topographic Features Rating	4	High
History of High Fire Occurrence Rating	4	High
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	4	High
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	Yes	Low
Water Source Type	Hydrant	Low
Water Source Score	1	Low
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	One above, one below	Moderate
Community Hazard Rating	***101***	***High***

PALERMO

Palermo		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade <5%	Low
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	10% to 20%	Moderate
Topographic Features Rating	3	Moderate
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	4	High
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	>30 feet to slope	Low
Available Fire Protection		
Water Sources	Yes	Low
Water Source Type	Hydrant	Low
Water Source Score	1	Low
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***97***	***High***

TABLE MOUNTAIN/CHEROKEE

Table Mountain Cherokee		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	1 road in and out	Extreme
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – non-reflective	Moderate
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	31% to 40%	High
Topographic Features Rating	5	Extreme
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	Both aboveground	Extreme
Community Hazard Rating	***128***	***Extreme***

THERMALITO

Thermalito		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Shrub (SH)	High
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	<9%	Low
Topographic Features Rating	1	Low
History of High Fire Occurrence Rating	2	Moderate
Severe Fire Weather Potential Rating	2	Moderate
Separation of Adjacent Structures Rating	1	Low
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	>30 feet to slope	Low
Available Fire Protection		
Water Sources	Yes	Low
Water Source Type	Hydrant	Low
Water Source Score	1	Low
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	One above, one below	Moderate
Community Hazard Rating	***77***	***High***

BATTALION 7

BIGGS/GRIDLEY

Biggs/Gridley		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>24 feet	Low
Road Conditions	Surfaced road, grade <5%	Low
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Grass (GR)	Moderate
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	<9%	Low
Topographic Features Rating	1	Low
History of High Fire Occurrence Rating	2	Moderate
Severe Fire Weather Potential Rating	2	Moderate
Separation of Adjacent Structures Rating	4	High
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	>30 feet to slope	Low
Available Fire Protection		
Water Sources	Yes	Low
Water Source Type	Hydrant	Low
Water Source Score	1	Low
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	One above, one below	Moderate
Community Hazard Rating	***67***	***Moderate***

HONCUT

Honcut		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade <5%	Low
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Grass-Shrub (GS)	Moderate
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	<9%	Low
Topographic Features Rating	1	Low
History of High Fire Occurrence Rating	2	Moderate
Severe Fire Weather Potential Rating	2	Moderate
Separation of Adjacent Structures Rating	1	Low
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	>30 feet to slope	Low
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	1	Low
Placement of Gas and Electric Utilities		
Utilities Placement	One above, one below	Moderate
Community Hazard Rating	***77***	***High***

NELSON/RICHVALE

Nelson/Richvale		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade <5%	Low
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Grass (GR)	Moderate
Defensible Space	<30 feet around structure	Extreme
Topography within 300 feet of Structures		
Slope	<9%	Low
Topographic Features Rating	1	Low
History of High Fire Occurrence Rating	1	Low
Severe Fire Weather Potential Rating	2	Moderate
Separation of Adjacent Structures Rating	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	>30 feet to slope	Low
Available Fire Protection		
Water Sources	No	Extreme
Water Source Type	N/A	Extreme
Water Source Score	10	Extreme
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	One above, one below	Moderate
Community Hazard Rating	***76***	***High***

BATTALION 8

PARADISE

Paradise		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Timber-Understory (TU)	High
Defensible Space	>30 feet <70 feet around structure	High
Topography within 300 feet of Structures		
Slope	10% to 20%	Moderate
Topographic Features Rating	4	High
History of High Fire Occurrence Rating	5	Extreme
Severe Fire Weather Potential Rating	5	Extreme
Separation of Adjacent Structures Rating	3	Moderate
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	Yes	
Water Source Type	Hydrant	Low
Water Source Score	1	
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	One above, one below	Moderate
Community Hazard Rating	***86***	***High***

BATTALION 9

OROVILLE

Oroville		
Risk Variable	**Assessed Condition**	**Risk Rating**
Means of Access		
Entrance/Exit	2 or more roads in and out	Low
Road Width	>20 feet <24 feet	Moderate
Road Conditions	Surfaced road, grade >5%	Moderate
Fire Truck Access	<300 feet with no turnaround	High
Street Signs	Present – reflective	Low
Vegetation (Fuel Model)		
Predominate Vegetation	Grass-Shrub (GS)	Moderate
Defensible Space	>30 ft <70 ft around structure	High
Topography within 300 feet of Structures		
Slope	21% to 30%	High
Topographic Features Rating	3	Moderate
History of High Fire Occurrence Rating	2	Moderate
Severe Fire Weather Potential Rating	3	Moderate
Separation of Adjacent Structures Rating	4	High
Roofing Assembly		
Roofing	Class A - metal roof, clay/concrete tiles, slate, asphalt shingles	Low
Building Construction		
Siding Materials	Combustible (wood or vinyl)	Extreme
Deck and Fencing	Combustible deck and fence	Extreme
Building Setback	<30 feet to slope	Extreme
Available Fire Protection		
Water Sources	Yes	Low
Water Source Type	Hydrant	Low
Water Source Score	1	Low
Organized Response	Station <5 miles from community	Low
Placement of Gas and Electric Utilities		
Utilities Placement	One above, one below	Moderate
Community Hazard Rating	***71***	***High***

1144 NATIONAL FIRE PROTECTION ASSOCIATION ASSESSMENT FORM

Table C.1. National Fire Protection Association Assessment Form

SWCA – 1144 Assessment		
Community		**Notes:**
Surveyor		
Survey Date/Time		
Means of Access		
Ingress and Egress		
2 or more roads in and out score | **0**		
1 road in and out | **7**		
Road Width		
>24 ft | **0**		
>20 ft <24 ft | **2**		
<20 ft | **4**		
Road Conditions		
Surfaced road, grade <5% | **0**		
Surfaced road, grade >5% | **2**		
Non-surfaced road, grade <5% | **2**		
Non-surfaced road, grade >5% | **5**		
Other than all season | **7**		
Fire Access		
<300 ft with turnaround | **0**		
>300 ft with turnaround | **2**		
<300 ft with no turnaround | **4**		
>300 ft with no turnaround | **5**		
Street Signs		
Present – reflective | **0**		
Present – non-reflective | **2**		
Not present | **5**		
Notes:		

Vegetation (Fuel Models)	
Predominant Vegetation	
Primary Predominant Vegetation	
Non-Burnable (NB) Score | **2**	
Grass (GR) Score | **5**	
Grass-Shrub (GS) Score | **10**	
Shrub (SH) Score | **15**	
Timber-Understory (TU) Score | **20**	
Timber-Litter (TL) Score | **25**	
Slash-Blow (TU) Score | **30**	
Notes:	
Defensible Space	
>100 ft around structure | **1**	
>70 ft <100 ft around structure | **3**	
>30 ft <70 ft around structure | **10**	
<30 ft around structure | **25**	
Topography Within 300 ft of Structures	
Slope	
<9% | **1**	
10% to 20% | **4**	
21% to 30% | **7**	
31% to 40% | **8**	
>41% | **10**	
Additional Rating Factors (rate all that apply)	
Topographic features | **1-5**	
History of high fire occurrence | **1-5**	
Severe fire weather potential | **1-5**	
Separation of adjacent structures | **1-5**	
Notes:	
Roofing Assembly	
Roofing	
Class A - metal roof, clay/concrete tiles, slate, asphalt shingles | **0**	
Class B - pressure treated composite shakes and shingles | **3**	

Class C - untreated wood shingle, plywood, particle board | **15**	
Unrated - Extremely poor roofing conditions | **25**	
Notes:	
Building Construction	
Siding Materials (predominant)	
Non-combustible (brick/concrete) | **5**	
Fire Resistive (stucco/adobe) | **10**	
Combustible (wood or vinyl) | **12**	
Deck and fencing (predominant)	
No deck or fence/noncombustible | **0**	
Combustible deck and fence | **5**	
Building Set-Back	
>30 ft to slope | **1**	
<30 ft to slope | **5**	
Notes:	
Available Fire Protection	
Water Sources	
Water Source? | yes/no	
Water Source Type | hydrant, water tank, other	
Other Water Source	
Water Source Score | Hydrant = **1** Water Tank = **3 No Source = 10**	
Organized Response	
Station <5 mi from community | **1**	
Station >5 mi from community | **3**	
Notes:	
Placement of Gas and Electric Utilities	
Both underground | **0**	
One above, one below | **3**	
Both aboveground | **5**	
Highly Valued Resources and Assets Observations	

Forest Health Observations
Land Use Observations
Misc Observations
Total

Hazard Rating Scale	**<40 Low**	**40 – 69 Moderate**	**70 – 111 High**	**>112 Extreme**



APPENDIX D:

Project Outreach

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STAKEHOLDER OUTREACH

To convene an inclusive Core Team, SWCA, Butte County, Butte County Fire Safe Council, and CAL FIRE Butte Unit conducted extensive stakeholder outreach. This effort included engaging with the Butte County Collaborative Group (BCCG), a collection of organizations and community members focused on strengthening strategic partnerships for forest health, ecological restoration, and wildfire safety. The collaboration involved emails, calls, video conferencing, and in-person meetings with personnel from local government, local tribes, private entities, fire organizations, and federal and state land managers.

While the general concept of the 2025 CWPP rewrite process had been discussed in brief at previous BCCG quarterly meetings, the first formal presentation of the CWPP rewrite planning process was presented to the BCCG membership at the January 8, 2024, quarterly meeting. A special CWPP planning meeting was held on March 5, 2024, that focused on preparing proposed fuel reduction project data for the May 2024 annual CWPP/Fire Plan review as well as kicking off the process of completely rebuilding the fuel reduction project list for the 2025 CWPP rewrite.

The 2025 CWPP rewrite components, status updates, and planning procedures were presented at the subsequent BCCG quarterly meetings on April 8, 2024, July 15, 2024 (formal presentation introducing SWCA to the BCCG membership), October 7, 2024 (in-person presentation to the BCCG by SWCA), and an additional status update on January 27, 2025, just ahead of the opening of the public review period. In addition to attendance by the BCCG membership, each BCCG quarterly meeting is open to the public.

The 2025 CWPP rewrite was also discussed at the biweekly (every 2 weeks) Butte County Resource Conservation District's (RCD's) Countywide Mapping Meetings beginning in July 2024, with a focus on gathering and organizing the geospatial data connected to each of the fuel reduction projects that are listed in Appendix I.

In addition, the status of the CWPP rewrite project, as well as an invitation to participate in the public review period, was presented to the Paradise Chamber of Commerce on January 28, 2025, and the public review draft was presented to the Chico Chamber of Commerce's Advocacy Committee on February 18, 2025.

Stakeholders and the public were invited to review the CWPP from February 7, 2025, to February 21, 2025.

COMMUNITY OUTREACH

This section details the community engagement process and activities that SWCA Environmental Consultants, Butte County, Butte County Fire Safe Council, CAL FIRE Butte Unit, and other project partners implemented as part of the planning process.

Butte County community members were invited to participate in various public meetings for the 2025 Butte CWPP update process. Two community workshops were held in the fall of 2024: October 8, 2024, in Chico and October 9, 2024, in Oroville, from 5:30 p.m. to 7:30 p.m. These meetings provided an important opportunity for residents, local decision-makers, fire management experts, and other stakeholders to discuss strategies for reducing wildfire risks across the county. Designed as collaborative environments, the workshops allowed participants to ask questions, share insights, and offer feedback to help shape the CWPP update. Each workshop began with a brief presentation on the CWPP process, followed by open discussions and opportunities for public input in an open house format.

Feedback, comments, and suggestions received from these community members during community events as well as from the community survey (hosted on the CWPP hub site) and CWPP public review period were synthesized and used to craft the project recommendations in Chapter 6.

The public review period was hosted from February 7 to February 21, 2025. During this time, two additional public meetings were held at the Oroville and Chico Libraries on February 11 and 12, 2025 respectively, providing residents an opportunity to ask questions and share feedback with Core Team members.

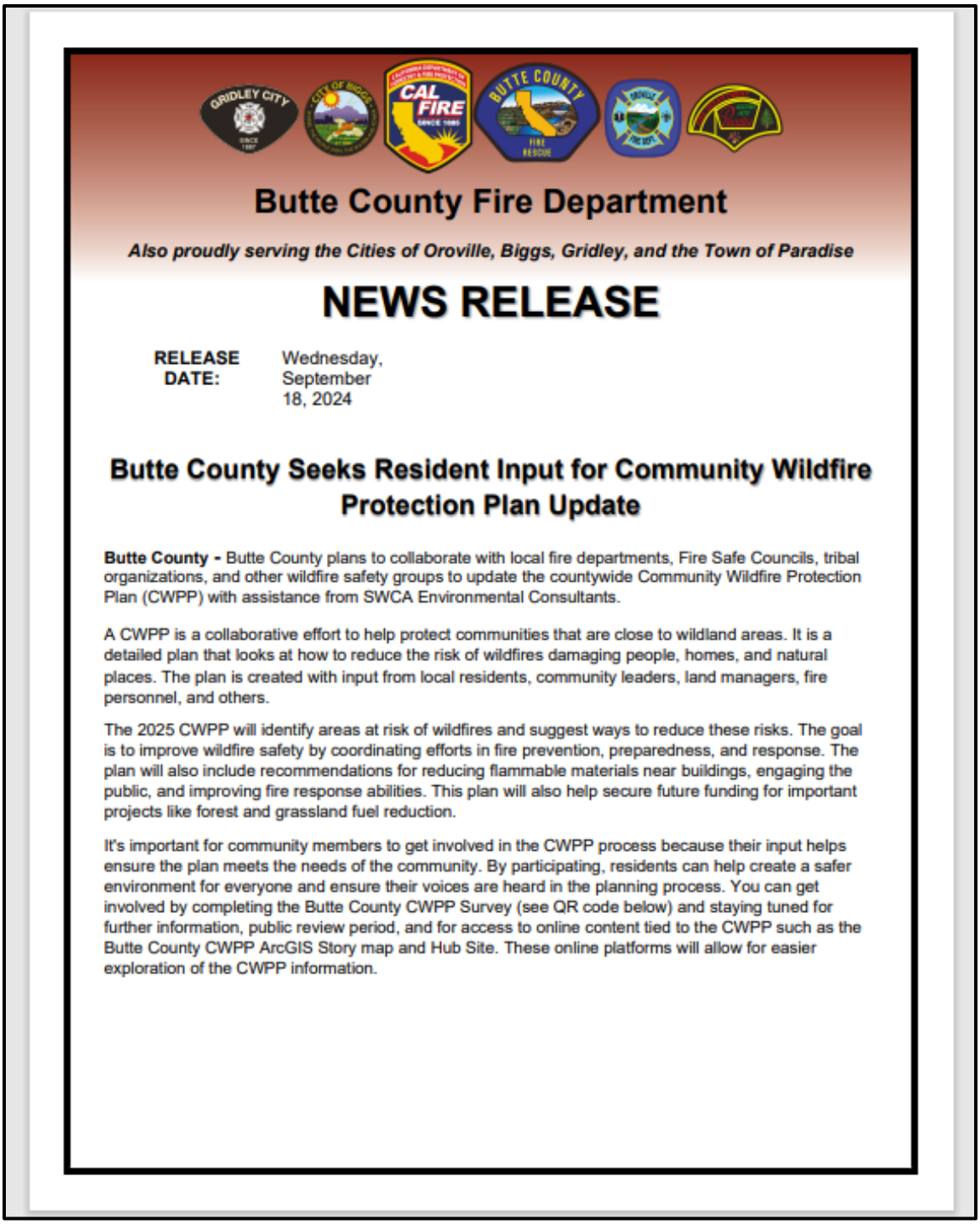
Table D.1 lists examples of public outreach events, materials, and releases that were used to provide information to the public and solicit community input.

Table D.1. Public Outreach Resources

Resource Description	Location/Description	Figure Number	Date
Butte County CWPP press release for residential input	Butte County News & Media	D.1 and D.2	9/18/2024
Facebook post promoting the Butte County public survey	CAL FIRE/Butte County Facebook page	D.3	9/18/2024
News release promoting public input for the Butte County CWPP	North State Public Radio Media	D.4	9/19/2024
Butte County press release promoting CWPP stakeholder workshop	Butte County News & Media	D.5 and D.6	10/02/2024
News article for CWPP stakeholder workshop	*Gridley Herald* Media and Butte County Fire Department news release	D.7	10/03/2024
News article promoting Butte County CWPP public survey	Action News Now Media	D.8	10/10/2024
Press Release from CAL FIRE/Butte County Fire Department	Butte County News & Media	D.9 and D.10	2/6/2025
Facebook post from Butte County Fire Safe Council promoting the public review period	Butte County Fire Safe Council Facebook	D.11	2/7/2025



Public meeting at the Chico Library on February 12, 2025.



Butte County Fire Department

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NEWS RELEASE

RELEASE DATE: Wednesday, September 18, 2024

Butte County Seeks Resident Input for Community Wildfire Protection Plan Update

Butte County - Butte County plans to collaborate with local fire departments, Fire Safe Councils, tribal organizations, and other wildfire safety groups to update the countywide Community Wildfire Protection Plan (CWPP) with assistance from SWCA Environmental Consultants.

A CWPP is a collaborative effort to help protect communities that are close to wildland areas. It is a detailed plan that looks at how to reduce the risk of wildfires damaging people, homes, and natural places. The plan is created with input from local residents, community leaders, land managers, fire personnel, and others.

The 2025 CWPP will identify areas at risk of wildfires and suggest ways to reduce these risks. The goal is to improve wildfire safety by coordinating efforts in fire prevention, preparedness, and response. The plan will also include recommendations for reducing flammable materials near buildings, engaging the public, and improving fire response abilities. This plan will also help secure future funding for important projects like forest and grassland fuel reduction.

It's important for community members to get involved in the CWPP process because their input helps ensure the plan meets the needs of the community. By participating, residents can help create a safer environment for everyone and ensure their voices are heard in the planning process. You can get involved by completing the Butte County CWPP Survey (see QR code below) and staying tuned for further information, public review period, and for access to online content tied to the CWPP such as the Butte County CWPP ArcGIS Story map and Hub Site. These online platforms will allow for easier exploration of the CWPP information.

Figure D.1. News release issued by the Butte County Fire Department, inviting residents to provide input for the 2025 CWPP update.

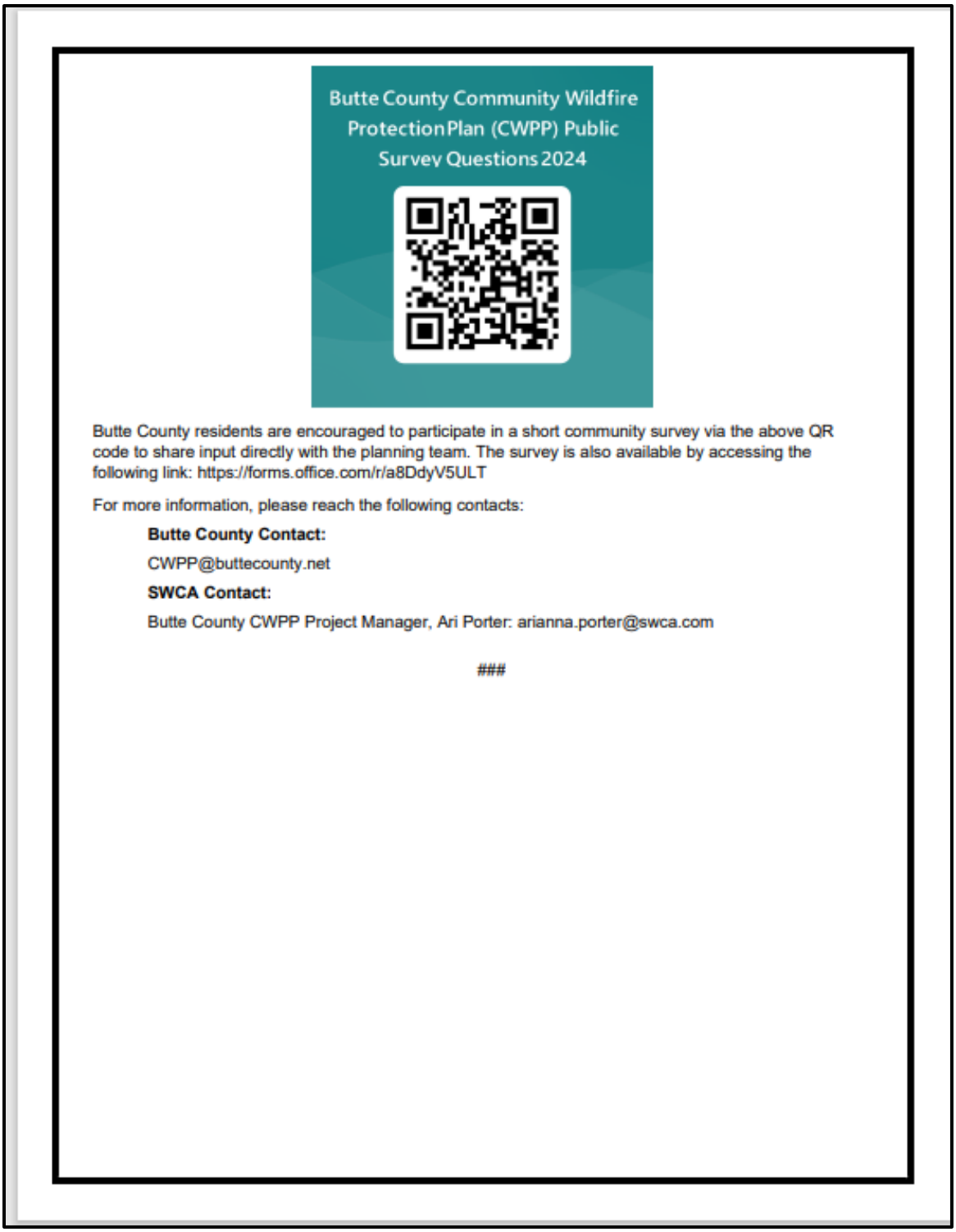


Figure D.2. Contact and survey information page from the Butte County Fire Department news release that includes a QR code link to encourage resident participation in the planning process.

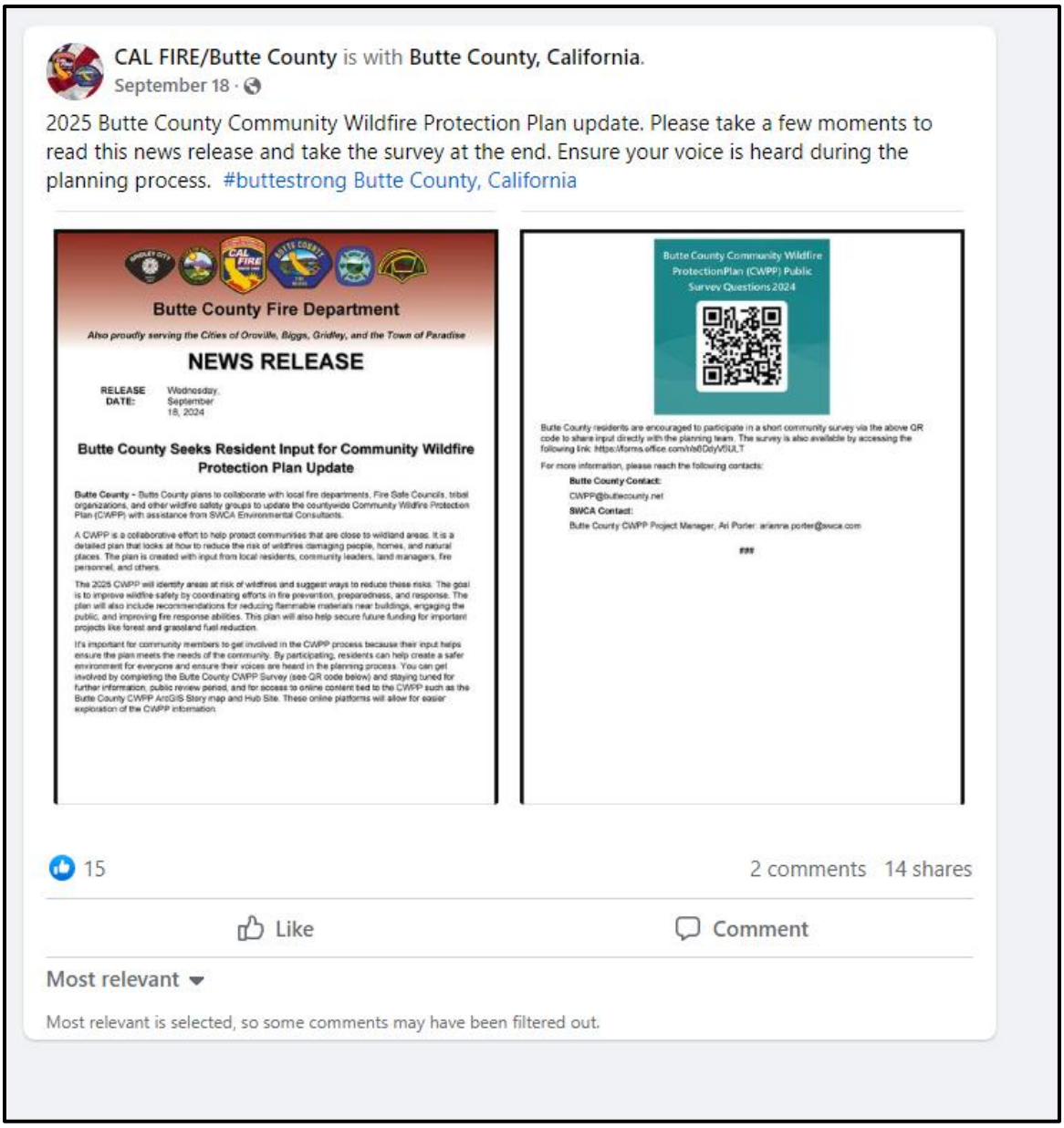


Figure D.3. CAL FIRE/Butte County Facebook post promoting the Butte County CWPP public survey. The social media post encourages residents to share feedback via the survey link, ensuring community input in the CWPP update.

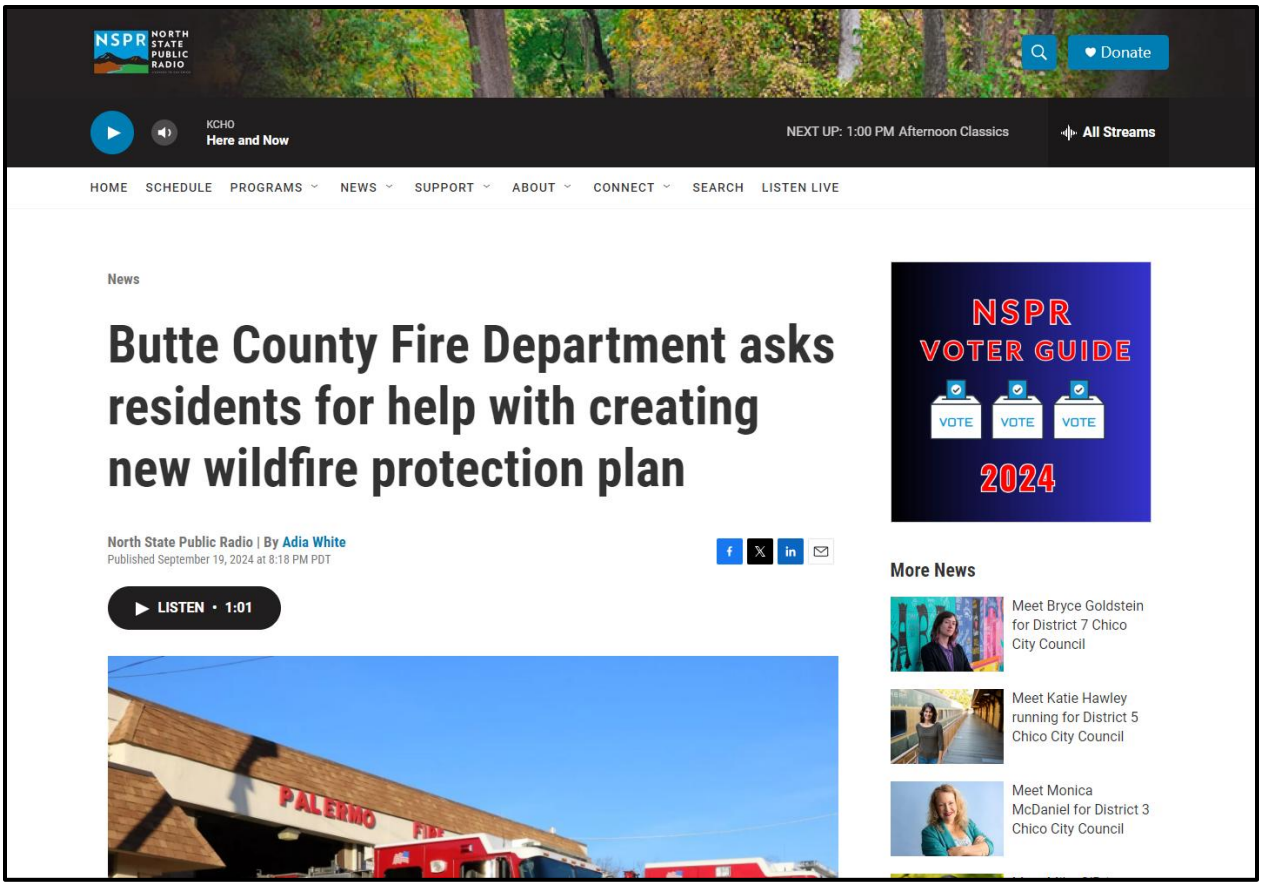
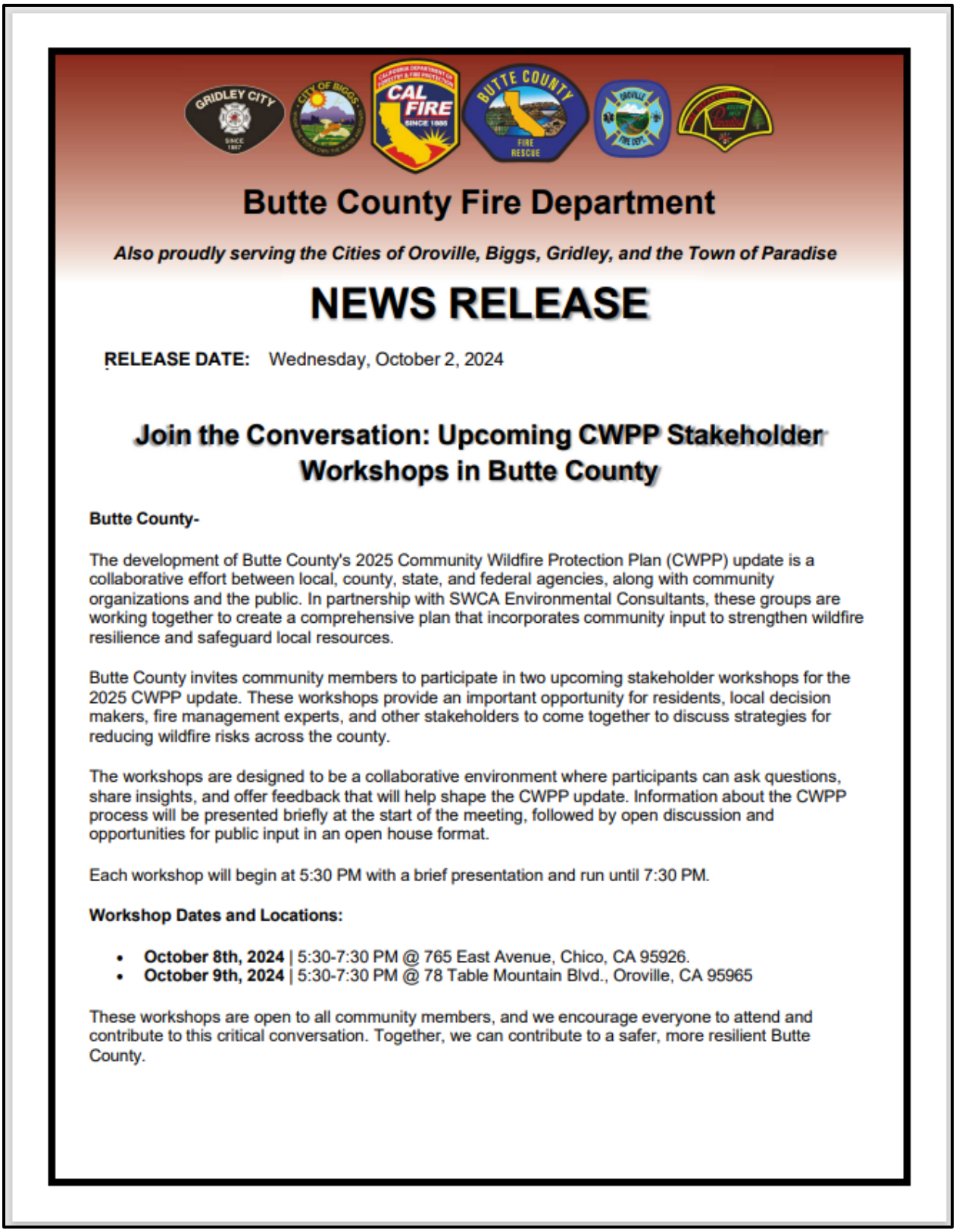


Figure D.4. Radio segment announcement by North State Public Radio calling for community engagement in the Butte County CWPP.



Butte County Fire Department

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NEWS RELEASE

RELEASE DATE: Wednesday, October 2, 2024

Join the Conversation: Upcoming CWPP Stakeholder Workshops in Butte County

Butte County-

The development of Butte County's 2025 Community Wildfire Protection Plan (CWPP) update is a collaborative effort between local, county, state, and federal agencies, along with community organizations and the public. In partnership with SWCA Environmental Consultants, these groups are working together to create a comprehensive plan that incorporates community input to strengthen wildfire resilience and safeguard local resources.

Butte County invites community members to participate in two upcoming stakeholder workshops for the 2025 CWPP update. These workshops provide an important opportunity for residents, local decision makers, fire management experts, and other stakeholders to come together to discuss strategies for reducing wildfire risks across the county.

The workshops are designed to be a collaborative environment where participants can ask questions, share insights, and offer feedback that will help shape the CWPP update. Information about the CWPP process will be presented briefly at the start of the meeting, followed by open discussion and opportunities for public input in an open house format.

Each workshop will begin at 5:30 PM with a brief presentation and run until 7:30 PM.

Workshop Dates and Locations:

- **October 8th, 2024** | 5:30-7:30 PM @ 765 East Avenue, Chico, CA 95926.
- **October 9th, 2024** | 5:30-7:30 PM @ 78 Table Mountain Blvd., Oroville, CA 95965

These workshops are open to all community members, and we encourage everyone to attend and contribute to this critical conversation. Together, we can contribute to a safer, more resilient Butte County.

Figure D.5. Butte County Fire Department press release announcing upcoming CWPP stakeholder workshops for public feedback.

To learn more about the 2025 Butte County CWPP update and get involved in the planning process, please visit the following web address, or use the QR code below: https://butte-county-cwpp-bcrcd.hub.arcgis.com

For questions and to seek more information, please reach the following contacts:

Butte County Contact:

CWPP@buttecounty.net

SWCA Contact:

Butte County CWPP Project Manager, Ari Porter: arianna.porter@swca.com

###

Figure D.6. QR code page from the Butte County CWPP workshop announcement, providing a link to further information and contact details for residents interested in contributing to the CWPP update.



Figure D.7. *Gridley Herald* article summarizing the upcoming CWPP stakeholder workshops in Butte County.

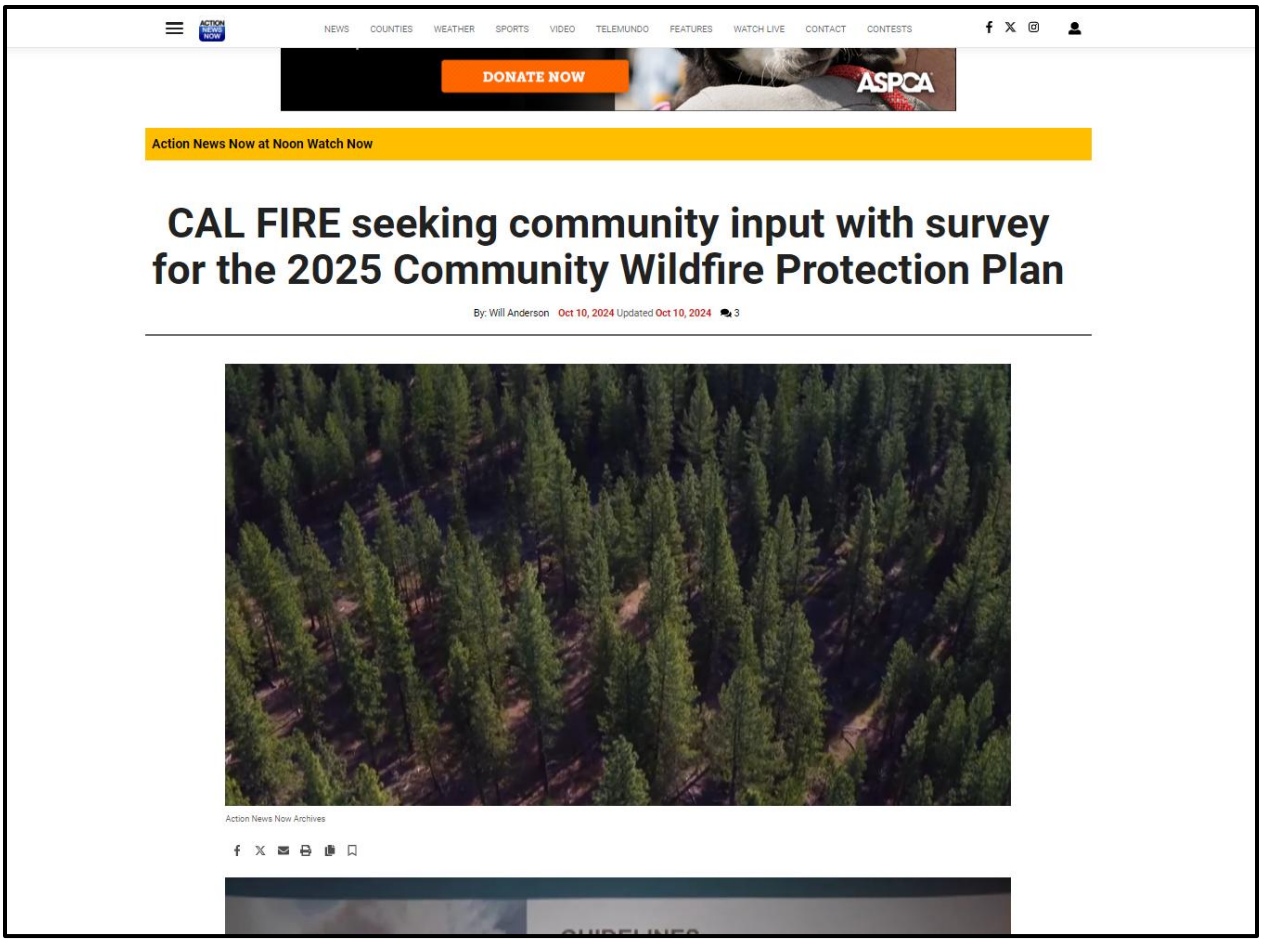
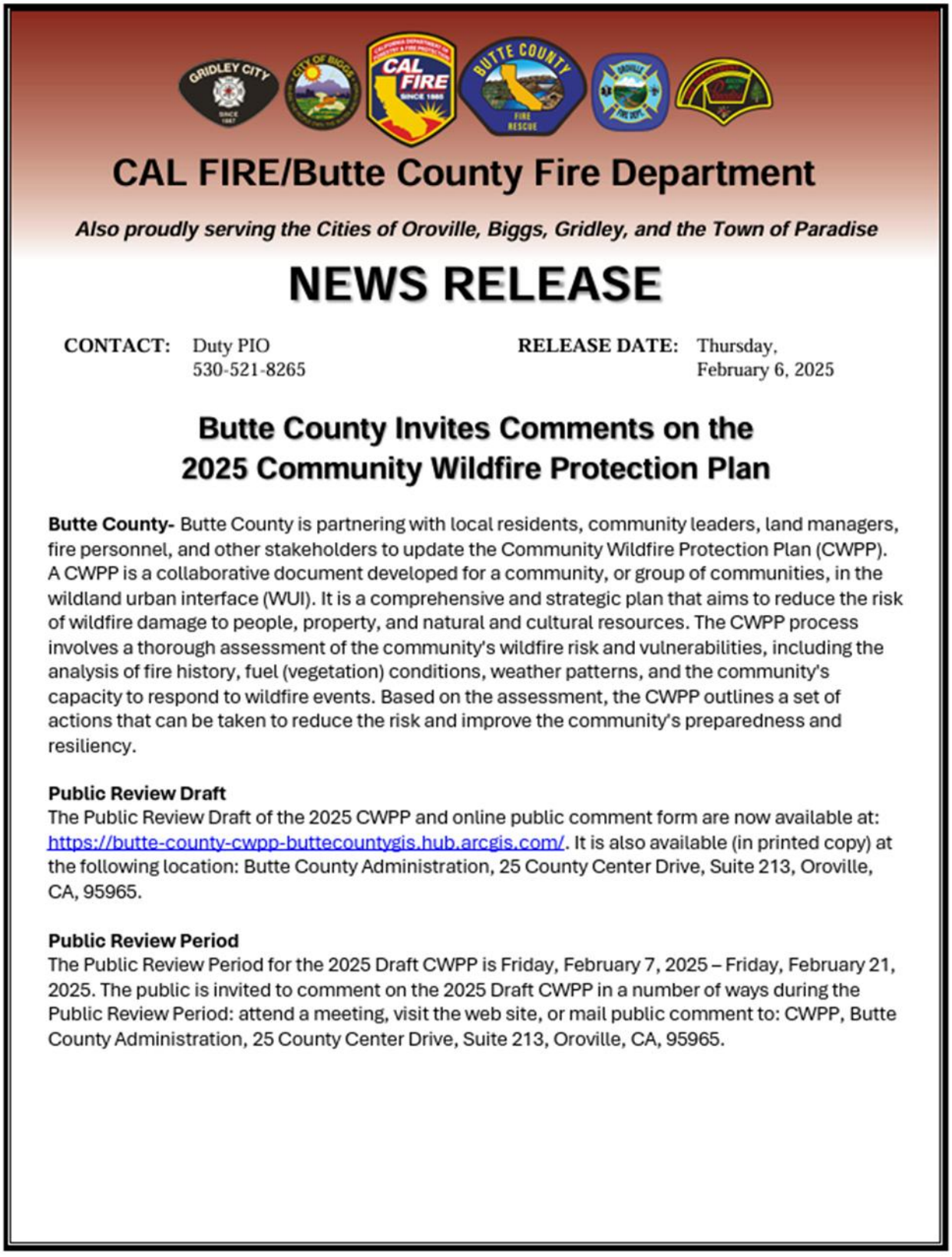


Figure D.8. Action News Now article encouraging community feedback through the Butte County CWPP public survey.



CAL FIRE/Butte County Fire Department

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NEWS RELEASE

CONTACT: Duty PIO
530-521-8265

RELEASE DATE: Thursday,
February 6, 2025

Butte County Invites Comments on the 2025 Community Wildfire Protection Plan

Butte County- Butte County is partnering with local residents, community leaders, land managers, fire personnel, and other stakeholders to update the Community Wildfire Protection Plan (CWPP). A CWPP is a collaborative document developed for a community, or group of communities, in the wildland urban interface (WUI). It is a comprehensive and strategic plan that aims to reduce the risk of wildfire damage to people, property, and natural and cultural resources. The CWPP process involves a thorough assessment of the community's wildfire risk and vulnerabilities, including the analysis of fire history, fuel (vegetation) conditions, weather patterns, and the community's capacity to respond to wildfire events. Based on the assessment, the CWPP outlines a set of actions that can be taken to reduce the risk and improve the community's preparedness and resiliency.

Public Review Draft
The Public Review Draft of the 2025 CWPP and online public comment form are now available at: https://butte-county-cwpp-buttecountygis.hub.arcgis.com/. It is also available (in printed copy) at the following location: Butte County Administration, 25 County Center Drive, Suite 213, Oroville, CA, 95965.

Public Review Period
The Public Review Period for the 2025 Draft CWPP is Friday, February 7, 2025 – Friday, February 21, 2025. The public is invited to comment on the 2025 Draft CWPP in a number of ways during the Public Review Period: attend a meeting, visit the web site, or mail public comment to: CWPP, Butte County Administration, 25 County Center Drive, Suite 213, Oroville, CA, 95965.

Figure D.9. CAL FIRE/Butte County Fire Department press release announcing upcoming CWPP public review period and final public meetings.

Attend a Meeting

Final meetings for stakeholders and the public are being held in person only to review and provide comments on the Public Review Draft CWPP as follows:

Final South County Meeting
Tuesday, February 11, 2025, 3pm – 5pm
Oroville Library
1820 Mitchell Avenue
Oroville, CA 95966

Final North County Meeting
Wednesday, February 12, 2025, 5pm – 7pm
Chico Library
1108 Sherman Avenue
Chico, CA 95926

All interested stakeholders and members of the public are welcome to attend either of these meetings.

For more information on this project, please visit: https://butte-county-cwpp-buttecountygis.hub.arcgis.com/ or scan the QR code below.

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Figure D.10. CAL FIRE/Butte County Fire Department press release announcing upcoming CWPP public review period and final public meetings, including meeting dates, times, and locations, as well as a QR code for accessing the CWPP hub site.

Butte County Fire Safe Council
February 7 ·

The 2025 Community Wildfire Protection Plan (CWPP) is now available for public review!

Your input matters! The public comment period is open from Friday, February 7 – Friday, February 21, 2025. Take a moment to review the plan and share your feedback to help shape wildfire preparedness in our community.

https://butte-county-cwpp-buttecountygis.hub.arcgis.com/

Final meetings for stakeholders and the public are being held in person only to review and provide comments on the Public Review Draft CWPP. The BCFSC plans to send staff to both meetings to support and have our resources available.

Meetings are as follows:

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*Please see the attached News Release from CAL FIRE for more information.



CAL FIRE/Butte County Fire Department

Also proudly serving the Cities of Oroville, Biggs, Gridley, and the Town of Paradise

NEWS RELEASE

CONTACT: Duty PIO
530-521-8265

RELEASE DATE: Thursday, February 6, 2025

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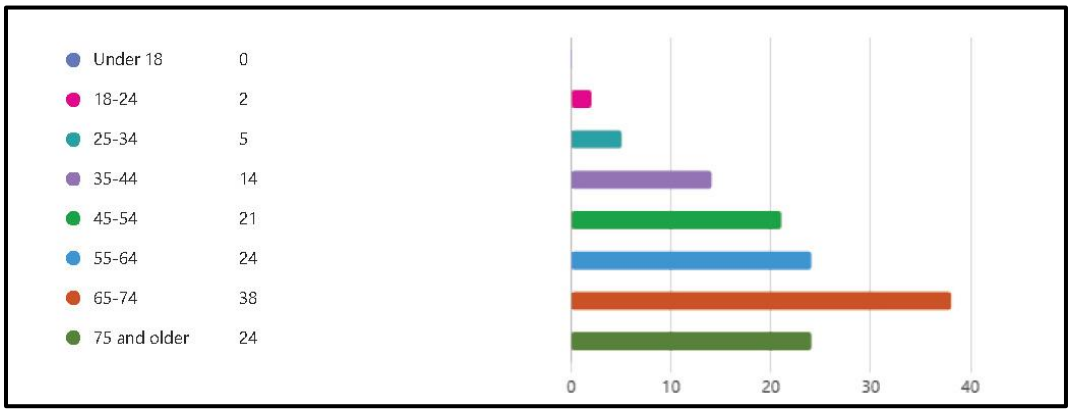
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Figure D.11. The Butte County Fire Safe Council's Facebook post announcing the CWPP public review period and meetings. The CAL FIRE/Butte County Fire Department press release was included in the post.

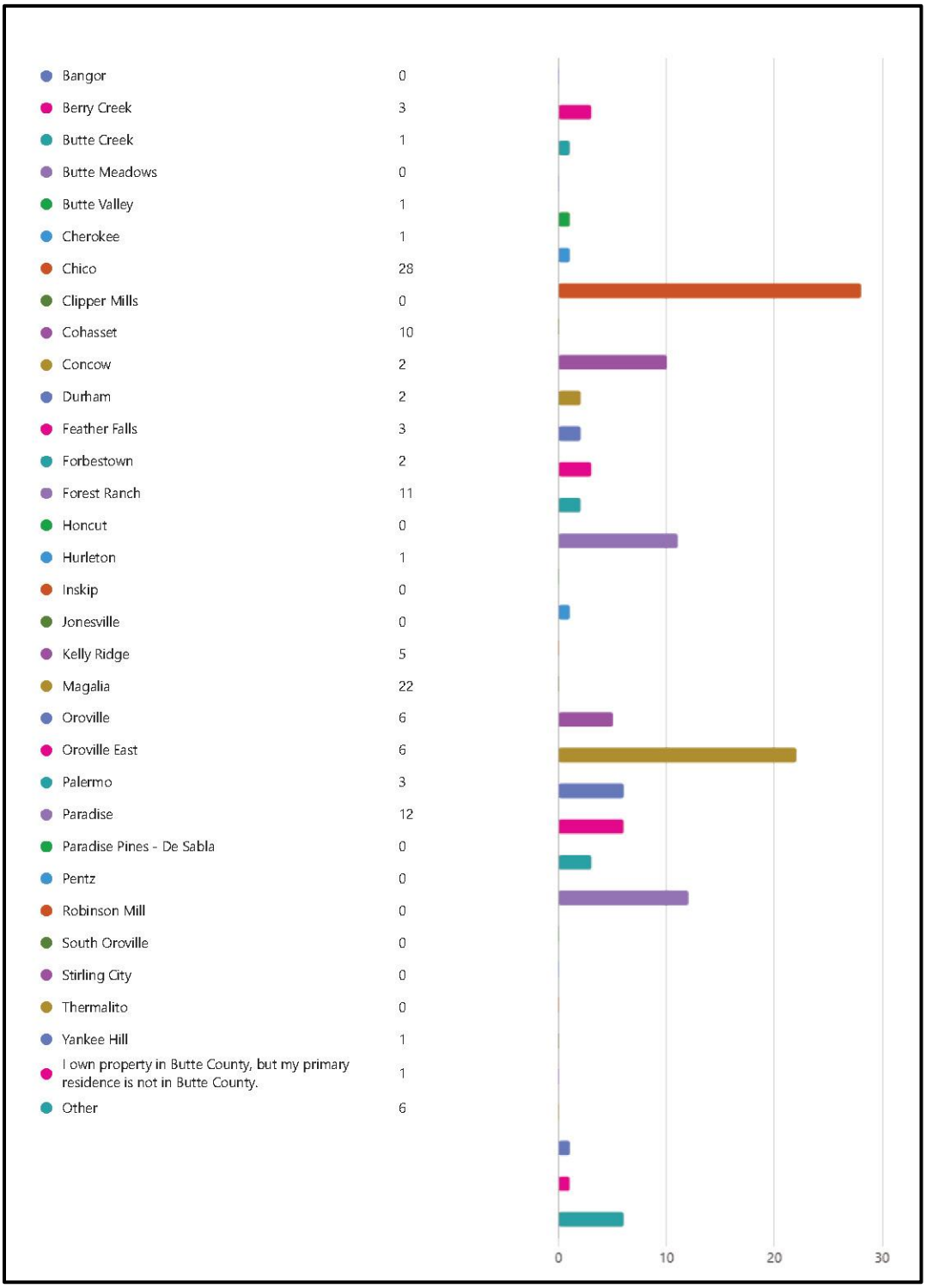
PUBLIC SURVEY RESULTS

The public survey was released on September 11, 2024, and was closed on February 21, 2025. A total of 128 responses were received. The results are detailed below.

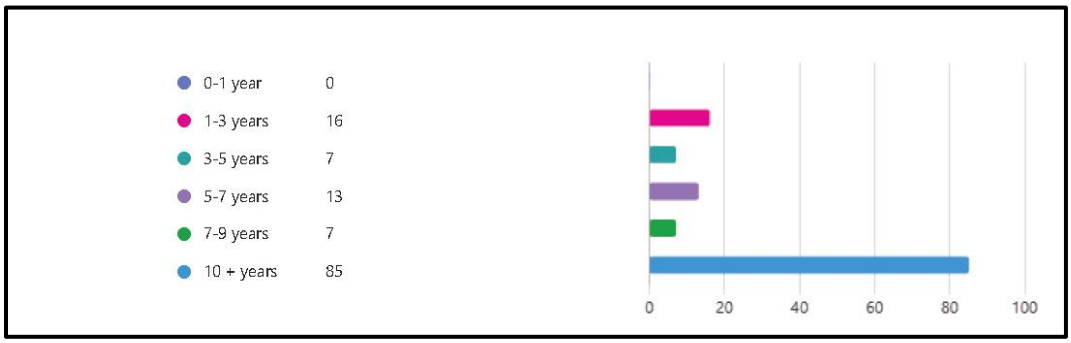
6. What is your age?



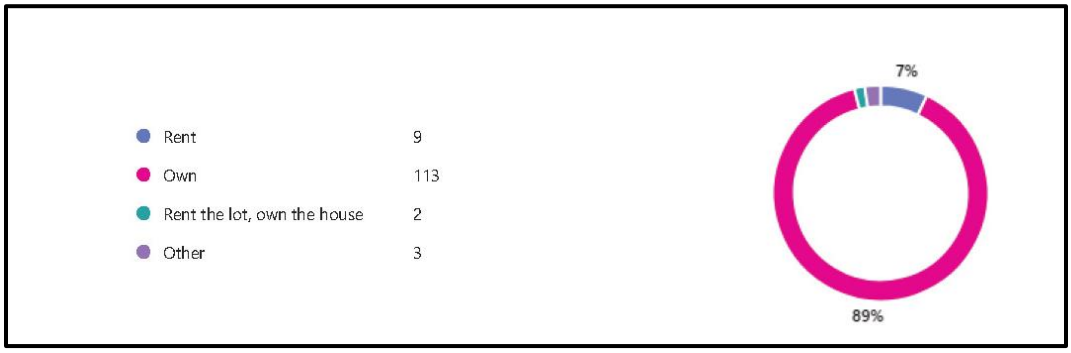
7. **Please select the location of your PRIMARY residence.** Note: the bar chart columns are offset from the community names due to their width.



8. **How long have you lived at this residence?**



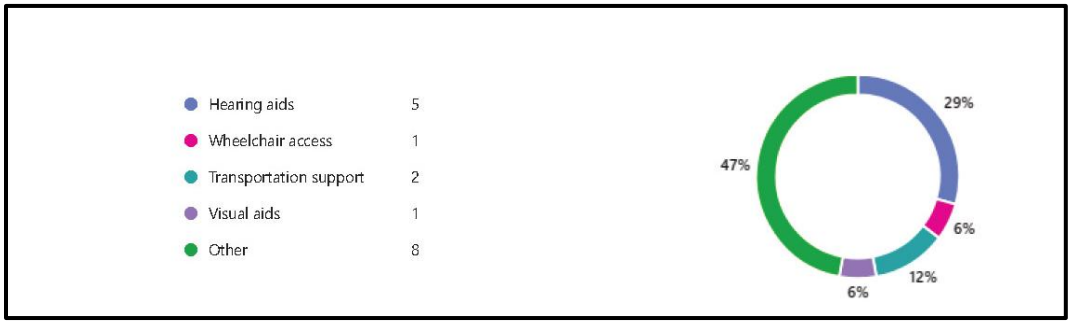
9. **Do you rent or own your home?**



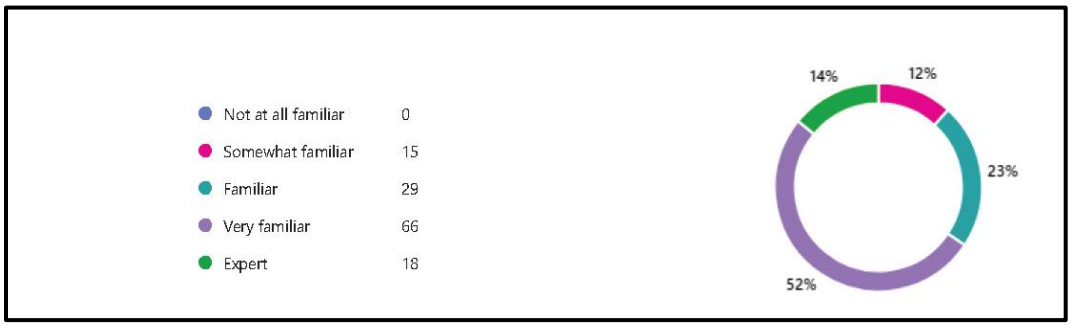
10. **Do you identify as a person with a disability as defined by the Americans with Disabilities Act (ADA)? (If yes, go to question 6. If no, skip to question 7)**



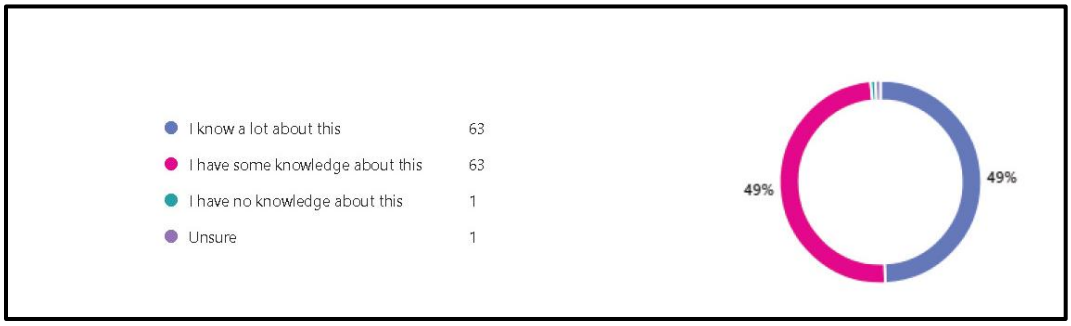
11. **If you replied "yes" to Question 5, what sort of access and functional needs do you require? Please select all that apply.**



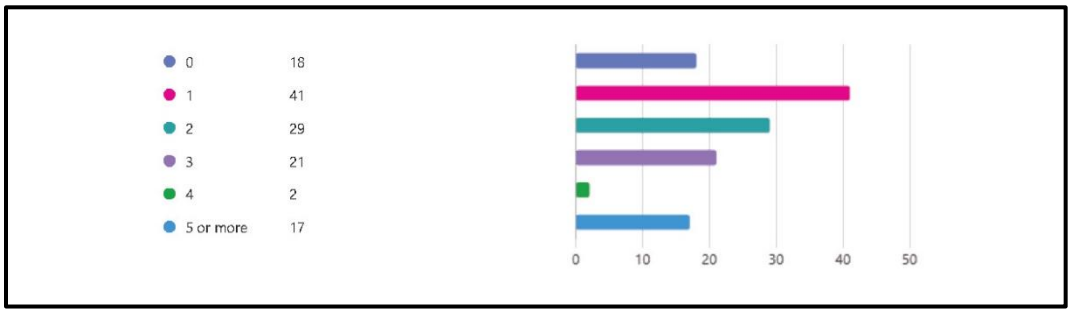
12. What is your level of familiarity or knowledge about wildfire?



13. Do you have knowledge about how the natural environment (changes in temperature, relative humidity, wind, drought, etc.) can influence fire behavior?



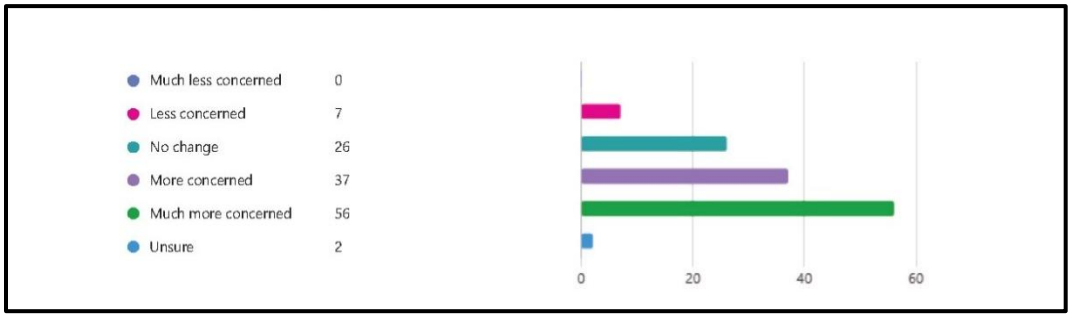
14. How many times have you evacuated from your residence because of wildfire or threat of wildfire in the last 10 years (evacuation warning or order)?



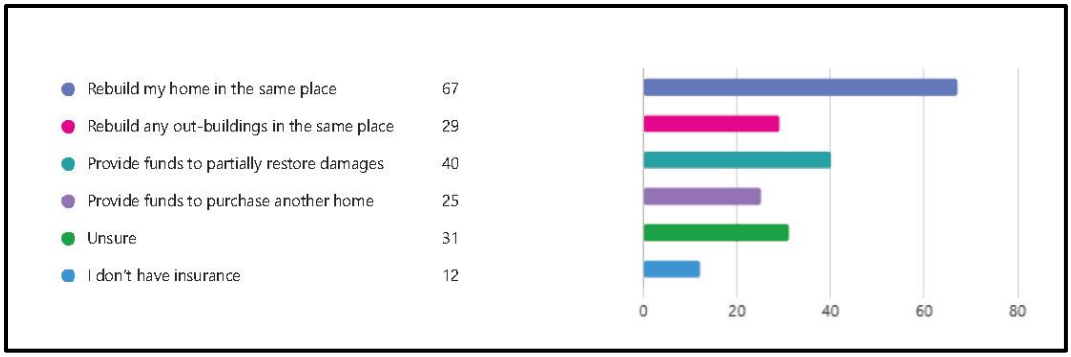
15. How concerned/worried are you about the risk of wildfire where you live and the threat wildfire poses to your primary residence?



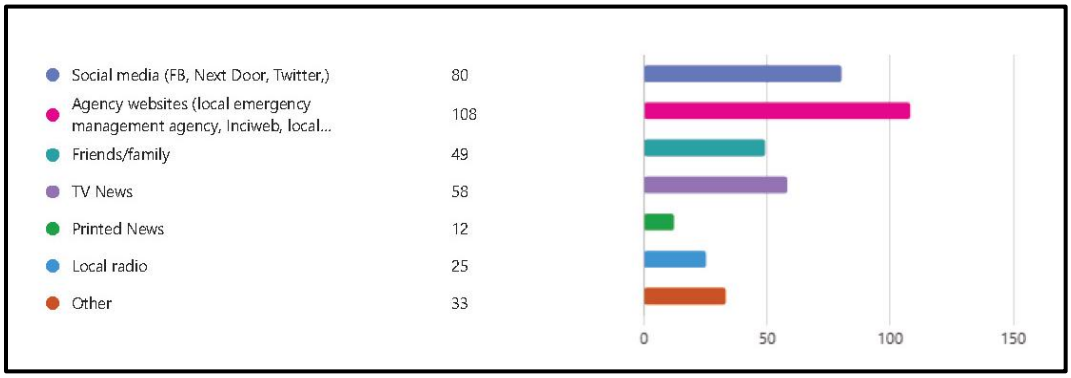
16. **How would you describe your level of concern/worry regarding your safety from wildfires and the safety of your family, home, and assets now when compared to your level of concern prior to the Camp Fire, North Complex, and other recent wildfires?**



17. **What do you think your current insurance would cover in the event of a wildfire? Select all that apply.**



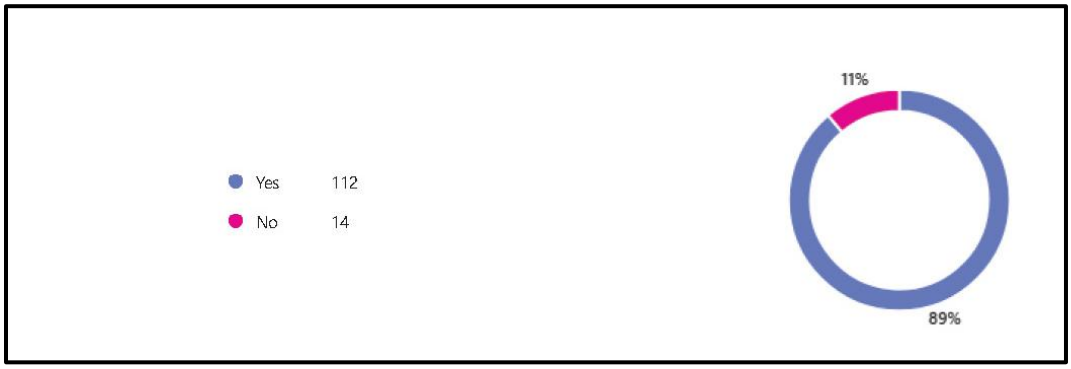
18. **Where do you get information about local wildfires?**



19. Are you registered for local emergency notifications?



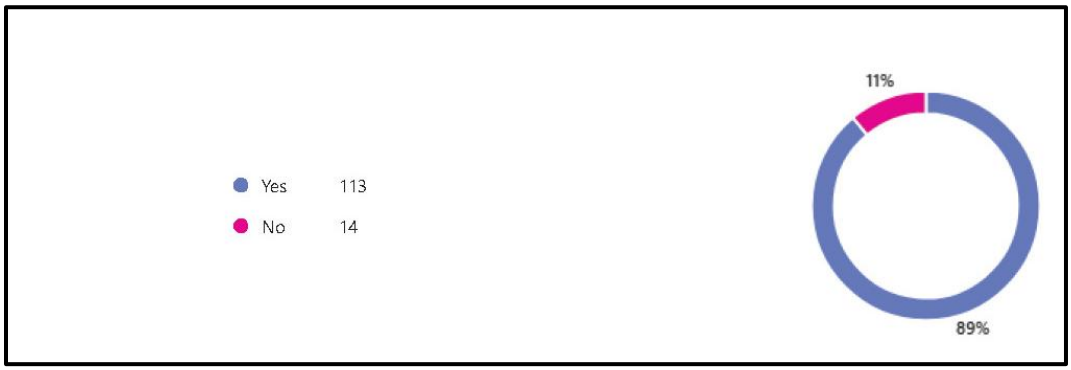
20. Do you know how to sign up for local emergency notifications?



21. Where do you currently get most of your updates and information regarding evacuations or incidents?

"Watch Duty App"	*"Facebook"*	*"BCSO"*	*"CAL FIRE BTU"*	*"Code Red"*	*"FM Alert"*	*"Twitter"*
"GMRS radio club"	*"Social Media"*	*"Text alerts"*	*"TV"*	*"Local news"*	*"Cell phone"*	*"Websites"*
"Internet"	*"Town of Paradise alerts"*	*"Town siren"*	*"Friends and neighbors"*	*"Fire watch"*	*"Email"*	*"Radio"*

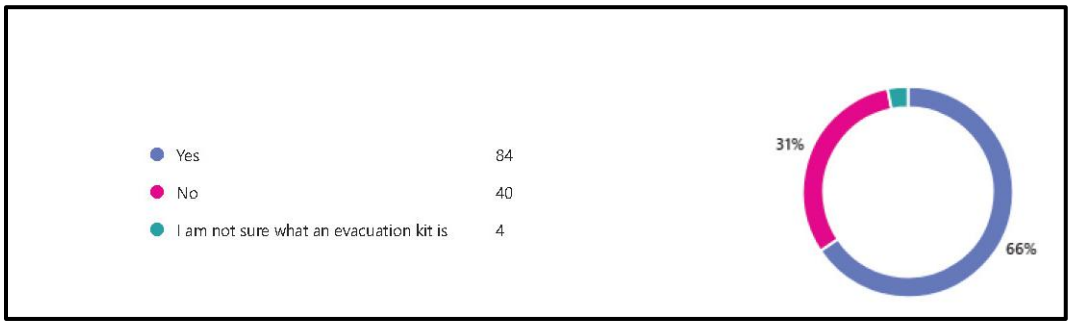
22. Are you familiar with local evacuation routes?



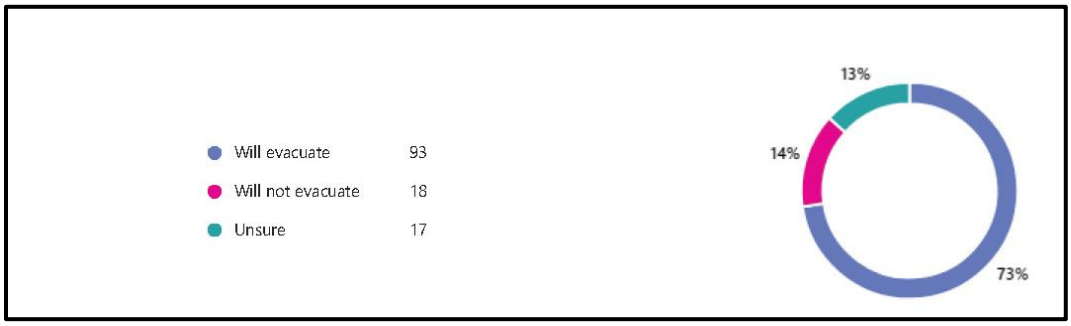
23. Do you have an updated evacuation plan for you/your family?



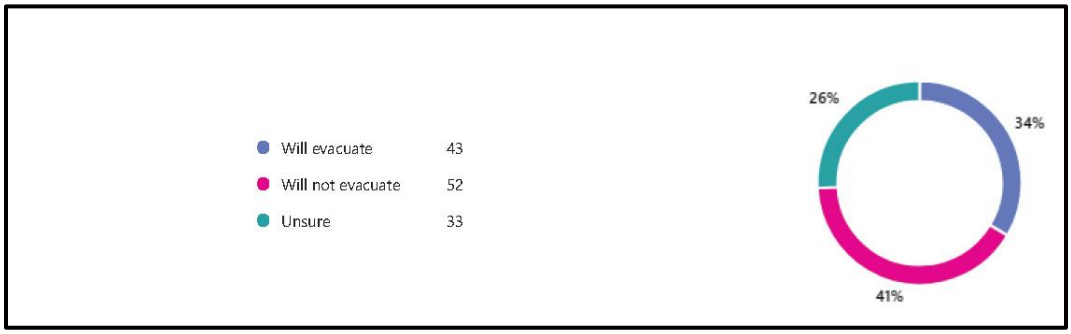
24. Do you have an emergency evacuation kit ready?



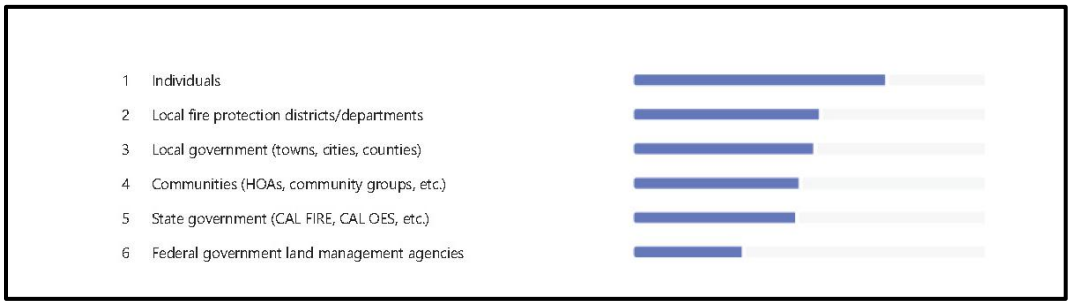
25. How likely are you to leave your home under an evacuation order (mandatory)?



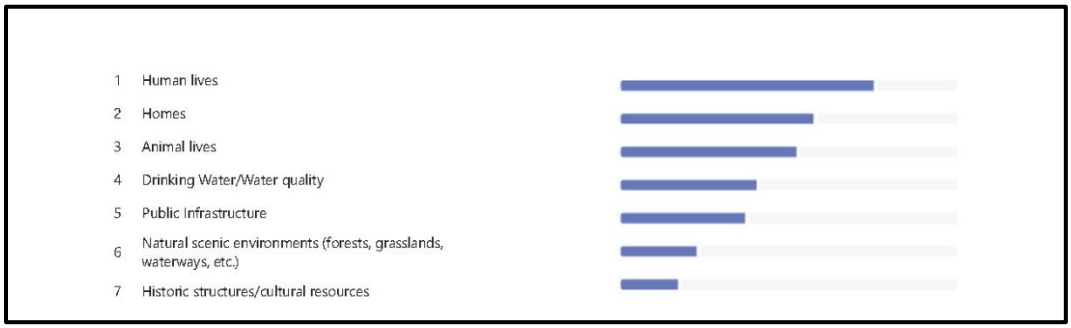
26. How likely are you to leave your home under an evacuation warning (voluntary)?



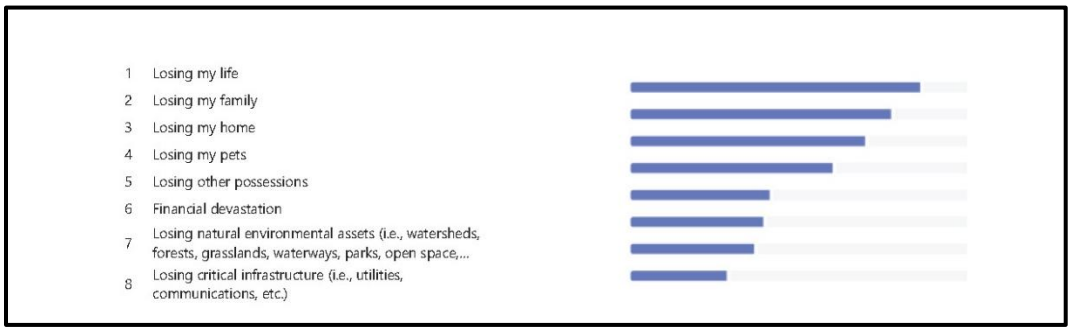
27. In your opinion, whose responsibility is fire preparedness and mitigation? Please rank by level of responsibility (the first being most responsible).



28. Please prioritize the values/assets to be protected in the immediate area around your residence (~1 mile). Please rank by level of importance (the first being most important).



29. What are the greatest concerns that you have about the risk from wildfire? Please rank these in order with the first being the greatest concern, 2nd being the next highest concern, etc.

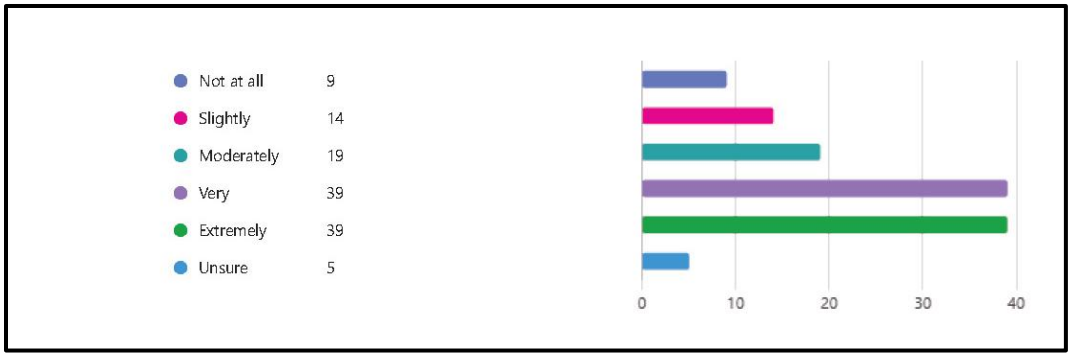


Note: The bar chart on the right (in the three figures above) indicates how many times an option was selected as choice #1. Options toward the top (e.g., 1–4) were ranked as greatest concerns, while options toward the bottom (e.g., 5–8) were ranked as relatively lower concerns.

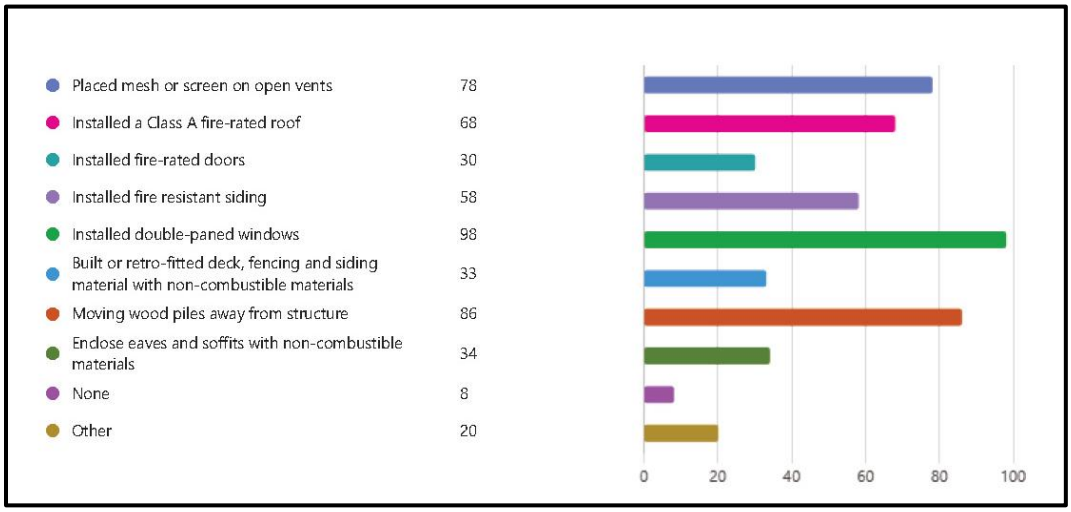
30. Home hardening is the concept of implementing fire-resistant upgrades to your home. Are you familiar with "home hardening" concepts and how they pertain to residential property (i.e., the physical structure itself, including mesh vents, siding, roof types, eves, windows, chimneys, fences, etc.)?



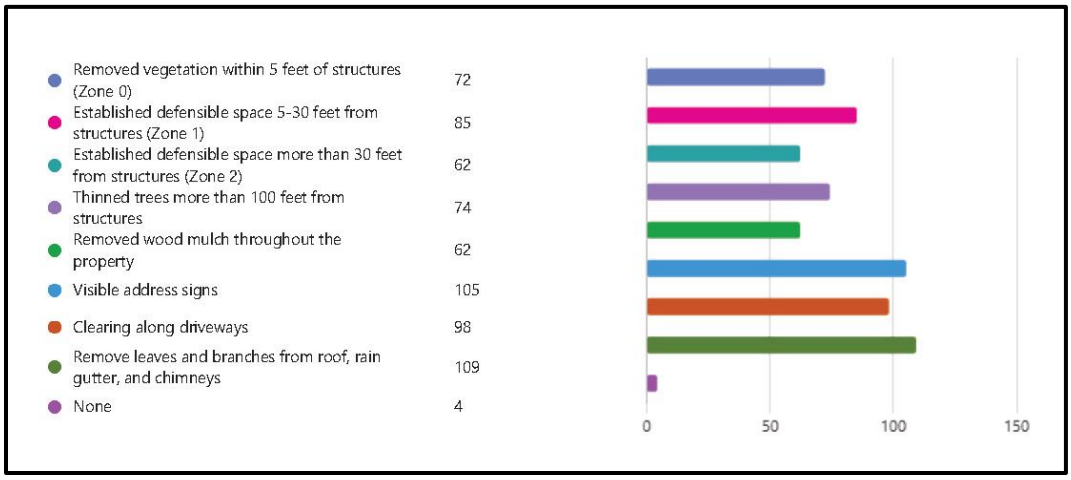
31. Are you interested in implementing "home hardening" on your own residential property?



32. Which of the following home hardening activities have you completed? Select all that apply.

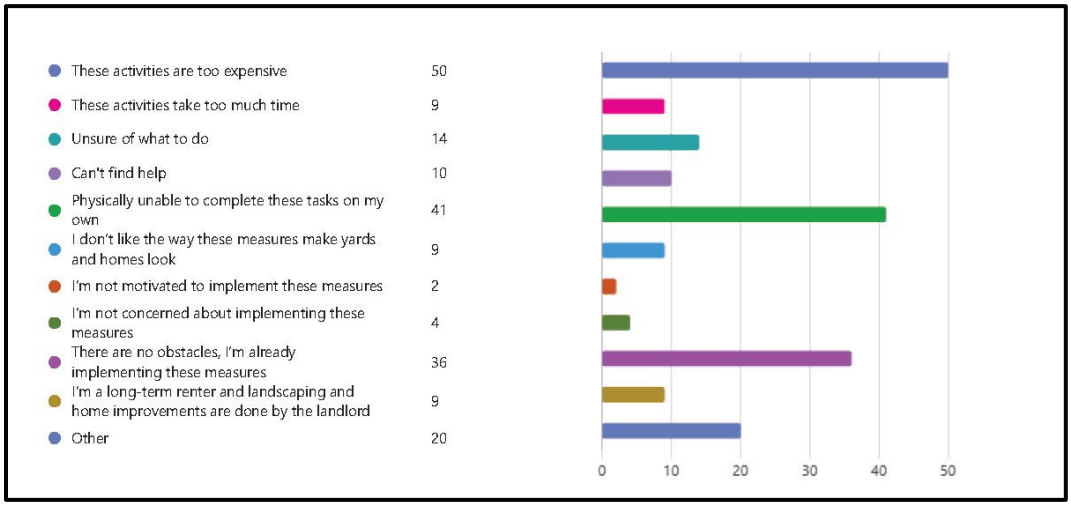


33. Defensible space is the 100 feet between your property and the surrounding area. Which of the following defensible space activities have you completed? Select all that apply.

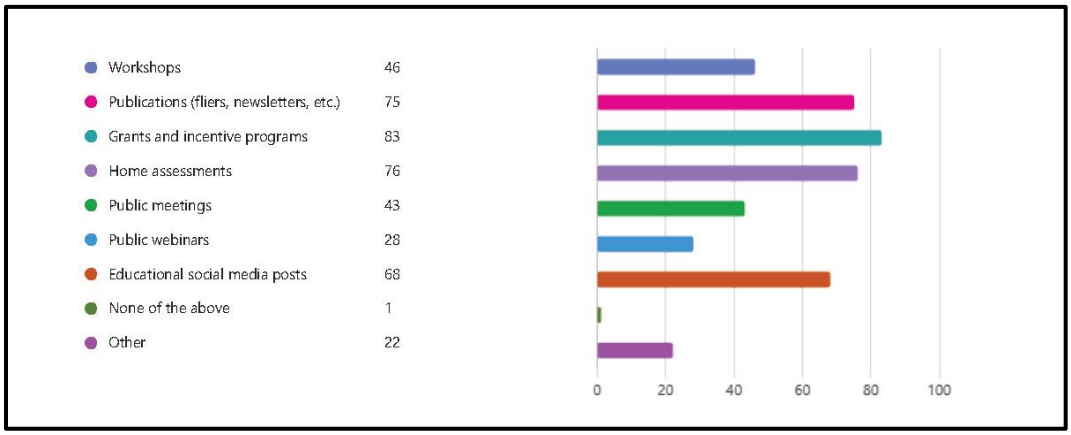


Note: some of the bar chart columns are slightly offset from the response selections due to their width.

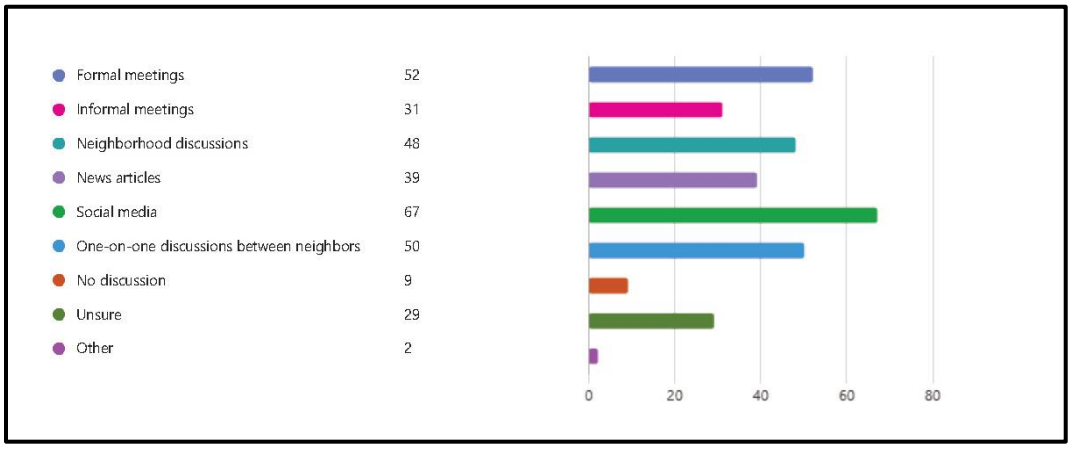
34. Are there any obstacles preventing you from implementing defensible space and home hardening measures on your home? Select all that apply.



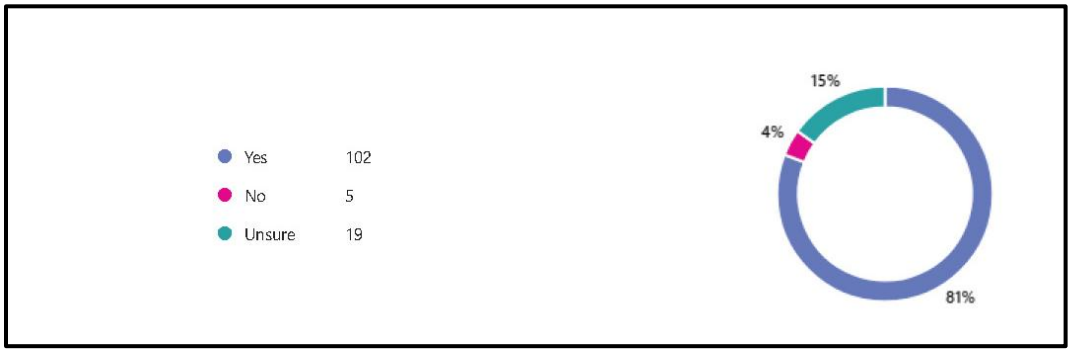
35. What do you think are the most effective ways for residents and the community to become more aware of wildfire risks and hazards? (Select all that apply)



36. Do community officials or members of your community discuss wildfire risk in any of the following settings or platforms? (Select all that apply)



37. Do you think your community could do better to prepare for and prevent wildfires?



38. If you answered yes above, how do you think your community could do better to prepare for and prevent wildfires? Note: public responses were taken verbatim from the survey form. Comments containing personally identifiable information have been redacted (as indicated by [redacted]).

"I don't think it's practically for people like me and my family to live in such a high fire risk place, but it's not up to me. I am trying to get more benefits and hope to move someday. Maybe a public program that have people funds to move to safer areas would be the most cost effective long term, but I really don't know, and many people, like my family, would be resistant to that."
"Implement stiffer fines in a more timely manner for non-compliant properties"
"Take advantage of doing work in past burn scars. Prioritize the black before it all grows back."
"in person assessments, help with the work, funding for the work, waste management vendors actually offering yard waste services free or reduced price we have no options in our WUI, community yard waste drop off sites vs. dump runs, community pile burning or chipping where drop offs could be made to a central location and burned or chipped by professionals vs. coordinating for household chipping i.e. every second Sat. of each month at the Community Center"
"The City of Chico becoming more involved & working with BCFSC & other agencies"
"more prescribed fire in Bidwell Park. land management in the park is on the right track but super underfunded. we need a bigger budget so we can implement the existing plans."
"The city whoever is responsible the county. Needs to go out and clean along the roadsides and empty fields for sure. The other thing would be to notify property owners if they're out of requirements requirements for safety"
"Consistency of residents education and action; we have many great property examples but also many bad example of land 'let go'. "
"Moore prescribed Fire. Make it mandatory for every single property to be cleaned up and Fire Safe."
"Establish a Fire Wise Community with outreach and education/city maintain city owned parcels"
"Eastern side of Chico and Bidwell Park pre fire/mitigation work"
"More options for getting physical help doing the work"
"On a single street, if only one neighbor creates a fire safe home, it seems a waste of time if no one else has. The meter doesn't really move in the right direction like if ALL the neighbors on the street participated."
"More prescribed fire on large scale"
"Reduce fuels"
"We are above paradise. Also considered outside the burn scar. Many of us have been here for decades before these requirements were made. Now they expect us to pay to have these things done and many of us are just surviving. We are also losing insurance coverage and putting ourselves further into financial ruin in the event of a massive fire. We need help and we need grants to encourage homeowners to get ready and more prepared."
"I don't hear a lot from Chico's Community leaders regarding this issue."
"Remove and haul out necessary trees"
"More and larger vegetation removal projects."
"Access to more financial resources"
"Landowners need to do better with clearing evacuation routes on private roads"

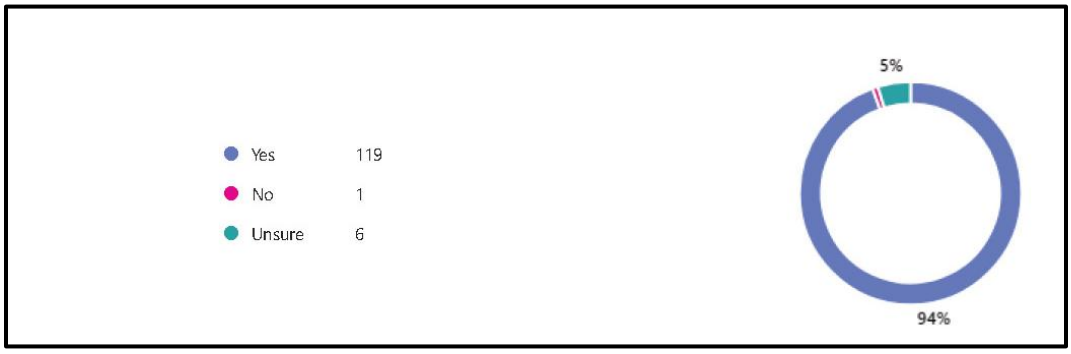
"Wildfire awareness."
"Continue clearing dead an down, trimming regrowth in burn scar, weed waking a larger area around structures."
"More code enforcement for vegitation removal along roads"
"HOA fund hardening of commutiny"
"More enforcement of forest management and defensible space maintenance, and grants for disabled/senior/low incomes"
"Just finding an actual link for this survey was difficult. I saw the post on fb but only use my phone so couldn't scan the qr code. Couldn't find what website to find the link, finally saw a news article from my nspr that included a hyperlink. I soundness be that hard to take a survey for something as helpful as collecting data to be fire prepared."
"Protective infrastructure and preserving our defensible space."
"Enforce property owners to comply with fire hazard clearance"
"Clean up fire fuel more efficiently on properties over 1 acre. There are still piles of dead trees on my neighbors 4 acres and I see this all over the ridge. GET RID OF FIRE FUEL!!!"
"Clearing fire hazards such as unnecessary trees and brush"
"Grant information"
"some neighbors have not reduced fuel on their property"
"Better understanding of evacuation routes and resources; more fire wise; education on defensible space and resources to assist; better networking within communities"
"Collaboration to thin risk areas for community, additional outreach, support individual improvements to fire hardening"
"Daily spend time doing defensible space 1 hr a day can make a difference"
"Clear dead vegetation from property"
"Do their defensible space"
"It isn't effective if I clear my land when my neighbors have not also cleared theirs. We need work done at large scale to be effective. We need agency support for large scale prescribed fire in the canyons and forested areas."
"I live on [redacted]. The city of Chico could plow the field behind my house at the same times that they plow the field at [redacted]."
"Defensible space"
"Get rid of all the illegal cannabis activity (these folks cause fire and increase fire risks with debris/practices/behaviors; Ensure public and private water infrastructure is always operational and resilient; Have caches of supplies to fight fire (hoses, nozzles, pumps, full water tanks, respirators/masks, lights, protective gear, fire-defense training)"
"Make abatement mandatory with fines"
"Remove illegal pot grows and the encampments that support the. These "outfits" use open flame for cooking and disposing trash and are likely causes for many of the foothill fires. 2. Help areas in Berry Creek improve and maintain primary roads to be able to access and leave populated areas."
"Follow thru on helping folks who cannot afford or have an ability to do the work on their property. I have been waiting for almost 2 years!"
"Our Property owners association needs to focus on fire hazard reduction instead of social events"

"More frequent communication between fire officials and community organizations"
"For the Park Fire, it could have been prevented if Chico council would have done the prescribed burn as per their own Burn Plan, where the exact area would have taken $10K and 1 day for prescribed burn. But the city said they didn't have OT budget."
"More control burns, integrative landscape management, grants and services to help property owners create defensible space, better maintenance of open spaces and planting of fire-hardy native plants"
"(I am on a phone so I cannot see all of my text.) Well, some of my neighbors could do better by not mowing on a hot and windy afternoon. Another could take below their pine trees and trim them up off the ground."
"Roadway signs like Plumas County which has a robust citizen education program (with signs)"
"More enforcement of weed abatement, and more rapid enforcement, monitoring"
"More public events"
"Allow logging and brush clearing and stop the WWP Nature Conservancy and Sierra Club etc. for their lawsuits."
"More effectively manage Bidwell Park which runs through town for fire mitigation"
"team work and mitigation to past forest management policies"
"Engage fire department with current FW communities and help to establish others. School programs too."
"Bypass CEQA and the red tape preventing this work getting accomplished on a large scale."
"You cannot completely prevent a wildfire but you can give your home and neighborhood the best chance. Many neighbors do not see the risk associated with their properties. Therefore, upkeep and maintenance begin to affect other neighbors who are diligently working to clear their property."
"No I sent I've for people to clear evacuations routes on private roads. People need to care about what their property maintenance does to the neighbors"
"Thorough Cal-Fire inspections with warnings and stiff fines"
"Better planning in new developments of egress, especially in larger housing developments, where the roads are narrow and inadequate to the density of population. "Map Your Neighborhood" Programs where there are HMOs Or more cohesive and cooperative neighborhoods"
"The surrrounding areas of the Mobile Home Park Are Not Maintained By Those Property Owners; that is why we have been evacuated so many times."
"Target each area individually with public picnic open forum with workshop. Make it a day long even, put community members in touch with those that need help."
"Get the information out and provide assistance. Most people can't afford these improvements."
"At this point in time existing conditions should receive funding or tax exemptions for meeting fire prevention requirements. New construction should meet requirements before final approval is made. Fire Prevention needs to be primary concern. If you prevent fires you don't need all of the money that goes to red trucks."
"Force everyone to comply thru fines or jail time"
"POA needs to clear greenbelts of timber and grass, Vancant lot MUST GET CLEARED, roofs and yards must be maintained, PGE must completely remove downed and dead trees out of Magalia"
"Folks are either complacent and lazy or have physical, financial and time barriers."

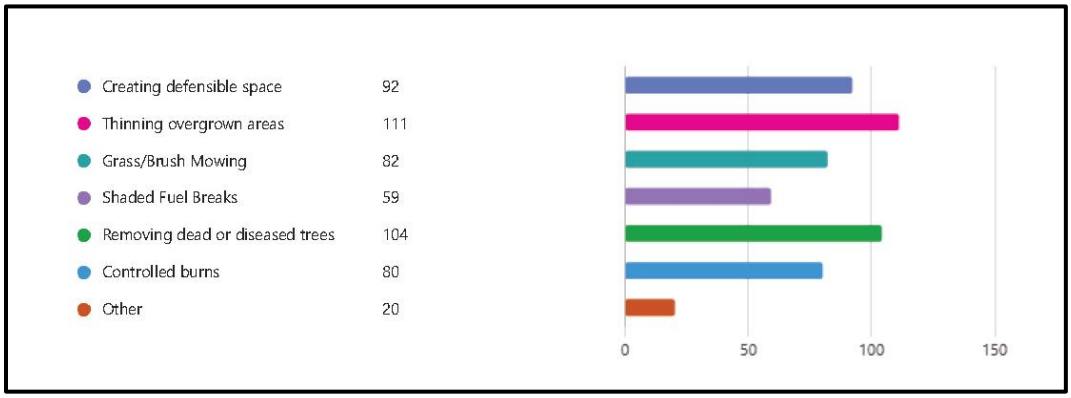
"I allowed pge, fire trucks ambulance and sherrif i complained several times to all agencies of road damage on [redacted] was told they would repair, 5 years later nothing, so no I don't have trust in letting people use this road in next fire ill block it off"
"Have OGE haul away trees they cut down and leave for many months."
"Organized informational meetings including a"
"Help people get the help they need to create defensible spac"
"clear roadways sidings of vegetation, make 4 lanes of road over the Magalia dam."
"Defensible space"
"Use goats to eat up ground liter."
"Get really really tough with people who do not maintain vegetation growth"
"Everyone should be acutely aware that their individual actions affect an entire neighborhood & community. We are all in this together!! Everyone should actively participate in fire prevention on their individual properties, in an effort to save their own homes and diminish the risk for others in their neighborhood/community"
"There are properties that are a threat to the rest of the community"
"The Kelly Ridge HOA rules originally promoted lots of landscaping. Now, the HOA needs to help homeowners determin what needs to be done at each address to protect the community."
"Clearing brush"
"Clear overgrown vacant lots that remain since the Campfire"
"Clean up lots in town"
"In my situation as a renter in a large apartment complex I spoke with an owner/investor to change landscaping so that flammable landscaping (ie trees, shrubs, bark, etc) be removed from within 5 ft of all resident buildings. That trees that touch or nearly touch residents home be trimmed back. It has been suggested that hard scraping be a focus going forward when replacing landscape materials and choosing greenery."
"People making sure their properties are not cluttered with combustible junk."
"all agencies should get together and clear out any trees/brush in any areas they have jurisdiction/control"
"Demand that Sierra Pacific Industries clear up their brush-choked properties and salvage dead trees that abut homes."
"I wish the county had a program that could make renting heavy equipment more affordable"
"More info on various evacuation routes"
"Provide financial assistance to homeowners"
"Issue personal warnings to those who endanger the neighborhood"
"Assist with yard debris pick up, low cost grants to help those on a limited income or disabled"
"Clearing of abandoned properties in a timely manner."
"Cut down more dead trees & clear brush out."
"Clean up Bidwell park from fuel (dead trees). No camping or fires in the park"

"More home nonpunative inspections."
"Education, fuel breaks/reduction"
"Proactively mow fire breaks around undeveloped, grassy areas."
"Fuels management"

39. Would you like to see more projects in your community that treat and reduce hazardous vegetation?



40. What types of vegetation management projects would you prioritize for reducing wildfire risk in your community?



41. **Are there specific areas within your community that you believe should be targeted for hazardous vegetation reduction projects?** Note: public responses were taken verbatim from the survey form. Comments containing personally identifiable information have been redacted (as indicated by [redacted]).

"Between the Feather River and Oro Dam Blvd East"
"All along Lovelock Road. Illegal dumping can be a problem here too. Sometimes people camp in the area which brings up concerns of camp fires possibly getting out of control."
"Non-compliant defensible space properties"
"Big Chico Creek Canyon, especially on university land. Lots of opportunity to implement fuels projects to redistribute fuels for protection."
"Of course, anywhere with limited access for evacuations, areas near already managed areas to leverage the benefit, areas where you see pine needles on the majority of roofs in a neighborhood, sometimes seeing your neighbors do the work influences others, also key strategic areas based on slope, wind direction, lack of fire history, overgrowth. Prep areas with clear breaks surrounding populated areas so it doesn't even get to the populous areas."
"Yes, north, east & south areas at Chico city limits"
"yes, upper park should be regularly underburned. also, the Butte PBA does great work & ideally each small community would have its own PBA coordinator."
"Just drive around Oroville and Palermo areas. You'll see plenty of weeds that need caring to overgrowth. Especially on all empty lots and along roadsidesi got."
"Helltown-- it's thick underbrush and with lots of broom. Bean Flat road roadside. Various large land parcels that are unkept."
"Waterways are overgrown"
"Bidwell Park"
"Woodridge Neighborhood in magalia. The length of Nimshew rd and Nimshew extension."
"Foothill areas below Forest Ranch"
"Roadways"
"Greenbelts and private properties"
"Everything from upper Magalia on up to Butte Meadows. We've been forgotten about and we are in a position to be just as dangerous as Paradise."
"Various properties in our new green island after Park Fire"
"Cohasset road corridor"
"Since the fire, the green island that didn't burn"
"Clearing along evacuation routes"
"Along roadsides, recreational access."
"Along the main ridge, Lumpkin Rd, around elderly residents homes."
"Create shelter in place facility"

"Dead trees from prior fires need to be removed or burned in a pile."
"The entire POA"
"Yes, and many are being addressed by the Yankee Hill FSC"
"I live near lower park. I think the goats must be helpful"
"The entire bidwell park and surrounding vegetation. Empty lots that can fuel fire."
"Rental properties in the county."
"Paradise & surrounding communities. Sparks and embers travel a long ways… get rid of dead or underbrush fuel!"
"Garland Road and Doe Mill Road"
"along roads"
"Roadways and clearing vegetation along routes so in the event of fire, vegetation/other doesn't obstruct access and can still get in/out. State and Federal land along residents areas/create fuel breaks and defensible space; reduction of fuels loads in residential areas and creating defensible spaces around structures; concerns with losing resources/utilities such as power and water"
"All the travelways and evacuation routes both public and private"
"Foothills"
"[redacted] Road and all ajacent roads"
"Everywhere that hasn't already burned and some that have. Brushy canyons pose particular challenges for individuals. Needs large scale burns to manage risk."
"Yes. The city property behind my house needs to be plowed regularly."
"Areas along Almond & Hillcrest, Kelly Ridge golf course area, state lands near residential areas"
"PUSD property off Skyway turn-out, Magalia"
"Yes"
"All of the Bear/North Complex burn scar in our community is a new fire disaster waiting to happen. Sprouts should be thinned and dead trees removed. Acres and acres of it."
"Lower Bidwell Park"
"Wyman Ravine is a tinderbox"
"Along roadways"
"Outside the burn scars"
"All of the common property within the poa."
"Canyon edges and drainages that have high potential for increased fire activity. Evacuation routes"
"next door neighbors property"
"Removing dead and dying trees on private property"
"Again, the city failed to follow its own plan to close the Upper Bidwell Park gates to traffic on high heat 100F+ and high winds, but again failed for Park Fire."

"Parks and large land parcels (eg cattle land), densely wooded areas where property owners can't afford to maintain alone"
"Help with clearing drainages and along rural roadways in Oro East."
"Along Pentz Rd right above Lime Saddle Rd. It's a mess and boats drag their chains. Previous fires there."
"Lots with out-of-town property owners"
"You need a map for this."
"The area between Magalia and Lovelock."
"Bidwell Park Upper and Lower"
"yes"
"large fields with vegetation"
"All the foothills surrounding butte county"
"Only Little Chico Creek and Butte Creek watersheds have seen very little fire in the recent past. Those areas are candlewicks into Chico, the largest population and community assets (hospital, CSUC, etc)"
"Lower Paradise, West Branch, Little Butte Creek"
"Southeast Chico, honey run, little Chico creek, butte creek diversion channel, open space within baroni park landscape and lighting district"
"yes, but Butte County has addressed it"
"Landowners need to be held accountable for clearing their land, especially evac routes."
"Upper Magalia up to Butte Meadows"
"The Entire Hawk Ravine area north of Mt Ida Road and West of Miners Ranch Rd all the way up to the Lakeside Market is a mess and has been for well over 10 years. The Oaks Senior Mobile Home Community Near Lakeside Market needs lots of attention all around us."
"Pot grows, vacant land, and abandoned, condemned buildings."
"Old 1/2 dead trees and bushes"
"Anywhere needed."
"VACANT LOTS, BLM west of Magalia, broom removal throughout Magalia lots streets and poa"
"Private property and drainages."
"Fix [redacted] Road as the heavy truck s damage the road i see always no management supervision adequate to serve public!"
"Properties that are not taken care of by the owners."
"Roadsides - private and county"
"skyway, Nimshew road, centerville road"
"Wui"
"Paradise Pines POA"

"All areas along the feather river, around lake, all govt owned property, roadways, etc."
"Areas around Lake Oroville and Kelly Ridge, in our opinion, are still quite ripe with fuel (even after the Thompson Fire)!"
"My neighbor on [redacted]"
"Vacant lots. Tremendous amount of dead and overgrown brush."
"Empty lots"
"Abandoned and overgrown lots, areas frequented by homeless (ie parks & waterways), and areas where the foothills and homes connect."
"Some property owners property… "
"start with overgrown areas closest to large housing areas."
"Sierra Pacific timber lands that are brush-choked and full of dead, dying and moribund trees that are adjacent to homes."
"Upper Magalia to Butte Meadows"
"Negligent neighbors"
"Pretty much anywhere in Magalia above the burn scar."
"Abandoned lots. There are still many that don't get mowed, have build up of broom and/or downed large trees have been left on the lot. These threaten existing homes that are being maintained."
"Probably, if I looked. I hear about them."
"Lower bidwell park"
"Bidwell Park"
"Inaccessible/ hard to reach areas"
"Removing deadfall from Lower Bidwell Park!! Trees, brush are piled. Goats help remove grass, but large fuel piles accumulate. Plow fire breaks in grassy fields"
"Butte Creek"
"None that I can think of right now, I see progress every day "

42. Is there anything else we should know about wildfire planning in Butte County? Note: public responses were taken verbatim from the survey form. Comments containing personally identifiable information have been redacted (as indicated by [redacted]).

"Thank you so much for all you're doing. This is a really overwhelming problem, and it can't be easy. I'm really impressed and touched by all the efforts I have seen during and after the Camp and Park fires 💔"
"The contracts the County has with WM, etc. must include a provision for yard waste disposal when they are renewed. It is the easiest and cheapest way for WUI residents to actually get the material away and gone easily. It would reduce smoke and problems from pile burners who are t good at it from doing it. May t seem like much but over time each person could make a dent by filling a can with flammable materials. Regardless of the volume it fosters the behavior change which is key. Right w it takes at least 1.5 hours roundtrip and a $12 fee to haul one truckload of needles to the dump. There is incentive to do this and it also doesn't seem like it would help given the small volume you can remove each time. I have researched dumpsters that could be placed in a centralized location for yard waster drop off (i.e. maybe at a school or community center or a volunteer fire station or calfire station) and they are extremely expensive, but perhaps a grant could pay for it, a revolving service that gets picked up in say one community one month every week then moves to ather for a month. Time, age, ability, money are all constraints as to why people do t maintain their own properties. Make it easy. The chipping program is cumbersome for many reasons, if it was a centralized drop off location people wouldn't have to wait for it to be scheduled, line them up perfectly, haul to a road etc. an leave dead materials on site during the dangerous fire season. It is sometimes much more work to participate in that program than it is worth. Thanks for listening, hope you take some ideas and run with them. "
"as we've seen, fuels management and prescribed fire follow-through in Chico affects the whole county"
"Within a few.Years ago, you at least used to mow along the roadside.That's t even being done anymore t where I can see"
"Large projects and landscape-level forestry takes time-- maybe too much time than we have. While individual residents have been educated about defensivle space, and that topic seems to assume the lions share of publicity, I do think individual home hardening is a needed next step. The home hardwning I see in Butte County truly pales in comparison to other mountain communities. Why so few programs/incentives for this? Because funding would increase the value of residents' key assets? "
"There's a lot of work to educate residents about Wildland Urban Interface and true preparation."
"Quality projects sustainable of years on ridges and along primary evacuation routes should continue to be the priority."
"Prescribed fire is a powerful tool in preventing wildfire. It should be more accessible year round, including summer months under the right conditions."
"need to pass ordinances that increase the penalties for t complying"
"Address the upper ridge."
"The message is t reaching a lot of people unless they watch the news and it seems that very few people do these days. The only social media platform I use is the Nextdoor app and I rarely see any information regarding this topic. You need to find a better way of informing the public."
"Defensible space inspections are a joke in our area. Problem properties get inspected, warned and physical follow up to see if the work has been done. Or inspectors CALL the landowners to ask if they have fixed the problem. What a joke!"
"Help awareness."
"Inform the public of the options that are available such as PBA, residential prescribed burns an SFLAP."
"Spend the annual dues to fund this work"

" easy answers there, but getting individual and absentee property owners on board with land management is key"
"I am a Paradise Campfire Survivor."
"Compliance! "
"It's t easy to access and people are unsure available resources, evacuation routes, etc. Need more education and assistance at a local level. People are unsure what resources are available to education themselves and get involved. Need network system and easy location to access resources. Need to get people involved at a local level and create pride in community. A lot of resources get to pot of money and t a local level."
"We need a permanent defensible space and home hardening residential assistants program that works with the aging population throughout the county."
"More follow up on defensable space, more money for inspectors. Roadside fuel reduction."
"More good fire on the ground. Strategic burns such as the work done in Cohasset that created the island of green in the Park fire."
"STOP thinking there is a one-size-fits-all to evacuation orders. Some farms, ranches and homesteads have defensible space, safety zones, green areas, water sources, fire defense skills and equipment, and experience to defend home, environment, livestock, lives. Evacuation is t practical and in some cases results in avoidable, uninsured, total loss. We've seen it with the Wall, Camp and Bear fires. So in your planning, plan to understand and allow for local defense and n-evacuation of well-defended ranches/farms/homesteads. Also, understand that the lack of affordable insurance and spotty/slow/inadequate government assistance means people will t as readily evacuate. Don't bully or harass folks that don't go if they are well-prepared to defend."
"Enforcement of laws to remove illegal homeless campers!"
"We are all traumatized, I wish this was recognized rather than calling us all brave survivors."
"Getting any aid post-fire has been burdensome and extremely inefficient. Efforts should be made to streamline application and approval processes and actually use the funds for work instead of the approval process. More money appears to be wasted in the process than the one or two that may try to abuse getting funds."
"You promise help but it never comes."
"Top issue is forest mismanagement at all levels of government"
"Butte County Fire Safe Council personnel do an excellent job of reaching out to communities through the free chipper program and grants for hazard tree removal. I hope their resources and funding will be expanded to assist homeowners with all needed support for fire prevention."
"We have Mechoopda Tribal TEK (Traditional Ecological Kwledge) that saved our Indigeus people since time immemorial and they should be hired for cultural prescribed burns."
"We need more public education about the importance of prescribed burns, and more effort to carry out prescribed burns with minimal heavy equipment and fossil fuels (eg, focus on indigeus cultural/traditional burn techniques) to minimize negative ecological impacts and develop ecosystems that are fire-hardy with less frequent maintenance needed"
"Just that it takes money and/or skill that some people do t have."
"Answer letters to Cal Fire from citizens. Igring written ideas shows disdain and discourages involvement."
"We should be able to earn certification to submit to Insurance Companies for price reduction in policy"
"Prescribed burns should be prioritized in areas with black oak and ponderosa pine."
"log it, graze it or watch it burn!"

"Keep doing it it's making a difference"
"City limits are t boundaries for wildfire-how can we communicate that?"
"I clicked the "Draft CWPP Main Doc" form and was directed to this survey. I feel this survey took way too long. Most people will likely give up and t view it at all. I spent over 20 minutes on the survey."
"Involve/compel the city of chico"
"How's the water pressure doing! "
"Be active and t reactive"
"Have more than one property. One was completley destroyed in [redacted]. A million Dollar Cabin over 2,000 sq ft. I don't think I need educated on fire and loss."
"It could be helpful if the B line or other transport services were available during evacuations, especially in densely populated neighborhoods. And if they are already in the plan, how to access that kind of transportation during evacuations would be helpful. In my previous community, they were designated evacuation areas that people could drive to, and then be transported out of the area so as to reduce congestion on the roads. Sorry if the typos are hard to figure out, but I'm dictating on a phone and it doesn't let me correct easily. Thanks for this opportunity to give feedback. This is very important."
"Yes, Would Like to be able to listen to the BCSO Scanner again. more encription."
"We need to enforce property use laws. In our area many recent fires were started by generators, and/or pot grows."
"A better organized evacuation plan so people don't get stuck and funding to help people to create defensible spaces."
"It has t been a concern for too many years. You don't have eugh fire prevention staff available for the magnitude of the problem. Provide COVID level funding and measures to ensure proper fire prevention with grants for individuals or areas which need attention. Make fire prevention a priority and stop wasting tax money and BS and Illegal Aliens. You need to care about fire prevention and make it a priority for the safety of the people. Make the Electric Utilities comply with all laws and GO95. If they don't comply put them in jail!"
"Find more help for seniors, vets, disabled to get their properties cleaned "
"Thank you for your help!"
"Yes do what you tell residents, there's program s for us in berry creek, I took loans to fix my house, government help sad the southern California is more valuable then our area its why they have grants, we were overlooked, like we are illegal aliens, very insulting [redacted]"
"Your community outreach needs improvement. Last years survey only 71 Butte CO citizens participated in the 2024 survey"
"Timely and assertive follow-up on violators."
"Utilize goats, control burns, etc."
"The State Park needs to reduce fire fuels that are nearest the homes bordering the park, t just Loafer Creek."
"People need incentives to move forward. My elderly parents have needed help, and there are services for them that they can afford. I think a move towards fire hardening could also be a beautification process as well. Maybe use the local events/nurseries/landscape businesses to promote events highlighting attractive hardscaping demos(?)"
"t that I can think of this minute."

"the fires in LA demonstrate the obvious short comings of City, County, State resources. Both in techlogies and aero response tools/application"
"Make and enforce a total ban on fireworks and fire crackers. Offenders should receive stiff fines or jail sentences"
"Options for those with medical disabilities who may need help evacuating."
"I would like to see flyers, emails, social media posts with maps of clearly drawn escape routes up here on the ridge."
"Continuing maintenance of already treated or cleared areas so you don't waste time, money, and work force having to redo what's already been done. Maintenance is much less expensive and continues to help protect everyone. Those who can't afford to hire help should have access to applying for maintenance crews. I would love to see a program like the Conservation Corp be available to this area. Seeing if funding, State and Federal, is available to help in that area. A lot of hard work has already been done and we appreciate and ackwledge those who have done it to help protect us all! Thank you!"
"Long term arrangements for evacuees that have travle/house trailers, livestock trailers w/ living quarters ect. for people who own as well as people that want to lend these things. Long periods of time can be expensive at trailer courts and the like. t everyone has family or friends willing to let them set up home on their property "
"Educate the newcomers that are moving to town"

PUBLIC MEETING INPUT

Public input was gathered during the four community meetings held as part of the CWPP development process. Attendees shared a variety of concerns, including the potential wildfire risks associated with proposed new housing developments and the impact of electric utility activities near homes and high-risk areas. Participants also voiced opinions on the effectiveness of current local wildfire mitigation practices and identified specific locations they believed to be particularly vulnerable to wildfire. This valuable community feedback was considered throughout the planning process to ensure the CWPP addresses the priorities and concerns of local residents.

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APPENDIX E:

Funding Sources

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FUNDING SOURCES

The following section provides information on state, federal, and private funding opportunities for conducting wildfire mitigation projects.

STATE FUNDING INFORMATION

CAL FIRE – Grant Programs

Website: https://www.fire.ca.gov/grants/

Description: The CAL FIRE Grant Program offers a range of forest-related grants with differing scopes and funding details. Some of the grants include:

- Forest Health Grants: https://www.fire.ca.gov/what-we-do/grants/forest-health
- California Forest Improvement Program: https://www.fire.ca.gov/what-we-do/grants/california-forest-improvement
- Wildfire Prevention Grants Program: https://www.fire.ca.gov/what-we-do/grants/wildfire-prevention-grants
- Urban & Community Forestry Grant Programs: https://www.fire.ca.gov/grants/urban-and-community-forestry-grant-programs/
- Wildfire Resilience and Forestry Assistance Grant-Prop 68: https://www.fire.ca.gov/what-we-do/natural-resource-management/wildfire-resilience#ResilienceGrantAnchor
- Volunteer Fire Capacity Grant: https://www.fire.ca.gov/what-we-do/fire-protection/cooperative-efforts

California Air Resources Board – Funding Wizard

Website: https://fundingwizard.arb.ca.gov/web/

Description: The Funding Wizard aggregates current federal, state, regional, private, and other funding opportunities for environmental and sustainability projects.

California Department of Conservation – Regional Forest and Fire Capacity Grant Program

Website: https://www.conservation.ca.gov/dlrp/grant-programs/Pages/Regional-Forest-and-Fire-Capacity-Program.aspx

Description: The California Department of Conservation announced the release of the 2022 Regional Forest and Fire Capacity (RFFC) Program Final Grant Guidelines. The RFFC Program provides block grants to regional entities and eligible coordinating organizations to support large- and small-scale project implementation.

California Environmental Protection Agency – Loans and Grants

Website: https://calepa.ca.gov/loansgrants/

Description: The California Environmental Protection Agency Loans and Grants hosts a wide variety of agency grants specifically for California. While these funding sources may not tie directly to fuel

management or fire recovery, there is a wide array of funding opportunities for water and air resources that are directly impacted by wildfire.

California State Coastal Conservancy – Wildfire Resilience Program

Website: https://scc.ca.gov/wildfire-resilience-program/

Description: This program supports local partners in implementing projects that will improve forest health and reduce the risk of catastrophic wildfire in wildland-urban interface (WUI) areas. The Coastal Conservancy has provided over $17 million to support forest management projects that reduce wildfire risk.

State of California – Adaptation Clearinghouse

Website: https://resilientca.org/

Description: This resource provides wildfire-related resources such as funding opportunities, assessments, case studies, educational materials, data and tools, example plans and strategies, and additional policy guidance.

State of California – Grants Portal

Website: https://www.grants.ca.gov/

Description: The California Grants Portal helps users identify the latest grants that could support fire hazard planning or related implementation efforts that support wildfire risk mitigation, fuels management, and other related projects.

FEDERAL FUNDING INFORMATION

2022 Infrastructure Investments and Jobs Act

Website:https://www.congress.gov/bill/117th-congress/house-bill/3684

Description: The Infrastructure Investments and Jobs Act allocated funding through various departments for infrastructure projects including, but not limited to, roads, bridges, and major projects; passenger and freight rail; highway and pedestrian safety; public transit; broadband; ports and waterways; airports; water infrastructure; power and grid reliability and resiliency; resiliency, including funding for coastal resiliency, ecosystem restoration, and weatherization; clean school buses and ferries; electric vehicle charging; addressing legacy pollution by cleaning up Brownfield and Superfund sites and reclaiming abandoned mines; and Western Water Infrastructure.

Section 40803 addresses wildfire risk reduction, Section 40804 deals with ecosystem restoration, Section 40806 handles the establishment of fuel breaks in forests and other wildland vegetation, and Section 70302 addresses reforestation. To learn more about the Act, please visit: https://www.congress.gov/bill/117th-congress/house-bill/3684

EPA – Catalog of Federal Funding Sources; Land Resources

Website: https://ordspub.epa.gov/ords/wfc/f?p=165:512:10535656593775:::512::

Description: The Land Finance Clearing House is a catalog of federal funding sources for all things land related.

Examples of the types of grants found at this site are:

- Forest and Woodlands Resource Management Grant: https://sam.gov/fal/a798ad78cac749639b48270db3e86fdc/view?index=cfda&page=2&organization_id=100011100
- Environmental Education Grant: https://www.epa.gov/education/grants
- Public Assistance Grant Program: https://www.fema.gov/assistance/public
- Hazard Mitigation Grant: https://www.fema.gov/grants/mitigation/hazard-mitigation

EPA – Catalog of Federal Funding Sources; Water Resources

Website: https://ofmpub.epa.gov/apex/wfc/f?p=165:12:6483383318137:::12::

Description: The Water Finance Clearing House is a catalog of federal funding sources for all things water related.

Examples of the types of grants found at this site are:

- Water Conservation Field Services Program: https://www.usbr.gov/waterconservation/
- California Community Development Block Grant: https://www.grants.ca.gov/grants/community-development-block-grant-cdbg/
- California Clean Water State Revolving Fund Program (CWSRF): https://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.html

EPA Grant Programs

Website: https://www.epa.gov/grants

Description: Various grant programs are listed under this site. Listed below are examples of grants offered:

- Multipurpose Grants to States and Tribes: https://www.epa.gov/grants/multipurpose-grants-states-and-tribes

EPA Tribal Environmental General Assistance Program (GAP)

Website: https://www.epa.gov/tribal-pacific-sw/epa-region-9-tribal-environmental-gap-funding

Description: The program aids Native American tribes in developing reservation-specific environmental protection programs.

FEMA Assistance to Firefighters Grants (AFG)

Website: https://www.fema.gov/grants/preparedness/firefighters/assistance-grants

Description: The AFG program provides resources to assist fire departments in attaining critical resources such as training and equipment. Since its launch in 2001, the AFG program has provided firefighters and first responders with essential equipment, protective gear, emergency vehicles, training, and other vital resources to enhance public and emergency personnel safety against fire and related hazards. In addition to the AFG grant, this program is composed of two additional distinct grant categories; these are detailed below.

- ***FEMA Staffing for Adequate Fire and Emergency Response (SAFER)***

  Website: https://www.fema.gov/grants/preparedness/firefighters/safer

  Description: The SAFER grants are a component of FEMA's Assistance to Firefighters Grants (AFG) program. These grants aim to help fire departments increase the number of "frontline firefighters." The goal is for fire departments to increase their staffing and deployment capabilities and ultimately attain 24-hour staffing, thus ensuring that their communities have adequate protection from fire and fire-related hazards. The SAFER grants support two specific activities: 1) hiring of firefighters, and 2) recruitment and retention of volunteer firefighters.

- ***FEMA Fire Prevention and Safety Grants (FP&S)***

  Website: https://www.fema.gov/grants/preparedness/firefighters/safety-awards

  Description: The FP&S grants are a component of FEMA's Assistance to Firefighters Grants (AFG) program. These grants provide funding for projects aimed at enhancing the safety of both the public and firefighters who may be exposed to fire and related hazards. The primary goal is to target high-risk populations and mitigate high incidences of death and injury. Examples of the types of projects supported by FP&S include fire-prevention and public-safety education campaigns, juvenile fire-setter interventions, media campaigns, and arson prevention and awareness programs. In fiscal year 2005, Congress reauthorized funding for FP&S and expanded the eligible uses of funds to include firefighter safety research and development.

FEMA – Building Resilient Infrastructure and Communities (BRIC) Grants

Website: https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities

Description: BRIC supports states, local communities, tribes, and territories as they undertake hazard mitigation projects, reducing the risk they face from disasters and natural hazards. The BRIC program guiding principles are supporting communities through capability- and capacity-building; encouraging and enabling innovation; promoting partnerships; enabling large projects; maintaining flexibility; and providing consistency.

FEMA – Emergency Management Performance Grant (EMPG)

Website: https://www.fema.gov/grants/preparedness/emergency-management-performance

Description: The EMPG program funds state, local, tribal, and territorial emergency management agencies to create a safe and resilient nation. Its main objectives are to close capability gaps identified in the latest Stakeholder Preparedness Review (SPR) and to build or sustain high-priority capabilities identified through the Threat and Hazard Identification and Risk Assessment (THIRA)/SPR process. Program priorities are agreed upon by the grant recipient and Regional Administrator, based on national, state, and regional priorities.

FEMA – Fire Management Assistance Grant

Website: https://www.fema.gov/assistance/public/fire-management-assistance

Description: The Fire Management Assistance grant supports state, local, and tribal governments in mitigating, managing, and controlling fires on publicly or privately owned forests or grasslands that could result in a major disaster. The process begins when a state submits a request for assistance to

the FEMA Regional Director during a "threat of major disaster." Decisions are made within hours, ensuring an expedited response. To be eligible for a grant, a state must demonstrate that the total eligible costs for the declared fire meet or exceed either the individual fire cost threshold for single fires or the cumulative fire cost threshold for multiple smaller fires.

FEMA – Flood Mitigation Assistance Grant

Website: https://www.fema.gov/grants/mitigation/floods

Description: The Flood Mitigation Assistance Program is a competitive grant program that provides funding to states, local communities, federally recognized tribes, and territories. Funds can be used for projects that reduce or eliminate the risk of repetitive flood damage to buildings insured by the National Flood Insurance Program. FEMA chooses recipients based on the applicant's ranking of the project and the eligibility and cost-effectiveness of the project.

FEMA – Hazard Mitigation Grant Program (HMGP)

Website: https://www.fema.gov/grants/mitigation/hazard-mitigation

Description: The HMGP provides funding to state, local, tribal, or territorial governments (and individuals or businesses if the community applies on their behalf) to rebuild with the intentions to mitigate future losses due to potential disasters. This grant program is available after a presidentially declared disaster.

FEMA – Hazard Mitigation Grant Program (HMGP) – Post Fire

Website: https://www.fema.gov/grants/mitigation/post-fire

Description: The HMGP Post Fire grant program aids communities in implementing hazard mitigation measures following a wildfire. Mitigation measures may include soil stabilization, flood diversion, and reforestation.

FEMA Regional Catastrophic Preparedness Grants

Website: https://www.fema.gov/grants/preparedness/regional-catastrophic

Description: The Regional Catastrophic Preparedness Grant program provides funding to increase collaboration and capacity regarding catastrophic incident response and preparation.

NRCS – Conservation Innovation Grants (CIG)

Website: https://www.nrcs.usda.gov/programs-initiatives/cig-conservation-innovation-grants

Description: The Conservation Innovation Grants State Component stimulates the development and adoption of innovative conservation approaches and technologies, leveraging federal investment for environmental enhancement alongside agricultural production.

NRCS – Emergency Watershed Protection (EWP) Program

Website: https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/ewpp/

Description: The program offers technical and financial assistance to help local communities relieve imminent threats to life and property caused by floods, fires, windstorms, and other natural disasters that impair a watershed. Eligible sponsors include cities, counties, towns, conservation districts, or any federally recognized Native American tribe or tribal organization. Interested public and private landowners can apply for EWP Program recovery assistance through one of those sponsors.

EWP Program covers the following activities:

- Debris removal from stream channels, road culverts, and bridges
- Reshape and protect eroded streambanks
- Correct damaged drainage facilities
- Establish vegetative cover on critically eroded lands
- Repair levees and structures
- Repair conservation practices

NRCS Environmental Quality Incentives Program (EQIP)

Website: https://www.nrcs.usda.gov/programs-initiatives/eqip-environmental-quality-incentives

Description: The Environmental Quality Incentives Program is a program aimed at helping farmers, ranchers, and forest landowners who own or rent agricultural land to implement practices and/or install measures to protect soil, water, plant, wildlife, and other natural resources while ensuring sustainable production on their farms, ranches, and working forest lands.

NRCS and USFS Joint Chiefs' Landscape Restoration Partnership

Website: https://www.nrcs.usda.gov/programs-initiatives/joint-chiefs-landscape-restoration-partnership

Description: The Joint Chiefs' Landscape Restoration Partnership program is a collaborative effort between the National Resources Conservation Service (NRCS) and the USFS aimed at enhancing the health and resilience of forested landscapes, encompassing National Forest System land and state, tribal, and private lands. This partnership involves working with agricultural producers, forest landowners, tribes, and public land managers to invest in large-scale conservation and restoration initiatives. The program addresses multiple objectives, including reducing wildfire risks to communities, safeguarding water quality and supply, and enhancing wildlife habitat for endangered species. In 2023, the U.S. Department of Agriculture (USDA) invested over $48.6 million in project coordinated through this program.

USDA Farm Service Agency – Emergency Conservation Program

Website: https://www.fsa.usda.gov/programs-and-services/conservation-programs/emergency-conservation/index

Description: The Emergency Conservation Program helps farmers and ranchers repair damage to farmlands caused by natural disasters and to help put in place methods for water conservation during severe drought. The program provides ranchers and farmers with funding and assistance to repair the damaged farmland or to install methods for water conservation.

USDA Farm Service Agency – Emergency Forest Restoration Program

Website: https://www.fsa.usda.gov/resources/disaster-assistance-program/emergency-forest-restoration

Description: The Emergency Forest Restoration Program assists owners of non-industrial private forests in restoring forest health after natural disasters by providing financial support. Administered by the local Farm Service Agency County Committee, the Emergency Forest Restoration Program

covers all disasters except drought and insect infestations. Eligible activities include debris removal, site preparation, replanting, and restoration of forest infrastructure. To qualify, the land must have existing tree cover and be owned by a non-industrial private entity.

USDA and U.S. Department of the Interior National Fire Plan (NFP)

Website: http://www.forestsandrangelands.gov/

Description: Many states are using funds from the National Fire Plan to provide funds through a cost-share program with residents to help them reduce the wildfire risk to their private property. These actions are usually in the form of thinning or pruning trees, shrubs, and other vegetation and/or clearing the slash and debris from this kind of work. Opportunities are available for rural, state, and volunteer fire assistance.

USFS – Community Wildfire Defense Grant (CWDG)

Website: https://www.fs.usda.gov/managing-land/fire/grants

Description: The Community Wildfire Defense Grant (CWDG) is a program aimed at assisting local communities and tribes within the WUI in their planning efforts to reduce wildfire risk. The USFS intends to do this through the implementation of three goals from the National Cohesive Wildland Fire Management Strategy: restoring and maintaining landscapes, creating fire-adapted communities, and improving wildfire response within the specific at-risk community. Grant funding of no more than $250,000 will be awarded for the development and revision of community wildfire protection plans, and no more than $10 million will be awarded for the implementation of projects outlined in community wildfire protection plans that are less than 10 years old. Communities, tribes, states, nonprofits, and Alaska Native Corporations are all considered eligible for this grant.

USFS – Federal Excess Personal Property (FEPP)

Website: https://www.fs.usda.gov/managing-land/fire/fepp

Description: The Federal Excess Personal Property (FEPP) program, established in 1956, facilitates the loan of USFS-owned property to State Foresters for wildland and rural firefighting. Initially, most of this property belonged to the Department of Defense (DoD). Once transferred to the USFS, it is then loaned to state cooperators to support firefighting efforts. State Foresters can further distribute this property to local departments, thereby enhancing local fire programs. The USFS and State Foresters have been actively participating in the FEPP program since its inception.

USFS – Landscape Scale Restoration Competitive Grant Program

Website: https://www.thewflc.org/landscape-scale-restoration-competitive-grant-program

Description: The Landscape Scale Restoration Competitive Grant Program supports collaborative, science-based restoration of key forest landscapes using public and private resources. Funded by the USFS, the program addresses priority challenges in western lands, emphasizing cross-boundary collaboration and coordination with other landscape-scale projects. Projects should align with State Forest Action Plans and other restoration strategies. The Western Forestry Leadership Coalition oversees the Landscape Scale Restoration grant process in the western United States, evaluating and scoring proposals from western states and Pacific Island territories, and forwarding approved recommendations to the USFS for funding consideration.

USFS – Urban and Community Forestry Program

Website: https://www.fs.usda.gov/managing-land/urban-forests/ucf

Description: USFS funding will provide for Urban and Community Forestry Programs that work with local communities to establish climate-resilient tree species to promote long-term forest health. The other initiative behind this program is to promote and carry out disaster risk mitigation activities, with priority given to environmental justice communities.

PRIVATE FUNDING INFORMATION

California Fire Foundation Grant Programs

Website: https://www.cafirefoundation.org/programs/fireprevention/

Description: The California Fire Foundation offers grant opportunities to fire departments, firefighter associations, and community-based organizations whose projects help address wildfire and disaster prevention, preparedness, relief, and recovery needs within the state of California. The California Fire Foundation directly supports high fire threat and/or under-resourced communities.

California Community Foundation – Wildfire Recovery Fund

Website: https://www.calfund.org/wildfirerecoveryfund/

Description: The Wildfire Recovery Fund supports intermediate and long-term recovery efforts for major California wildfires. The fund also supports wildfire prevention and preparedness efforts. Since 2003, the fund has granted more than $32 million to support relief and recovery efforts in the aftermath of destructive wildfires.

California Fire Safe Council – Grant Programs

Website: https://cafiresafecouncil.org/grants-and-funding/apply-for-a-grant/

Description: The California Fire Safe Council provides a range of federal, state, and private funding sources in addition to administering the U.S. Forest Service (USFS) State Fire Assistance Grant Programs.

COCO and USFS Action, Implementation, & Mitigation Program

Website: https://co-co.org/aim-grant/

Description: Coalitions and Collaboratives Inc., a Colorado nonprofit, developed the Action, Implementation, and Mitigation Program to enhance fire adaptation and reduce wildfire risk nationwide. The grant funds mitigation projects, equipment, personnel enhancements, and planning on non-federal lands. Applicants must contribute a 100% match, and funding may range from $10,000 to $75,000. The sponsored organization must have a nonprofit 501(c)(3) status or a fiscal sponsorship from a local government or other entity with nonprofit status.

EPA, NRCS, USFS, and Other Agencies U.S. Endowment for Forestry and Communities

Website: https://www.usendowment.org/funding-opportunities/

Description: The U.S. Endowment for Forestry and Communities collaborates with public and private sector partners to drive systemic, transformative, and sustainable change, enhancing the health and vitality of the nation's working forests and forest-reliant communities.

Esri Environmental Systems Research Institute, Inc. Grants

Website: https://www.esri.com/en-us/grant-programs

Description: Esri offers free software, hardware, and training bundles through Esri-sponsored grants for activities like conservation, education, and sustainable development. Additionally, they share non-Esri grant opportunities in categories such as agriculture, education, environment, fire, public safety, and more.

Factory Mutual Fire Prevention Grant Program

Website: https://www.fm.com/about-us/corporate-responsibility/fm-fire-prevention-grant-program

Description: The Factory Mutual Fire Prevention Grant Program provides financial support to fire departments, brigades, and various organizations to reduce fire risk. The grant funds a range of fire prevention, preparedness, and control efforts, including pre-incident planning, fire prevention education and training, and arson prevention and investigation. Organizations can apply for funding to support fire mitigation initiatives.

Leonardo DiCaprio Foundation Re:wild Grants

Website: https://www.rewild.org/

Description: The Leonardo DiCaprio Foundation supports global projects that build climate resiliency, protect vulnerable wildlife, and restore ecosystems and communities.

Firewise Communities Program

Website: http://www.firewise.org

Description: Firewise Communities offer various activities to help homeowners and neighborhoods become safer from wildfires at minimal cost. Community cleanup days, awareness events, and cooperative activities can be achieved through partnerships with neighbors, local businesses, and fire departments. The type of assistance needed will depend on identity, location, and objectives. Among the various activities that individuals and neighborhoods can pursue, the following often benefit from seed funding or external support:

- Thinning/pruning/tree removal/clearing on private property—particularly on very large, densely wooded properties
- Retrofitting home roofing or siding to noncombustible materials
- Managing private forest
- Community slash pickup or chipping
- Creation or improvement of access/egress roads
- Improvement of water supply for firefighting
- Public education activities throughout the community or region

First Nations Development Institute – Access to Ancestral Lands Grant Opportunity (AALG)

Website: https://www.firstnations.org/

Description: First Nations Development Institute, a Native-led nonprofit, aims to strengthen Indigenous economies and communities by investing in innovative institutions and models. Since

launching its national grantmaking program in 1993, it has managed 2,276 grants totaling over $46 million. The California Tribal Fund, a project of First Nations, supports California Native–led nonprofits and tribal programs in protecting their food systems, water, languages, traditional ecological knowledge, and land.

NFF Matching Awards Program

Website: https://www.nationalforests.org/grant-programs/

Description: The National Forest Foundation's Matching Awards Program provides funds for on-the-ground projects benefitting America's National Forests and Grasslands. The program pairs federal funds from the USFS with non-federal dollars raised by recipients to implement stewardship projects.

Patagonia Environmental Grants and Support

Website: https://www.patagonia.com/how-we-fund/

Description: Patagonia supports innovative initiatives tackling the root causes of the environmental crisis, focusing on protecting the environment and affected communities. Efforts concentrate on areas connected to Patagonia's outdoor recreation network and retail stores, nationally and internationally.

State Farm Good Neighbor Citizenship (GNC) Grants

Website: https://www.statefarm.com/about-us/corporate-responsibility/community-grants/good-neighbor-citizenship-grants

Description: State Farm funds initiatives directed at:

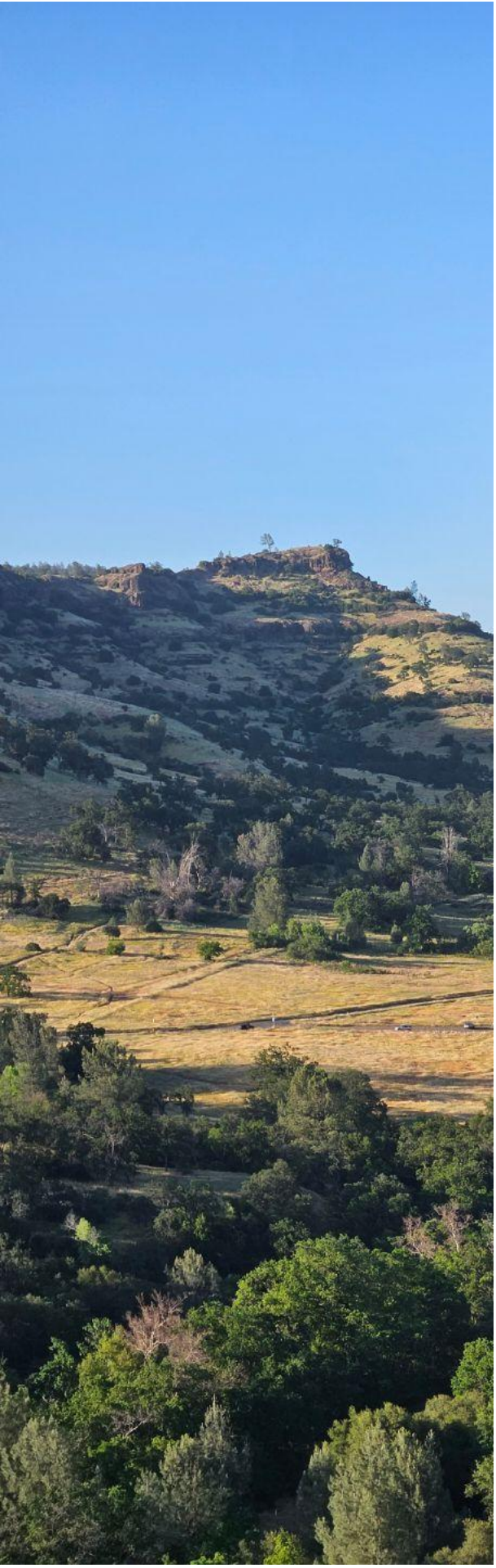
- Auto and roadway safety
- Teen driver education
- Home safety and fire prevention
- Disaster preparedness
- Disaster recovery

OTHER FUNDING INFORMATION

The following resources may also provide helpful information for funding opportunities:

- Insurance Services Office Mitigation Online (town fire ratings): http://www.isomitigation.com/
- National Fire Protection Association: http://www.nfpa.org
- National Interagency Fire Center, Wildland Fire Prevention/Education: https://www.nifc.gov/fire-information/fire-prevention-education-mitigation
- USDA Information Center: https://www.nal.usda.gov/main/information-centers
- U.S. Forest Service Fire Management website: https://www.fs.usda.gov/managing-land/fire
- U.S. Fire Administration: https://www.usfa.fema.gov/index.html
- Western Forestry Leadership Coalition: https://www.thewflc.org/

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APPENDIX F:

Homeowner Actions and Resources

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HOMEOWNER ACTIONS AND RESOURCES

With adequate resources, homeowners may have the ability to significantly reduce wildfire risk through practical measures such as home hardening, which aims to reduce a home's ignitability, and by creating defensible space throughout the property and within the home ignition zone, preventing the likelihood of flames and embers reaching and igniting structures. The following includes comprehensive guidance on building resilient communities by creating defensible space; hardening the home and surrounding property to wildfire impacts; utilizing local, state, and national resources; and preparing the household for potential evacuation. Financial constraints and the complexity of mitigation can often pose significant obstacles for homeowners, so included are several resources and recommendations at varying levels of effort designed to support these actions.

DEFENSIBLE SPACE

The definition of defensible space via state and local codes, its maintenance by property owners, and enforcement by fire agencies as needed is a common part of wildfire risk mitigation. The California Board of Forestry and Fire Protection issued General Guidelines for Creating Defensible Space in 2008, which included required vegetation clearance from 0 to 30 feet around structures and vegetation thinning from 30 to 100 feet around buildings and structures within all State Responsibility Areas as well as all Very High Fire Hazard Severity Zones within Local Responsibility Areas. The Public Resources Code was amended in January 2021 to require an ember-resistant zone within 5 feet of the home/structure after January 2023 (CAL FIRE 2022d).

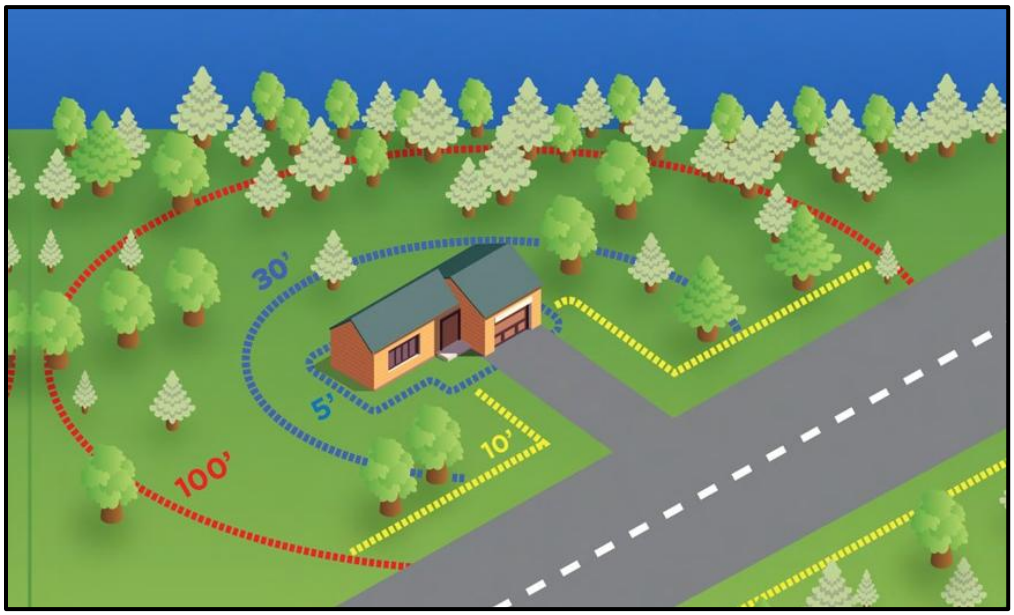


Figure F.1. Defensible space zones providing clearance between a structure and adjacent woodland or forest fuels.

Source: Direct communication, CAL FIRE, 2025.

Chapter 38A of the Butte County Code requires 100 feet of defensible space around all buildings, including buildings on adjacent parcels, divided into three zones: Zone 0 (0–5 feet), Zone 1 (5–30 feet), and Zone 2 (30–100 feet) (Figure F.1). Each zone has specific guidelines to minimize fire risk, such as using noncombustible materials close to structures, maintaining low vegetation, and ensuring proper

spacing between trees and shrubs (Be Ready, Butte 2024). Additionally, Chapter 38A requires property owners to ensure there is 100 feet of clearance for structures on neighboring properties if the 100-foot area extends onto the neighboring property. It also requires clearance of undeveloped parcels, with treatment of the entire parcel required for smaller parcels and a perimeter buffer required for larger parcels.

For inquiries about the Butte County Defensible Space Guidelines and their application to individual properties, property owners can visit the Be Ready, Butte website at https://bereadybutte.com and https://www.buttecounty.net/587/Defensible-Space.

Effective defensible space is an essentially fire-free zone adjacent to the home, a treated secondary zone that is thinned and cleaned of surface fuels, and (if the parcel is large enough) a transitional third zone that is basically a managed forest. These components work together in a proven and predictable manner. Zone 0 keeps fire from burning directly to the home; Zone 1 reduces the adjacent fire intensity and the likelihood of torching, crown fire, and ember production; and Zone 2 does the same at a broader scale, keeping the fire intensity lower by maintaining a more natural, historic condition.

It should be emphasized that defensible space allows firefighters to work effectively and with some degree of safety to defend structures. While defensible space may increase a home's chance of surviving a fire on its own, a structure's survival is not guaranteed, with or without firefighter protection. Nevertheless, when these principles are consistently applied across a neighborhood, everyone benefits. The three zones for defensible space actions are described below (Butte County n.d.c; CAL FIRE 2022d):

Zone 0 – Immediate Zone, Ember Resistant**:** Zone 0 has been proven to be the most important defensible space zone for protecting a home against wildfire. This zone consists of the immediate area around a home and is defined as 0 to 5 feet from the property structure, including areas under and around all structure attachments, such as sheds or decks. Zone 0 requires the most stringent wildfire fuel reduction methods as actions taken within this zone can directly influence whether a structure ignites. Recommendations for treating Zone 0 include (Butte County n.d.c; CAL FIRE 2022d):

- Landscaping materials that are likely to be ignited by embers should not be within Zone 0. This includes, but is not limited to, grass, ornamental or native plants, shrubs, and combustible mulches including bark and woodchips. One acceptable alternative would be to use gravel in these areas.
    - Exception: Plants in pots are allowable if they are in areas that are not directly beneath, above, or adjacent to a window; are kept in an unaffixed, noncombustible pot or container that is no larger than 5-gallon capacity; and set apart by 1.5 times the height of the plant or 12 inches, whichever is greater, from the structure and each other. These plants shall be no greater than 18 inches in height. Dead or dying material on the plants shall be removed.
- Clear all dead and dying debris from around a structure, including branches, dead leaves, pinecones, pine needles, grasses, and shrubs. Remember to check areas where the debris can accumulate, such as gutters, stairways, porches, and roofs.
- Clear all branches or vegetation within 10 feet of any chimney or stovepipe outlet.
- Vegetation within Zone 0 should be limited to non-woody, high-moisture, low-growing species that are well maintained and thoroughly watered
- Trees are not recommended in Zone 0.
- Items that are likely to be ignited by embers are not recommended, including but not limited to combustible boards, timbers, firewood, synthetic lawn, attached window boxes, and trellises.

- Combustible gates that are directly attached to a building or structure are not recommended.
- Fences that are directly attached to a building or structure should have a 5-foot noncombustible span at the point of attachment.
- Outbuildings are not recommended in Zone 0, unless constructed according to the standards in Chapter 7A.
- Limit the use of combustible materials, such as outdoor furniture, on decks or patios.
- Relocate firewood or lumber to Zone 2.
- Replace structures attached to a home, such as fencing or gates, with noncombustible materials.
- If possible, keep garbage receptacles outside of Zone 0.
- If possible, keep all vehicles, boats, all-terrain vehicles, and any other machines outside of Zone 0.

Zone 1 – Intermediate Zone, Clean and Green: Zone 1 consists of the first 30 feet from structures, including home, decks, garages, etc. Under Butte County's Chapter 38A, Zone 1 is 30 feet around all structures, regardless of the property line. This zone features fuel reduction efforts and serves as a transitional area between Zones 0 and 2. Recommendations for treating Zone 1 include (Butte County n.d.c; CAL FIRE 2022d):

- Remove all dead and dying vegetation, including vegetation debris such as leaf litter. Be sure to check the roof and gutters as well.
- Maintain a minimum buffer of 10 feet between a chimney and any vegetation, including dead or overhanging branches. Be sure to remove all branches that hang over the roof.
- Maintain trees by trimming them regularly and keeping a minimum 10-foot buffer between tree canopies.
- Relocate fire or lumber to Zone 2.
- Trim or remove any flammable vegetation near windows.
- Remove any items or vegetation that could catch fire and ignite other property structures, such as vegetation under decks or stairs.
- Separate any items that could ignite, such as trees, shrubs, swing sets, patio furniture, etc.

Zone 2 – Extended Zone, Reduced Fuel: This zone encompasses an area 30 feet from a structure out to 100 feet, including any portion of this area that is on a neighboring parcel. This zone addresses fuel reduction to prevent wildfires from spreading. Recommendations for treating Zone 2 include (Butte County n.d.c; CAL FIRE 2022d):

- Maintain all grasses to reach a maximum height of 4 inches.
- For shrubs or trees, maintain a distance between plants of at least two times a plant's size. Additional space between vegetation is needed for properties on slopes.
    - Flat to mild slope (less than 20%): Minimum distance of 10 feet between trees and two times the size of other plants. Example: For shrubs 2 feet in diameter, at least 4 feet are needed between shrubs.
    - Mild to moderate slope (20%–40%): Minimum distance of 20 feet between trees and four times the size of other plants. Example: For shrubs 2 feet in diameter, at least 8 feet are needed between shrubs.

  - Moderate to steep slope (greater than 40%): Minimum distance of 30 feet between trees and six times the size of other plants. Example: For shrubs 2 feet in diameter, at least 12 feet are needed between shrubs.

- Create vertical space between vegetation by clearing all branches at least 6 feet from the ground for isolated trees, or for trees with nearby shrubs, clear at least 3 times the shrub height.
  - Example: A 4-foot shrub is growing near a tree; a clearance of 12 feet (3 × 4 feet) is needed between the top of the shrub and the lowest tree branch.
- Vegetation debris such as dead leaves, branches, twigs, pinecones, etc., may be allowed up to 3 inches in depth. However, it is best to remove vegetation debris.
- All wood or lumber piles must have a 10-foot buffer of bare mineral soil in all directions; no vegetation is allowed.

In addition to the recommendations listed above, CAL FIRE requires maintaining a clearance zone of 10 feet around any outbuildings or liquid propane gas storage tanks, and an additional 10-foot clearance zone with no flammable vegetation (CAL FIRE 2022d). Butte County requires the following for travel ways and undeveloped property (Butte County n.d.c):

- **Travel ways**
  - Create a minimum 10-foot buffer on both sides of the travel way.
  - Trim all overhanging tree branches to a minimum height of 14 feet.
  - Remove all dead vegetation within 10 feet of the roadside.
- **Undeveloped Properties**
  - Property owners must comply with defensible space and fuel reduction requirements to avoid violations.
  - It is not permitted to allow an accumulation of combustible material, dead or dying trees, or green waste on an improved or unimproved parcel's property line when it encroaches on the 100-foot defensible space requirements of a structure or building on the adjacent property.
  - Parcels greater than 1.25 acres in a sphere of influence require a 30-foot firebreak along the parcel line.
  - Parcels less than 1.25 acres in a sphere of influence require clearance on the entire parcel.

HOME HARDENING

To safeguard your home from embers during wildfires, it is crucial to recognize that exterior vegetation is not the sole source of fuel for these embers. Wildfires can spread between structures and wildland vegetation or from structure to structure. Houses that are close together may find that hardening their home is the most effective option if there aren't options to manage exterior vegetation. Fortifying or retrofitting your home serves as a strong defense against ember intrusion. To effectively mitigate a home from wildfire, use fire-resistant building materials, perform regular maintenance, and address potential ignition points caused by embers (Sustainable Defensible Space 2024). Further information and instructions surrounding building resilience for each component of your home are outlined below.

For more information and additional components surrounding home hardening activities for increasing wildfire resilience, reducing structural ignitability, and preparing for wildfires, please visit: https://wildfireprepared.org/.

Further, the Be Ready, Butte "Harden Your Home" webpage has information and additional documents that identify low-cost options, retrofit guidance, personalized home-hardening opportunities. The webpage can be accessed through the following link: https://bereadybutte.com/harden-your-home/

Upgrading Components to Reduce Structural Ignitability

Roof

> "The most exposed, fire-vulnerable part of your home." – Be Ready, Butte

The roof is identified as the most vulnerable component during wildfires as it is most likely to ignite due to embers. Complex roofs present issues due to greater exposed surface area and pockets where embers can accumulate. Evaluating the vulnerability of the roof is important for new homes or remodeling projects and proper maintenance is critical to reduce the ignition risk. It is also imperative to remove accumulated leaves and other debris from your roof.

Upgrading an existing structure's roof with Class A rated fire-resistant material such as metal, composition, clay, or tile is recommended. Blocking spaces between roof decking and covering chimneys with noncombustible screens are good steps to reduce ignitability. Chimney openings can allow embers to enter or exit the home and should be covered with metal screening. Eaves are easily overlooked and should be boxed in with flat underboards made from noncombustible materials. Lastly, regular maintenance and professional inspections ensure a home's resilience to ember intrusion and wildfire exposures (Be Ready, Butte 2024; Sustainable Defensible Space 2024).

Gutters

> "Clean them or close them" – Be Ready, Butte

Dry debris left in gutters, when ignited by embers, can lead to flames reaching the roof edge and adjacent siding. If upgrades to the gutter system are not possible then cleaning gutters annually is still effective in reducing wildfire ignitions.

If upgrades are possible, installing noncombustible leaf guards over gutters, using noncombustible materials for gutters and downspouts (such as galvanized steel, copper, and aluminum), and incorporating a drip edge are all recommended actions to minimize ignitability. The drip edge serves the dual purpose of protecting the roof edge from flaming exposures and minimizing ember entry into roof undersides by blocking gaps between the roof sheathing and the top of the fascia (Be Ready, Butte 2024; Sustainable Defensible Space 2024).

Vents

> "Open vents are open invitations to flying embers." – Be Ready, Butte

Roof vents, vital for attic air circulation and moisture control, are highly vulnerable to flames and embers. CA Building Code 7A requires vents to be covered with a noncombustible, corrosion resistant mesh with a minimum opening of 1/16-inch (1.6 mm) and shall not exceed 1/8-inch (3.2 mm) in diameter.

While shutters and metal screens help prevent ember entry, they don't fully protect against wildfire-generated hot gases. Additional protection involves considering fire dampers in HVAC ducts, which automatically close in high heat. For existing construction, reducing vulnerability to wildfires and embers requires retrofitting the structure with ember-resistant vents (Be Ready, Butte 2024; Sustainable Defensible Space 2024).

Walls, Sidings, Coatings

> "Most common home siding burns easily." – Be Ready, Butte

Exterior walls are vulnerable to direct flames, conductive heat, and radiant heat. Solid wood and wood composite wall coverings can ignite leading to fire potentially spreading to other components and causing substantial damage. Windborne embers and firebrands are common ignition sources trapped in wall cracks. Ensure that the siding has continuous coverage along the entire structure, from the foundations to the roof. Recommended materials include concrete, fiber-cement panels, pressure-impregnated fire retardant–treated wood, traditional stucco, masonry, and metals. Materials to avoid are non-treated wood siding and vinyl siding.

For upgraded construction, using nonflammable materials to replace current coverings and removing combustible debris in proximity to exterior walls on a regular basis are both recommended (Be Ready, Butte 2024; Sustainable Defensible Space 2024).

Fences and Decks

> "Attached fencing invites fire…[Decks] count as part of your house too" – Be Ready, Butte

Wooden fences and decks can ignite and spread fire to the home. If upgrades are not possible, it is recommended to keep fencing separate from the house or other structures on the property. For fencing that must be attached to the structure, metal plating at the fence-wall connection is suggested, but long-term moisture-related issues may arise. Fences and decks built within 10 feet of the home should be constructed from fire-resistant materials. Ground space beneath deck should be cleared of combustible materials and covered with gravel or another non-ignitable surface. Openings beneath the deck should be covered with metal mesh (Be Ready, Butte 2024; Sustainable Defensible Space 2024).

Windows

> "Heat alone can break them and let fire inside." – Be Ready, Butte

Windows, sliding glass doors, and skylights play a crucial role in preventing the ignition of a home's interior due to windborne embers, hot gases, and radiant heat. The recommendations for new constructions include using tempered glass with low-e coatings or proprietary reflective coatings, insulated glazing units, and solid metal frames. Screen working windows to increase ember resistance and reduce radiant heat.

California Residential Code requires windows in new construction to be multipaned with one tempered pane and meet requirements of National Fire Protection Association (NFPA) 257 or SFM 12-7A-2 (California Residential Code R377.8.2.1). When upgrading existing construction, it is recommended to replace susceptible windows, door vision panels, sliding glass doors, and skylights with fire-resistant materials in accordance with the previously mentioned recommendations (Be Ready, Butte 2024; Sustainable Defensible Space 2024).

Doors and Garages

> "Think of [the garage] as your car's bedroom." – Be Ready, Butte

Safeguarding exterior doors, including garage doors, against ember intrusion or radiant heat is crucial in areas with increased wildfire hazard. Installing adjustable weatherstripping and an automatic door bottom or threshold weatherstripping enhances protection. Insulated, metal garage doors with tested weatherstripping and noncombustible exterior trim further fortify the structure.

When upgrading existing construction, reinforcing existing doors, upgrading sliding glass doors, and replacing wooden garage doors is recommended to increase the resilience of the home's openings and reduce heat transmission (Be Ready, Butte 2024; Sustainable Defensible Space 2024).

PUBLIC EDUCATION AND OUTREACH PROGRAMS



CAL FIRE and the Insurance Institute for Business & Home Safety (IBHS) collaborated on a demonstration burn to give the public a visual of how important it is to include a noncombustible 5-foot buffer, known as Zone 0, around a home or business (photo date: 9/19/23).

Photo Credit: CAL FIRE

LOCAL RESOURCES AND PROGRAMS

Fire Safe Councils

There are multiple fire safe councils in Butte County (Figure F.2). Each has its own initiatives, priorities, and programs. The sections below were developed from available information.

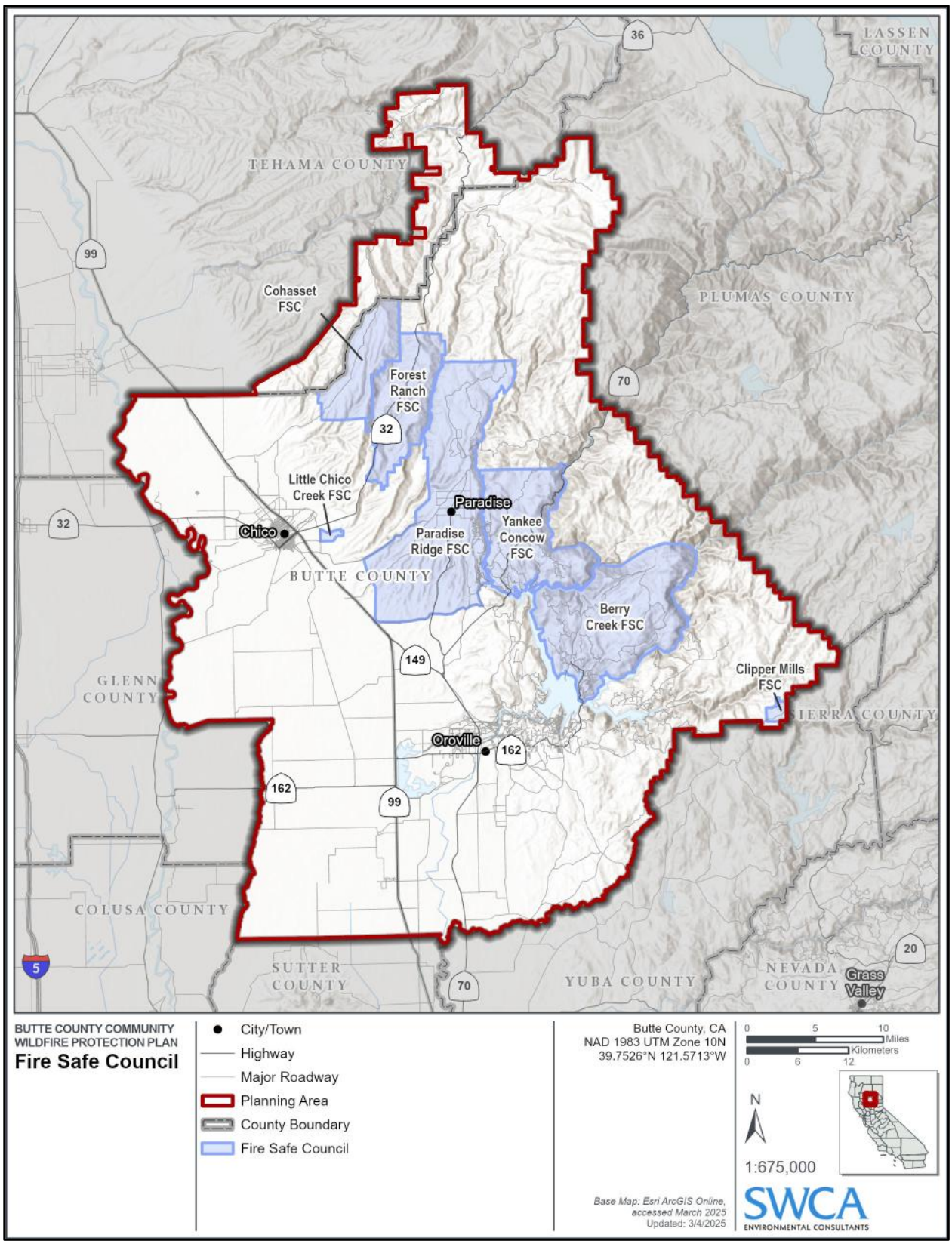


Figure F.2. Fire safe councils in Butte County.

Butte County Fire Safe Council

The Butte County Fire Safe Council (BCFSC) is a 501(c)3 nonprofit community organization that is funded by grants and community donations. Established in 1998, the council mobilizes Butte County residents to create fire-resistant and resilient communities within a wildfire-prone landscape (BCFSC 2024).

Key programs include:

- **Borrow a Weed Wrench**: The BCFSC provides weed removal tools to qualified applicants. This program helps community members create defensible space around buildings and structures.
- **Chipper Program**: A community chipping initiative that assists qualified applicants in maintaining defensible space by processing or disposing of vegetative materials such as brush and tree branches.
- **Grazing Management Plan**: In collaboration with long-term goat grazing contractors, the BCFSC targets large land parcels to reduce vegetation fuel loads in high-risk areas. Interested landowners can apply to have goats on their property by contacting the BCFSC directly.
- **Youth Education**: The council offers various youth education and outreach programs, aimed at teaching local communities about the impacts of wildfire and promoting mitigation practices that increase fire resistance and resilience.

For additional information on BCFSC's local programs, please visit the Butte County Fire Safe Council website.

Yankee Hill Fire Safe Council

The Yankee Hill Fire Safe Council (YHFSC) is a 501(c)(3) nonprofit organization that has served the communities of Concow and Yankee Hill for over 25 years, dedicated to protecting lives, properties, and natural landscapes. Through events and programs, YHFSC connects with residents, provides resources, and collaborates on local initiatives like evacuation plans, Emergency Radio Station AM 1630, and resource signs for public safety. Yankee Hill has also been recognized as a Firewise Community, emphasizing their proactive stance on wildfire risk reduction (Yankee Hill Fire Safe Council 2020).

Key programs include:

- **Defensible Space and Fuel Reduction:** YHFSC coordinates fuel reduction projects to protect lives and property and support safe evacuation routes, assembly points, and firebreaks.
- **Education and Training:** Programs equip residents with practical knowledge on wildfire preparedness and response, helping families make informed decisions in emergencies.
- **Post-Fire Assistance:** YHFSC is actively involved in fire recovery, providing resources for housing, sanitation, food, supplies, erosion control, debris removal, and replanting.

For additional information on YHFSC's local programs, please visit the Yankee Hill Fire Safe Council website.

Paradise Ridge Fire Safe Council

The Paradise Ridge Fire Safe Council (PRFSC) is a 501(c)(3) nonprofit organization focused on promoting wildfire preparedness, risk awareness, and fuel reduction efforts. Through educational programs and community initiatives, PRFSC helps residents create defensible space, plan for

emergencies, and implement wildfire mitigation strategies. PRFSC collaborates closely with BCFSC to strengthen regional resilience and address the unique needs of Paradise Ridge residents (PRFSC 2024).

Key programs include:

- **Chipper Program:** Offers no-cost chipping for vegetative fuels. Brush must be stacked per guidelines along accessible roadways. The service depends on grant funding.
- **Youth Education Programs:** PRFSC offers engaging programs and resources for young residents, including classroom presentations, mentorship activities, and storybooks designed to teach wildfire safety and preparedness.
- **Weed Wrench Loan Program**: Provides free weed wrenches for removing fire-prone invasive plants like broom. Requires a photo ID and volunteer hours tracking. Tools can be borrowed for up to two weeks, with extensions available if no waiting list exists.
- **Ready's Happy Habitat:** A quarterly award recognizing homes with wildfire-resilient design or landscaping. Winners receive a certificate, lawn sign, and a visit from Wildfire Ready Raccoon, with nomination videos produced by BCFSC.

For additional information on PRFSC's local programs, please visit the Paradise Ridge Fire Safe Council website.

Forbestown Ridge Fire Safe Council

The Forbestown Ridge Fire Safe Council (FRFSC) is a dedicated community organization working to strengthen wildfire preparedness and resilience in the Forbestown Ridge area. The FRFSC was formed as a response to the increasing risk of wildfire, catalyzed by concerned community members who recognized the need for proactive measures. This grassroots council is composed of local residents, volunteers, and regional stakeholders focused on reducing fire hazards and promoting fire-safe practices.

The council actively collaborates with local fire officials and other agencies to develop and implement projects tailored to the unique needs of Forbestown Ridge. Through outreach and education, the FRFSC encourages homeowners to engage in wildfire preparedness activities and equips them with the knowledge and resources needed to enhance their properties' fire resilience. Their initiatives include community meetings, training workshops, and access to valuable resources on defensible space, fuel reduction, and emergency planning (California Land Conservation Assistance Network 2022).

For additional information on FRFSC's local programs, please visit the Forbestown Ridge Fire Safe Council website.

Berry Creek Fire Safe Council

The Berry Creek Fire Safe Council serves the community of Berry Creek, located east of Lake Oroville in Butte County. Dedicated to community safety, the council provides vital resources and updates to help residents prepare for wildfire risks. During wildfire events, residents can access current information regarding fire status, evacuation orders, and traffic updates through the council's website and local radio station, AM 1250. In addition, the Berry Creek Fire Safe Council connects the community with essential emergency resources, including Butte County Fire, CAL FIRE, U.S. Forest Service, and the Office of Emergency Services, to ensure fast, accurate information is readily available (Berry Creek Fire Safe Council 2024).

For additional information on local resources and fire information, visit: https://berrycreekca.org/fire_information.html.

Be Ready, Butte

"Be Ready, Butte" is an essential wildfire preparedness initiative for Butte County homeowners, offering resources to protect homes and ensure personal safety. It emphasizes creating defensible space, home hardening, and having evacuation plans in place. With actionable guides on preparing Go Bags for family and pets, identifying evacuation zones, and maintaining defensible space, the program empowers residents to proactively mitigate wildfire risks. To learn more and access key resources, visit the following webpage: https://bereadybutte.com/.

The Be Ready, Butte "Wildfire Preparedness for 4th Grade Students in Butte County" program teaches essential wildfire safety measures over 5 days. Day 1 covers evacuation procedures and meetup locations. Day 2 focuses on identifying flammable materials. Day 3 highlights the importance of keeping the first 5 feet around homes clear of fire fuels. Day 4 emphasizes preparing a Go Bag for all family members and pets. Day 5 teaches the effective use of fire extinguishers. Through activities, videos, and worksheets, students learn how to protect themselves and their homes from wildfires. More information, as well as take home worksheets are available here: https://bereadybutte.com/youthprogram/.

Butte Prescribed Burn Association

The Butte Prescribed Burn Association (Butte PBA) is a program of the Butte County Resource Conservation District. The PBA helps landowners who are interested in using beneficial fire as a tool on their own land. It assists landowners with understanding whether fire is the right tool for their land, identifying burn units, writing a burn plan/prescription, monitoring weather, obtaining permits, and everything else a landowner needs to become a skilled fire practitioner. Furthermore, the Butte PBA offers free training to anyone who wants to learn to use fire safely (landowner or not). Anyone can volunteer with the Butte PBA (no experience necessary); beginners will be paired with experienced mentors dedicated to deepening Butte County's local culture of "good fire."

The PBA also works closely with various partners, including CAL FIRE, fire safe councils, and local ecological reserves, to enhance the region's fire resilience. Since its inception, the association has successfully conducted numerous training burns and workshops, engaging hundreds of local residents in hands-on fire management activities. These efforts have not only reduced fuel loads on strategic acres but also built a capable workforce of local fire practitioners. By fostering a culture of "good fire," the PBA aims to mitigate the impacts of wildfires, protect watersheds, and preserve the natural and cultural heritage of Butte County (Butte County RCD 2024a).

For more information about the Butte County PBA and to learn how you can reduce hazards in your neighborhood, please visit the following link: https://www.bcrcd.org/prescribed-burn-association.

STATE RESOURCES AND PROGRAMS

Wildfire Home Retrofit Guide

The Wildfire Home Retrofit Guide provides homeowners and building professionals with recommendations on retrofitting homes to withstand wildfires. It focuses on hardening vulnerable home components like roofs, vents, decks, and siding while emphasizing defensible space in three key zones around the home. To view the guide visit the following link: https://readyforwildfire.org/wp-content/uploads/2024/03/wildfire-home-retrfito-guide-1.26.21.pdf.

CAL FIRE Ready, Set, Go!

The CAL FIRE "Ready, Set, Go!" program is a three-step plan designed to help California residents prepare for wildfires. To learn more about this three-step wildfire preparation plan, visit the following website: https://readyforwildfire.org/prepare-for-wildfire/.

Housing Assistance

The California Office of Emergency Services provides housing assistance to individuals affected by wildfires, offering temporary housing solutions, financial aid for housing repairs, and rental assistance to those displaced by wildfire damage. For more information on available housing assistance programs, visit the California Governor's Office of Emergency Services Wildfire Recovery page here: https://wildfirerecovery.caloes.ca.gov/general-info/housing-assistance/.

California Wildfire Mitigation Discount Program

The California Wildfire Mitigation Discount Program offers eligible homeowners and condo policyholders discounts on their insurance if they take specific wildfire mitigation actions. For more information and to access informational resource such as frequently asked questions, access the following website: https://www.horacemann.com/insurance/homeowners-insurance/wildfire-discounts.

California Wildfire Mitigation Program

The California Wildfire Mitigation Program was established to enhance community resilience against wildfires through home hardening and defensible space creation, focusing on areas at high wildfire risk. Developed through a partnership between the California Governor's Office of Emergency Services and CAL FIRE, the program was initiated under Assembly Bill 38 in 2019. For more information on the program and to explore additional resources, access the following California Wildfire Mitigation Program webpage here: https://www.caloes.ca.gov/office-of-the-director/operations/recovery-directorate/hazard-mitigation/california-wildfire-mitigation-program/.

California Department of Insurance Safer from Wildfires Program

The California Department of Insurance's Safer from Wildfires Program provides homeowners with information on home hardening measures that qualify for discounted insurance rates and references 10 steps that homeowners can take, each providing insurance discounts so that homeowners can save more as they complete each step. For more information on the program and to explore resources, access the following website: https://www.insurance.ca.gov/01-consumers/200-wrr/Safer-from-Wildfires.cfm.

NATIONAL PROGRAMS

Ready, Set, Go!

The Ready, Set, Go! Program, which is managed by the International Association of Fire Chiefs, was launched in 2011 at the wildland-urban interface (WUI) conference. The program seeks to develop and improve the dialogue between fire departments and residents, providing teaching for residents who live in high-risk wildfire areas—and the WUI—on how to best prepare themselves and their properties against fire threats (International Association of Fire Chiefs 2021). Butte County utilizes the Ready, Set, Go! Program for their public outreach with a focus on making communities "fire adapted."

The tenets of Ready, Set, Go! as included on the website (http://www.wildlandfirersg.org) are:

Ready – Take personal responsibility and prepare long before the threat of a wildland fire so your home is ready in case of a fire. Create defensible space by clearing brush away from your home. Use fire-resistant landscaping and harden your home with fire-safe construction measures. Assemble emergency supplies and belongings in a safe place. Plan escape routes and ensure all those residing within the home know the plan of action.

Set – Pack your emergency items. Stay aware of the latest news and information on the fire from local media, your local fire department, and public safety.

Go – Follow your personal wildland fire action plan. Doing so will not only support your safety but will allow firefighters to best maneuver resources to combat the fire.

National Fire Protection Association

The National Fire Protection Association (NFPA) is a global nonprofit organization devoted to eliminating death, injury, property, and economic loss due to fire, electrical, and related hazards. Its 300 codes and standards are designed to minimize the risk and effects of fire by establishing criteria for building, processing, design, service, and installation around the world.

The NFPA develops easy-to-use educational programs, tools, and resources for all ages and audiences, including Fire Prevention Week, an annual campaign that addresses a specific fire safety theme. The NFPA's Firewise Communities program (www.firewise.org) encourages local solutions for wildfire safety by involving property owners, community leaders, planners, developers, firefighters, and others in the effort to protect people and property from wildfire risks.

The NFPA is a premier resource for fire data analysis, research, and analysis. The Fire Analysis and Research Division conducts investigations of fire incidents and produces a wide range of reports and special studies that cover a broad spectrum of fire safety–related topics .

U.S. Fire Administration's Wildland-Urban Interface Toolkit

The U.S. Fire Administration is an entity of FEMA that aids in the preparation for and response to fire. Their wildland-urban interface toolkit consists of a list of websites and other information regarding risk assessments, public outreach, and community training. Find the toolkit here: https://www.usfa.fema.gov/wui/.

Wildfire Research Center (WiRē)

Wildfire Research Center (WiRē) is a nonprofit organization that works with local wildfire services to achieve community-tailored pathways that reduce risk to wildfire while simultaneously promoting pathways to fire adaptation.

To achieve its goals and serve communities, WiRē will typically conduct a "rapid wildfire risk assessment," which assesses what contributes to wildfire risk, such as building materials, vegetation near homes, background fuels, local topography, and access to emergency fire services. Additionally, they also conduct social surveys, assessing residents' perceptions about wildfire, wildfire risk, risk mitigation behavior, and their willingness to take action to reduce wildfire risk.

For more information, please visit https://wildfireresearchcenter.org/.

National Interagency Fire Center

The National Interagency Fire Center (NIFC) provides a wide array of fire resources and services. The NIFC offers communication assistance to many firefighters and major events at one given time (NIFC 2022). In addition, NIFC's Predictive Services Group creates wildfire forecasts and predictions from fuel and weather data. The NIFC has a network of weather stations that help inform the Predictive Services Group.

The National Wildfire Coordinating Group (NWCG), which is nested under the NIFC, provides operational coordination to federal, state, local, tribal, and territorial partners (NWCG 2024). The NIFC also has a training branch where training curriculums are developed to be used across the nation. For those too young to participate in the standard trainings, the NIFC offers FireWorks, an educational program designed for kids K-12. The program teaches children topics such as wildland fire science, ecosystem fluctuations, human interaction with the environment, and other environmental science topics. The NIFC also provides public education resources:

- Wildfire Readiness – Home (https://disastersafety.org/wildfire/wildfire-ready/)
- Wildfire Readiness – Business (https://disastersafety.org/wildfire/wildfire-ready-business/)
- Wildfire Readiness – Farm and Ranch (https://disastersafety.org/wildfire/farm-and-ranch-wildfire-guidance/)
- Weekend Wildfire Preparedness (https://disastersafety.org/wildfire/weekend-wildfire-preparedness-projects/)
- What to Do if a Wildfire is Approaching (https://disastersafety.org/wildfire/what-to-do-if-a-wildfire-is-approaching/)
- Wildfire Risk – Community (https://wildfirerisk.org/reduce-risk/)
- Prepare and Protect Your Home (https://www.nifc.gov/fire-information/fire-prevention-education-mitigation/wildfire-mitigation/home)
- Prepare Your Community (https://www.nifc.gov/fire-information/fire-prevention-education-mitigation/wildfire-mitigation/community)
- One Less Spark, One Less Wildfire (https://www.readyforwildfire.org/prevent-wildfire/one-less-spark-campaign/)

U.S. Small Business Association

The U.S. Small Business Administration provides low-interest disaster loans to help businesses, homeowners, renters, and nonprofits recover from declared disasters like wildfires. These loans cover losses not fully compensated by insurance or the Federal Emergency Management Agency (FEMA) and help with business operating expenses impacted by the disaster. The Small Business Association offers different loan types, including physical damage loans, mitigation assistance for future damage prevention, and economic injury loans for small businesses. Eligible applicants must be located in declared disaster areas and can apply online for assistance to aid in their recovery.

For more information, please visit the following webpage: https://www.sba.gov/funding-programs/disaster-assistance.

Insurance Institute for Business & Home Safety

The Insurance Institute for Business & Home Safety (IBHS) is a nonprofit organization dedicated to advancing building safety and resilience through scientific research. Supported by property insurers and affiliated companies, IBHS translates research into practical solutions to reduce losses from severe weather and other hazards. Their work includes testing building materials, developing building codes, and providing guidance on construction and retrofitting best practices.

Protect your home

- Critical Home Preparation: https://ibhs.org/wildfireready/.
- Exterior Home Upgrades: https://ibhs.org/wildfireready homeupgrades/.
- Create a Wildfire Resistant Yard: https://ibhs.org/wildfireready homedefensiblespace/.
- Home Preparation Checklist: https://wildfireprepared.org/wp-content/uploads/WPH-How-To-Prepare-My-Home-Checklist.pdf.
- Wildfire Prepared Home (free online assessment): https://wildfireprepared.org/wildfire-prepared-home-base-assessment/.
- Homeowner Articles and Testimonies: https://wildfireprepared.org/homeowner-articles/.
- Applications for Wildfire Prepared Certifications: https://wildfireprepared.org/get-started/.

Prepare for evacuation

- Prepare your Home for Evacuation: https://ibhs.org/ibhs-in-the-news/prepare-your-home-for-evacuation-from-wildfire/.
- Home Evacuation Steps: https://ibhs.org/wildfireready homeevacuation/.

INSURANCE RESOURCES

The Safer from Wildfires Initiative, a partnership between the California Insurance Commissioner, the California Governor's Office of Emergency Services, California Public Utilities Commission, CAL FIRE, and California Governor's Office of Planning and Research (Cal OPR), has led to the development of regulatory action that creates insurance incentives for implementing actions that build up home and community resilience to wildfire. This new wildfire safety regulation aims to make insurance more affordable while increasing public involvement in risk mitigation and awareness regarding local hazards (California Department of Insurance 2023). Wildfire risk reduction actions identified in this plan (such as home hardening, creating defensible space, and community collaboration) are in alignment with the mitigation actions specified in the Safer from Wildfires initiative. More information can be accessed through the following link: https://www.insurance.ca.gov/01-consumers/200-wrr/Safer-from-Wildfires.cfm.

The California FAIR Plan Association, established in 1968, provides insurance coverage to homeowners unable to find traditional insurance, particularly in high-risk areas like fire zones or earthquake fault lines. It is a syndicated fire insurance pool comprising all licensed property/casualty insurers in California, who share the risks and profits based on their market share. The FAIR Plan is not a state agency and receives no public funding. It serves as a temporary safety net for homeowners until they can obtain coverage from traditional insurers. As of June 2024, the FAIR Plan covers over $392 billion in dwelling exposure (Bankrate 2024).

An additional resource to homeowners is nonprofit 501(c)(3) United Policyholders. Their mission is to serve as a reliable and valuable information source and advocate for consumers across all 50 states in matters related to insurance. United Policyholders is committed to providing unbiased guidance on purchasing insurance, assisting with claims, and advocating for the rights of consumers. The nonprofit operates independently, without financial support from insurance companies, ensuring transparency and unwavering support for the interests of policyholders.

United Policyholders offers free assistance to homeowners who experience significant losses from wildfires. They also assist homeowners who are having issues getting insured or obtaining risk assessment documents from their insurer, and help with facilitating conversation with insurers about risk scores. To learn more about United Policyholders, please visit: https://uphelp.org/.



APPENDIX G:

Fuel Treatment Types and Methods

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FUEL BREAKS AND OPEN SPACE CLEANUP

Fuel breaks are strips of land where fuel (for example, living trees and brush, dead branches, leaves, or downed logs) has been modified or reduced to limit the fire's ability to spread rapidly. Fuel breaks should not be confused with firebreaks, which are areas where vegetation and organic matter are removed down to mineral soil. Also, firebreaks are typically used during fire suppression activities, whereas fuel breaks are usually installed before fires occur (to reduce extreme fire behavior).

One type of fuel break is a "shaded fuel break," where much of the surface and ladder fuels are removed with limited removal of the trees and canopy. This creates an area of significantly reduced fuel loading while providing the foundation for a healthy and resilient forest. A shaded fuel break may be created to provide options for suppression resources or to provide opportunities to introduce prescribed fire. In many cases, shaded fuel breaks may be created by thinning along roads. This provides access for mitigation resources and firefighters, as well as enhancing the safety of evacuation routes.

LARGER-SCALE TREATMENTS

Farther from wildland-urban interface communities, the emphasis of treatments often becomes broader. While reducing the buildup of hazardous fuels remains important, other objectives are often included, such as forest health and resiliency to catastrophic wildfire and climate change considerations. Wildfires frequently burn across jurisdictional boundaries, sometimes on landscape scales. As such, these larger treatments need to be coordinated on a strategic level. This requires coordination between projects and jurisdictions, as is currently occurring.

FUEL TREATMENT METHODS

Several treatment methods are commonly used for hazardous fuels reduction, including manual treatments, mechanized treatments, prescribed fire, and grazing (Table G.1). This brief synopsis of treatment options is provided for general knowledge; specific projects will require further planning. The appropriate treatment method and cost will vary depending on factors such as the diameter of materials, proximity to structures, acreage of project, fuel costs, slope steepness, accessibility, and density and type of fuels.

It is imperative that long-term monitoring and maintenance of all treatments is implemented. Post-treatment rehabilitation such as seeding with native plants and erosion control may be necessary. In addition, post-treatment fuel cleanup is a must as neglected piles of vegetation may result in increased fire risk.

Table G.1. Summary of Fuels Treatment Methods

Treatment	Comments
Machine mowing	Appropriate for large, flat, grassy areas on relatively flat terrain.
Manual treatment with chipping or pile burning	Requires chipping, hauling, and pile burning of slash in cases where lop and scatter is inappropriate. Pile burning must comply with smoke management policy.
Brush mastication	Brush species tend to re-sprout vigorously after mechanical treatment. Frequent maintenance of treatments is typically necessary. Mastication tends to be less expensive than manual (chainsaw) treatment and eliminates disposal issues.
Mastication	Materials up to 10 inches in diameter and slopes up to 30% can be treated. Eliminates disposal issues. Environmental impact of residue being left on-site is still being studied.
Prescribed fire	Can be the most cost-effective treatment with the most effective outcomes in many cases. Ecologically beneficial. Can be used as training opportunities for firefighters. May require manual or mechanical pretreatment. Carries risk of escape. Unreliable scheduling due to weather and smoke management constraints.
Feller buncher	Mechanical treatment on slopes more than 30% or of materials more than 10 inches in diameter may require a feller buncher rather than a masticator. Costs tend to be considerably higher than masticator.
Grazing (goats)	Can be cost effective. Can be ecologically beneficial. Can be applied on steep slopes and shrubby and flashy fuels. Requires close management.

MANUAL TREATMENT

Manual treatment, involving crews using chainsaws, offers precision and access to steep or hard-to-reach areas that machines cannot access. Although more costly than mechanized methods, it allows for the removal of merchantable materials and firewood, while non-merchantable materials are often lopped, scattered, chipped, or burned on-site. Care must be taken to properly manage discarded materials to avoid increasing fire hazards.

Strategic timing and placement of fuels treatments are essential and should be tailored to site conditions. For instance, fuel breaks should target areas with heavier fuels and prevailing winds, and grass should be mowed just before it becomes flammable. On slopes or ridgelines, treatments extending from the wildland-urban interface enhance community protection. In sparse vegetation areas, treatments may be unnecessary to maintain defensible spaces and prevent the introduction of invasive species.

MECHANIZED TREATMENTS

Mechanized treatments, such as mowing, mastication, and whole tree felling, offer more precision than prescribed fire and are often more cost effective than manual methods. Mowing using all-terrain vehicles

or tractor-pulled mowers is effective for reducing grass fuels near structures, highways, and fence lines. For heavier fuels, masticators, ranging from small skid-steers to large front-end loaders, grind up standing timber or surface fuels, altering their arrangement to reduce combustibility, though the biomass remains on-site.

Fuel break maintenance is crucial, particularly where shrubs or trees encroach. In high-risk areas, more intensive treatments may be needed to keep fires at ground level and reduce flame lengths. Shrubs should be removed, tree branches pruned to 4 to 8 feet above ground, and tree spacing increased to prevent canopy fires.

TARGETED GRAZING

Fuel modifications targeted toward decreasing both vertical and horizontal continuity in fuels is critical as a prevention method against fire proliferation. The primary objectives for these modifications are treating surface fuels and producing low-density and vertically disconnected stands. Goat grazing is an effective, nontoxic, nonpolluting, and practically carbon-neutral vegetation treatment method. A goat grazing system typically consists of a high density of goats enclosed by a metallic or electrified fence guided by herders. Goats feed on a variety of foliage and twigs from herbaceous vegetation and woody plants (Lovreglio et al. 2014).

The Paradise Grazing Plan is a leading example of using targeted grazing for wildfire risk reduction in areas like Paradise, especially within the wildland-urban interface. By deploying goats and sheep, this approach effectively controls invasive and fire-prone vegetation, providing a sustainable, cost-effective alternative to mechanical or prescribed burning methods. This strategy not only lowers the risk associated with other vegetation management techniques but also fosters an environmentally friendly method that helps prevent the spread of wildfires while enhancing ecosystem health (BCFSC 2021).

PRESCRIBED BURNING

Prescribed burning is an effective method for reducing extreme fire behavior by clearing excess plant material, litter, and woody debris while controlling shrub encroachment. It is ecologically beneficial to fire-adapted vegetation and wildlife, and agencies like CAL FIRE, U.S. Forest Service, and Bureau of Land Management (BLM) are already conducting burns in the region.

All prescribed burns must comply with federal and state regulations, prioritizing public safety, particularly in the wildland-urban interface. Each burn follows a specific plan considering smoke management and sensitive areas, with smoke monitors placed where concerns have been raised.

Post-treatment monitoring is essential to ensure the ongoing effectiveness of fuels reduction. Vegetation can change rapidly due to seasonal conditions, so treatments should be adjusted accordingly. More information on firing techniques can be found on the EFIRE Fire Techniques webpage: https://efire.cnr.ncsu.edu/efire/fire-techniques/.

Cultural Burning

In the Pacific West, Indigenous communities have historically used fire for forest management and restoration (Long et al. 2021). Cultural burning, defined as the purposeful use of fire by a cultural group for various purposes, is a form of Indigenous stewardship (Long et al. 2021).

Unlike conventional fire management focused on fuel reduction, cultural burning embraces a holistic philosophy of "reciprocal restoration," where caring for the land also benefits the people who rely on it. These burns serve multiple purposes, including landscape management, biodiversity, cultural knowledge transmission, spiritual well-being, and material services like food and medicine. Site preparation and post-burn monitoring are integral to this stewardship tradition (Long et al. 2021).

In Butte County, all six tribes are actively working to revive and sustain their cultural fire traditions. These tribes play a vital role in reintroducing beneficial fire to the landscape, helping to restore ecological balance after a century of widespread fire suppression.

Air Quality Impacts of Prescribed Fires

Both prescribed fires and wildfires reduce fuels and produce smoke. However, because prescribed fires are ignited only at a carefully chosen time, they offer a chance to reduce hazardous fuels without the extreme smoke impacts that are often associated with wildfire. Prescribed fire still produces smoke, which can affect people nearby, especially those with respiratory conditions. Burn planners carefully monitor weather conditions so they can burn during the windows that offer the fastest smoke dispersal, which means the fewest impacts to communities.

Effective smoke management is vital in prescribed fire planning (Figure G.1). The California Air Resources Board has guidelines to protect public health (California Air Resources Board 2003). In Butte County, residential burning permits are required seasonally. Burning is regulated by the Butte County Air Quality Management District (BCAQMD), who designates “no burn days”. While CAL FIRE may recommend suspending permits due to high-risk conditions, the final decision to restrict burning is made by BCAQMD (Butte County Air Quality Management District 2024; direct communication, CAL FIRE, 2025).

The National Wildfire Coordinating Group’s (NWCG) **Smoke Management Guide for Prescribed Fire** (2020) offers a comprehensive framework for managing smoke, pairing with their **Interagency Prescribed Fire Planning and Implementation Procedures Guide**. These resources cover air quality regulations, smoke modeling, and public perception. Smoke impacts can be mitigated by burning when winds direct smoke away from sensitive areas and informing the public through a variety of media channels, which can provide advance notice to sensitive populations so they can properly prepare for any potential impacts. These resources can be accessed through the following links:

NWCG Smoke Management Guide for Prescribed Fire, PMS 420-3:
https://www.nwcg.gov/publications/pms420-3

Interagency Prescribed Fire Planning and Implementation Procedures Guide:
https://www.nrfirescience.org/sites/default/files/InteragencyPrescribedFirePlanningProceduresGuide.pdf



Figure G.1. Photograph showing a prescribed burn conducted with the Butte County Resource Conservation District Prescribed Burn Association.
Source: Butte County RCD (2021).

MANAGEMENT OF NONNATIVE PLANTS

Fuel treatment approaches should always consider the potential for introduction or proliferation of invasive nonnative species as a result of management actions. The USDA maintains a list of introduced, invasive, and noxious plants by state (USDA 2024). The California Department of Food and Agriculture (2024) also maintains a list of plant species that are considered noxious and therefore actionable at the county level. The California Invasive Plant Council (2024) provides on its website an inventory of nonnative plant species that threaten California's wildlands.

For more info on California Invasive Plant Council's and California Department of Food and Agriculture's invasive plant lists, please visit the following links:

California Invasive Plant Council: https://www.cal-ipc.org/plants/profiles/

California Department of Food and Agriculture:
https://www.cdfa.ca.gov/plant/ipc/encycloweedia/pdf/CaliforniaNoxiousWeeds.pdf

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APPENDIX H:

Post-Fire Response and Restoration

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BACKGROUND

Butte County has faced several significant wildfires over the past few decades, with the 2018 Camp Fire (Figure H.1), 2020 North Complex Fire, and 2024 Park Fire being three of the most impactful (CAL FIRE 2024a). Despite the ongoing challenges, Butte County remains at the forefront of community wildfire protection efforts, with residents, communities, and government agencies actively engaged in wildfire mitigation strategies and post-fire response and restoration actions to prevent further impacts to human life and other valued resources.

The Camp Fire, which burned 153,336 acres and destroyed 18,804 structures, is widely recognized as the deadliest wildfire in California's history (National Institute of Standards and Technology [NIST] 2021). The fire claimed 85 lives and displaced tens of thousands of residents (Butte County Office of Emergency Management 2020). Recovery efforts included massive debris removal operations and the construction of temporary housing, but the fire also left a lasting psychological toll on survivors. A study on the mental health impacts following the Camp Fire found that approximately 20% of survivors developed post-traumatic stress disorder (PTSD) (Thornburg 2023). The 2020 North Complex Fire burned 152,151 acres within Butte County, destroyed 2,352 structures, and claimed 16 lives (CAL FIRE 2024i). The Park Fire in 2024, which burned 429,603 acres and destroyed 709 structures in Butte and Tehama Counties, further demonstrated the severity of wildfire risks in the region (CAL FIRE 2024a).

A comprehensive dashboard showing progress toward recovery, incident information, and updates, as well as recovery resources from the Camp Fire, North Complex Fire, and Park Fire, can be found through the following links:

- Camp Fire Dashboard: https://www.buttecounty.net/254/Camp-Fire-Additional-Resources
- North Complex Fire Dashboard: https://www.buttecounty.net/259/North-Complex-Fire-Information
- Park Fire Dashboard: https://www.buttecounty.net/2021/Park-Fire

For additional wildfire recovery information, Butte County hosts a Fire Recovery Guide, with links for financial assistance, safe cleanup, and ways the community can get involved on its website: www.buttecounty.net/disaster-recovery.

POST-FIRE RESPONSE AND RESTORATION

Experiencing a wildfire is a traumatic and highly impactful event that takes time and energy to fully recover from. The post-fire recovery process is complex, often requiring support from local neighbors, governmental agencies, and nonprofit organizations to address both immediate and long-term needs (Butte County Office of Emergency Management 2020):

- **Damage assessment and hazard identification:** After the fire, agencies like CAL FIRE and local officials assess the structural damage and environmental hazards, including the potential for weakened trees and stump holes that can pose risks long after the fire is extinguished.
- **Returning home and cleaning up:** Residents are given specific safety instructions to avoid hazards such as underground heat pockets and gas leaks when returning to fire-damaged areas. They are also provided with guidelines for safely removing hazardous debris, including ash, which can contain harmful chemicals.

- **Coordinating community emergency response teams:** Local community organizations, along with county agencies, mobilize teams to coordinate efforts in restoring public utilities, clearing roads, and supporting vulnerable populations during the recovery phase.
- **Identifying immediate needs and critical resource impacts:** Residents are encouraged to focus on securing access to clean water, food, and essential services, particularly in areas where infrastructure has been severely damaged. Programs like Butte County's Fire Survivor Resource Hotline, which is often activated during and after a major fire, can help residents find immediate support.
- **Temporary housing and replacing lost goods:** Many displaced families require temporary housing assistance while they begin the long process of rebuilding their homes. Organizations such as the Federal Emergency Management Agency and the American Red Cross provide support in replacing basic goods and offering mental health counseling for those affected.
- **Rebuilding communities and assessing economic needs:** Securing financial resources through insurance claims, grants, and federal aid is crucial for rebuilding homes and public infrastructure. The county also evaluates the economic impact on businesses and local economies.
- **Restoring the damaged landscape:** A key part of the rehabilitation process is addressing environmental damage. This involves soil stabilization, reforestation, and restoring watersheds, all essential to preventing further erosion and ecological degradation.

Prioritizing the needs of socially vulnerable residents/communities who have specific circumstances, such as individuals living in poverty, minorities, people without vehicles, people with disabilities, older adults, and people with limited English proficiency, is imperative in the post-fire recovery process. Municipal and County governments will often establish websites and other guiding resources specific to the recovery process of a recent fire, such as the recovery page created for the Park Fire: https://www.buttecounty.net/2021/Park-Fire. Pages such as this are an ideal place to start working through the recovery process by identifying next steps and speaking with representatives.

DEBRIS FLOW AND POST-FIRE FLOODING

Severe wildfires dramatically alter landscapes, making them more susceptible to erosion, debris flow, and flooding. Research shows that high-severity burn areas can experience erosion and runoff rates up to 10 times higher than those from moderate-severity burns (Sierra Nevada Conservancy 2021). Post-fire rain events, even small ones, can trigger widespread floods carrying trees, boulders, and soil through canyons, posing risks to communities and critical infrastructure, particularly along slope-adjacent roadways (Sierra Nevada Conservancy 2021).

Heavy rains, especially in severely burned areas, increase the likelihood of flash floods and debris flows. Even moderate rainfall—0.35 inches in 15 minutes or 0.75 inches in 1 hour—can prompt flash flood warnings (California Department of Conservation 2019). This risk is further elevated by saturated soils in the spring or afternoon thunderstorms during monsoon season. Debris flows caused by these conditions are often unpredictable, necessitating vigilance and preparedness to protect life and property (California Department of Conservation 2024b).

For more information on post-fire debris flow and flooding risks, visit the following resources:

- Debris Flow Factsheet
- Flood After Fire California Toolkit

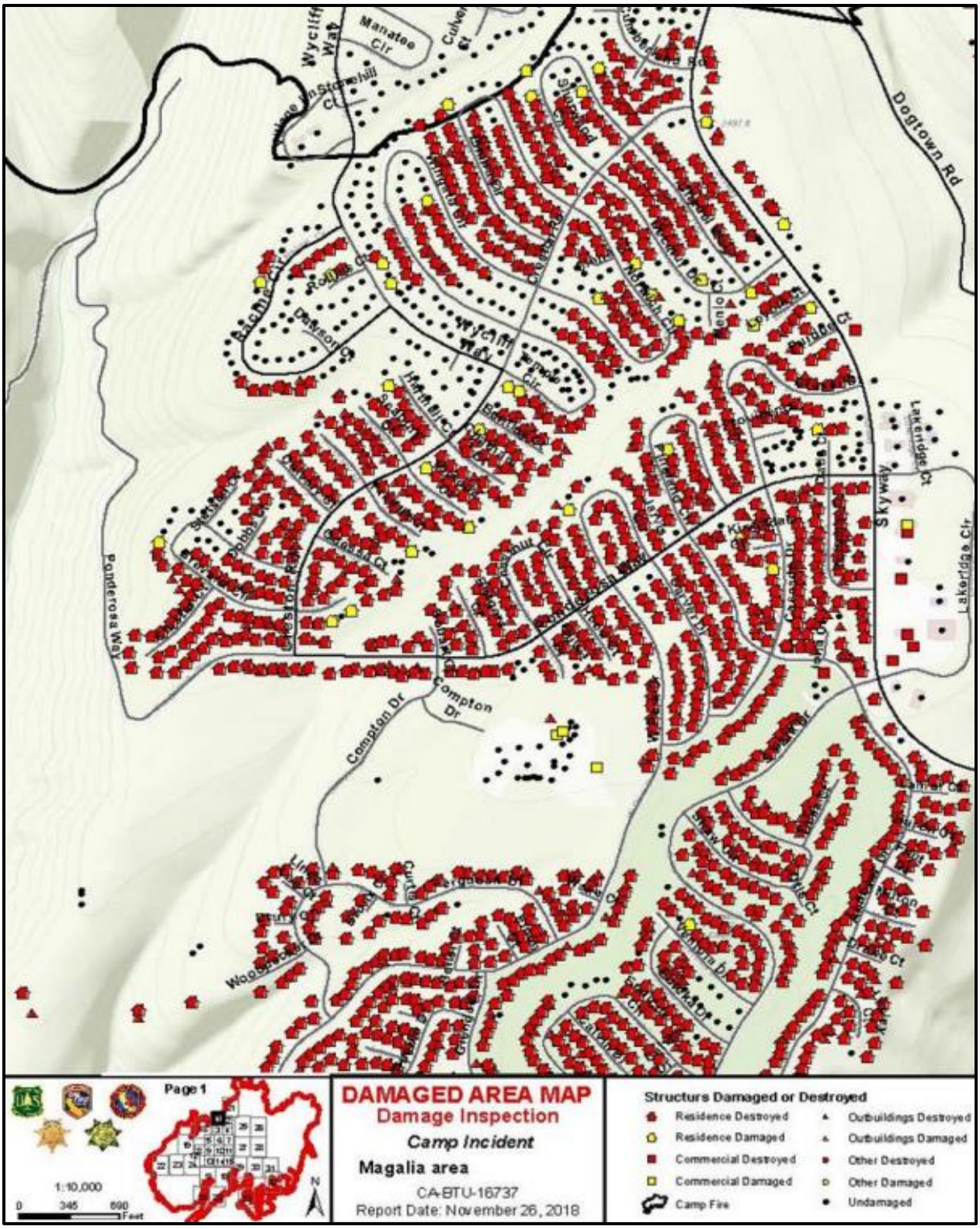


Figure H.1. Example showing one of the numerous maps outlining damaged areas after the Camp Fire.

Source: Wallingford (2018)

COMMUNITY RESPONSE AND RECOVERY

Recovery of the vegetated landscape is often more straightforward than recovery of the human environment. Assessments of the burned landscape are often well-coordinated through the use of interagency crews who are mobilized immediately after a fire to assess the post-fire environment and make recommendations for rehabilitation efforts.

Residents impacted by the fire need assistance making insurance claims; finding temporary accommodation for themselves, pets, and livestock; rebuilding or repairing damaged property; removing debris and burned trees; stabilizing the land for construction; mitigating potential flood damage; repairing infrastructure; reconnecting to utilities; and mitigating impacts to health. Oftentimes, physical impacts can be mitigated over time, but the emotional impacts of the loss and change to surroundings are long-lasting and require support and compassion from the community.

POST-FIRE RESOURCES

Rebuilding and recovery from wildfire can vary greatly across income levels and demographics. Rural areas, low-income neighborhoods, and immigrant communities generally do not have the necessary resources to cover insurance and rebuilding expenses that occur after a fire. Due to this, many of these areas take more time to recover than those with greater access to resources. In addition, the occurrence of wildfire can worsen existing mental health conditions and lead to post-traumatic stress (PTS), low self-esteem, and depression for at-risk populations (Cal OPR 2020).

In response to devastating wildfires, Butte County often launches a dedicated web page and Fire Survivor Resource Line to support affected residents. The hotline provides essential resources including housing assistance, financial aid, basic necessities, and emotional support. For a limited time during recovery, the hotline may be accessible 7 days per week, serving as a crucial lifeline for those impacted by the fires as they begin the recovery process (direct communication, Butte County, 2025).

TEAM RUBICON: EMERGENCY ASSISTANCE

Team Rubicon is a veteran-led humanitarian organization that serves communities around the world before, during, and after disasters such as earthquakes, floods, hurricanes, tornadoes, and wildfire. Team Rubicon focuses on serving vulnerable and at-risk populations affected by disasters, and all services are provided free of charge. Services include incident management, debris management, hazard mitigation, volunteer management, home repair, and emergency medicine. With respect to fire-related assistance, Team Rubicon assists with any action that would limit the impact of a wildfire, such as helping property owners to make their home fire safe, providing staff to assist with mitigation projects (e.g., fuels reduction), and removing debris and hazardous trees (Team Rubicon 2022).

To find out more about Team Rubicon, please visit https://teamrubiconusa.org/capabilities-services/.

RETURNING HOME

First and foremost, follow the advice and recommendations of emergency management agencies, fire departments, utility companies, public health officials, and local aid organizations regarding activities following the wildfire. Do not attempt to return to your home until fire personnel have deemed it safe to do so.

When driving, watch for trees, brush, and rock that may have been weakened or loosened by the fire. Be aware of any damage or debris on roads and driveways. Traffic may be delayed or lanes closed due to firefighter operations. Use extreme caution around trees, power poles, and any other tall objects that may have been weakened by the fire (CAL FIRE 2020a).

Even if the fire did not damage your house, do not expect to return to normal routines immediately. Expect that utility infrastructure may have been damaged and repairs may be necessary. When you return to your home, check for hazards, such as gas or water leaks and electrical shorts. Turn off damaged utilities if you did not do so previously. Request that the fire department or utility companies turn the utilities back on once the area is secured. Similarly, water supply systems may have been damaged; do not drink from the tap until you have been advised that it is safe to do so. Finally, keep a "fire watch"; look for smoke or sparks in houses and other buildings. Once at home, check for the following (CAL FIRE 2019b):

- Check the roof and exterior areas for sparks or embers.
- Check grounds for hot spots, smoldering stumps, and vegetation.
- Check for fire damage to your home, turn off all appliances and make sure the meter is not damaged before turning on the main circuit breaker.
- Check the attic and throughout your house for any hidden burning sparks or embers.
- Do not drink water from the faucet until emergency officials say it is okay, water supply systems can be damaged and become polluted during wildfires.
- Discard any food that has been exposed to heat, smoke, flood water, or soot.
- If you have a propane tank or natural gas, leave valves closed until the supplier or utility company can inspect your system.
- If you have a solar electrical system, this system should be inspected by a licensed technician to verify that the solar panels and electrical wiring are safe for continued operation.
- Consult local experts on the best way to restore and plant your land with fire-safe landscaping.
- Contact 911 if any danger is perceived.
- Ash contains toxic substances and may be irritating to the eyes, nose, throat, and skin. Ash is harmful to breathe and may trigger asthma attacks. Follow these tips to reduce your exposure to ash (California Department of Public Health 2017):
    - Do not allow children to play in ash, and wash off children's toys before children play with them.
    - Immediately wash any part of your body that touches ash to avoid irritation.
    - Wash fruits and vegetables from your garden thoroughly before eating them.
    - Keep pets out of ash areas.
    - Frequently clean indoor surfaces by wet mopping.
    - Wear protective clothing and a respirator when working outside.

INSURANCE CLAIMS

Your insurance agent is the best source of information for submitting a claim. It is recommended you take photos of your home, of both the inside and outside, in preparation of an emergency. Keep the photos in

a safe place as this will make the insurance claim process easier. Most expenses incurred during the time you are forced to live elsewhere may be reimbursed, so be sure to keep all receipts. Additional items that may be covered are extra transportation costs to and from work or school, telephone installation, furniture rental, extra food costs, and water damage. Do not start any repairs without the approval of your claims adjuster (California Department of Insurance 2023).

Natural disasters aren't always predictable, but there are steps property owners can take to better prepare for an emergency.

- Review your insurance policy annually to see if your home is adequately insured.
- Know your "loss of use" section – this covers living expenses should your home become unlivable due to fire, smoke, or otherwise.

You can view a guide on creating a home inventory here: https://www.iii.org/article/how-create-home-inventory.

MOBILIZING COMMUNITY

In the aftermath of a wildfire, community-scale recovery efforts are essential. While local emergency managers coordinate with state and federal partners to manage disaster response, mobilizing local recovery teams plays a critical role in the process. These teams, made up of community members and volunteers, work in collaboration with all levels of government to ensure recovery efforts are successful. Clear communication and coordination among volunteers, local organizations, and government agencies are key to an efficient and well-organized recovery process (California Silver Jackets Team [California SJT] 2019).

Unlike wildfire response, which is typically managed by unified state or federal teams, post-fire recovery requires a more localized approach. Each organization and level of government operates independently, creating a need for strong coordination at the community level. Sharing information and resources between local agencies and recovery teams is crucial for navigating the complexities of post-fire hazards and mitigating further damage (California SJT 2019).

Communities are encouraged to establish local fire safe councils and post-fire coordination groups to direct recovery efforts and address post-wildfire risks. Fire safe councils educate residents about wildfire preparedness, while post-fire coordination groups work with government agencies to assess risks, manage geospatial data, and assist in public communications. Communities should also appoint a post-fire coordinator to lead recovery efforts, facilitate communication with agencies, and ensure a unified, effective response to post-fire challenges (California Fire Safe Council 2021; California SJT 2019).
The recovery coordinator should become familiar with representatives from local, state, and government agencies that will be helping with coordination or funding of post-fire recovery. The following resources may be helpful for the post-fire and volunteer coordinators (California SJT 2019):

Housing

- Disaster Assistance (FEMA)
- Federal Housing Administration (FHA)
  - Disaster Relief
- Individuals and Household Program
- California Department of Housing and Community Development

- The Salvation Army

Debris Removal

- CalRecycle-Wildfire Debris Removal
- U.S. Army Corps of Engineers

Debris Modeling

- U.S. Geological Survey

Hazardous Waste and Pollution

- California Environmental Protection Agency

Pets and Livestock

- American Society for the Prevention of Cruelty to Animals
- California Department of Food and Agriculture

Food

- USDA Supplemental Nutrition Assistance Program
- California Department of Social Services, Disaster Help Center
- Feeding America

Social Services

- California Employment Development Department (EDD)
- FEMA Disaster Unemployment Assistance
- U.S. Administration for Children and Families
- Office of Access and Functional Needs
- California Foundation for Independent Living Centers

Farm Rehabilitation

- Farm Service Agency
- USDA Rural Development Disaster Assistance
- Natural Resources Conservation Service (NRCS) General Environmental Quality Incentives Program Financial Assistance

General

- The American Red Cross
- Cal OES
- USFS
- National Park Service
- CAL FIRE

POST-FIRE REHABILITATION AND RESOURCES FOR LANDOWNERS

Wildfires can lead to increased erosion, flooding, and debris flow, threatening properties, water supplies, and endangered species (USFS 2021b). Following a fire, the immediate priority is emergency stabilization to prevent further damage to life, property, or natural resources. Soil stabilization efforts begin promptly and can last up to a year, while long-term rehabilitation, focusing on areas unlikely to recover naturally, can continue for several years (USFS 2021b).

The U.S. Forest Service (USFS) Burned Area Emergency Response (BAER) program addresses post-fire threats to safety, property, and critical resources on USFS lands. BAER teams, consisting of experts like soil scientists, engineers, and biologists, quickly assess the damage and recommend treatments to mitigate risks (NIFC 2022).

The USFS offers a science-based framework to guide post-fire restoration efforts in California's National Forest lands. This five-step process helps develop a restoration plan that informs project planning and monitoring (USFS 2021c). The framework can be accessed in the Post-Fire Restoration Framework. A comparison of hillside, channel, and road treatments is available in the Post-Fire Treatment Comparison Guide.

California's Watershed Emergency Response Teams (WERTs) are vital in post-fire assessments, identifying risks from debris flows, flooding, rockfall, and erosion. WERT members evaluate "Values-at-Risk" and recommend emergency protection measures, coordinating their findings with local emergency agencies.

More information on post-wildfire recovery can be found at Ready for Wildfire - After a Wildfire.

Butte County Resource Conservation District Small Forest Landowner Assistance Program

The Butte County Resource Conservation District (RCD) has introduced the Small Forest Landowner Assistance Program (SFLAP) to aid small, non-industrial private landowners in enhancing fire recovery and resilience. This program offers low-cost or no-cost treatments, including tree and brush thinning, replanting, pruning, fuels reduction, and large hazard tree removal.

Eligible landowners can receive no-cost work on 1 to 10 acres, with a focus on properties smaller than 250 acres. In 2023, SFLAP assisted 15 landowners in Berry Creek, and in 2024, it served 20 landowners in Berry Creek and Feather Falls (as of fall 2024), covering 224 acres. Each participant receives a forest management plan prepared by a Registered Professional Forester, along with a field botany survey and an archaeological survey conducted by cultural resource experts, including local tribal members when possible (Butte County RCD 2024b).

These steps ensure environmental compliance, enabling the use of state funds to improve fire resilience and ecological health. The program prioritizes low-income landowners and those living on their properties. While the SFLAP program has been focused on the Berry Creek and Feather Falls area in recent years, the program aims to expand to additional communities in the future. For more information, visit the following webpage: https://www.bcrcd.org/small-forest-landowner-assistance-program-sflap.

LONG-TERM COMMUNITY RECOVERY

On non-federal land, recovery efforts are the responsibility of local governments and private landowners. Challenges associated with long-term recovery include homes that were severely damaged or were saved but are located in high-severity burn areas. Furthermore, homes saved but located on unstable slopes or in areas in danger of flooding or landslides present a more complicated challenge. Economically, essential businesses that were burned or were otherwise forced to close pose a challenge to communities of all sizes. It is critical that a long-term plan is in place and there is sufficient funding and support for all necessary ecosystem and community recovery. To learn about more post-fire recovery resources, visit the Ready for Wildfire website here: https://www.readyforwildfire.org/post-wildfire/after-a-wildfire/.

Additional funding resources regarding post-fire return and recovery can be found in Appendix E.

FEDERAL PROGRAMS

BURNED AREA EMERGENCY RESPONSE

One example of a post-fire response program is the U.S. Forest Service's (USFS's) post-fire emergency stabilization program, called the Burned Area Emergency Response (BAER) program. The goal of the BAER program is to discover post-wildfire threats to human life and safety, property, and critical natural or cultural resources on USFS lands and take appropriate actions to mitigate unacceptable risks (BAER 2021).

There are many facets to post-fire recovery, including but not limited to:

- Ensuring public health and safety—prompt removal of downed and hazard trees, addressing watershed damage, and mitigating potential flooding.
- Rebuilding communities and assessing economic needs—securing the financial resources necessary for communities to rebuild homes, business, and infrastructure.
- Restoring the damaged landscape—restoration of watersheds, soil stabilization, and tree planting.
- Reducing fire risk in the future—identifying hazard areas and implementing mitigation.
- Prioritizing the needs of vulnerable and disadvantaged communities during response and disaster recovery efforts.
- Reducing post-fire recovery time by replanting native species.
- Retaining downed logs for erosion control and habitat maintenance.
- Evaluating and updating disaster recovery plans every 5 years to respond to changing needs and characteristics of the community.
- Coordinating with planning, housing, health and human services, and other local, regional or state agencies to develop contingency plans for meeting short-term, temporary housing needs of those displaced during a catastrophic wildfire event.
- Incorporating forecasted impacts from climate change intro trends and projections of future risk and consideration of policies to address identified risk.

- Updating codes and ordinances to specify procedures and standards for planning and permitting the reconstruction of buildings destroyed by wildfire.

CALIFORNIA WATERSHED EMERGENCY RESPONSE TEAM

California Watershed Emergency Response Teams (WERTs) assist communities in post-wildfire recovery by quickly assessing and communicating risks from debris flows, flooding, and rockfalls. Co-led by CAL FIRE and the California Geological Survey, WERTs follow a structured process to reduce risk, beginning with identifying and evaluating values at risk—resources or assets vulnerable to post-fire geologic and hydrologic hazards. Using a qualitative approach that combines modeling with expert judgment, WERTs assess relative risk and recommend emergency protection measures. The final step involves sharing findings with local jurisdictions responsible for emergency planning and response. CAL FIRE, in coordination with local and federal agencies, determines whether a WERT response is necessary. More information can be found at: https://www.conservation.ca.gov/cgs/bwg/wert.

POST-FIRE TREATMENTS AND MANAGEMENT

While the following describes various treatment activity types, many of the areas where these treatments would be implemented fall under the jurisdiction of public agencies. In addition, these areas may also require additional local, state, and federal permits to perform such work.

HILLSLOPE TREATMENTS

Cover Applications:

Dry mulch: provides immediate ground cover with mulch to reduce erosion and downstream flow.

Wet mulch (hydromulch): provides immediate cover to hold moisture and seeds on slopes using a combination of organic fibers, glue, suspension agents, and seeds (most effective on inaccessible slopes).

Slash spreading: provides ground cover to reduce erosion by felling trees in burned areas.

Seeding: reduces soil erosion over time with an application of native seed mixtures (most successful in combination with mulching). Breaking up and loosening topsoil to break down the hydrophobic layer on top of the soil is also effective.

Erosion Barrier Applications:

Erosion control mat: organic mats staked on the soil surface to provide stability for vegetation establishment.

Log erosion barrier: trees felled perpendicular to the hillslope to slow runoff.

Fiber rolls (wattles): rolls placed perpendicular to the hillslope to reduce surface flows and reduce erosion.

Silt fencing: permeable fabric fencing installed parallel to the slope contour to trap sediment as water flows down the hillslope.

Channel Treatments

Check dam: small dams built to trap and store sediment in stream channels.

In-channel tree felling: felling trees in a staggered pattern in a channel to trap debris and sediment.

Grade stabilizer: structures made of natural materials placed in ephemeral channels for stabilization.

Stream bank armoring: reinforcing streambanks with natural materials to reduce bank cutting during stream flow.

Channel deflector: an engineered structure to direct flow away from unstable banks or nearby roads.

Debris basin: constructed to store large amounts of sediment moving in a stream channel.

Road and Trail Treatments

Out sloping and rolling dips (water bars): alter the road shape or template to disperse water and reduce erosion.

Overflow structures: protect the road by controlling runoff and diverting stream flow to constructed channels.

Low water stream crossing: culverts replaced by natural fords to prevent stream diversion and keep water in the natural channel.

Culvert modification: upgrading culvert size to prevent road damage.

Debris rack and deflectors: structure placed in a stream channel to collect debris before reaching a culvert.

Riser pipes: filter out debris and allow the passage of water in stream channels.

Catchment-basin cleanout: using machinery to clean debris and sediment out of stream channels and catchment basins.

Trail stabilization: constructing water bars and spillways to provide drainage away from the trail surface.

The U.S. Forest Service provides a science-based framework to guide post-fire restoration efforts in National Forest lands in California. The framework is based on a five-step process that leads to the development of a restoration portfolio that can inform project planning and monitoring (USFS 2021c). The framework is available at: https://www.fs.usda.gov/psw/publications/documents/psw_gtr270/psw_gtr270.pdf.

Timber Salvage

Many private landowners may decide to harvest trees killed in the fire, a decision that can be highly controversial. Trees remaining post-fire can be instrumental for soil and wildlife habitat recovery, but dead standing trees may also pose safety concerns and fuel loadings may still be conducive to future high intensity wildfires. Burned soil is especially susceptible to soil compaction and erosion so it is recommended to have professionals perform the timber salvage.

Dead tree removal is a key component of the Butte County SFLAP program. The program helps landowners obtain the necessary permits for tree removal, and the revenue from the sale of saw logs subsidizes the cost of tree removal and slash cleanup on the property. This approach exemplifies local efforts to reduce wildfire hazards in a financially sustainable manner (Butte County RCD 2024b).

Invasive Species Management

Wildfire provides opportunity for many invasive species to dominate the landscape because many of these species thrive on recently burned landscapes. It is imperative that landowners prevent invasive establishment by eradicating weeds early, planting native species, and limiting invasive seed dispersal (California Native Plant Society n.d.). The Butte County Resource Conservation District collaborates with the Butte County Agricultural Commissioner's office and local landowners. The Butte County Agricultural Commissioner's Office coordinates the Butte County Weed Management Area and works to minimize the spread of invasive species throughout the county. By organizing regular meetings, they ensure that Butte County parks, cities, foresters, and farmers remain eligible for funding to eradicate invasive weeds. These invasive weeds are costly to farmers and ranchers, consume billions of gallons of water annually, can exacerbate wildfires, and typically do not provide suitable habitat for native wildlife (Butte County RCD 2024c).

TOWN OF PARADISE – RECOVERY AND RESILIENCE

LONG-TERM RECOVERY

Following the Camp Fire in 2018, the Long-Term Recovery Plan was created through a series of community meetings to guide Paradise through the next several years of regrowth. The plan identifies five goals in support of the community vision, many of which are relevant to the 2025 Butte County CWPP:

- Make Paradise Safer
- Make Paradise Welcoming
- Make Paradise Stronger
- Make Paradise Better
- Make Paradise Greener

The plan is unique in that all priorities and projects were developed by residents of the Town. The final plan was presented to the Town Council, who was asked to adopt the Long-Term Recovery Plan ("Community Vision") at a Special Town Council Meeting on June 25, 2019.

The Long-Term Recovery Plan has been updated to reflect changing needs and priorities during the Camp Fire recovery process. The Town of Paradise published an update in 2022, and an Action Plan in 2024–2025.

Information on the Long-Term Recovery Plan can be found on the Town of Paradise web site:

- Long-Term Community Recovery Plan, adopted 2019: https://www.townofparadise.com/sites/default/files/fileattachments/recovery/page/42792/062519_final_recovery_plan_compressed.pdf
- Long-Term Community Recovery Plan Update, published 2022: https://www.townofparadise.com/sites/default/files/fileattachments/recovery/page/42792/ltrp_update_11.1.22is.pdf
- Long-Term Community Recovery Action Plan, 2024–2025: https://www.townofparadise.com/sites/default/files/fileattachments/recovery/page/42792/20242025_community_recovery_ap.pdf

All projects within the Long-Term Recovery Plan related to CWPP goals and objectives are hereby incorporated, including:

ALL-AT-ONCE EVACUATION

The Town of Paradise All-At-Once Evacuation Plan is an existing project, developed initially based on findings from the Camp Fire After Action Review and Corrective Action Report. The plan is designed to move traffic off the ridge and onto State Route 99 without interruption. The plan includes the Town of Paradise Public Works, Butte County Public Works, City of Chico, CHP, and Caltrans.

WILDFIRE TRAFFIC CONTROL PLAN

The Town of Paradise has developed a plan that guides decision-makers on the best evacuation routes off the ridge based on six wildland fire scenarios that would impact the town. Additionally, there is a seventh scenario that accommodates evacuation from Magalia and the Upper Ridge moving traffic through the town with as little interruption as possible.

EARLY WARNING SYSTEM

An existing project, the Town of Paradise Early Warning System (EWS) consists of 21 siren towers located within the town limits of Paradise, California. This system is known as the Early Warning Sirens (EWS) and is part of the overall emergency notification strategy known as “Alert Paradise.” The purpose of the EWS is to provide a redundant warning system for residents and visitors in Paradise of potential or emergent hazards that threaten life and property. The EWS is designed to work in coordination with existing emergency notification systems and processes and to alert residents of emergencies. There are also cameras located on eight of the towers to provide emergency management personnel with real-time access to on the ground conditions during an evacuation or for other potential emergencies. The towers are tested monthly.

EARLY WARNING SYSTEM ACTIVATION SCENARIOS

Existing project. In order to effectively utilize the EWS, the Town has developed seven wildfire scenario-based evacuation maps that identify the preferred evacuation routes and potential one-way evacuation routes. These scenarios also designate which of the 21 EWS towers would be activated.

FUEL MANAGEMENT MAP

The Fuel Management Map defines the boundaries of the four fuel reduction projects identified in the 2024 Local Hazard Mitigation Plan. The map defines best management practices for fuel reduction based on topography, fuel type and density, and fire return intervals.

CATASTROPHIC AND EXTREME CONDITIONS PLANS

Nature Based Resiliency Project: This project is being spearheaded by the Paradise Recreation and Park District. The plan is exploring the concept of creating Wildfire Risk Reduction Buffers (WRRBs) between the urban area and the wildlands. Using a combination of greenbelts, parklands, orchards, and other low ignition-risk land uses. Catastrophic fire modeling has been completed, which identified Strategically Placed Landscape Area Treatments (SPLATS), where fuel treatments or lower risk land uses would reduce the overall risk of wildfire in Paradise. The project is currently using this data to identify actual parcels that could be treated or converted to a lower-risk land use. These parcels could be included in planning fuel reduction projects, purchased for other land uses such as parks or trailways, or protected in land trusts or long-term land use agreements.

Temporary Refuge Areas: Temporary Refuge Areas (TFAs) were used extensively during the Camp Fire to provide a safer place to congregate for traffic blocked by the fire. In spite of its success, the concept remains undefined and is not a recognized tactic for responders. The goal of this plan is to create a recognized and defined tactics for use in future emergencies.

WATER SYSTEM IMPROVEMENTS

Since the Camp Fire, the Paradise Irrigation District (PID) has made significant upgrades to the water system. This includes the replacement of the damaged 2-million-gallon (MG) "B" Reservoir with two 1.5-MG reservoirs, increasing the water storage capacity in the town by 1 MG. The PID has also replaced 79,466 linear feet of water mains that were damaged or impacted by the Camp Fire. The PID also installed a new generator at the water treatment plant, plus pipeline and pump station upgrades for Zone A. The upgrades provide for redundancy in bringing water to town from the treatment plant. This is also known as the ZAPS Project.

UNDERGROUNDING OF POWER LINES

Pacific Gas and Electric (PG&E) is currently moving the entire distribution system underground in the Town of Paradise and replacing 74 miles of damaged natural gas lines.

ROAD CONNECTIVITY PROJECT

The Town is in the planning phase to create a new west-to-east connector from Skyway to Pentz Road. The plan will extend the existing Roe Road and connect the gaps between Skyway and Pentz. This would provide an additional alternative route during wildland fire evacuations.

EMERGENCY OPERATIONS

The Town of Paradise, in cooperation with Butte County Emergency Management, is implementing an online Emergency Management Program. This program provides emergency managers and responders with the ability to communicate and track the status of an emergency in real time to maintain a current and accurate common operating picture. This program automates documentation, including the Incident Action Plan, logistics, finance, planning, damage assessment, and other vital functions of emergency management.

TOWNWIDE CEQA FOR FUEL REDUCTION PROJECTS

In 2023, the Town of Paradise completed a categorical exclusion for fuel reduction for the entire town. This allows the Town to submit grants for fuel reduction projects that are shovel ready.

EVACUATION ZONE SIGNAGE

The Town of Paradise has installed signs along town roadways that identify which zone you are entering and leaving.



Evacuation Zone Sign in the Town of Paradise

RESILIENT BUILDING AND PLANNING

The Town of Paradise Community Development Department plays a vital role in the Town's recovery and resilience through initiatives such as the Fire Prevention Bureau, Community Education, and the Defensible Space Inspection Program. These programs are detailed below and are integral components of the CWPP.

FIRE PREVENTION BUREAU

The Town of Paradise Fire Prevention Bureau, a key part of the Community Development Department, is dedicated to protecting lives, properties, and the environment through a proactive approach to fire prevention. Led by the Fire Marshal and supported by two full-time Fire Inspectors, the bureau works closely with local developers and business owners to provide expert advice on fire and life safety engineering, permitting, and inspections. This collaboration aims to enhance community safety through education, leadership, and collective efforts.

The Fire Marshal's Office is critical in enforcing essential parts of the Paradise Municipal Code and the California Building Standards Code. Its duties include overseeing use permits, reviewing and permitting building and fire system plans, and enforcing Title 19 of the California Code of Regulations for regulated occupancies. The team ensures compliance with the Public Resources Code, California Minimum Fire Safe Regulations, and other relevant new construction and land division codes.

In alignment with the California Wildfire Prevention Plan, the bureau focuses on structural fire resilience and pre-fire management strategies. These include improving emergency vehicle access, ensuring accurate property addressing, promoting ignition-resistant materials, maintaining defensible space, and managing vegetation effectively. The bureau's efforts in vegetation management are mainly focused on reviewing and approving landscaping and fuel modification plans to reduce wildfire risk.

The Fire Prevention Bureau is essential in translating statewide wildfire prevention strategies to meet local needs through inspections, code enforcement, and public education. The bureau significantly enhances community resilience against wildfires through partnerships with various governmental levels, employing a comprehensive approach that integrates proactive planning and community involvement.

PUBLIC EDUCATION

Each year, the Town of Paradise engages thousands of residents, children and adults, through various educational initiatives at school programs, fair exhibits, and community gatherings. These events feature critical topics such as stop, drop and roll; home safety; fire safety; and defensible space. Additionally, career fairs for young people highlight opportunities within the fire prevention field, showcasing potential career paths.

The effectiveness of these public education efforts can be credited to the unwavering dedication of multiple agencies, active community involvement, and the proactive measures taken by fire prevention personnel. Their direct engagement at events ensures that safety messages are delivered personally, demonstrating the Town's commitment to exceptional community service.

Furthermore, Defensible Space Inspectors are vital in educating residents about the Town of Paradise's Municipal Code Chapter 8.58, which covers defensible space and hazardous fuels management. These inspectors visit homes door-to-door, distributing educational materials and advising residents on establishing the necessary defensible space around properties to enhance fire safety. Their mission is

comprehensive, aiming to reach every homeowner in the town through face-to-face interactions or mail, ensuring that all residents have the information needed to protect their homes effectively.

DEFENSIBLE SPACE INSPECTION PROGRAM

The Fire Prevention Bureau manages the Defensible Space Inspection Program in Paradise, which includes two Fire Inspectors who oversee the program, two limited-term grant-funded Fire Inspectors, and one Office Assistant, funded through FY25/26. Specializing in High or Very High Fire Hazard Severity Zones (FHSZs), one inspector focuses on real estate transaction inspections as required by California Civil Code Section 1102.19, enacted on July 1, 2021, following Assembly Bill 38 and Paradise Municipal Code 8.58.

Paradise enhances state defensible space requirements set by California Public Resources Code (PRC) 4291 with Municipal Code Chapter 8.58, which mandates year-round inspections for all properties. These inspections ensure a 5-foot noncombustible zone around structures and a 100-foot clearance, regardless of property lines, to reduce wildfire risks, enhance firefighting, and protect community and natural areas.

Properties failing to meet standards receive follow-up inspections and are documented and prioritized by violation severity, community impact, inspector availability, and resident requests. Non-compliant properties may be escalated to Town Code Enforcement and potentially to Town Council for public nuisance and abatement actions.

These rigorous standards are vital to Paradise’s strategy to mitigate the threat of devastating wildfires, safeguarding the community through proactive fire management policies.

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APPENDIX I:

Fuel Treatment Activities

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FUEL TREATMENT ACTIVITIES

Table I.1 is a comprehensive summary of various fuel treatment projects aimed at mitigating wildfire risks across various communities throughout the county. These projects play a crucial role for enhancing forest health, protecting communities from wildfire hazards, and reducing the severity of wildfire events. Outlined are key pieces of information for each project, including the project name, responsible agency, current status, expected or actual completion year, types of treatments applied, and the area covered in acres. This information is vital for risk mitigation, resource allocation, stakeholder coordination, progress tracking, public awareness, and strategic planning.

Table I.1 is presented as a “living document” that will be updated in real-time as needed. The updated fuel treatment activity list in Table I.1 will be included when this document is revised during each annual review cycle.

The geographic areas associated with the projects listed in Table I.1 are geographically referenced in Figure I.1.



Butte County Fire’s masticator working on the South Paradise VMP.

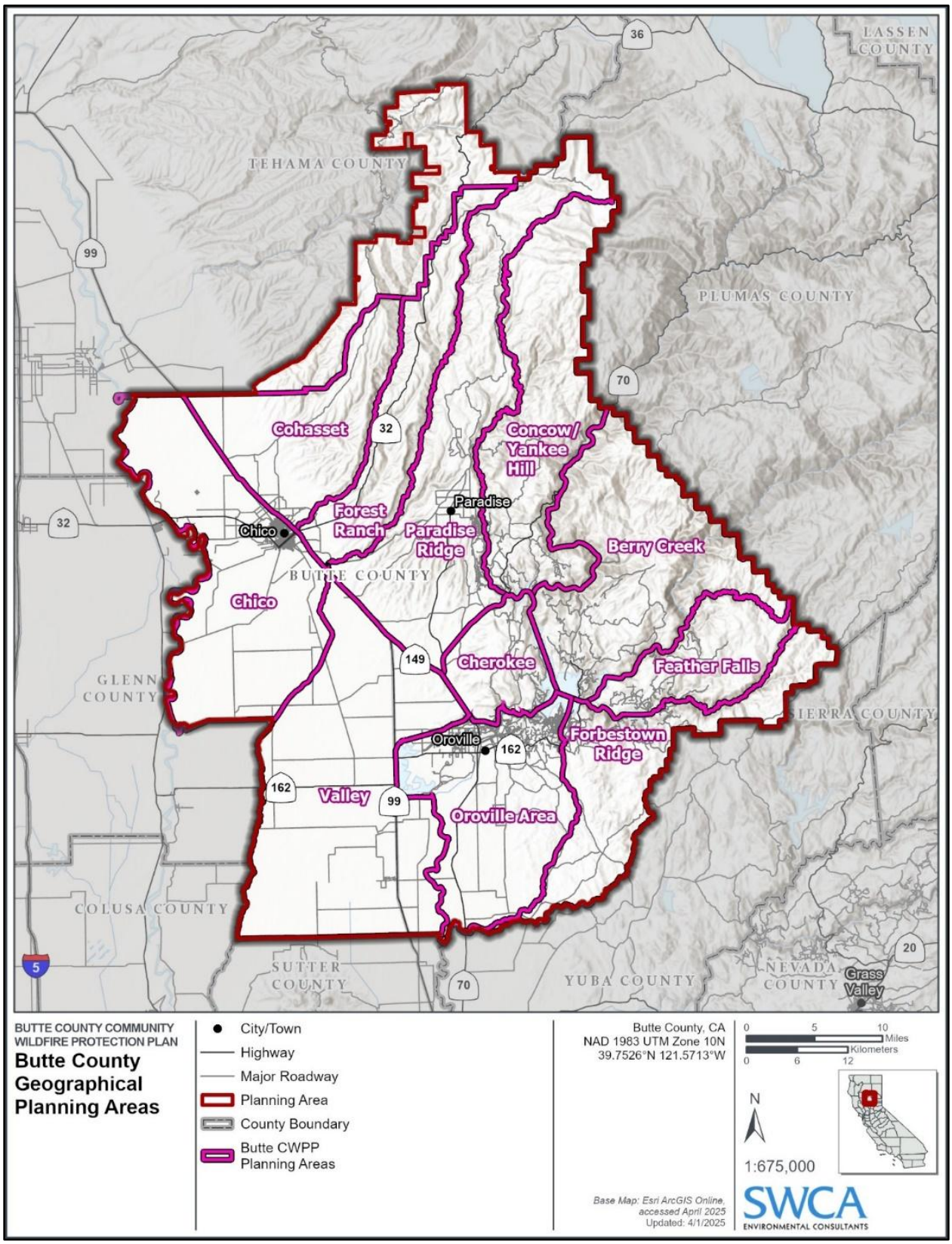


Figure I.1. Butte County Geographic Planning Areas.

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Big Chico Creek Forest Management Plan	Fuels Reduction/ RX	Active	7915	Big Chico Creek Ecological Reserve	CAL FIRE, BCRCD, BCFSC	2, 4	Cohasset/ Forest Ranch
Post North Lumpkin Manual	Fuels Reduction	Completed	52	Bureau of Land Management	BCRCD	5	Feather Falls
Paradise Mastication 10	Fuels Reduction	Completed	27	Bureau of Land		1	Paradise Ridge
Paradise Park Mx 6	Fuels Reduction	Completed	24	Bureau of Land		1	Paradise Ridge
URNP Hand Pile	Fuels Reduction	Completed	38	Bureau of Land		1	Paradise Ridge
URNP Machine Piling	Fuels Reduction	Completed	36	Bureau of Land		1	Paradise Ridge
URNP Pile Rx	Fuels Reduction	Completed	20	Bureau of Land		1	Paradise Ridge
URNP Forest Thin 4 & Biomass	Fuels Reduction	Completed	35	Bureau of Land		1	Paradise Ridge
Butte County Pile Burn 1 & 2	Fuels Reduction	Completed	51	Bureau of Land		1, 2	Paradise Ridge/ Forest Ranch
Butte Thin Rx	Prescribed Fire	Completed	103	Bureau of Land		1, 2	Paradise Ridge/ Forest Ranch
Coutolenc post Harvest mastication	Fuels Reduction	Completed	143	Bureau of Land		1	Paradise Ridge
Doe Mill Ridge Hand Pile 8	Fuels Reduction	Completed	20	Bureau of Land		1, 2	Forest Ranch
Doe Mill Mastication	Fuels Reduction	Completed	49	Bureau of Land		1, 2	Paradise Ridge
Forks of Butte Forestry Rx	Prescribed Fire	Completed	150	Bureau of Land		1, 2	Paradise Ridge/ Forest Ranch
Ishi Mx	Fuels Reduction	Completed	18	Bureau of Land		1, 2	Forest Ranch
Ishi Thin	Fuels Reduction	Completed	82	Bureau of Land		1, 2	Paradise Ridge/ Forest Ranch
Paradise Shaded Fuelbreak Mx 11	Fuels Reduction	Completed	42	Bureau of Land		1, 5	Paradise Ridge/ Forbestown Ridge
Post Camp Mechanical Fuels Reduction	Fuels Reduction	Completed	69	Bureau of Land		1	Paradise Ridge
Upper Ridge Pile & Thin	Fuels Reduction	Completed	9	Bureau of Land		1	Paradise Ridge
Brownsville Yuba Pile Rx	Fuels Reduction	Completed	13	Bureau of Land			
NEU Handcrew Rx	Fuels Reduction	Completed	6	Bureau of Land			
Stringtown Mountain Fuel Break	Fuels Reduction	Completed	56	Bureau of Land		5	Forbestown Ridge
Ishi Pile Rx	Fuels Reduction	Completed	90	Bureau of Land		2, 5	Forbestown Ridge/ Forest Ranch
Upper Ridge Mx	Fuels Reduction	Completed	29	Bureau of Land		1	Paradise Ridge
BUBUC06 - French Creek Road - LOP19	Fuels Reduction	Active	1	Butte County Emergency		5	Berry Creek
BUBUC06 - French Creek Road - LOP20	Fuels Reduction	Active	1	Butte County Emergency		5	Berry Creek
BUBUC06 - French Creek Road - LOP21	Fuels Reduction	Active	1	Butte County Emergency		5	Berry Creek
BUBUC06 - French Creek Road - LOP22	Fuels Reduction	Active	1	Butte County Emergency		5	Berry Creek
BUBUC06 - French Creek Road - LOP23	Fuels Reduction	Active	2	Butte County Emergency		5	Berry Creek
Centerville Road - Sites 1-4	Fuels Reduction	Active	1	Butte County Emergency		4	Forest Ranch
Dark Canyon Road	Fuels Reduction	Active	2	Butte County Emergency		1	Concow/Yankee Hill
French Creek Road	Fuels Reduction	Active	1	Butte County Emergency		5	Berry Creek
Pulga Road	Fuels Reduction	Active	0	Butte County Emergency		1	Concow/Yankee Hill
Roads Damaged During Emerg Work - Concow Rd	Fuels Reduction	Active	53	Butte County Emergency		1	Concow/Yankee Hill
Roads Damaged During Emerg Work - Lakeridge Cr	Fuels Reduction	Active	3	Butte County Emergency		1	Paradise Ridge
Skyway Road	Fuels Reduction	Active	0	Butte County Emergency		1	Paradise Ridge
55 Breckenridge	Fuels Reduction	Active	7	Butte County Fire Safe		5	Berry Creek
9.1 Magalia	Fuels Reduction	Planned	100	Butte County Fire Safe Council		1	Paradise Ridge
AFP	Fuels Reduction	Planned	376	Butte County Fire Safe Council		1	Paradise Ridge
Bader Mine Forest Health	Fuels Reduction	Completed	8	Butte County Fire Safe Council		1	Paradise Ridge
Bald Madrone 1	Fuels Reduction	Completed	100	Butte County Fire Safe Council		5	Berry Creek
BM3	Fuels Reduction	Completed	55	Butte County Fire Safe Council		5	Berry Creek

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Bible EM	Fuels Reduction	Active	3	Butte County Fire Safe Council		2	Cohasset
Big Chico Creek Restoration	Fuels Reduction/ Biomass Utilization/ Prescribed Fire	Active	232	Butte County Fire Safe Council		2	Forest Ranch
Big Ridge	Fuels Reduction	Active	140	Butte County Fire Safe Council		5	Berry Creek
Black Bart	Fuels Reduction/ Biomass Removal/ Herbicide	Completed	60	Butte County Fire Safe Council		5	Forbestown Ridge
BLM FMFA	Fuels Reduction	Planned	201	Butte County Fire Safe Council	BLM	1, 5, 8	Paradise Ridge/ Forbestown Ridge
Broadcast Burning	Prescribed Fire	Planned	113	Butte County Fire Safe Council		5	Forbestown Ridge
Brush Creek	Fuels Reduction/ Prescribed Fire/ Reforestation	Completed	84	Butte County Fire Safe Council		5	Berry Creek
Cal Fire Rx Support	Fuels Reduction	Planned	350	Butte County Fire Safe Council	CALFIRE	2	Cohasset
Camp Fire Strategic Fuels	Fuels Reduction	Completed	70	Butte County Fire Safe Council		1, 8	Paradise Ridge
Canyon Clean Up	Fuels Reduction	Completed	13	Butte County Fire Safe Council		2	Forest Ranch
Canyon Grazing	Fuels Reduction	Completed	16	Butte County Fire Safe Council		6	Oroville Area
CCI CPFR	Fuels Reduction	Planned	141	Butte County Fire Safe Council		2	Cohasset
Chico Park Restoration Project	Fuels Reduction	Planned	1434	Butte County Fire Safe Council		2, 4	Cohasset
CHY Grazing	Fuels Reduction	Completed	6	Butte County Fire Safe Council		5	Forbestown Ridge
Cohasset	Fuels Reduction	Planned	51	Butte County Fire Safe Council		2	Cohasset
Cohasset Grazing Project	Fuels Reduction	Completed	100	Butte County Fire Safe Council		2	Cohasset
Cohasset Restoration	Fuels Reduction	Active	241	Butte County Fire Safe Council		2	Cohasset
Cohasset Thinning	Fuels Reduction	Planned	74	Butte County Fire Safe Council		2	Cohasset
Colter Green Belt	Fuels Reduction	Completed	32	Butte County Fire Safe Council		1	Paradise Ridge
Coutolenc Initial Mast	Fuels Reduction	Completed	41	Butte County Fire Safe Council		1	Paradise Ridge
Coutolenc Park	Fuels Reduction	Completed	122	Butte County Fire Safe Council	PRPD	1	Paradise Ridge
Coutolenc to Hupp Coutolenc	Fuels Reduction	Planned	63	Butte County Fire Safe Council		1	Paradise Ridge
Crane Mills	Fuels Reduction	Completed	117	Butte County Fire Safe Council		2	Forest Ranch

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Crestview	Fuels Reduction	Active	15	Butte County Fire Safe Council		8	Paradise Ridge
Dean Road	Fuels Reduction	Completed	9	Butte County Fire Safe Council		1	Paradise Ridge
Defensible Space	Fuels Reduction	Completed	49	Butte County Fire Safe Council		6	Oroville Area
Doon Grade Community Protection	Biomass Utilization	Active	19	Butte County Fire Safe Council		1	Paradise Ridge
Dry Creek	Fuels Reduction	Completed	80	Butte County Fire Safe Council		8	Paradise Ridge
DWR Bidwell Canyon Grazing	Fuels Reduction	Completed	75	Butte County Fire Safe Council	DWR	6	Forbestown Ridge
East Oroville DWR	Fuels Reduction	Planned	16	Butte County Fire Safe Council	DWR, CAL FIRE, PG&E, State Parks	6	Oroville Area
Encina Grande to Bloomer	Fuels Reduction	Planned	95	Butte County Fire Safe Council		5	Berry Creek
FEMA Tree Shift	Fuels Reduction	Active	59	Butte County Fire Safe Council	FEMA	1, 4, 5	Paradise Ridge/ Berry Creek/ Feather Falls/ Concow/Yankee Hill/ Forest Ranch
Fink	Fuels Reduction	Active	9	Butte County Fire Safe Council		5	Forbestown Ridge
Foreman Creek	Fuels Reduction	Active	94	Butte County Fire Safe Council		5	Berry Creek
Forest Health RP	Fuels Reduction	Planned	51	Butte County Fire Safe Council		2	Forest Ranch
Forest Knolls	Fuels Reduction	Active	94	Butte County Fire Safe Council		2	Forest Ranch
FTS - Berry Creek	Fuels Reduction	Active	8	Butte County Fire Safe Council		5	Berry Creek
FTS - Feather Falls	Fuels Reduction	Active	8	Butte County Fire Safe Council		5	Feather Falls
Fuller	Fuels Reduction	Completed	1	Butte County Fire Safe Council		2	Cohasset
Gold Dogleg	Fuels Reduction	Completed	19	Butte County Fire Safe Council		1	Paradise Ridge
Goodview Grazing	Fuels Reduction	Active	108	Butte County Fire Safe Council		1	Paradise Ridge
Grazing 2025	Fuels Reduction	Completed	107	Butte County Fire Safe Council		5, 8	Paradise Ridge/ Berry Creek
Harvey	Fuels Reduction	Completed	2	Butte County Fire Safe Council		2	Cohasset
Hershel Lane	Fuels Reduction	Planned	28	Butte County Fire Safe Council		5	Forbestown Ridge
Hogan	Fuels Reduction	Completed	84	Butte County Fire Safe Council		2	Cohasset
Hurleton	Fuels Reduction	Completed	2	Butte County Fire Safe Council		6	Forbestown Ridge
Hyatt Grazing	Fuels Reduction	Completed	39	Butte County Fire Safe Council		6	Oroville Area
IRWM - Berry Creek Forest Health	Fuels Reduction	Completed	25	Butte County Fire Safe Council		5	Berry Creek

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Ishi School	Fuels Reduction	Completed	25	Butte County Fire Safe Council		6	Oroville Area
Kidwell	Fuels Reduction	Completed	43	Butte County Fire Safe Council		2	Cohasset
Konrad	Fuels Reduction	Completed	10	Butte County Fire Safe Council		8	Paradise Ridge
Kunkle Reservoir	Fuels Reduction	Completed	8	Butte County Fire Safe Council		1	Paradise Ridge
Lakeland Grazing	Fuels Reduction	Completed	6	Butte County Fire Safe Council		6	Oroville Area
Lava Creek Grazing	Fuels Reduction	Completed	56	Butte County Fire Safe Council		8	Paradise Ridge
Lawing	Fuels Reduction	Completed	12	Butte County Fire Safe Council		2	Cohasset
Lee	Fuels Reduction	Completed	17	Butte County Fire Safe Council		8	Paradise Ridge
Little Butte Creek Restoration	Fuels Reduction	Completed	44	Butte County Fire Safe Council		1	Paradise Ridge
Loafer Creek VMP	Fuels Reduction/ Prescribed Fire	Active	141	Butte County Fire Safe Council	CAL FIRE	6	Forbestown Ridge
Lund	Fuels Reduction	Completed	29	Butte County Fire Safe Council		5	Forbestown Ridge
Magalia Timber Harvest	Fuels Reduction/ Prescribed Fire	Active	135	Butte County Fire Safe Council		1, 8	Paradise Ridge
Maple Creek Ranch	Fuels Reduction/ Biomass Removal	Completed	254	Butte County Fire Safe Council		2	Cohasset
Maple EM	Fuels Reduction	Active	235	Butte County Fire Safe Council		2	Cohasset
Mastellotto	Fuels Reduction	Completed	14	Butte County Fire Safe Council		6	Forbestown Ridge/ Oroville Area
MSW Maintenance Hupp Coutolenc	Fuels Reduction	Active	65	Butte County Fire Safe Council		1	Paradise Ridge
Mt. Ida	Fuels Reduction	Completed	98	Butte County Fire Safe Council		5, 6	Forbestown Ridge
New Skyway	Fuels Reduction	Completed	5	Butte County Fire Safe Council		1	Paradise Ridge
Nimshew	Prescribed Fire	Active	102	Butte County Fire Safe Council		1	Paradise Ridge
Noble Park Restoration	Prescribed Fire	Active	10	Butte County Fire Safe Council		8	Paradise Ridge
Nopel	Fuels Reduction	Planned	29	Butte County Fire Safe Council		2	Forest Ranch
Oak Creek Restoration	Fuels Reduction/ Prescribed Fire	Active	17	Butte County Fire Safe Council		8	Paradise Ridge
Paradise Lake	Fuels Reduction	Completed	111	Butte County Fire Safe Council		1	Paradise Ridge
Paradise Lake Lucretia Restoration Project	Fuels Reduction	Active	8	Butte County Fire Safe Council		1	Paradise Ridge
Paradise Lake Restoration Project Phase 1	Fuels Reduction/ Prescribed Fire	Completed	176	Butte County Fire Safe Council		1	Paradise Ridge

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
PG&E Better Together	Fuels Reduction	Completed	8	Butte County Fire Safe Council	PGE	1	Paradise Ridge
Phoenix VMP	Fuels Reduction/ Prescribed Fire	Active	383	Butte County Fire Safe Council	CAL FIRE	5, 6	Forbestown Ridge
PID 4	Fuels Reduction	Completed	20	Butte County Fire Safe Council		1	Paradise Ridge
PID Gold Dogleg	Fuels Reduction	Completed	44	Butte County Fire Safe Council		1	Paradise Ridge
PID Grazing	Fuels Reduction	Completed	352	Butte County Fire Safe Council		1	Paradise Ridge
PID Pile Burn	Fuels Reduction	Completed	52	Butte County Fire Safe Council		1	Paradise Ridge
PID Upper Restoration	Fuels Reduction	Completed	52	Butte County Fire Safe Council		1	Paradise Ridge
Pine Ridge Grazing	Fuels Reduction	Completed	27	Butte County Fire Safe Council		1	Paradise Ridge
Pioneer School	Fuels Reduction	Completed	18	Butte County Fire Safe Council		5	Berry Creek
Platt Mtn Community Protection	Fuels Reduction/ Prescribed Fire	Active	110	Butte County Fire Safe Council		2	Forest Ranch
POA	Fuels Reduction	Active	44	Butte County Fire Safe Council		1	Paradise Ridge
Post Fire Hazard Tree Removal	Fuels Reduction	Active	4	Butte County Fire Safe Council		5	Berry Creek
PPPOA Fingers Fuels Reduction	Fuels Reduction	Completed	8	Butte County Fire Safe Council	PPPOA	1	Paradise Ridge
POA Upper Restoration	Fuels Reduction/ Prescribed Fire	Completed	53	Butte County Fire Safe Council		1	Paradise Ridge
PUSD Triangle	Fuels Reduction/ Prescribed Fire	Completed	47	Butte County Fire Safe Council	PUSD	1	Paradise Ridge
Racine to BLM	Fuels Reduction	Completed	16	Butte County Fire Safe Council	BLM	1	Paradise Ridge
Rambling Way	Fuels Reduction/ Prescribed Fire	Active	59	Butte County Fire Safe Council		1	Paradise Ridge
Ratchel Roadside	Fuels Reduction	Completed	107	Butte County Fire Safe Council		5	Berry Creek
Resources	Fuels Reduction	Completed	7	Butte County Fire Safe Council		2	Cohasset
Rim Road	Fuels Reduction/ Prescribed Fire	Planned	331	Butte County Fire Safe Council		1	Concow/Yankee Hill
Sawmill Peak Recovery Project	Fuels Reduction/ Prescribed Fire	Completed	133	Butte County Fire Safe Council		1	Concow/Yankee Hill
SNC 1024	Biomass Utilization	Active	43	Butte County Fire Safe Council		1	Paradise Ridge
SNC 1236	Fuels Reduction	Completed	16	Butte County Fire Safe Council		2	Forest Ranch
SNC 1378	Fuels Reduction	Completed	12	Butte County Fire Safe Council		2	Cohasset
SNC 2025	Fuels Reduction	Planned	809	Butte County Fire Safe Council		5, 6	Forbestown Ridge/ Oroville Area

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
SNC HCC	Fuels Reduction	Completed	7	Butte County Fire Safe Council		2	Cohasset
South Lake Maintainance	Prescribed Fire	Planned	10	Butte County Fire Safe Council		1	Paradise Ridge
South Lucretia Phase 2	Fuels Reduction	Active	41	Butte County Fire Safe Council		1	Paradise Ridge
South Lucretia Rx Preparation	Fuels Reduction/ Prescribed Fire	Active	96	Butte County Fire Safe Council		1	Paradise Ridge
South Paradise VMP	Fuels Reduction	Planned	237	Butte County Fire Safe Council	CAL FIRE	1, 8	Paradise Ridge
SPBO	Prescribed Fire	Planned	0	Butte County Fire Safe Council		1	Paradise Ridge
Stirling City	Fuels Reduction	Planned	4	Butte County Fire Safe Council		1	Paradise Ridge
Turtle Beach	Fuels Reduction	Planned	32	Butte County Fire Safe Council		2	Forest Ranch
Upper Restoration	Fuels Reduction/ Prescribed Fire	Completed	38	Butte County Fire Safe Council		1	Paradise Ridge
URNP	Fuels Reduction	Completed	23	Butte County Fire Safe Council		1	Paradise Ridge
USFS Contract Herbicide	Fuels Reduction	Active	180	Butte County Fire Safe Council	USFS	1	Paradise Ridge/ Concow/Yankee Hill
Vilas Road	Fuels Reduction	Completed	43	Butte County Fire Safe Council		2	Cohasset
West Branch	Fuels Reduction/ Herbicide	Completed	51	Butte County Fire Safe Council		1, 8	Paradise Ridge
WUI Cohasset Loop	Fuels Reduction	Completed	117	Butte County Fire Safe Council		2	Cohasset
WUI Doe Mill	Fuels Reduction/ Prescribed Fire	Completed	259	Butte County Fire Safe Council		2	Forest Ranch
WUI PUSD Triangle Rx	Prescribed Fire	Completed	47	Butte County Fire Safe Council		1	Paradise Ridge
WUI Tika Rx	Prescribed Fire	Completed	36	Butte County Fire Safe Council		1	Paradise Ridge
WUI Wide SPI	Fuels Reduction	Completed	74	Butte County Fire Safe Council		1	Paradise Ridge
Youth Farm	Fuels Reduction	Completed	35	Butte County Fire Safe Council		8	Paradise Ridge
Bald Madrone 2	Fuels Reduction/ Herbicide	Active	0	Butte County Fire Safe Council		5	Berry Creek
Bald Madrone 2	Fuels Reduction/ Herbicide	Completed	346	Butte County Fire Safe Council		5	Berry Creek
Bald Madrone Grazing	Fuels Reduction/ Biomass Removal	Active	80	Butte County Fire Safe Council		5	Berry Creek
Bald Madrone Grazing	Fuels Reduction/ Biomass Removal	Completed	59	Butte County Fire Safe Council		5	Berry Creek
Lake Madrone	Fuels Reduction	Completed	33	Butte County Fire Safe Council		5	Berry Creek
West Park	Fuels Reduction/ Biomass Utilization	Completed	30	Butte County Fire Safe Council		1, 8	Paradise Ridge

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Camp Fire	Fuels Reduction/ Biomass Utilization	Active	59	Butte County Fire Safe Council		1, 8	Paradise Ridge
Musty Buck Recovery Project	Fuels Reduction	Completed	69	Butte County Fire Safe Council		2	Cohasset
Bernlo	Fuels Reduction	Completed	79	Butte County Fire Safe Council		2	Cohasset
Tehan	Fuels Reduction	Completed	2	Butte County Fire Safe Council		2	Cohasset
Maple Creek	Fuels Reduction	Completed	38	Butte County Fire Safe Council		2	Cohasset
Cohasset Ridge Fuels Reduction Project	Fuels Reduction	Completed	191	Butte County Fire Safe Council		1, 2	Cohasset
Doe Mill Phase III	Fuels Reduction	Planned	1293	Butte County Fire Safe Council		1, 2, 4	Cohasset/ Forest Ranch
Doe Mill Phase II	Fuels Reduction	Completed	49	Butte County Fire Safe Council		1, 2, 4	Forest Ranch
Doe Mill Phase II	Fuels Reduction	Planned	217	Butte County Fire Safe Council		1, 2, 4	Forest Ranch
Doe Mill	Fuels Reduction	Completed	80	Butte County Fire Safe Council		1, 2, 4	Paradise Ridge/ Forest Ranch
PPPOA Pile Burn	Prescribed Fire/ Fuels Reduction	Completed	17	Butte County Fire Safe Council	PPPOA	1	Paradise Ridge
8GG20627 FH Upper Watershed	Fuels Reduction/ Biomass Removal/ Prescribed Fire	Completed	1	Butte County Fire Safe Council		1	Paradise Ridge
Magalia Resilience	Fuels Reduction/ Biomass Removal	Completed	250	Butte County Fire Safe Council		1	Paradise Ridge
WUI Magalia Protection	Fuels Reduction/ Prescribed Fire/ Biomass Utilization	Completed	271	Butte County Fire Safe Council		1	Paradise Ridge
WUI Magalia Herbicide	Fuels Reduction	Active	30	Butte County Fire Safe Council		1	Paradise Ridge
WUI Magalia Biomass	Fuels Reduction/ Biomass Utilization	Active	231	Butte County Fire Safe Council		1	Paradise Ridge
WUI Wide Magalia	Fuels Reduction/ Prescribed Fire/ Biomass Utilization	Completed	10	Butte County Fire Safe Council		1	Paradise Ridge
Grazing	Fuels Reduction/ Biomass Removal	Completed	65	Butte County Fire Safe Council		1	Paradise Ridge
Magalia Maintenance	Fuels Reduction/ Biomass Removal	Completed	88	Butte County Fire Safe Council		1	Paradise Ridge
Skydog	Fuels Reduction/ Biomass Removal	Completed	65	Butte County Fire Safe Council		1	Paradise Ridge
Skylock	Fuels Reduction/ Biomass Removal	Completed	3	Butte County Fire Safe Council		1	Paradise Ridge
Brush Creek Piles	Prescribed Fire	Completed	5	Butte County Fire Safe Council		5	Berry Creek
2025 Magalia Pile Construction	Fuels Reduction	Completed	166	Butte County Fire Safe Council		1	Paradise Ridge

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Magalia WUI-Wildland Restoration Project Phase 2	Fuels Reduction/ Prescribed Fire	Completed	175	Butte County Fire Safe Council		1	Paradise Ridge
Daly	Fuels Reduction	Completed	86	Butte County Fire Safe Council		2, 5	Forbestown Ridge/ Cohasset
WUI Wide Restoration	Prescribed Fire/Fuels Reduction	Planned	548	Butte County Fire Safe Council		1, 2, 6	Paradise Ridge/ Forbestown Ridge/ Oroville Area/ Forest Ranch
Lake Madrone	Fuels Reduction/ Prescribed Fire/ Reforestation	Active	331	Butte County Fire Safe Council		1, 2, 5, 8	Paradise Ridge/ Berry Creek/ Forbestown Ridge/ Forest Ranch
Clipper Mills Private TM	Fuels Reduction/ Herbicide	Completed	46	Butte County Fire Safe Council		5	Forbestown Ridge
Clipper Mills	Fuels Reduction/ Herbicide/ Biomass Removal	Completed	23	Butte County Fire Safe Council		5	Forbestown Ridge
Clipper Mills Protect	Fuels Reduction/ Herbicide	Completed	695	Butte County Fire Safe Council		5	Forbestown Ridge
Clipper Mills Herbicide	Fuels Reduction/ Herbicide	Completed	144	Butte County Fire Safe Council		5	Forbestown Ridge
Clipper Mills Herbicide TM	Fuels Reduction/ Herbicide	Completed	42	Butte County Fire Safe Council		5	Forbestown Ridge
Clipper Mills TM	Fuels Reduction/ Herbicide	Completed	92	Butte County Fire Safe Council		5	Forbestown Ridge
My Sierra Woods	Fuels Reduction	Completed	650	Butte County Fire Safe Council		1, 2	Paradise Ridge
35/45 Round 2	Fuels Reduction	Completed	126	Butte County Fire Safe Council		5, 6	Forbestown Ridge
Forbestown Fuels Reduction Project	Fuels Reduction/ Prescribed Fire	Completed	249	Butte County Fire Safe Council		5, 6	Forbestown Ridge
Forbestown	Fuels Reduction/ Prescribed Fire	Planned	42	Butte County Fire Safe Council	CAL FIRE	5, 6	Forbestown Ridge
Forest Ranch	Fuels Reduction/ Prescribed Fire	Planned	10	Butte County Fire Safe Council		2	Forest Ranch
PG&E Forest Ranch	Fuels Reduction	Completed	37	Butte County Fire Safe Council	PGE	2	Forest Ranch
East Oroville HFR - Proposed	Fuels Reduction	Planned	27	Butte County Fire Safe Council	DWR, CA State Parks, CAL FIRE, PG&E, Mooretown Rancheria, Berry Creek Rancheria, Enterprise Rancheria, Konkow Valley Band of	6	Oroville Area
DWR	Fuels Reduction	Planned	6	Butte County Fire Safe Council	DWR, CA State Parks, CAL FIRE, PG&E, Mooretown Rancheria, Berry Creek Rancheria, Enterprise Rancheria, Konkow Valley Band of	6	Oroville Area
East Oroville PGE	Fuels Reduction	Planned	158	Butte County Fire Safe Council	DWR, CA State Parks, CAL FIRE, PG&E, Mooretown Rancheria, Berry Creek Rancheria, Enterprise Rancheria, Konkow Valley Band of	6	Oroville Area
East Oroville	Fuels Reduction	Planned	199	Butte County Fire Safe Council	DWR, CA State Parks, CAL FIRE, PG&E, Mooretown Rancheria, Berry Creek Rancheria, Enterprise Rancheria, Konkow Valley Band of	6	Oroville Area

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Maple Creek Ranch Grazing	Fuels Reduction/ Biomass Removal	Active	43	Butte County Fire Safe Council		2	Cohasset
Pioneer Trail Roadside	Fuels Reduction	Completed	23	Butte County Fire Safe Council		5, 6	Oroville Area
MFWR Phase 1	Fuels Reduction	Completed	159	Butte County Fire Safe Council		1	Paradise Ridge
Musty Buck 2	Fuels Reduction	Completed	30	Butte County Fire Safe Council		2	Cohasset
Musty Buck Grazing	Fuels Reduction	Completed	91	Butte County Fire Safe Council		2	Cohasset
Musty Buck Recovery Project	Fuels Reduction/ Herbicide	Active	113	Butte County Fire Safe Council		2	Cohasset
Musty Buck	Fuels Reduction	Completed	7	Butte County Fire Safe Council		2	Cohasset
Musty Buck 1	Fuels Reduction	Completed	81	Butte County Fire Safe Council		2	Cohasset
CCI FH 150 Musty Buck	Fuels Reduction	Completed	9	Butte County Fire Safe Council		2	Cohasset
CCI FRCP	Fuels Reduction	Planned	495	Butte County Fire Safe Council		2	Forest Ranch
CCI FH 150 musty buck HCP	Fuels Reduction	Completed	4	Butte County Fire Safe Council		2	Cohasset
Paradise / Magalia Tree Removal	Fuels Reduction/ Biomass Utilization	Completed	117	Butte County Fire Safe Council		1, 4, 8	Paradise Ridge/ Forest Ranch
Magalia/Paradise	Fuels Reduction/ Biomass Utilization	Completed	47	Butte County Fire Safe Council		1, 8	Paradise Ridge
POA Ferg-cine Biomass	Fuels Reduction	Completed	13	Butte County Fire Safe Council		1, 2, & 8	Paradise Ridge
PPPOA Fuels Reduction	Fuels Reduction	Completed	36	Butte County Fire Safe Council	PPPOA	1, 2, & 8	Paradise Ridge
PPPOA Grazing	Fuels Reduction	Completed	241	Butte County Fire Safe Council	PPPOA	1, 2, & 8	Paradise Ridge
Rim Road Restoration	Prescribed Fire	Active	19	Butte County Fire Safe Council		1	Concow/Yankee Hill
SPI Mastication	Fuels Reduction	Completed	536	Butte County Fire Safe Council		5	Forbestown Ridge
SPI	Fuels Reduction	Completed	28	Butte County Fire Safe Council	SPI	5	Forbestown Ridge
De Sabla Forest Restoration Project	Fuels Reduction	Completed	247	Butte County Fire Safe Council		1	Paradise Ridge
De Sabla Forest Restoration Project	Fuels Reduction	Planned	688	Butte County Fire Safe Council		1	Paradise Ridge
5GG20103 South County Roadside Fuels Reduction	Fuels Reduction	Completed	1	Butte County Fire Safe Council		5	Forbestown Ridge
Bald Madrone 2 Round 3	Fuels Reduction	Completed	30	Butte County Fire Safe Council		5	Berry Creek
BCCER	Fuels Reduction	Completed	234	Butte County Fire Safe Council	BCCER	2	Forest Ranch
BCCER pile burn	Fuels Reduction	Completed	2	Butte County Fire Safe Council	BCCER	2	Cohasset/ Forest Ranch

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
BCCER Headquarters Project	Fuels Reduction	Completed	12	Butte County Fire Safe Council	BCCER	2	Forest Ranch
Bidwell Bridge Restoration Rx	Prescribed Fire	Completed	172	Butte County Fire Safe Council		5, 6	Forbestown Ridge
Birkedal Mastication	Fuels Reduction	Completed	51	Butte County Fire Safe Council		1, 2, 8	Cohasset
Blue Oak Terrace	Fuels Reduction	Completed	215	Butte County Fire Safe Council		1, 8	Paradise Ridge
South Paradise Blue Oaks	Fuels Reduction	Active	51	Butte County Fire Safe Council		1, 8	Paradise Ridge
Blue Oak	Fuels Reduction	Completed	127	Butte County Fire Safe Council		1, 8	Paradise Ridge
North County Roadside Fuels Reduction Magalia	Fuels Reduction	Completed	8	Butte County Fire Safe Council		1	Paradise Ridge
Robinson Mill Roadside	Fuels Reduction	Active	60	Butte County Fire Safe Council		5	Forbestown Ridge
South County Roadside Fuels Reduction	Fuels Reduction	Completed	86	Butte County Fire Safe Council		5	Forbestown Ridge
South County Roadside Fuels Reduction	Fuels Reduction	Active	1	Butte County Fire Safe Council		5	Forbestown Ridge
South County Roadside	Fuels Reduction	Planned	23	Butte County Fire Safe Council		5	Berry Creek/ Forbestown Ridge
Roadside Cohasset	Fuels Reduction	Completed	15	Butte County Fire Safe Council		2	Cohasset
County Wide Roadside Fuels	Fuels Reduction	Planned	285	Butte County Fire Safe Council		1, 2, 5, 8	Paradise Ridge/ Berry Creek/ Forbestown Ridge/ Forest Ranch
County Wide Roadside Fuels Reduction	Fuels Reduction	Completed	60	Butte County Fire Safe Council		1, 2, 5, 8	Paradise Ridge/ Forbestown Ridge/ Forest Ranch
County Wide Roadside Fuels Reduction	Fuels Reduction	Planned	21	Butte County Fire Safe Council		1, 2, 5, 8	Paradise Ridge/ Forbestown Ridge/ Forest Ranch
Forest Ranch Roadside	Fuels Reduction	Completed	12	Butte County Fire Safe Council		2	Forest Ranch
CCI Roadside Forest Ranch	Fuels Reduction	Completed	15	Butte County Fire Safe Council		2	Forest Ranch
North County Roadside Fuels Reduction Cohasset	Fuels Reduction	Completed	55	Butte County Fire Safe Council		2	Cohasset
North County Roadside Fuels Reduction Forest Ranch	Fuels Reduction	Completed	145	Butte County Fire Safe Council		2	Forest Ranch
FR Roadside	Fuels Reduction	Completed	1	Butte County Fire Safe Council		1, 2, 8	Forest Ranch
Magalia Roadside	Fuels Reduction	Completed	8	Butte County Fire Safe Council		1	Paradise Ridge
FRCP #2	Fuels Reduction	Planned	127	Butte County Fire Safe Council		2	Forest Ranch
MCR Restoration	Fuels Reduction	Completed	152	Butte County Fire Safe Council		2	Cohasset
MCR Haz Tree & Pipeline	Fuels Reduction	Completed	45	Butte County Fire Safe Council		2	Cohasset
Big Chico Creek Forest Resilience	Fuels Reduction/ Prescribed Fire	Completed	421	Butte County Fire Safe Council		2	Cohasset/ Forest Ranch

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Other	Fuels Reduction/ Prescribed Fire	Planned	146	Butte County Fire Safe Council		1, 2	Paradise Ridge/ Concow/Yankee Hill
35/45	Fuels Reduction/ Herbicide	Completed	297	Butte County Fire Safe Council		5, 6	Forbestown Ridge
5GG20103 County Wide Roadside Fuels Reduction	Fuels Reduction	Planned	25	Butte County Fire Safe Council		1	Paradise Ridge
5GG20103 North County Roadside Fuels Reduction - Forest Ranch	Fuels Reduction	Planned	1	Butte County Fire Safe Council		2	Forest Ranch
Bidwell Bridge Restoration	Fuels Reduction	Planned	578	Butte County Fire Safe Council		5, 6	Forbestown Ridge/ Oroville Area
Bidwell Bridge Restoration	Fuels Reduction	Completed	31	Butte County Fire Safe Council		5, 6	Forbestown Ridge
BBR	Fuels Reduction/ Biomass Removal	Completed	296	Butte County Fire Safe Council		5, 6	Forbestown Ridge
BCC Park Fire Restoration	Fuels Reduction	Completed	181	Butte County Fire Safe Council		2	Cohasset/ Forest Ranch
Birkedal	Fuels Reduction	Planned	4	Butte County Fire Safe Council		1, 2, 8	Cohasset
Birkedal	Fuels Reduction	Completed	38	Butte County Fire Safe Council		1, 2, 8	Cohasset
Butte Creek House Meadow Restoration	Restoration	Active	106	Butte County Resource Conservation District		2	Paradise Ridge/ Concow/Yankee Hill
Camp Fire Restoration SPAs	Fuels Reduction	Active	39465	Butte County Resource Conservation District		1, 5	Paradise Ridge/ Berry Creek/ Concow/Yankee Hill
Concow Pyrodiversity	Fuels Reduction/ Prescribed Fire	Active	1176	Butte County Resource Conservation District	SPI, CAL FIRE, private land owners, USFS, BCFSC, YHFSC	1	Concow/Yankee Hill
Crane Valley Meadow Restoration	Restoration	Planned	96	Butte County Resource Conservation District	Sierra Pacific Industries, LNF	1	Concow/Yankee Hill
Swedes Flat Fire Hazard Tree & Fuels Reduction	Fuels Reduction	Completed	80	Butte County Resource Conservation District		5	Forbestown Ridge
Upper Ridge Nature Preserve	Fuels Reduction	Planned	71	Butte County Resource Conservation District	BCRCD, BCFSC	1	Paradise Ridge
Lumpkin Rd Post North Complex Fire Fuels Reduction	Fuels Reduction	Completed	120	Butte County Resource Conservation District	BLM, CAL FIRE	5	Feather Falls
Upper Butte Creek Forest Health Initiative	Fuels Reduction/ Prescribed Fire	Active	19835	Butte County Resource Conservation District	Almanor Ranger District, LNF	2	Paradise Ridge/ Concow/Yankee Hill
Butte Prescribed Burn Association	Fuels Reduction/ Prescribed Fire	Active	95	Butte County Resource Conservation District	Private landowners; CAL FIRE	1, 2, 4	Paradise Ridge/ Cohasset/ Forest Ranch
Butte Prescribed Burn Association	Fuels Reduction/ Prescribed Fire	Completed	246	Butte County Resource Conservation District	Private landowners; CAL FIRE	1, 2, 4	Paradise Ridge/ Cohasset/ Forest Ranch
Concow Resilience	Fuels Reduction/ Reforestation	Active	459	Butte County Resource Conservation District	CAL FIRE, SNC, USFS, PNF	1	Concow/Yankee Hill
Forks of Butte	Fuels Reduction	Planned	939	Butte County Resource Conservation District		1, 2	Paradise Ridge/ Forest Ranch
Upper Ridge Nature Preserve	Fuels Reduction	Completed	25	Butte County Resource Conservation District		1	Paradise Ridge
CA State Parks (DPR) Annual Fuel Break Maintenance	Fuels Reduction	Completed	35	CA State Parks		6	Oroville Area
Loafer Creek	Fuels Reduction	Active	41	CA State Parks	CCC	6	Forbestown Ridge

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Craig Access Fuels Reduction and Restoration Project	Fuel Reduction/ Prescribed Fire	Active	80	CA State Parks		5	Feather Falls
Forest Resilience and Watershed Protection in State Parks of Butte County	Fuel Reduction/Prescrib ed	Active	500	CA State Parks	DWR	6 & 9	Oroville Area
North-Fork Bloomer Fuels Reduction	Fuel Reduction	Planned	455	CA State Parks		6 & 9	Oroville Area
Potters Ravine Recovery Project	Fuel Reduction	Planned	565	CA State Parks	DWR	6 & 9	Oroville Area
2022 Trex/PBA Burns	Prescribed Fire	Active	20	CAL Fire - Butte Unit		2	Cohasset/ Forest Ranch
5GS16141 Paradise Pines FRP	Fuels Reduction	Active	37	CAL Fire - Butte Unit		1	Paradise Ridge
Berry Creek Fuels Reduction Project	Fuels Reduction	Active	847	CAL Fire - Butte Unit		5	Berry Creek
Berry Creek Shaded Fuel Break Phase 1	Fuels Reduction	Completed	1	CAL Fire - Butte Unit		5	Berry Creek
Bidwell Canyon HFR	Fuels Reduction	Active	12	CAL Fire - Butte Unit		6	Oroville Area
Big Chico Creek Forest Management Plan	Fuels Reduction/ Prescribed Fire	Active	4527	CAL Fire - Butte Unit	BCCER, BCRCD, BCFSC	2, 4	Cohasset/ Forest Ranch
BLM Butte Forest Thin	Fuels Reduction/ Prescribed Fire	Active	152	CAL Fire - Butte Unit	BLM	1, 2	Paradise Ridge/ Forest Ranch
BLM Compton HFR	Fuels Reduction	Active	19	CAL Fire - Butte Unit	BLM	1	Paradise Ridge
Brush Creek DFPZ	Fuels Reduction	Active	84	CAL Fire - Butte Unit		5	Berry Creek
Butte County Roads HFR	Fuels Reduction	Active	26	CAL Fire - Butte Unit		1	Paradise Ridge
Butte Meadows HFR	Fuels Reduction	Completed	12	CAL Fire - Butte Unit		2	Forest Ranch
Buzztail	Fuels Reduction	Completed	21	CAL Fire - Butte Unit		2, 4	Forest Ranch
Camelot VMP	Fuels Reduction/ Prescribed Fire	Active	1661	CAL Fire - Butte Unit	Mechoopda	4	Paradise Ridge
Camp Fire Fuels Reduction Project	Fuels Reduction	Active	538	CAL Fire - Butte Unit		1, 4, 8	Paradise Ridge
Cherokee Pentz HFR	Fuels Reduction	Active	105	CAL Fire - Butte Unit		1, 6	Paradise Ridge/ Cherokee
Chico Ecological Reserves VMP	Prescribed Fire	Active	98	CAL Fire - Butte Unit		2	Forest Ranch
Cohasset Fuels Reduction Project	Fuels Reduction	Active	265	CAL Fire - Butte Unit		2	Cohasset
Cohasset TRA NOE	Fuels Reduction	Active	9	CAL Fire - Butte Unit		2	Cohasset
Concow / Yankee Hill - Staging Area	Fuels Reduction	Active	33	CAL Fire - Butte Unit	YHFSC	1	Concow/Yankee Hill
Concow FIREWISE Home Design and Landscaping Events	Fuels Reduction	Completed	3	CAL Fire - Butte Unit		1	Concow/Yankee Hill
Concow Hazardous Fuel Removal	Fuels Reduction	Completed	68	CAL Fire - Butte Unit		1	Concow/Yankee Hill
Concow Hazardous Fuel Removal - Crain Ridge	Fuels Reduction	Completed	620	CAL Fire - Butte Unit		1	Concow/Yankee Hill
Concow Hazardous Fuel Removal - Granite Ridge	Fuels Reduction	Completed	229	CAL Fire - Butte Unit		1	Concow/Yankee Hill
Concow Pyrodiversity Project	Fuels Reduction/ Prescribed Fire	Active	3079	CAL Fire - Butte Unit	SPI, CAL FIRE, private land owners, USFS, BCFSC, YHFSC	1	Concow/Yankee Hill
Countywide Brushing Program	Fuels Reduction	Completed	3801	CAL Fire - Butte Unit		1, 2, 5, 6	Paradise Ridge/ Berry Creek/ Feather Falls/ Concow/Yankee Hill/ Forbestown Ridge/ Oroville Area/ Forest Ranch
Coutolenc Road Shaded Fuel Break	Fuels Reduction	Completed	85	CAL Fire - Butte Unit		1	Paradise Ridge
Crain Ridge Fuel Break - Maintenance and Enhancements	Fuels Reduction	Active	34	CAL Fire - Butte Unit		1	Concow/Yankee Hill
Crown Point	Fuels Reduction	Active	42	CAL Fire - Butte Unit		2	Forest Ranch
DWR Canyon Drive Fuel Reduction	Fuels Reduction	Completed	5	CAL Fire - Butte Unit	DWR	6	Oroville Area
DWR Lake Oroville	Fuels Reduction	Completed	109	CAL Fire - Butte Unit	DWR	5, 6	Feather Falls/ Oroville Area
Thermalito Grasslands Conrtolled Burn NOE	Prescribed Fire	Active	365	CAL Fire - Butte Unit		6	Oroville Area
Feather Falls SFB	Fuels Reduction	Completed	42	CAL Fire - Butte Unit		5	Feather Falls
Forbestown Fuels Reduction	Fuels Reduction	Completed	476	CAL Fire - Butte Unit		5	Forbestown Ridge

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Forbestown Fuels Reduction Project	Fuels Reduction/ Prescribed Fire	Completed	84	CAL Fire - Butte Unit	BCFSC	5	Forbestown Ridge
Forbestown Ridge	Fuels Reduction	Completed	514	CAL Fire - Butte Unit		5	Forbestown Ridge
Forest Ranch Fuels Reduction	Fuels Reduction	Completed	292	CAL Fire - Butte Unit		2	Forest Ranch
Fuel Reduction Assistance Program	Fuels Reduction	Active	1	CAL Fire - Butte Unit		1	Paradise Ridge
Gale CFIP	Fuels Reduction	Completed	296	CAL Fire - Butte Unit		1	Concow/Yankee Hill
Granite Ridge Fuel Break	Fuels Reduction	Active	286	CAL Fire - Butte Unit		1	Concow/Yankee Hill
H Line VTPEIR	Fuels Reduction	Active	3569	CAL Fire - Butte Unit		2	Cohasset/ Forest Ranch
Heimbecher Prop 40 CFIP	Fuels Reduction	Completed	36	CAL Fire - Butte Unit		1	Concow/Yankee Hill
High Test Kennels NOE	Fuels Reduction	Active	114	CAL Fire - Butte Unit		7	Oroville Area
Highway 32 Wilder	Fuels Reduction	Completed	24	CAL Fire - Butte Unit		2, 4	Forest Ranch
Holmes CFIP	Fuels Reduction	Active	40	CAL Fire - Butte Unit			
Iron Canyon VMP	Fuel Reduction/ Prescribed Fire	Planned	8180	CAL Fire - Butte Unit		2, 4	Cohasset
Irrigation System Fuel Reduction	Fuels Reduction	Active	1	CAL Fire - Butte Unit		6	Oroville Area
King CFIP	Fuels Reduction	Completed	89	CAL Fire - Butte Unit		1, 6	Concow/Yankee Hill/ Cherokee
Lake Madrone	Fuels Reduction	Completed	16	CAL Fire - Butte Unit		5	Berry Creek
Lime Saddle HFR	Fuels Reduction	Active	13	CAL Fire - Butte Unit		1	Paradise Ridge
Little Butte Creek	Fuels Reduction	Active	87	CAL Fire - Butte Unit		1	Paradise Ridge
Loafer Creek DWR VMP	Fuels Reduction	Active	938	CAL Fire - Butte Unit	CAL FIRE, CA State Parks, BCFSC	6	Forbestown Ridge
Loafer Creek LLC HFR	Fuels Reduction/ Prescribed Fire	Active	1213	CAL Fire - Butte Unit		2, 4	Cohasset
Lyman Prop 40 CFIP	Fuels Reduction	Completed	20	CAL Fire - Butte Unit		1	Concow/Yankee Hill
Magalia Resevoir SFB Phase 2	Fuels Reduction	Completed	16	CAL Fire - Butte Unit		1	Paradise Ridge
Mt. Ida Fuels Reduction Project	Fuels Reduction	Active	95	CAL Fire - Butte Unit		5, 6	Forbestown Ridge/ Oroville Area
OAK HFR - PBA/RCD	Prescribed Fire	Active	7	CAL Fire - Butte Unit		2	Forest Ranch
Old Forbestown & Cherokee CFIP	Fuels Reduction	Completed	178	CAL Fire - Butte Unit		6	Cherokee
Oroville Airport Prescribed Burn	Prescribed Fire	Active	416	CAL Fire - Butte Unit		6	Oroville Area
Oroville Airport Rx Burn	Prescribed Fire	Completed	356	CAL Fire - Butte Unit		6	Oroville Area
Paradise Pines HFR	Fuels Reduction	Active	158	CAL Fire - Butte Unit		1	Paradise Ridge
Paradise Ridge Fuels Reduction Project	Fuels Reduction	Completed	528	CAL Fire - Butte Unit		1, 8	Paradise Ridge
Peterson Prop 40 CFIP	Fuels Reduction	Completed	191	CAL Fire - Butte Unit		5	Berry Creek
Phoenix VMP	Fuels Reduction/ Prescribed Fire	Active	6877	CAL Fire - Butte Unit	BCFSC	5, 6	Forbestown Ridge
Rabe Rd NOE	Fuels Reduction/ Prescribed Fire	Active	80	CAL Fire - Butte Unit	DWR	6	Oroville Area
Roadside Evacuation Hazardous Fuels Reduction	Fuels Reduction	Active	1	CAL Fire - Butte Unit		1, 6	Paradise Ridge/ Oroville Area
Schroeder CFIP 2016	Fuels Reduction	Completed	258	CAL Fire - Butte Unit		2	Cohasset/ Forest Ranch
Sheep Hollow VMP	Fuel Reduction/ Prescribed Fire	Planned	5966	CAL Fire - Butte Unit		2, 4	Cohasset
Skyway Fuels Reduction	Fuels Reduction	Active	180	CAL Fire - Butte Unit		1, 4, 8	Paradise Ridge
Soper Company Shakespeare Mastication	Fuels Reduction	Active	138	CAL Fire - Butte Unit			
South Paradise VMP	Fuels Reduction	Active	8175	CAL Fire - Butte Unit	BCFSC	1, 4, 8	Paradise Ridge
Station 23	Fuels Reduction	Active	45	CAL Fire - Butte Unit		2	Forest Ranch
Sta 36 HFR	Fuels Reduction	Completed	24	CAL Fire - Butte Unit		1	Concow/Yankee Hill
Staging Area Fuel Reduction, Canyon Lake	Fuels Reduction	Active	77	CAL Fire - Butte Unit		1	Concow/Yankee Hill
Staging Areas - Maintenance and Enhancements	Fuels Reduction	Active	0	CAL Fire - Butte Unit		1	Concow/Yankee Hill
Starch Prop 40 CFIP	Fuels Reduction	Completed	50	CAL Fire - Butte Unit		5	Berry Creek

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Station 22 NOE	Fuels Reduction	Active	5	CAL Fire - Butte Unit		2	Cohasset
Station 35 NOE	Fuels Reduction	Active	11	CAL Fire - Butte Unit		8	Paradise Ridge
Sycamore VMP	Fuel Reduction/ Prescribed Fire	Planned	9639	CAL Fire - Butte Unit		2, 4	Cohasset/ Forest Ranch
Trex Burns	Prescribed Fire	Active	137	CAL Fire - Butte Unit		2, 4	Cohasset/ Forest Ranch
TREX/PBA Burns	Prescribed Fire	Active	19	CAL Fire - Butte Unit		2	Cohasset/ Forest Ranch
Turkel NOE	Fuels Reduction	Active	72	CAL Fire - Butte Unit		2	Forest Ranch
Tuscan VMP	Fuel Reduction/ Prescribed Fire	Planned	3552	CAL Fire - Butte Unit		2	Cohasset/ Forest Ranch
Upper Ridge Roads Hazardous Fuels Reduction	Fuels Reduction	Completed	13	CAL Fire - Butte Unit		8	Paradise Ridge
WUI Wide Forest and Watershed Restoration Project	Fuels Reduction/ Prescribed Fire	Active	2096	CAL Fire - Butte Unit		1, 2, 6	Paradise Ridge/ Forbestown Ridge/ Cohasset/ Oroville Area/ Forest Ranch
Big Chico Creek Ecological Reserve VMP	Fuel Reduction/ Prescribed Fire	Planned	1655	CAL Fire - Butte Unit	BCRCD, BLM Redding Field Office (REFO), CAL FIRE,	2, 4	Cohasset/ Forest Ranch
Butte Fire Center HFR	Fuel Reduction/ Prescribed Fire	Active	51	CAL Fire - Butte Unit		1	Paradise Ridge
Swedes Flat VMP	Fuel Reduction/ Prescribed Fire	Active	130	CAL Fire - Butte Unit		5	Forbestown Ridge
Wyandotte HFR	Fuel Reduction/ Prescribed Fire	Planned	3981	CAL Fire - Butte Unit	BCFSC	5, 6	Forbestown Ridge/ Oroville Area
B-Line Contingency	Fuels Reduction	Planned	50	CAL Fire - Butte Unit		2	Forest Ranch
Carpenter Ridge Contingency Line	Fuels Reduction	Planned	100	CAL Fire - Butte Unit		2	Forest Ranch
Forbestown Contingency Line	Fuels Reduction	Planned	200	CAL Fire - Butte Unit		5	Forbestown Ridge
Rock Creek Contingency Line	Fuels Reduction	Planned	200	CAL Fire - Butte Unit		1	Concow/Yankee Hill
Bidwell Bar Bridge	Fuels Reduction	Completed	0	California Conservation Corp.	DWR	5, 6	Forbestown Ridge
CAL FIRE VMP	Fuels Reduction	Completed	2	California Conservation Corp.		6	Forbestown Ridge
Feather River Fish Hatchery	Fuels Reduction	Completed	6	California Conservation Corp.		6	Oroville Area
Oroville Wildlife Area	Fuels Reduction	Active	10	California Conservation Corp.		6, 7	Oroville Area/ Valley
Lindo Channel Fuels Reduction	Fuels Reduction/ Prescribed Fire	Active	120	Chico Fire Department		Chico City	Cohasset/ Chico
Upper Park Road Fuels Reduction	Fuels Reduction	Active	540	Chico Fire Department		4	Cohasset/ Forest Ranch
Lower Park Fuel Reduction	Fuels Reduction/ Prescribed Fire/ Biomass Utilization	Active	64	Chico Fire Department	Chico Parks Department	Chico City	Chico
Lindo Channel Defensible Space Project	Fuel Reduction/ Broadcast Burn	Active	42	Chico Fire Department	FEMA/Cal OES	Chico City	Cohasset
Upper Park Road Fuels Reduction Project	Fuel Reduction/ Broadcast Burn	Active	540	Chico Fire Department	Chico Department of Public Works	Chico City	Cohasset/ Forest Ranch
Middle Park Fuel Reduction	Fuels Reduction/ Prescribed Fire	Active	222	Chico Fire Department	Chico Parks Department, BCRCD	Chico City	Cohasset/ Forest Ranch
Whispering Winds Shaded Fuel Break	Fuel Reduction/ Broadcast Burn	Active	24	Chico Fire Department	Chico Parks Department	Chico City	Forest Ranch
Park Fire Dozer Line Annual Maintenance	Fuel Reduction/ Broadcast Burn	Active	25	Chico Fire Department	Chico Parks Department	Chico City	Chico
Biggs Drainage Canal Hazardous Fuels Reduction	Fuels Reduction	Active	169	City of Biggs		7	Valley

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
BIggs Powerline Clearance Hazardous Fuels Reduction	Fuels Reduction	Active	87	City of Biggs		7	Valley
Biggs Wastewater Retention Ponds Hazardous Fuels Reduction	Fuels Reduction	Active	160	City of Biggs		7	Valley
Biggs Drainage Canal HFR	Fuel Reduction	Planned	169	City of Biggs		7	Valley
Biggs Wastewater Retention Ponds HFR	Fuel Reduction	Planned	160	City of Biggs		7	Valley
Biggs Power Line Clearance HFR	Fuel Reduction	Planned	87	City of Biggs		7	Valley
Gridley Drainage Canal HFR	Fuels Reduction	Active	221	City of Gridley		7	Valley
Gridley Electric Powerline Clearance HFR	Fuels Reduction	Active	1338	City of Gridley		7	Valley
Gridley Emergency Sewer Storage Ponds	Fuels Reduction	Active	21	City of Gridley		7	Valley
Gridley Retention Pond - Eagle Meadows	Fuels Reduction	Active	5	City of Gridley		7	Valley
Gridley Retention Ponds - Fairview	Fuels Reduction	Active	0	City of Gridley		7	Valley
Gridley Retention Ponds - Gridley Oaks Apt	Fuels Reduction	Active	2	City of Gridley		7	Valley
Gridley Retention Ponds - Heron Landing	Fuels Reduction	Active	5	City of Gridley		7	Valley
Gridley Retention Ponds - Ind P1	Fuels Reduction	Active	4	City of Gridley		7	Valley
Gridley Retention Ponds - Ind P2	Fuels Reduction	Active	8	City of Gridley		7	Valley
Gridley Retention Ponds - Richins Estates	Fuels Reduction	Active	2	City of Gridley		7	Valley
Gridley Retention Ponds - Spicetree	Fuels Reduction	Active	0	City of Gridley		7	Valley
Gridley Power Line Clearance HFR	Fuels Reduction	Active	293	City of Gridley		7	Valley
Gridley Wastewater Retention Ponds HFR	Fuels Reduction	Active	25	City of Gridley		7	Valley
DWR Craig Access HFR	Fuels Reduction	Planned	1293	Department of Water Resources		5	Feather Falls
DWR Foreman Creek HFR	Fuels Reduction	Planned	605	Department of Water Resources		5	Berry Creek
DWR Lime Saddle Marina HFR	Fuels Reduction	Active	84	Department of Water Resources		1	Paradise Ridge
DWR Potters Ravine Post Fire Recovery	Prescribed Fire/ Fuel Reduction	Planned	484	Department of Water Resources		6	Cherokee
DWR Power Canal Fuels Reduction	Fuels Reduction	Planned	195	Department of Water Resources		6	Cherokee/ Oroville Area
DWR Sewim Bo/Old Ferry Road Fuels Reduction	Fuels Reduction	Active	12	Department of Water Resources		6	Oroville Area
Treatment Area 3	Fuels Reduction	Active	456	Department of Water Resources		5	Berry Creek
Treatment Area 7	Fuels Reduction	Active	1362	Department of Water Resources		6	Cherokee/ Oroville Area
Lakeland Blvd	Fuel Reduction	Completed	26	Department of Water Resources		6	Oroville Area
DWR HMGP Hazardous Fuels Reduction	Fuel Reduction	Active	305	Department of Water Resources		6	Oroville Area
DWR Diversion Dam/Power Canal Fuels Reduction	Fuel Reduction	Active	178	Department of Water Resources		6 & 9	Oroville Area
DWR Goat Ranch/Spring Valley Fuels Reduction	Fuel Reduction	Planned	381	Department of Water Resources		6	Oroville Area
DWR Stringtown Fuels Reduction	Fuel Reduction	Planned	433	Department of Water Resources		5	Forbestown Ridge
DWR East Oroville VMP	Prescribed Fire/ Fuel Reduction	Planned	1950	Department of Water Resources	CAL FIRE, PG&E, BCFSC, State Parks	6	Oroville Area
DWR Diversion Pool Fuels Reduction	Fuel Reduction	Planned	643	Department of Water Resources		6	Oroville Area

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
DWR Dark Canyon Fuels Reduction	Fuel Reduction	Planned	70	Department of Water Resources		6	Oroville Area
DWR Thompson Fire Post Fire Recovery	Prescribed Fire/ Fuel Reduction	Planned	1220	Department of Water Resources		6	Oroville Area
DWR Kelly Ridge Point Fuels Reduction	Fuel Reduction	Planned	371	Department of Water Resources	CAL FIRE	6	Oroville Area
HWY 162	Fuels Reduction	Completed	50	Department of Water Resources		5, 6	Berry Creek/ Forbestown Ridge
Enterprise	Fuels Reduction	Completed	2	Department of Water Resources	CAL FIRE	5	Feather Falls
FRFH	Fuels Reduction	Completed	8	Department of Water Resources		6	Oroville Area
DWR HMGP HFR	Fuels Reduction	Active	306	Department of Water Resources		6	Forbestown Ridge/ Oroville Area
Hyatt	Fuels Reduction	Completed	106	Department of Water Resources	CAL FIRE	6	Oroville Area
DWR Oroville Area HFR	Fuels Reduction	Active	379	Department of Water Resources		6	Oroville Area
DWR Thermalito Grassland Rx	Fuels Reduction	Active	367	Department of Water Resources	CAL FIRE, CA State Parks	6	Oroville Area
DWR Thermalito Grassland Rx Additions	Fuels Reduction	Planned	101	Department of Water Resources		6, 7	Oroville Area/ Valley
Fish Barrier Pool	Fuels Reduction	Completed	12	Department of Water Resources	CCC	6	Oroville Area
Loafer Creek	Fuel Reduction/ Prescribed Fire	Completed	479	Department of Water Resources	CAL FIRE, CA State Parks, BCFSC	6	Forbestown Ridge/ Oroville Area
Oroville Wildlife Area	Prescribed Fire/ Fuel Reduction	Completed	11	Department of Water Resources	CAL FIRE	6, 7	Oroville Area/ Valley
Canyon Drive	Fuel Reduction	Completed	21	Department of Water Resources		6	Oroville Area
Lime Saddle	Fuel Reduction	Completed	47	Department of Water Resources		1	Paradise Ridge
Treatment Area 11	Fuels Reduction	Active	70	Department of Water Resources		1	Concow/Yankee Hill
Treatment Area 9	Fuels Reduction	Active	4216	Department of Water Resources		6, 7	Oroville Area/ Valley
Treatment Area 8	Fuels Reduction	Active	178	Department of Water Resources		6	Oroville Area
Treatment Area 1	Fuels Reduction	Active	428	Department of Water Resources		1	Paradise Ridge
Treatment Area 4	Fuels Reduction	Active	308	Department of Water Resources		5	Feather Falls
Treatment Area 10	Fuels Reduction	Active	381	Department of Water Resources		6	Cherokee
Treatment Area 5	Fuel Reduction	Active	433	Department of Water Resources		5, 6	Forbestown Ridge
Bidwell Canyon	Fuels Reduction	Completed	92	Department of Water Resources	CA State Parks	6	Oroville Area
Saddle Dam	Fuels Reduction	Completed	23	Department of Water Resources		6	Oroville Area

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
BCFSC-Upper Lake	Fuels Reduction	Active	24	Konkow Valley Band of Maidu Indians		1	Paradise Ridge
KVBMI	Fuels Reduction/ Prescribed Fire	Active	62	Konkow Valley Band of Maidu Indians		1	Concow/Yankee Hill
Upper Butte Creek Forest Health Initiative	Fuels Reduction	Planned	19835	Lassen National Forest	Almanor Ranger District, LNF	2	Paradise Ridge/ Concow/Yankee Hill/ Forest Ranch
Big Chico Creek Watershed Stewardship	Prescribed Fire	Planned	401	Mechoopda Indian Tribe of Chico Rancheria		2	Cohasset/ Forest Ranch
Butte Creek Ecological Preserve Stewardship	Fuels Reduction/ Prescribed Fire	Active	93	Mechoopda Indian Tribe of Chico Rancheria	CAL FIRE	4	Paradise Ridge/ Forest Ranch
Camelot VMP	Fuels Reduction/ Prescribed Fire	Active	1661	Mechoopda Indian Tribe of Chico Rancheria	CALFIRE	4	Paradise Ridge
Mechoopda Food Forest Project	Fuels Reduction	Active	39	Mechoopda Indian Tribe of Chico Rancheria		Chico City	Chico
Wajim Kumbali Stewardship	Fuels Reduction	Active	620	Mechoopda Indian Tribe of Chico Rancheria		4	Paradise Ridge
Cultural Landscape	Fuels Reduction/ Prescribed Fire	Active	6445	Mooretown Rancheria of Maidu Indians		5	Berry Creek/ Feather Falls
Canyon Oaks	Fuels Reduction	Active	27	Northern California Regional Land Trust		4	Forest Ranch
NCRLT Conservation Easement	Fuels Reduction	Active	8305	Northern California Regional Land Trust		1, 2, 4, 6, 7	Paradise Ridge/ Berry Creek/ Concow/Yankee Hill/ Cherokee/ Oroville Area/ Valley/ Forest Ranch
Bar Incident	Fuels Reduction	Planned	103	Pacific Gas & Electric		6	Oroville Area
Thompson	Fuels Reduction	Completed	771	Pacific Gas & Electric		6	Cherokee/ Oroville Area
Aquatic Park	Fuels Reduction	Active	3	Paradise Recreation & Park District		8	Paradise Ridge
Aquatic Park & Paradise Pool	Fuels Reduction	Active	2	Paradise Recreation & Park District		8	Paradise Ridge
Bennett Road	Fuels Reduction	Active	9	Paradise Recreation & Park District		8	Paradise Ridge
Bille Park	Fuels Reduction	Active	55	Paradise Recreation & Park District		1, 8	Paradise Ridge
Butte Creek Canyon / Centerville	Fuels Reduction	Active	24	Paradise Recreation & Park District		4	Paradise Ridge/ Forest Ranch
Cedarwood Elementary School	Fuels Reduction	Active	11	Paradise Recreation & Park District		1	Paradise Ridge
Centerville Historical Museum	Fuels Reduction	Active	1	Paradise Recreation & Park District		4	Paradise Ridge
Clark Gateway	Fuels Reduction	Active	19	Paradise Recreation & Park District		8	Paradise Ridge
Concow Pool	Fuels Reduction	Active	9	Paradise Recreation & Park District		1	Concow/Yankee Hill
Concow School	Fuels Reduction	Active	10	Paradise Recreation & Park District		1	Concow/Yankee Hill
Coutolenc Park	Fuels Reduction	Active	320	Paradise Recreation & Park District	BCFSC	1	Paradise Ridge/ Concow/Yankee Hill
Crain Memorial Park	Fuels Reduction	Active	9	Paradise Recreation & Park District		1	Concow/Yankee Hill

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Drendel Circle	Fuels Reduction	Active	0	Paradise Recreation & Park District		8	Paradise Ridge
Feather River Place	Fuels Reduction	Active	3	Paradise Recreation & Park District		8	Paradise Ridge
Forty Oaks / Bille	Fuels Reduction	Active	1	Paradise Recreation & Park District		8	Paradise Ridge
Honey Run Covered Bridge	Fuels Reduction	Active	3	Paradise Recreation & Park District		4	Paradise Ridge/ Forest Ranch
Indian Springs Road	Fuels Reduction	Active	35	Paradise Recreation & Park District		1	Paradise Ridge
Jordan Hill Park	Fuels Reduction	Active	5	Paradise Recreation & Park District		1	Paradise Ridge
Lakeridge Park	Fuels Reduction	Active	41	Paradise Recreation & Park District		1	Paradise Ridge
Moore Road Park	Fuels Reduction	Active	20	Paradise Recreation & Park District		8	Paradise Ridge
Mountain View	Fuels Reduction	Active	43	Paradise Recreation & Park District		1, 8	Paradise Ridge
New Shop	Fuels Reduction	Active	2	Paradise Recreation & Park District		8	Paradise Ridge
Noble Park	Fuels Reduction	Active	21	Paradise Recreation & Park District		8	Paradise Ridge
Oak Creek Park	Fuels Reduction	Active	20	Paradise Recreation & Park District		8	Paradise Ridge
Paradise High School	Fuels Reduction	Active	27	Paradise Recreation & Park District		8	Paradise Ridge
Paradise Memorial Park	Fuels Reduction	Active	2	Paradise Recreation & Park District		8	Paradise Ridge
Paradise Ridge Elementary School	Fuels Reduction	Active	10	Paradise Recreation & Park District		8	Paradise Ridge
Pentz / Feather River	Fuels Reduction	Active	5	Paradise Recreation & Park District		1	Paradise Ridge
Pine Ridge School	Fuels Reduction	Active	41	Paradise Recreation & Park District		1	Paradise Ridge
Skyway Gateway / Honey Run	Fuels Reduction	Active	45	Paradise Recreation & Park District		8	Paradise Ridge
Terry Ashe Recreation Center	Fuels Reduction	Active	7	Paradise Recreation & Park District		8	Paradise Ridge
Upper Ridge Nature Preserve	Fuels Reduction	Active	113	Paradise Recreation & Park District	BCRCD, BCFSC	1	Paradise Ridge
Berry Brush WUI Hazardous Fuels Reduction	Fuels Reduction	Active	21	Plumas National Forest		5	Berry Creek
Big Bar Hazardous Fuels Reduction	Fuels Reduction	Completed	693	Plumas National Forest		1, 5	Berry Creek
Brush Creek Roadside Salvage	Fuels Reduction	Completed	25	Plumas National Forest		5	Berry Creek
Brush Creek Underburn	Prescribed Fire	Completed	1009	Plumas National Forest		5	Berry Creek
Challenge-Woodleaf Bug Kill Salvage Project	Fuels Reduction	Completed	0	Plumas National Forest		5	Forbestown Ridge
Concow	Fuels Reduction	Completed	47	Plumas National Forest		5	Berry Creek
Concow Fire Salvage	Fuels Reduction	Completed	445	Plumas National Forest		1	Concow/Yankee Hill
Concow Hazardous Fuels Reduction	Fuels Reduction	Completed	36	Plumas National Forest		1	Concow/Yankee Hill
Concow Pyrodiversity Project	Fuels Reduction/ Prescribed Fire	Active	2301	Plumas National Forest	SPI, CAL FIRE, private land owners, USFS, BCFSC, YHFSC	1	Concow/Yankee Hill

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Concow Resilience Project	Fuels Reduction	Active	860	Plumas National Forest	BCRCD	1	Concow/Yankee Hill
Feather Falls Restoration and Resilience	Fuels Reduction	Active	915	Plumas National Forest		5	Feather Falls
Forbestown IRSC	Prescribed Fire	Completed	227	Plumas National Forest		5	Forbestown Ridge
French Creek Hazardous Fuels Reduction	Fuels Reduction	Active	2610	Plumas National Forest		1, 5	Berry Creek
Magalia Fire Salvage	Fuels Reduction	Completed	29	Plumas National Forest		1	Paradise Ridge
Magalia Fire Salvage Project	Fuels Reduction	Completed	148	Plumas National Forest		1	Paradise Ridge
Magalia Forest and Wildfire Resilience	Fuels Reduction	Active	54	Plumas National Forest	SPI	5	Berry Creek
Mountain Star Deer Habitat Enhancement	Fuels Reduction/ Prescribed Fire	Completed	212	Plumas National Forest		5	Berry Creek
Rogers Cow Camp Salvage	Fuels Reduction	Completed	226	Plumas National Forest		5	Berry Creek
Slapjack DFPZ	Prescribed Fire	Completed	8	Plumas National Forest		5	Forbestown Ridge
Sunset Lookout	Prescribed Fire	Completed	32	Plumas National Forest		5	Forbestown Ridge
Watdog DFPZ	Fuels Reduction/ Prescribed Fire	Completed	456	Plumas National Forest		5	Berry Creek/ Feather Falls
Concow Fire Salvage Project	Fuels Reduction	Active	482	Plumas National Forest		1	Concow/Yankee Hill
Feather Falls Restoration and Resilience Project	Fuels Reduction	Active	915	Plumas National Forest	Mooretown Rancheria	5	Feather Falls
Magalia Fire Salvage Project	Fuels Reduction	Active	177	Plumas National Forest		1	Paradise Ridge
10P Shaded Fuel Break	Fuels Reduction	Planned	39	Sierra Pacific Industries		1	Paradise Ridge
140C Calfire Contengency	Fuels Reduction	Active	32	Sierra Pacific Industries		1	Paradise Ridge
200G Fuel Break	Fuels Reduction	Planned	28	Sierra Pacific Industries		2	Forest Ranch
20A Calfire Contengency	Fuels Reduction	Active	26	Sierra Pacific Industries	CALFIRE	1	Paradise Ridge
40G	Fuels Reduction	Active	64	Sierra Pacific Industries	RHE & Sons	5	Feather Falls
A-Line	Fuels Reduction	Active	124	Sierra Pacific Industries	RHE & Sons	5	Feather Falls
Arnold Fuel Break	Fuels Reduction	Planned	66	Sierra Pacific Industries		5	Forbestown Ridge
B-Line Fuel Break	Fuels Reduction	Planned	23	Sierra Pacific Industries		5	Feather Falls
Bear Gulch Fuel Break	Fuels Reduction	Active	2	Sierra Pacific Industries		5	Forbestown Ridge
Big Bend Shaded Fuel Break	Fuels Reduction	Active	36	Sierra Pacific Industries		1	Concow/Yankee Hill
Binet Road Shaded Fuel Break	Fuels Reduction	Planned	128	Sierra Pacific Industries		5	Forbestown Ridge
Bottle Hill Shaded Fuel Break	Fuels Reduction	Planned	181	Sierra Pacific Industries		1, 2	Paradise Ridge
Carpenter Ridge SFB	Fuels Reduction	Planned	473	Sierra Pacific Industries		2	Forest Ranch
Dixie Line	Fuels Reduction	Active	27	Sierra Pacific Industries		2	Paradise Ridge
Doe Mill Shaded Fuel Break	Fuels Reduction	Active	31	Sierra Pacific Industries		2	Forest Ranch
Doongrade Shaded Fuel Break	Fuels Reduction	Active	78	Sierra Pacific Industries		1	Paradise Ridge
F-Line	Fuels Reduction	Active	44	Sierra Pacific Industries		2	Forest Ranch
F-Line Calfire Contengency	Fuels Reduction	Active	77	Sierra Pacific Industries		2	Forest Ranch
Feather Falls Fuel Break	Fuels Reduction	Planned	75	Sierra Pacific Industries		5	Feather Falls
Fields Ridge SFB	Fuels Reduction	Active	63	Sierra Pacific Industries		5	Feather Falls
Five Corners SFB	Fuels Reduction	Planned	78	Sierra Pacific Industries		5	Feather Falls
Flea-V FB	Fuels Reduction	Active	42	Sierra Pacific Industries		1	Concow/Yankee Hill
Flea Mt	Fuels Reduction	Active	50	Sierra Pacific Industries		1	Concow/Yankee Hill
Forbestown Road SFB	Fuels Reduction	Planned	0	Sierra Pacific Industries		5	Forbestown Ridge
Forbestown SFB	Fuels Reduction	Planned	19	Sierra Pacific Industries		5	Forbestown Ridge
Forest Resilience and Restoration	Fuels Reduction	Planned	3	Sierra Pacific Industries		1	Paradise Ridge
Granite Calfire Contengency	Fuels Reduction	Active	7	Sierra Pacific Industries		1	Concow/Yankee Hill
Grizzly SFB	Fuels Reduction	Planned	30	Sierra Pacific Industries		5	Forbestown Ridge
H-Line SFB	Fuels Reduction	Active	629	Sierra Pacific Industries		2	Cohasset
Highway 162 Fuel Break	Fuels Reduction	Planned	67	Sierra Pacific Industries		5	Berry Creek
Highway 32 Shaded Fuel Break	Fuels Reduction	Active	433	Sierra Pacific Industries		2	Forest Ranch
Hoffman-Jordan Hill	Fuels Reduction	Planned	69	Sierra Pacific Industries		1, 5	Feather Falls/ Concow/Yankee Hill
Humboldt SFB	Fuels Reduction	Active	316	Sierra Pacific Industries		2	Paradise Ridge/ Forest Ranch

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Jackson Ridge FB	Fuels Reduction	Planned	94	Sierra Pacific Industries		5	Feather Falls
Lost Creek FB (Contingency)	Fuels Reduction	Planned	10	Sierra Pacific Industries		5	Forbestown Ridge
Lovelock SFB	Fuels Reduction	Active	11	Sierra Pacific Industries		1	Paradise Ridge
Magalia Forest and Wildfire Resilience	Fuels Reduction	Planned	391	Sierra Pacific Industries	PNF	2, 5	Forbestown Ridge/ Forest Ranch
Midrock SFB	Fuels Reduction	Planned	139	Sierra Pacific Industries		5	Feather Falls
Paradise Lake SFB	Fuels Reduction	Active	214	Sierra Pacific Industries		1	Paradise Ridge
Powerline	Fuels Reduction	Planned	0	Sierra Pacific Industries			
Powerline FB (PG&E Distribution)	Fuels Reduction	Planned	9	Sierra Pacific Industries		5	Forbestown Ridge
Prune Orchard FB (Contigency)	Fuels Reduction	Planned	16	Sierra Pacific Industries		5	Forbestown Ridge
South Mooreville FB (Contingency)	Fuels Reduction	Planned	40	Sierra Pacific Industries		5	Forbestown Ridge
South Mooreville SFB	Fuels Reduction	Planned	159	Sierra Pacific Industries		5	Forbestown Ridge
Stirling SFB	Fuels Reduction	Active	297	Sierra Pacific Industries		1	Paradise Ridge
Swain Hill SFB	Fuels Reduction	Active	200	Sierra Pacific Industries		5	Feather Falls
Transfer FB	Fuels Reduction	Planned	36	Sierra Pacific Industries		1	Concow/Yankee Hill
Transfer Ridge FB	Fuels Reduction	Active	42	Sierra Pacific Industries		1	Concow/Yankee Hill
Upper Mooreville SFB	Fuels Reduction	Planned	142	Sierra Pacific Industries		5	Forbestown Ridge
V-Line	Fuels Reduction	Active	235	Sierra Pacific Industries		1	Concow/Yankee Hill
Woodleaf SFB	Fuels Reduction	Planned	141	Sierra Pacific Industries		5	Forbestown Ridge
Powellton SFB	Fuels Reduction	Planned	3	Sierra Pacific Industries		1	Paradise Ridge
Category 4 Tree Removal Program	Fuels Reduction	Active	470	Town of Paradise	CALFIRE, BCFSC	1, 8	Paradise Ridge
Public/Private Roads Right of Way	Fuels Reduction	Active	2326	Town of Paradise	CAL FIRE	1, 8	Paradise Ridge
Lower Paradise Fuels Reduction Project	Fuels Reduction	Planned	5000	Town of Paradise	BCFSC, PRFSC, CAL FIRE	8	Paradise Ridge
West Branch Fuels Reduction Project	Fuels Reduction	Planned	2000	Town of Paradise	BCFSC, PRFSC, CAL FIRE, PRPD, BLM, DWR	8	Paradise Ridge
Andy Mountain Rd	Fuels Reduction	Planned	53	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Boot 1, 2, 4, 5	Fuels Reduction	Active	42948	Yankee Hill Fire Safe Council		1, 5, 6	Paradise Ridge/ Berry Creek/ Concow/Yankee Hill/ Cherokee
Comfort Lane Area	Fuels Reduction	Planned	58	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Concow Rd	Fuels Reduction	Completed	124	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Concow Rd North	Fuels Reduction	Planned	209	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Concow Rd South	Fuels Reduction	Planned	45	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Concow/Yankee Hill - Staging Areas	Fuels Reduction	Active	4263	Yankee Hill Fire Safe Council		1, 6	Paradise Ridge/ Concow/Yankee Hill/ Cherokee
Crain Ridge Road SFB	Fuels Reduction	Completed	209	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Granite Ridge SFB	Fuels Reduction	Planned	360	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Rim Road SFB	Fuels Reduction	Planned	68	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 1 Concow Road	Fuels Reduction	Active	173	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 10 Hwy 70	Fuels Reduction	Active	176	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 11 Big Bend Road	Fuels Reduction	Active	112	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill

Project Name	Objective	Status	Project	Project Contact	Collaborating Partners	Battalion	Geographical Area
Yankee Hill Evacuation Plan - 12 Detlow Road	Fuels Reduction	Active	14	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 13 Yankee Hill	Fuels Reduction	Active	66	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 14 Rich Gulch Road	Fuels Reduction	Active	77	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 15 Truex Road	Fuels Reduction	Active	10	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 2 Cirby Creek	Fuels Reduction	Active	16	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 3 Hoffman Road	Fuels Reduction	Active	39	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 4 Ishi Trail	Fuels Reduction	Active	22	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 5 JoRoadan Hill Road	Fuels Reduction	Active	60	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 6 Deadwood Road	Fuels Reduction	Active	38	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 7 Andy Mountain Rd	Fuels Reduction	Active	29	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 8 Nelson Bar Road	Fuels Reduction	Active	16	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Yankee Hill Evacuation Plan - 9 Lunt Road	Fuels Reduction	Active	31	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Rim Rd	Fuels Reduction	Planned	68	Yankee Hill Fire Safe Council		1	Concow/Yankee Hill
Oroville HFR	Fuels Reduction	Planned	8946	Oroville City	BCFSC, CAL FIRE	9	Oroville City

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APPENDIX J:

Fuel Treatment Effectiveness Reports

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FUEL TREATMENT EFFECTIVENESS REPORTS

CAL FIRE's Fuel Treatment Effectiveness Reports (FTERs) assess how past fuel reduction projects have influenced fire behavior and suppression efforts. This section includes both video and written FTERs, each providing insights into the effectiveness of these treatments in real-world wildfire scenarios.

VIDEO FUEL TREATMENT EFFECTIVENESS REPORTS

Local video FTERs available on YouTube:

- **Fuel Break Highway 32 near Forest Ranch**: https://www.youtube.com/watch?v=g-3TXqY3ugY&t=84s
- **The Park Fire, the Community of Cohasset, and Collaborative Successes**: https://www.youtube.com/watch?v=7xc_gVOmm-E&t=1s
- **How A Fuel Reduction Project Helped Save Lives During the Park Fire**: https://www.youtube.com/watch?v=rt3u8rtcGk4

WRITTEN FUEL TREATMENT EFFECTIVENESS REPORTS

2008 BTU Camp and Humboldt Fires

Fuel Reduction Work Protects Homes During Butte County Wildfires

On June 21, 2008 a lightning storm swept through California's Sierra Nevada mountains, peppering the region with over 8,000 lightning strikes and starting over 2,000 forest fires. Most of the fires were put out while they were still small, but several hundred grew to the point where they required a significant resource commitment, and significant danger to mountain communities that continued for more than a month.

Butte County was especially hard hit, with 31 fires that eventually burned 59,440 acres. One fire, called the "Camp" fire, burned through the communities of Yankee Hill and Concow, destroying 106 homes. However, many more homes were spared because of fuel reduction projects previously undertaken by local Fire Safe Councils.

Success Story – Yankee Hill Fire Safe Council
Concow Road Fuel Reduction and Safety Zones
(07BLM9813)

The picture below was taken along Concow Road during firefighting operations. The burned area had previously received fuel reduction treatment by the Yankee Hill Fire Safe Council. Funding for the work was provided by the local community and by a 2007 grant from the US Department of the Interior, Bureau of Land Management Firefighters used the fuelbreak as an anchor point from which to backfire. The reduced fuel volume in the treated area allowed the backfire to burn upslope and away from the road with low intensity, reducing the amount of firebrands produced by the fire, and preventing it from becoming established across the road. As the fire continued upslope it eventually joined the main fire coming over the ridge, and caused it to burn itself out in that area.

The second picture shows the same area several days later. The right side of the road shows what the left side looked like prior to treatment. The area shown is just a small portion of the total area treated during this project.



Roadside fuel reduction zone used as an anchor pint for backfiring. Note that the fire is burning on the ground with low intensity, and has not climbed into the tree canopy.

The fuelbreak established by this project provided protection for approximately 25 homes and created a fuel reduction zone around Crain Park. This park serves as an evacuation site and safety zone for residents who are forced to abandon their homes because of an approaching wildfire. In the case of this fire, many residents did just that, as did firefighters whose capabilities were temporarily overwhelmed as the fire swept though the area. This is one of three evacuation safety zones where the protection of evacuees from approaching wildfires was improved as a result of this project.



The same area several days after the fire, showing the difference in fuel volumes between treated and untreated areas. Firefighters could not have used the area on the right for backfiring operations because the heavier fuel volume would have put them at risk and could have caused spotting, which would have defeated their control objective.

Another fuel reduction project nearly, along Jordan Hill Road, provided protection for nearly 200 homes. In this area the approaching fire burned downslope, but when it reached the roadside fuelbreak its intensity diminished, preventing it from jumping the road and running upslope toward the homes. This project was also funded by the local community and by a 2003 from the US Department of the Interior, Bureau of Land Management.

Success Story – Butte County Fire Safe Council
Defensible Space Chipper and Special Needs Assistance Program
(07BLM9788)

While California law requires that wildland residents create non-flammable areas and fuel reduction zones for a minimum of 100 feet around their structures, many elderly, disabled, and economically disadvantaged citizens lack the ability to perform this work on their own. The members of the Butte County Fire Safe

Council recognized this problem, and went about finding a way to solve it. With the help of the local community and a grant from the US Department of the Interior, Bureau of Land Management, they established a "Defensible Space Assistance" project aimed at helping these citizens to improve the safety of their homes.

Pictured below is the dooryard area immediately adjacent to one of several homes in the Concow area that benefitted from this project. In less than one day, a fuel reduction contractor was able to cut and chip enough of the brush and small trees surrounding the house to allow it to survive when the Camp fire swept through the area.

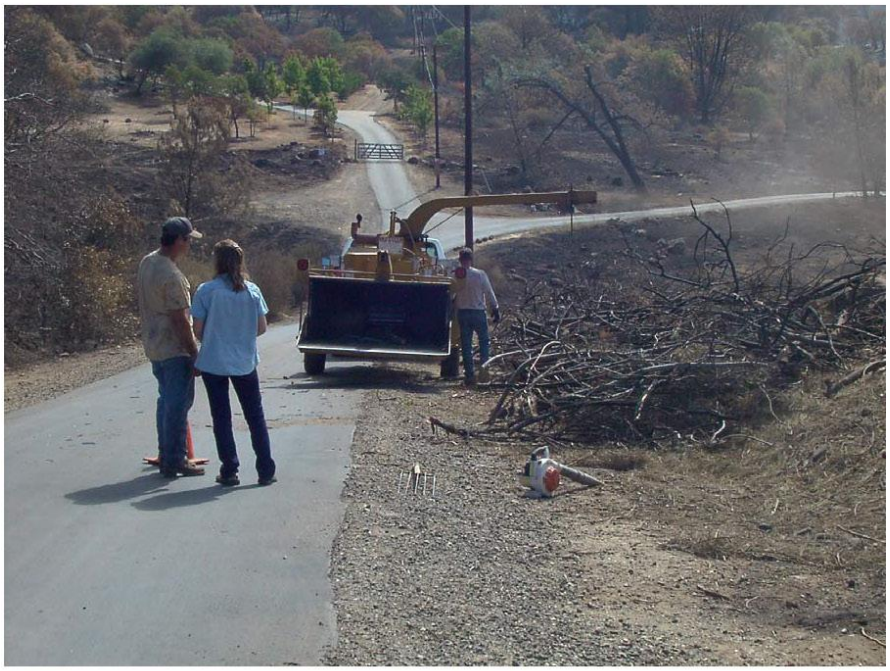
Chipping and spreading the flammable vegetation around the property changes the physical arrangement of the flammable vegetation, making it less exposed to the oxygen needed for combustion, and subjecting it to less pre-heating from the approaching wildfire. These two factors cause the fire to spread through the chips in a very slow, smoldering manner with very low fire intensity. When the fire spreads in this manner it does not generate firebrands nor the intense flames that can cause structures to ignite.



Another success for this project occurred about two weeks before the county was hit by the siege of lightning-caused fires. In this case, an arsonist lit a fire just south of Highway 32 on the east side of the city of Chico. Over the next several days this fire, called the Humboldt fire, burned south and east, being pushed along by high temperatures and north winds, until it eventually reached the western edge of the town of Paradise, where it destroyed many homes.

The other aspect of this project is Defensible Space Chipper portion. In this piece of the project the Council assists residents of dangerously exposed areas with reducing the fuel volume of brush that they have cut to improve clearance around structures. They do this by hiring contractors who chip the brush that the residents have cut and then spread it over their property. Many structures along the western edge of Paradise survived the Humboldt fire because flammable brush had been cut and chipped during this project.

The picture below shows a continuation of the chipping program after the Humboldt fire passed through the area. Chipping is just as effective after a fire as it is prior to it. By removing these dead fuels now, fire intensity will be much reduced if the same area burns again in subsequent years.



2023 Victoria Fire

VICTORIA FIRE
Fuel Break Utilization

Fire Year 2023

THE VICTORIA FIRE

Just before 4 PM on September 8, 2023, the CAL FIRE Butte Unit Emergency Command Center dispatched resources to a fire around Victoria Court in the unincorporated community of Magalia. The fire became known as the Victoria Fire. Upon arrival, the first company officer found a ground fire burning on the south side of a small drainage across from the end of Victoria Court. Within 100 yards of the fire's origin were at least three permanent residential structures as well as two RVs and trailers being used as long-term residences on parcels where the original residence was destroyed by the 2018 Camp Fire. Thanks to the Victoria Fire running into the Camp Fire Fuels Reduction Project, the fire was kept to ground-level with a slow rate of spread. With suppression action, the fire was contained to 0.23 acres and did not impact any structures or vehicles.

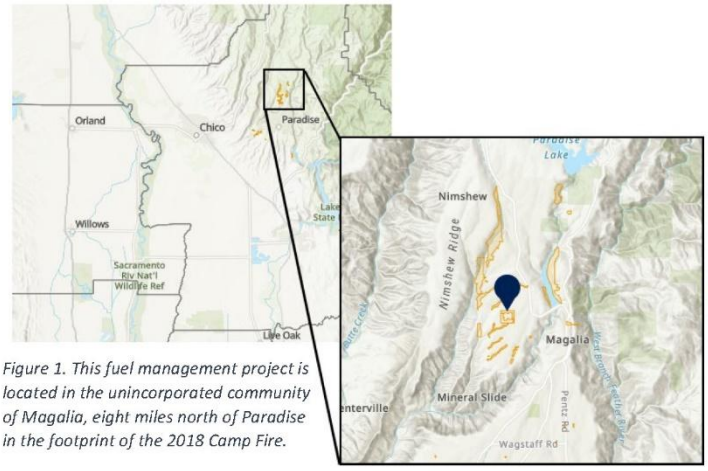


Figure 1. This fuel management project is located in the unincorporated community of Magalia, eight miles north of Paradise in the footprint of the 2018 Camp Fire.



Figure 2. Pre-fire fuels in treated area shown in the foreground. Fire area shown in the background left. Untreated area shown in the background right.

CAL FIRE Fuel Reduction Projects

EFFECTIVENESS OF THE **CAMP FIRE FUELS REDUCTION PROJECT**



Figure 3. Victoria Incident facing south. Pre-fire fuels in treated area shown in the foreground. Untreated area shown in the

This project was a collaborative effort through CAL FIRE's Wildfire Prevention Grants Program. Butte County Fire Safe Council received a CAL FIRE grant and had treated 1,128 acres from 2020 through the end of 2022. Fuels reduction activies performed as part of this project include, chipping, grazing, piling, and mechanical and manual thinning.

This area experienced significant structure loss during the 2018 Camp Fire, with less than 10 percent of the structures surviving the fire. Very few of the destroyed structures in this area have since been permanently rebuilt and only a few of the remaining property owners have reoccupied their parcels, with many living in RVs or trailers. This has left areas of overgrown vegetation adjacent to parcels that are occupied.

Without the treatments having been completed, the drainage in which fire occurred would likely have contained tall, dry grass as well as a dense brush. Fire would have spread rapidly through these flashy fuels. Thanks to the Camp Fire Fuels Reduction Project, the rate of spread of the fire was slowed significantly during the Victoria Incident and the potential threat to nearby residences and structures was abated.

LESSONS **LEARNED**

Quick and effective containment of the Victoria Fire demonstrates the effectivness and importance of Wildfire Prevention Grants funding and Fire Safe Councils managing fuels treatment projects in residential areas. Illustrating the importance of reducing ladder fuels; keeping the Victoria Fire to a ground-level made it significantly easier for firefighters to contain. Ladder fuels, such as brush and tall grasses, could have ignited the canopy of trees within the drainage. This would have lead to a considerably larger and more dangerous fire that would have required significantly more resources to effectively contain. Not only did the fuels treatment stem the spread of both radient heat and embers from the fire, it also provided crucial access to firefighting personnel and equipment.

CAL FIRE Fuel Reduction Projects

2024 Park Fire (Cohasset Forest Health & Upper Watershed Resilience Project)

PARK FIRE

Fuel Treatment Effectiveness Report

Forest Health and Upper Watershed Resilience Project

Fire Year 2024

THE **PARK FIRE**

The Park Fire was the largest wildfire in 2024, creating a devastating impact on local communities, wildlife, and the environment. The incident ranks as the fourth-largest wildfire in California's history and scorched more than 420,000 acres. The fire was reported on the afternoon of July 24, 2024, in the Upper Bidwell Park area of Chico, and quickly escalated into a major threat. Numerous fire resources were dispatched, including CAL FIRE, the Chico Fire Department, and many other agencies. CAL FIRE Incident Management Teams were activated to help coordinate and manage the firefighting efforts. After a thorough investigation, CAL FIRE determined that the fire was the result of arson, and a suspect was arrested.

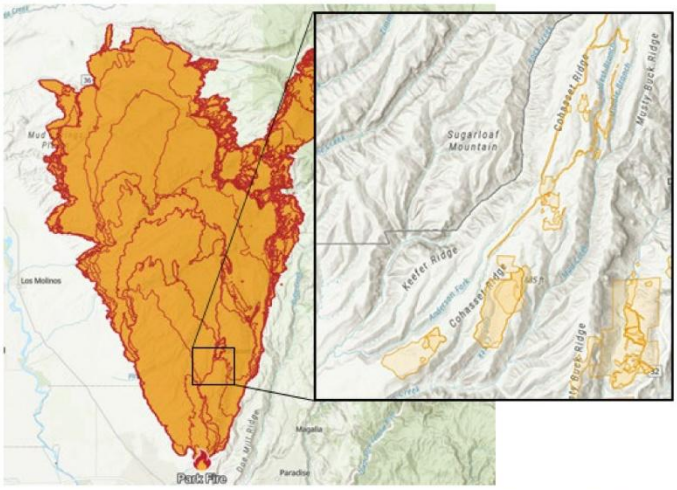


Figure 1. Map showing the treatments covered in this report around the area of Cohasset Ridge in Butte County.

EFFECTIVENESS OF THE **FOREST HEALTH AND UPPER WATERSHED RESILIENCE BUTTE COUNTY PROJECT**

The Forest Health and Upper Watershed Resilience Butte County Project is administered by the Butte County Fire Safe Council (BCFSC) utilizing CAL FIRE grant funding to treat multiple areas within Butte County. The hazardous fuel treatment in the Cohasset area occurred from January 1, 2022, to July 31, 2023, covering approximately 90 acres. This work involved mechanical mastication and thinning along with biomass removal to reduce undergrowth near homes. After initial work by the BCSFC, the Butte County Prescribed Burn Association (PBA) carried out prescribed burns in and around the treated areas to further reduce the fuel loading. The BCFSC conducted follow up treatment in Spring 2024 using funding from the Sierra Nevada Conservancy that expanded upon the original scope of work. This

CAL FIRE Fuel Reduction Projects

combination of removing excess fuel and burning was very effective in reducing damage during the Park Fire. During the Park Fire, this project helped create a safe area for firefighters to protect nearby houses. Also, the treatment allowed crews to redirect the fire away from the community of Cohasset and build dozer lines with the support of fire engines. Furthermore, it safeguarded taller trees by reducing flame height and preventing damage, which will improve the trees' survival rate after the fire.



Figure 2. Reduced fuel loading at ground level protected trees as the wildfire moved through. (date: August 8, 2024)

EFFECTIVENESS OF THE **COHASSET FUELS REDUCTION TREATMENT**

The Cohasset Fuels Reduction treatment was part of the Forest Health and Upper Watershed Resileince Project managed by the Butte County Fire Safe Council and funded through CAL FIRE's Forest Health Program. This treatment focused on lowering wildfire emissions through forest thinning, mastication, and chipping. This reduced the fuel load, enhancing the survival of mature trees during wildfires, such as the Park Fire. The project also aimed to increase carbon storage in the forest while safeguarding nearby communities and infrastructure. This treatment helped firefighters during the Park Fire by reducing fire intensity in the area, which enabled firefighters to protect nearby homes. Although some homes in the Cohasset area were lost, fire crews were able to safely access the area to facilitate evacuations and were able to protect at least ten homes in the immediate area of this treatment. By reducing ground and ladder fuels, the treatment also protected taller trees, lowered flame heights, and reduced damage to trees. This will minimize tree loss and promote the recovery of natural vegetation and wildlife.



Figure 3. View of the area across the road from the treatment area. This represents what the vegetation and fire fuel arrangement was prior to treatment. Note the connectivity of the horizontal and vertical fire fuels. (date: August 8, 2024)



EFFECTIVENESS OF **BIOMASS UTILIZATION TREATMENT**



Figure 4. Hand piles remained unburned after the fire moved through the area. Note limited damage to the tree canopy. (date: August 8, 2024)

The Biomass Utilization treatment is also part of the Forest Health and Upper Watershed Resilience project with funding from CAL FIRE's Forest Health Program. Over 90 acres were treated between April 1, 2023, and July 31, 2023, by a team from the Butte County Fire Safe Council (BCFSC) who removed 967.6 tons of biomass from the area. Biomass from this project was utilzied to generate over 1 million kilowatt-hours (kWh) of electricity- enough to power 100 or more homes for a year. Firefighters were able to take advantage of the reduced fuel loading in the area to help guide the fire away from certain parts of the Cohasset community. While some homes were lost, this treatment helped create a safer environment, allowing the crews to build fire lines and protect homes in the area.

LESSONS **LEARNED**

The fuel reduction and biomass removal treatments are components of the Forest Health and Upper Watershed Resilience Project. These initiatives demonstrated how collaborating with various agencies and strategically planning treatments such as thinning, mastication, and controlled burns can protect communities and enable fire crews to navigate the terrain safely during an incident. These treatment practices also showed that reducing vegetation along with ensuring proper spacing between trees not only protected the taller trees from the Park Fire but also reduced the fire's intensity, ultimately altering its behavior.

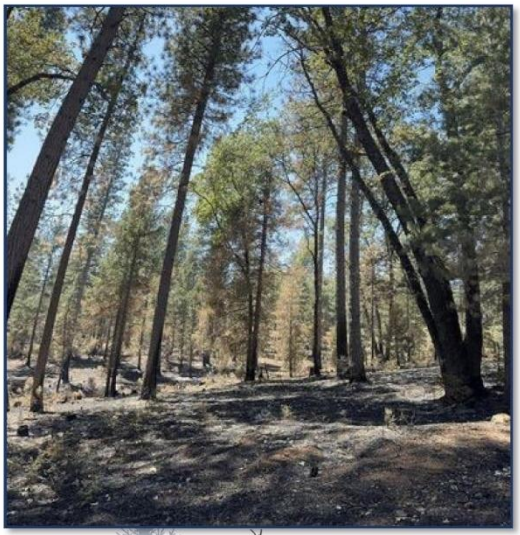


Figure 5. Treatment area after the Park Fire moved through the area. Effects of reduced fire behavior can be observed, including reduced scorch height and increased green tree canopy. (date: August 8, 2024)

CAL FIRE Fuel Reduction Projects

The Forest Health and Upper Watershed Resilience Project provides insights and lessons learned from the fuel treatments conducted near the Cohasset Ridge and Musty Buck Ridge. First, the methods of using mastication and controlled burns helped lower the intensity of the flames, allowing crews to take structure protection measures. The removal of underbrush in the area also assisted the firefighters in moving more easily and controlling the fire better. These types of strategies are components for managing wildfires, keeping communities safe, and helping the environment recover.



2024 Park Fire (Loafer Creek LLC Project)

PARK FIRE
Fuels Treatment Effectiveness Report
Loafer Creek LLC

Fire Year 2024

THE **PARK FIRE**

On July 24, 2024, just before 3:00 p.m. the Park Fire started on the eastern edge of Bidwell Park in Chico, Butte County. Driven by strongs winds from the south, the fire rapidly spread to 17,000 acres by 9:00 p.m. the same day and was over 100,000 acres within the first 24 hours. The fire perimeter continued to expand rapidly to the north where it impacted the Loafer Creek LLC Vegetation Management Project (VMP) early on the morning of July 25, 2024. With only one paved road, Cohasset road, as a major evacuation route from Cohasset, the Loafer Creek LLC VMP was important in providing time and space for the evacuation of Cohasset as well as the positioning of firefighting resources. The Park Fire has gone on to become the fourth largest fire in California's history, burning over

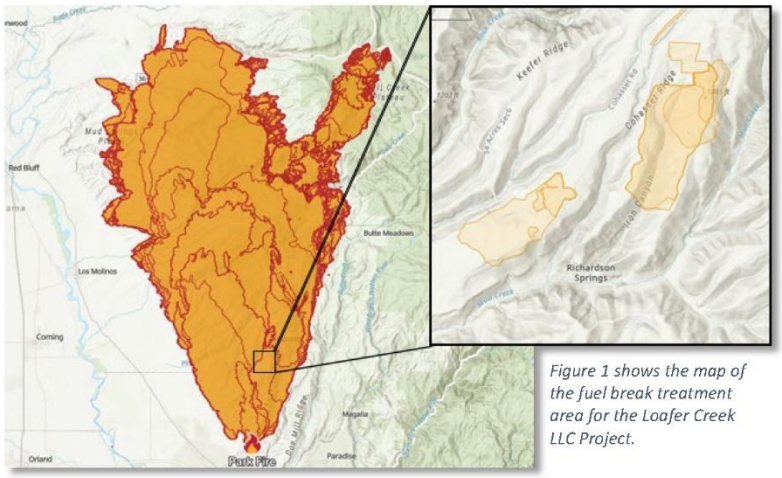


Figure 1 shows the map of the fuel break treatment area for the Loafer Creek LLC Project.



Figure 2 Initial attack aircraft dropping retardant on the fire north of Bidwell Park at 3:45 p.m. on July 24, 2024.

CAL FIRE Fuel Reduction Projects

429,000 acres in Butte, Shasta, Lassen, and Tehama counties.

EFFECTIVENESS OF **LOAFER CREEK LLC VEGETATION MANAGEMENT PROJECT**

The Loafer Creek LLC VMP became a target of opportunity to hold a flank of the rapidly growing Park Fire in Butte County. Alongside the CAL FIRE Butte Unit, Loafer Creek and the Butte County Firesafe Council were cooperatating partners on this project. Within the Loafer Creek LLC project area, there were multiple prescribed burn units as well as a wide range of manual and mechanical treatment activities, including thinning, piling, pile burning, crushing, mastication, and lop and scatter since 2021. A number of prescribed fire units were burned since 2021, with the most recent prescribed burn being conducted in November, 2023. Some of the areas burned in 2023 overlapped burn areas from previous years, which helped to treat regrowth and maintain the landscape.



Figure 3 Image of treatment "2023 Loafer Creek LLC HFR VMP Rx": The green vegetation on the left is the VMP burn unit that did not burn during the Park Fire. The blackened area on the right was not treated and burned during the Park Fire. August 13, 2024.

The treatments resulted in significantly decreased fire behavior within the overall treated area and within the recent prescribed burn units. Firefighters utilized the treated areas by constructing dozer and hand line on the northern side of the recent burn unit perimeter as well as utilizing the areas with reduced fuel to install hose lines to directly attack the fire.

Due to extreme fire behavior, long-range spotting, and an abundance of overgrown dry vegetation outside the boundaries of the burn unit, firefighting efforts were ultimately unable to completely stop the spread of the fire in this area. However, fire progression data shows the fire slowed considerably within the treated area versus the rapid expansion seen in the areas immediately to the north and south. In evaluating the fire progression data, the head of the fire was on track to have impacted Cohasset in the morning hours of June 25, 2024. Instead, with the fire slowing within the treated area, the community was impacted primarily by flanking fire that evening. This delayed the impact to the community of Cohasset by several hours, which not only allowed additional time for residents to evacuate, but also provided

firefighters time to access the area to conduct rescues, assist with evacuations, and set up to protect the community.

This project was also critical to delaying the impact to Cohasset Road just south of the community. Since Cohasset Road is the only paved egress from the greater Cohasset area, this protected the more heavily fuel loaded portions of the community's primary egress and emergency access route.

While observing the burn unit days after the Park Fire burned through the area, it was apparent that the tree mortality was reduced within the treated areas. There were areas of dramatically reduced burn severity within the treatment area compared to trees and vegetation that were destroyed in untreated areas around the prescribed burn unit. This will allow the vegetation to return to normal growth patterns much quicker than the untreated area, as well as facilitate erosion control and support wildlife habitat returning to this area.

LESSONS LEARNED **LOAFER CREEK LLC VEGETATION MANAGEMENT PROJECT**



Figure 4 California Conservation Corps Hand Crews lighting prescribed fire areas during the Cave Prescribed Fire on October 20, 2023. The Cave Project was one of the most recent prescribed fires that made up part of the larger Loafer Creek LLC VMP.

The Loafer Creek LLC VMP, which totals 637 acres, was crucial in slowing the impact of the Park Fire on the area of Cohasset while also reducing fire intensity in the treated area for an accelerated post-fire recovery. While the Park Fire has gone on to become one of the largest in the state's history, the effectiveness of the Loafer Creek LLC VMP demontrates how a network of fuels reduction efforts across the landscape can help slow and temper the impact of large-scale catastrpohic wildfires. By continuing to focus fuel reduction efforts on areas prone to wildfires and those strategically important for ingress and egress, CAL FIRE and its partners can not only reduce the intensity of catastrophic fires but also provide extra time for evacuations from areas with limited access.

View photos from the 2023 Cave Prescribed Fire Project, part of the Loafer Creek LLC VMP.

CAL FIRE Fuel Reduction Projects

2024 Park Fire (Forest Ranch Crane Mills & G Line Projects)

PARK FIRE

Fuels Treatment Effectiveness Report

Forest Ranch – Crane Mills & G Line Projects

Fire Year 2024

THE PARK FIRE



Figure 1 Fire suppression efforts along Highway 32 in the first 48 hours of the fire.

On the afternoon of July 24, 2024, just before 3 p.m., the Park Fire began in the eastern portion of Bidwell Park in Chico, Butte County. Pushed by strong winds from the south, the fire quickly spread to over 100,000 acres within the first 24 hours. As the fire spread north, fire suppression personnel identified and utilized recent fuel treatments along Highway 32 to both control the fire and provide safe ingress and egress for firefighters.

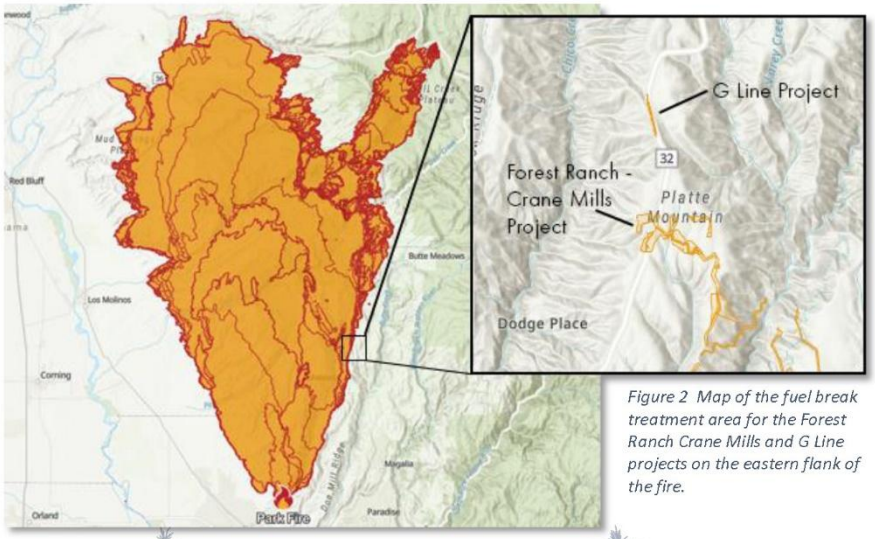


Figure 2 Map of the fuel break treatment area for the Forest Ranch Crane Mills and G Line projects on the eastern flank of the fire.

CAL FIRE Fuel Reduction Projects

Incident command objectives included keeping the fire west of Highway 32. The ability to keep the fire from crossing Highway 32 was critical to keeping the fire out of the Butte Creek drainage, which would have posed an immediate threat to the communities of Magalia, Butte Meadows, Jonesville, and Stirling City, an area with a total population over 8,000.

EFFECTIVENESS OF **FOREST RANCH – CRANE MILLS AND G LINE PROJECTS**

The Hwy 32 G Line Hazardous Fuels Reduction (HFR) project consisted of chipping and pile burning in 2020 and 2021 along Highway 32 east of the community of Forest Ranch. Since then, Caltrans and Sierra Pacific Industries have maintained, improved, widened, and expanded the original project area to encompass virtually the entire Highway 32 corridor from below the community of Forest Ranch through the Butte/Tehama County line.

During the Park Fire, primary control lines were constructed in the shaded fuel break of the original Hwy 32 G Line HFR project, enabling firefighters to successfully utilize backfiring operations to consume fire fuels in the path of the wildfire. With the reduced fuel loading, construction of dozer lines in the area was also expedited. The firing operation from the dozer lines moved quicker and was less destructive to the forested area due to reduced continuity of the vertical and horizontal fire fuels. The reduced fuel loading also moderated fire behavior in the treated areas. This resulted in lower tree mortality rates, which will allow



Figure 3 Images of treatment "HWY G Line HFR" showing decreased tree mortality within the treatment area. (date: August 8, 2024)

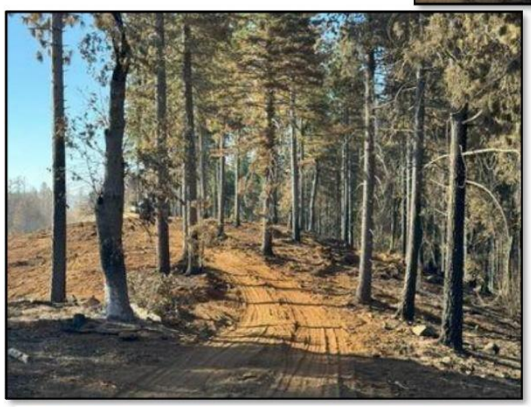


Figure 3 Images of treatment "HWY G Line HFR" showing decreased tree mortality within the treatment area. (date: August 8, 2024)

for a faster recovery of the natural resources than had the fire burned through the area at a higher intensity.

The Forest Ranch – Crane Mills fuel treatment provided many of the same benefits as the G Line Project. The lighter fuel loading within the treated areas was utilized by firefighting personnel to safely construct primary control line while also moderating the fire behavior in these areas. Tree thinning allowed for aerial retardant drops to effectively penetrate the tree canopy, further slowing the progress of the wildfire. Firefighters who were at scene said the fire was "hung up" in the area that had been treated, enabling them to stop the progress of the flanking fire within the fuel treatment area.

LESSONS LEARNED **FOREST RANCH – CRANE MILLS AND G LINE PROJECTS**

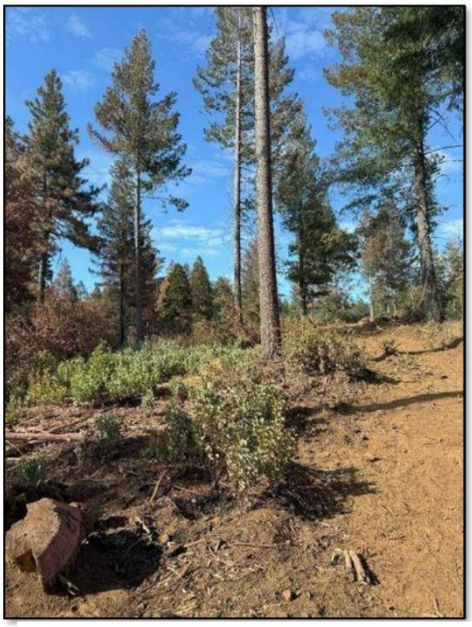


Figure 4 Image of treatment "Forest Ranch - Crane Mills" showing reduced fuel loading and effective aerial fire-retardant coverage. (date: August 8, 2024)

Both the 110-acre Forest Ranch – Crane Mills project and 10-acre G Line projects are superb examples of how roadside and shaded fuel break projects can be effective in reducing the rate of spread of wildfire while also providing better access for firefighting personnel and equipment. They are also great examples of how a single smaller project can be built upon by multiple entities when planning additional projects in the same area with an increased scope and scale. The disconnecting of vertical and horizontal fuels on both projects helped to reduce the rate of spread and, in the case of the Forest Ranch – Crane Mills project, allowed for greater penetration of aerial retardant drops. These factors, along with the hard work of firefighting operations, ultimately meant that Highway 32 was able to become a substantial control line for the fire, preventing its eastward spread toward additional populated areas.

2024 Park Fire (Highway 32 Wilder and BCCER Projects)

PARK FIRE

Fuel Treatment Effectiveness Report

Highway 32 Wilder and BCCER Projects

Fire Year 2024

THE **PARK FIRE**

On July 24, 2024, at around 2:53 p.m., a vegetation fire was reported in Upper Bidwell Park, leading to an emergency response from CAL FIRE, the Chico Fire Department, and many other agencies. The flames spread quickly across the boundaries of Butte and Tehama Counties, ultimately consuming over 420,000 acres and destroying more than 700 structures, including homes, commercial properties, and other infrastructure. As the flames advanced, they posed a significant threat to local communities, wildlife, and the environment, prompting a large-scale evacuation order for the affected areas. After a thorough investigation, CAL FIRE investigators concluded that the fire was caused by arson and a suspect was arrested.

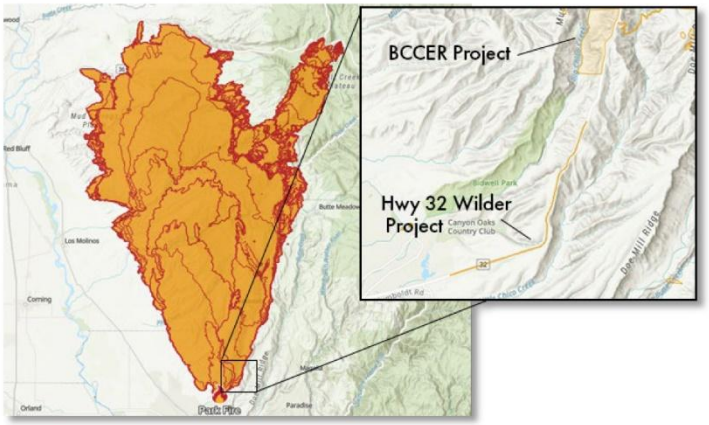


Figure 1. Map of the fuel break treatment areas for the Highway 32 Wilder and Big Chico Creek Ecological Reserve (BCCER) projects in the southeast of the Park Fire perimeter.

EFFECTIVENESS OF **THE HIGHWAY 32 WILDER PROJECT**

The Highway 32 Wilder Project was implemented and managed by CAL FIRE Butte Unit (CAL FIRE BTU) in collaboration with the California Department of Transportation (Caltrans). The project involved roadside clearance along Highway 32 between the City of Chico and community of Forest Ranch. After finishing the initial scope of the work by CAL FIRE, Caltrans continued to maintain and improve the area

CAL FIRE Fuel Reduction Projects



Figure 2. Image of roadside clearance work on the Highway 32 Wilder Project.

and expanded the project to cover the entirety of the Highway 32 corridor in the eastern part of Butte County. In 2022, Caltrans teams removed some trees between mile markers 16 and 23 due to snow and storm damage. The original Highway 32 Wilder project, along with the follow-up work by Caltrans, allowed fire crews to hold the fire along Highway 32. This prevented the flames from spreading toward the eastern portions of Forest Ranch and the communities of Paradise and Magalia. The treatments also allowed fire personnel to access the area in order to safely evacuate community members.

EFFECTIVENESS OF **BIG CHICO CREEK ECOLOGICAL RESERVE VEGETATION MANAGEMENT PROJECT (BCCER)**

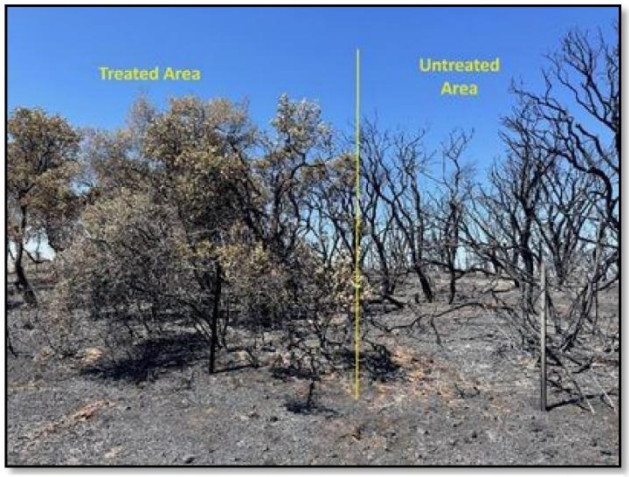


Figure 3. BCCER: Photo highlighting the difference between treated area and untreated area.

The Big Chico Creek Ecological Reserve Vegetation Management Project (BCCER) in Butte County is administered by the CAL FIRE Butte Unit as part of CAL FIRE's Fire Plan Program. The 7,835-acre Big Chico Creek Ecological Reserve (BCCER) is managed by Chico State Enterprises on behalf of California State University Chico (CSU Chico).

There have been multiple vegetation management projects in this general area, including the Big Chico Creek Prescribed Fire Program, the Chico Ecological Reserves Vegetation Management Program, and, most recently, the Big Chico Creek Ecological Reserve Vegetation Management Project (BCCER). The overall plan with these



projects has been to create a large area of reduced fire risk along the northern boundary of Bidwell Park in the City of Chico, stretching from Highway 32 down the hillside to Big Chico Creek.

Work on the 574-acre BCCER project started in February 2024 in the area adjacent to the Highway 32 Wilder project detailed above. Prior to the Park Fire, 60 acres of effort were completed, consisting of thinning, piling, and pile burning across 27.5 geographic acres.

Although only a small portion of the planned BCCER project area was completed before the Park Fire began, the treatment's effect is noticable. In the untreated areas, most of the vegetation was burned, while the treated areas showed less fire damage, with unburned foliage remaining on the branches after the fire. This indicates that the intensity of the fire was lower in the treated areas, which improves the chances that the vegetation will survive long-term.

LESSONS LEARNED

The Highway 32 Wilder Project highlights several important factors regarding how treatments can protect communities from wildfires and mitigate damage. These include clearing vegetation along highways to reduce fire risk, regular maintenance to create defensible space, slowing the spread of flames, and collaboration between agencies, such as CAL FIRE and Caltrans, to ensure proper planning and creation of effective treatments that result in safer evacuation routes for the public and fire crews.

The BCCER project demonstrated that treated areas experienced less fire damage than untreated ones, which enhances safety for nearby communities. Additionally, fuel treatments provide the benefit of improving vegetation resilience. Both projects emphasize the importance of ongoing treatment maintenance, strategic planning, and collaboration between agencies for wildfire management efforts.



2024 Colter Fire

COLTER FIRE
Fuel Treatment Effectiveness Report

Fire Year 2024

THE **COLTER FIRE**

The Colter Fire started in the early morning of October 3, 2024, in the Middle Butte Creek drainage, approximately 800 feet downhill from multiple structures along Wycliff Way. The slope between the fire location near the creek at the bottom of the drainage and the structures at the top of the drainage's wall was consistently steep (about 30 percent).

Fuel reduction efforts, including goat grazing funded by CAL FIRE and other grants, significantly slowed the spread of a fire in the Middle Butte Creek drainage, allowing firefighters to contain it to under a half-acre and preventing it from threatening nearby homes.

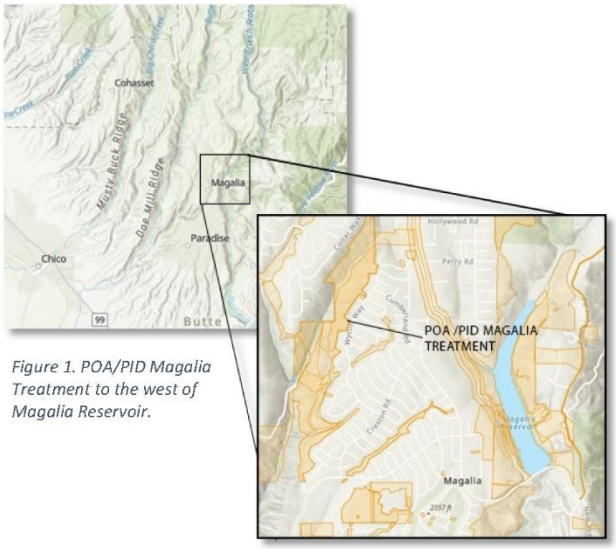


Figure 1. POA/PID Magalia Treatment to the west of Magalia Reservoir.

EFFECTIVENESS OF THE **PARADISE PINES PROPERTY OWNERS ASSOCIATION/PARADISE IRRIGATION DISTIRCT (POA/PID) MAGALIA TREATMENT**

The POA/PID Magalia Treatment is part of the Forest Health and Upper Watershed Resilience Butte County Project within CAL FIRE's Butte Unit (CAL FIRE BTU) and funding for this project was also provided by CAL FIRE's Forest Health

CAL FIRE Fuel Reduction Projects



Figure 2. Image of treatment "14 - POA/PID Magalia": Panoramic photo showing fire area to left and unburned fuel to right. Note lack of continuity of fuels in this photo. (date: October 30, 2024)

Grants Program. Work completed on this project began in September 2023, with 58 acres of thinning and 141 acres grazed prior to the fire.

During the fire, the Incident Commander (IC) stated it was noticeable that fuel reduction activities had taken place in the area and a property owner stated that goats had grazed the drainage around the fire just a month or so before the fire.

Upon speaking with a representative from the Butte County Fire Safe Council (BCFSC), it was confirmed that the BCFSC had utilized goats under a CAL FIRE grant award just a month or two before the fire started as a follow up treatment to a separate 2020 Sierra Nevada Conservancy grant. Prior to the treatments, vegetation was thick throughout the Middle Butte Creek drainage. After the treatment, most of the ladder fuels that could transfer fire from the ground to the canopy and contiguous ground fuels had been removed.



Figure 3. Image of treatment "14 - POA/PID Magalia": Unburned hand-built piles just uphill from the fire. Note that the camera is held level to demonstrate slope of the ground in this area. (date: October 30, 2024)

LESSONS LEARNED **POA/PID MAGALIA TREATMENT**

The discontinuous fuel bed created by this treatment was a significant contributing factor in firefighters being able to hold this fire at under a half-acre. Per the IC, "The fire was early in the morning, with lower temperatures and higher humidity. However, the fire activity was mild compared to what I would have expected to see with the fuel, weather, and fire location relative to the slope. Due to the fuel reduction efforts, the fire was slow to spread and build energy." It is estimated that, without treatment, the fire would have likely already reached the top of the drainage and would have been directly threatening the homes on Wycliff Way by the time the firefighters arrived.

CAL FIRE Fuel Reduction Projects

2025 Shirley Fire

SHIRLEY FIRE
Fuels Treatment Effectiveness Report

Fire Year 2025

THE **SHIRLEY FIRE**

The Shirley Fire started just before 5 p.m. on July 12, 2025, in the Robinson Mill area of Butte County, about 10 miles east of Oroville. The fire began in a structure, quickly spreading to nearby vegetation and a second structure before firefighters arrived. Crews contained the fire to 1.25 acres and the two structures. Firefighters observed that the eastern and western sides of the fire had been recently treated with mastication, which slowed fire spread and reduced intensity. This allowed crews to make faster progress on those flanks while focusing on heavier brush fuels along the southern edge and extinguishing the burning structures.

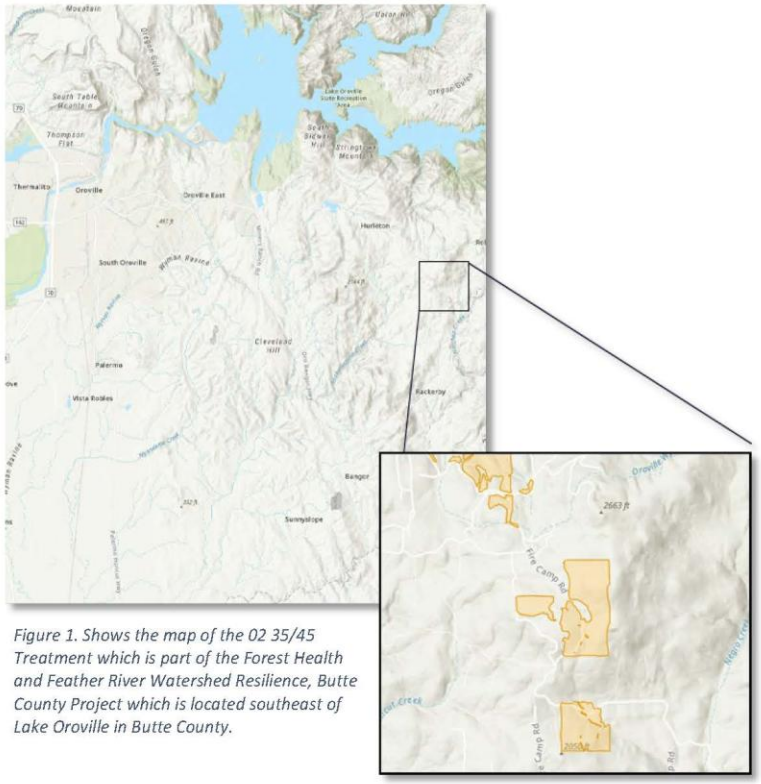


Figure 1. Shows the map of the 02 35/45 Treatment which is part of the Forest Health and Feather River Watershed Resilience, Butte County Project which is located southeast of Lake Oroville in Butte County.

EFFECTIVENESS OF **FOREST HEALTH AND FEATHER RIVER WATERSHED RESILIENCE, BUTTE COUNTY PROJECT**

The Forest Health and Feather River Watershed Resilience Project, led by the Butte County Fire Safe Council (BCFSC), included maintenance of CAL FIRE's Forbestown Ridge Project completed in 2019 under Governor Newsom's Executive Order N-05-19.

CAL FIRE Fuel Reduction Projects



Figure 2. Views of the eastern edge of the fire showing the fire's edge as it entered the masticated area in the foreground and an area that was masticated but did not burn in the background. (date: July 15, 2025)

The 2019 project treated approximately 513 acres with thinning, chipping, mastication, and piling. By 2024, brush regrowth had reached over three feet tall. With funding from a 2022 CAL FIRE California Climate Investments grant, BCFSC completed 17.6 acres of mastication, 13.9 acres of thinning and chipping, and 81.2 acres of grazing in May 2024. The treated areas during the Shirley Fire burned as a slow-moving ground fire, producing fewer embers and preventing spot fires, while untreated areas saw more active brush burning.

LESSONS LEARNED

FOREST HEALTH AND FEATHER RIVER WATERSHED RESILIENCE, BUTTE COUNTY PROJECT

Routine maintenance of past fuel reduction projects is critical for long-term effectiveness. The maintenance of the Forest Health And Feather River Watershed Resilience, Butte County Project significantly slowed fire spread, improved firefighter access, and enhanced safety by removing thick brush. The partnership between CAL FIRE and BCFSC extended the life of the original project, maximized cost-effectiveness, and helped protect additional structures from potential damage. Without the 2024 maintenance work, the Shirley Fire likely would have spread faster and posed a greater threat to the community.



Figure 3. View of the masticated area that is likely representative of the fuel conditions at the time of the fire. (date: July 15, 2025)

2025 Clark Fire

CLARK FIRE
Fuels Treatment Effectiveness Report

Fire Year 2025

THE CLARK FIRE

The Clark Fire started on June 20, 2025, at approximately 7:26 p.m. in the Clark Road area, approximately 500 feet from several structures, in Butte County. The fire was burning in grass and backing towards the structures. It was held by a road used as a containment line for the Camelot Prescribed Burn conducted 13 days earlier. As of June 22, 2025, the fire is fully contained at 25 acres. As of August 15, 2025, the investigation into the cause of the fire is ongoing.

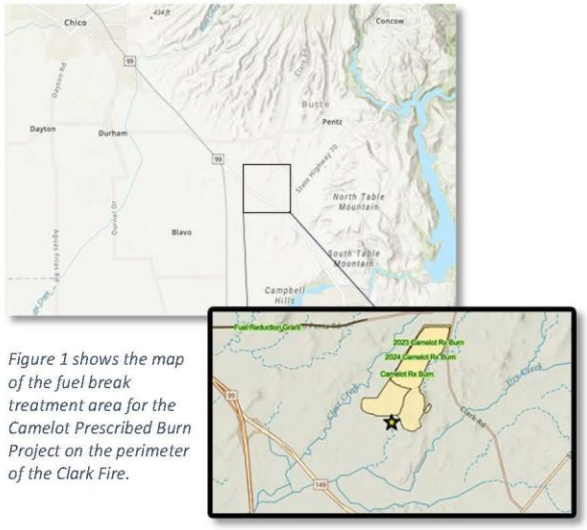


Figure 1 shows the map of the fuel break treatment area for the Camelot Prescribed Burn Project on the perimeter of the Clark Fire.

EFFECTIVENESS OF CAMELOT PRESCRIBED BURN VEGETATION MANAGEMENT PROGRAM PROJECT

The Camelot Prescribed Burn Vegetation Management Program (VMP) Project is coordinated in conjunction with the Mechoopda Tribe of Chico Rancheria. The project consists of broadcast burn activity across 329.48 acres, which was conducted on June 27, 2025. This hazard fuels reduction project assisted with fire containment during the Clark Fire.

CAL FIRE Fuel Reduction Projects

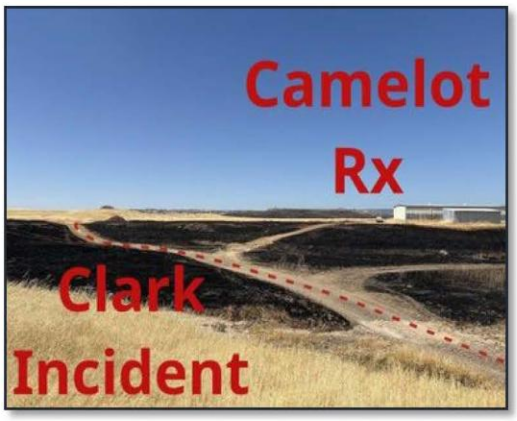


Figure 2. Image of treatment "2025 Camelot Rx Burn": Ground level looking north (date: June 30, 2025)

Approximately 450 feet of the prescribed burn control line was used as a containment line and anchor point. The Incident Commander (IC) related that the recently burned vegetation was used as an anchor point and he had considered it as a contingency. Per the IC, fire intensity was very low in a grazed field and was being spread by a significant wind. The fire burned parallel to the road before a wind shift caused it to burn towards a dry creek bed, which stopped the forward progress.

LESSONS LEARNED **CAMELOT PRESCRIBED BURN VEGETATION MANAGEMENT PROGRAM PROJECT**

Since 2019, CAL FIRE has partnered with the Mechoopda Indian Tribe of Chico Rancheria in conducting annual prescribed burns to restore the native and culturally important plants, provide for grazing, and to protect a large animal evacuation shelter from fire. CAL FIRE has worked with the Mechoopda Indian Tribe of Chico Rancheria to integrate traditional ecological knowledge (TEK) practices and restore cultural landscapes. The prescribed burn area provided an anchor point and contingency for the responding resources. The IC had secondary contingency plans in place that would have further utilized the Camelot burn area had the Clark fire spotted over the existing lines. Structures within the Camelot Prescribed Burn were well protected from the Clark fire by the burned area of the Camelot Prescribed Burn. The formation of a partnership between CAL FIRE and the Mechoopda Indian Tribe of Chico Rancheria allowed for effective land management and provided a culturally and ecologically healthier environment while ensuring safer fire conditions.

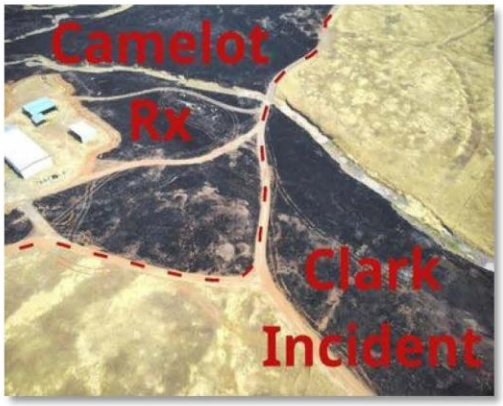


Figure 3. Image of treatment "2025 Camelot Rx Burn": Aerial photo looking South (date:

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APPENDIX K:

Annual Accomplishments

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2025 ANNUAL ACCOMPLISHMENTS

With the 2025 Butte County CWPP being a complete rewrite, many of the 2025 accomplishments were updated into the body of the document and appendices.

The next phase of the CWPP effort will focus on building out an interactive online platform to display the CWPP content in a manner that is interactive and engaging. The first part of this phase is the establishment of a central online "hub" to house the most recent version of the CWPP as well as link to additional resources and interactive components of the CWPP. The hub is accessed at https://butte-county-cwpp-buttecountygis.hub.arcgis.com/ and will continue to be built out over the coming months and years.

Development of the Butte County Collaborative Group's (BCCG's) countywide mapping site continued throughout 2025 and shows the locations of past, present, and proposed vegetation management projects across the Butte County fireshed, which includes not only the Butte County CWPP's planning area, but also adjacent areas to the north, east, and south. This online map displays fuel reduction project data from a wide range of partner agencies and organizations in a single, consolidated online map. This site has become a useful resource for cooperative project planning efforts, enabling land managers to visualize and coordinate projects being implemented. This not only improves continuity between adjacent projects but also facilitates opportunities for collaboration. The BCCG's countywide mapping site proved to be a great asset during the development of this CWPP, especially when gathering the spatial data used in the hazard analysis and fuel management project identification portions of this document. The map is available on the BCCG's website at https://butte-county-collaborative-group-bcrcd.hub.arcgis.com/. The direct link to the map is https://experience.arcgis.com/experience/6010edd161fa4a17afd7435f01f005c8/.

In 2025, 15 new Firewise USA communities were established throughout Butte County, bringing the total number of communities to 50. 10 additional communities are in the process of becoming recognized by Firewise USA, which further increases community involvement in wildfire safety initiatives. An active list of Firewise USA communities in Butte County is hosted on the Butte County Fire Safe Council's website at https://buttefiresafe.net/firewise-usa/.

In 2025, CAL FIRE created a dedicated Community Risk Reduction Division. Locally this division oversees vegetation management, prescribed fire, the defensible space program, public information and education, and preparedness. Previously managed across separate programs, these efforts are now unified under one command structure and led by one Division Chief, aiming to expand fuels reduction work and strengthen long-term wildfire mitigation. This reflects a major statewide priority shift toward fire prevention.

We also saw implementation of traditional staffing at all single engine stations as well as all county fire stations in 2025.

Throughout 2025 we had 13 local wildfires impacted by local Fuels reduction projects.

In January 2025 work commenced on the South Paradise VMP. With grant funded heavy equipment including a transport, Weiler Masticator and D1 mulcher we have been completing mechanical fuels reduction mostly by mastication. This effectively doubled our production on a landscape scale.

Other CAL FIRE projects that were active in 2025 include the Camelot VMP, Swedes Flat VMP, Phoenix VMP, and Loafer Creek DWR VMP. CAL FIRE has also been assisting numerous other entities with their

projects, including the Prescribed Burn Association (PBA), Butte County Fire Safe Council, California Department of Water Resources, and others.

In 2025, the CAL FIRE Butte Unit conducted the following:

	Fuel Reduction	Broadcast Burn	Total
Acres Treated	2,003	1,948	3,951
Personnel Hours	17,348	3,904	21,252
Equipment Hours	9,550	1,559	11,109

The countywide Defensible Space Inspection Program focuses on public education for wildfire preparation as it relates to defensible space, home hardening, zone awareness, and evacuation planning. In addition to the 5 career DSI staff detailed elsewhere in this CWPP, 15 California Conservation Corps (CCC) members were trained under CAL FIRE's Defensible Space Assessment Program. Additional CCC and citizen assessment training occurred in spring 2025, which will increase the number of trained personnel available locally.

2025 CAL FIRE Butte Unit Defensible Space Inspection Program statistics:

Residents Contacted During Inspections	5278	Total Inspections Completed	8,796
Residents Reached at Community Events	17,963	Total Parcels Inspected	4,344
Total Residents Contacted	**23,241**	Follow-up Inspections	1,851
Real Estate (AB38) Inspections	180	1st Inspection Compliance	65%
Qualified Entity Personnel Trained	25	2nd Inspection Compliance	87%
Qualified Entity Assessments	116	Code Enforcement Referrals	54

2025 CAL FIRE Butte Unit Fire Marshal and Fire Protection Planning statistics:

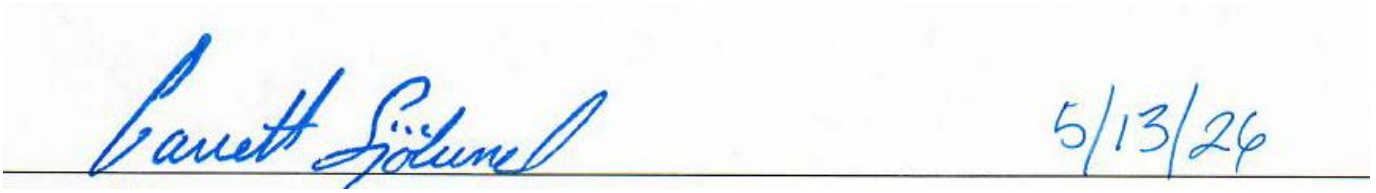
Residential Plan Review	257	Tentative Parcel Map	4
Commercial Plan Review	133	Tentative Subdivision Map	4
Residential Final Inspection	253	General Plan Amendment	2
Commercial Final Inspection	80	Planned Unit Development	1
Pre-Development Review	4	Use Permit	7
Lot Line Adjustment	12	Minor Use Permit	5
Legal Lot Determination	4	Parade Permit	7
Parcel Merger	2	Title 19/SB 1205 Inspections	137

2025 CAL FIRE Butte Unit Public Information Statistics:

211 Call Center Activations	0	Social Media Posts	1,019
Call Center Phone Calls Received	0	Facebook Followers	84,056
Call Center Incoming Text Messages	0	Instagram Followers	7,300
Total Call Center Contacts	**0**	X/Twitter Followers	46,000
Volunteers In Prevention	4	Facebook Views	14M
Education Programs	12	Total Impressions	446,000
Residents Reached	178,300	Personnel Hours	977.5

2025 CAL FIRE Butte Unit Law Enforcement Statistics

Arrests for Arson	30	Warrants Authorized	85
Arrests for Other Crimes	4	Citations Issued (Misdemeanor)	17
Subpoenas Received	144	Assists to Other Law Enforcement Agencies	25
Detailed Investigations	71	Public Records Act Requests Received	104
LE38/Hazard Inspections	85		



Garrett Sjolund, Unit Chief, CAL FIRE Butte Unit Date