2024

CAL FIRE Santa Clara Unit

Strategic Fire Plan

Baraka Carter, Unit Chief

PLAN AMENDMENTS

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Fire Plan Cover Page	N/A	Updated Picture and Background	J. Reynolds
2023 Ignition Statistics	24	2023 Ignition Data	J. Reynolds
Resource Management	36	Updated Information	E. Orre
Battalion 1	45	Updated Information	A. Mikesell
Battalion 2	49	Updated Information	J. Cox
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SIGNATURES

Unit Strategic Fire Plan Developed for the Santa Clara Unit:

This Plan:

- Was collaboratively developed; Interested parties, State, City, and County agencies within the County have been consulted and are listed in the plan.
- Identifies and prioritizes pre-fire and post-fire management strategies and tactics meant to reduce the loss of values at risk within the State Responsibility Area (SRA) and Mutual Threat Zones in County jurisdiction.
- Is intended for use as a planning and assessment tool only. It is the responsibility of those implementing the projects to ensure that all environmental compliance and permitting processes are met, as necessary.
- This plan recommends measures to reduce the ignitability of structures throughout the area addressed by the Plan.

Recommended By:

DocuSigned by:
John Reynolds
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John Reynolds, Pre-Fire Engineer

Date: 5/9/2024

Approved By:

DocuSigned by:
Baraka Carter
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Baraka Carter, Unit Chief

Date: 5/9/2024

EXECUTIVE SUMMARY

The California Department of Forestry and Fire Protection's (CAL FIRE) Santa Clara Unit prepares an annual Strategic Fire Management Plan for the coming fire season. The Fire Plan documents an assessment of the fire situation in the Unit, includes stakeholder contributions and priorities, and identifies strategic targets for pre-fire solutions within the five counties (Santa Clara, Alameda, Contra Costa, San Joaquin, and Stanislaus) of the CAL FIRE Santa Clara Unit.

Pre-Fire Engineering and Fire Protection Planning is the responsibility of the Santa Clara Unit Pre-Fire Engineer (PFE). The main job of the PFE is to coordinate the creation of the Unit Fire Plan and assist with its implementation. Under the direction and authority of the Santa Clara Unit Chief, the PFE collaborates with the Unit Operations Team (Division Chiefs, Battalion Chiefs, Foresters, Environmental Scientists), and stakeholders to develop the Unit's Fire Plan which is designed to achieve the goals and objectives of the CAL FIRE Strategic Fire Plan for California. The PFE and Unit staff collaborates with many stakeholders/cooperators (state and local government entities, FireSafe Councils, individual citizens, and many other organizations) to assist with the development and implementation of the Fire Plan. Each CAL FIRE Unit has a funded position for a PFE, which is the rank of Fire Captain.

Pre-Fire Engineering includes geographic information system (GIS) mapping of values at risk, wildland fuel belts, and the maintenance of various other GIS data layers to assess the existing levels of wildland protection services, identifies high-risk and high value areas that are potential locations for costly and damaging wildfires, rank these areas in terms of priority needs, and prescribe what can be done to reduce future costs and losses. The PFE is also responsible for the CAL FIRE Management Activity Project Planning and Event Reporter (CalMAPPER) program. CalMAPPER is a tracking database that CAL FIRE uses to record fuel reduction efforts within the unit. CalMAPPER records funding information (source, amount, grant ID's, etc.), treatment activity information (start/end dates, executing agency, and costs), along with a spatial representation of the fuel treatments.

This Fire Plan provides planning information on a Unit wide scale and recognizes the variation in fuels, weather, topography, and community/agency priorities present in each county. It is intended to be a dynamic planning tool for promoting wildfire protection efforts in the Unit. Additionally, this Fire Plan is not intended to satisfy the California Environmental Quality Act (CEQA) or regulatory permitting requirements. Any recommended projects or actions contained herein shall be subject to the appropriate permitting and environmental review for the jurisdiction in which they are proposed.

*Note: All text in BLUE is hyperlinked to external websites.

SECTION I: UNIT OVERVIEW

This Fire Plan covers the CAL FIRE Santa Clara Administrative Unit. This section presents more detailed information about the areas within the Santa Clara Unit (SCU), specifically, a description of factors affecting wildfire risk within each county.

LOCATION

The Santa Clara Unit is unique to CAL FIRE. The Unit is located between the San Francisco Bay and the San Joaquin River, encompassing the Counties of Contra Costa, Alameda, Santa Clara, and Western portions of Stanislaus and San Joaquin. There are 1.34 million acres of SRA area within the Unit with a combined population of 5.5 million people.

POPULATION

The Santa Clara Unit is characterized by large urban population centers which are adjacent to the wildland areas creating some of the largest wildland urban interface (WUI) areas in California. No other Northern Region Unit has a greater population within its borders. Major population centers within the Unit includes the cities of San Jose (and the surrounding “Silicon Valley”), Oakland, Berkley, Livermore, Pleasanton, Fremont, Walnut Creek, Concord, Martinez, and Richmond. Numerous major highways run through the Unit and daily traffic congestion is common. Technology, manufacturing, heavy industry, seaports, and airports all drive a substantial portion of California’s economy. The large population concentrations in the Unit have created continual interest in outdoor recreational use and open space preservation issues. Air quality control within the Unit is managed by the San Joaquin Valley Air Pollution Control District and the Bay Area Air Quality Management District. Santa Clara Unit Management Team works closely with these agencies to ensure reduced smoke impacts because of our Vegetation Management Program and wildland fire activity upon the local population.

SANTA CLARA UNIT OUTLINE / CHARACTERISTICS

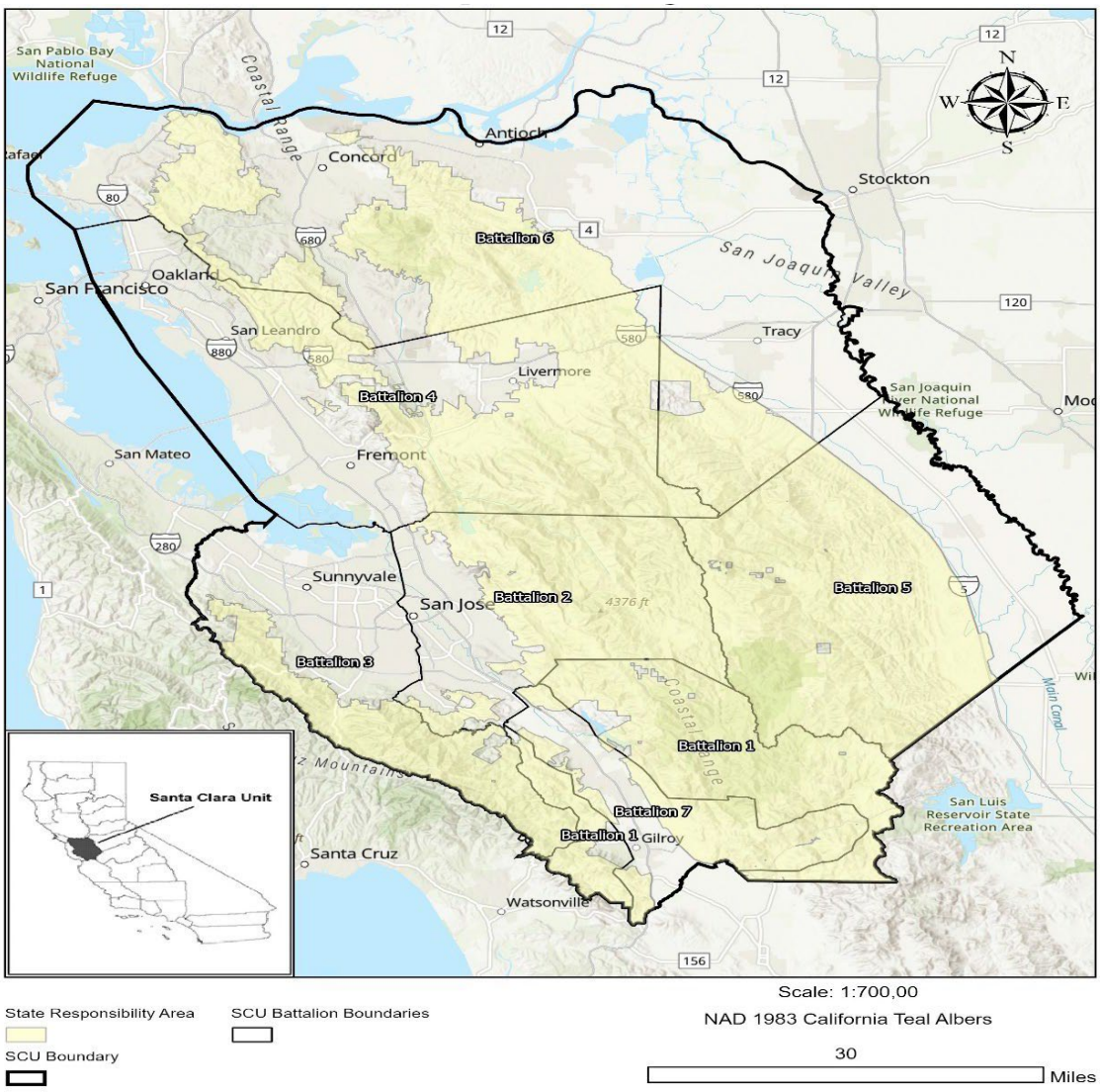
Vegetation types in the Santa Clara Unit are predominantly annual grasses, chaparral, and oak-dominated woodland. The Santa Cruz Mountains along the west side of Santa Clara County also supports coastal redwood and mixed conifer stands. Fire history in the Santa Clara Unit includes the Lexington Fire in 1985 (13,128 acres), the Tunnel Fire in 1991 (1,624 acres, 25 deaths and 3,500 structures destroyed), the Croy Fire in 2002 (3,007 acres and 300 structures destroyed), the Santa Clara Complex in 2003 (32,000 acres), the Lick Fire in 2007 (47,183 acres), the Summit Fire in 2008 (4,270 acres), the Corral Fire in 2009 (12,500 acres), the Morgan Fire in 2013 (3,111 acres), the Tesla Fire in 2015 (2,850 acres), the Loma Fire in 2016 (4,476 acres), the Crews Fire in 2020 (5,513 acres), and the SCU Lightning Complex in 2020 (396,624 acres) with 26 structures damaged and 229 structures destroyed). With the current population levels in the Santa Clara Unit and the continuing spread of urban development into the wildland, the Santa Clara Unit is taking every opportunity to be proactive with wildland fuels management. Unit staff is heavily involved in fire protection planning programs with local cooperators to address existing problems and identify areas where changes can be implemented early in the planning stages. The Santa Clara Unit is also located in an active earthquake hazard area, dominated by the San Andreas and Hayward Faults. The Santa Clara Unit and many other CAL FIRE resources were heavily involved in the emergency response to the 1989 Loma Prieta Earthquake.

Priorities for the Santa Clara Unit include working with local landowners, nongovernmental organizations, and governmental agencies for implementation of fire management plan objectives. The Santa Clara Unit will continue to support the development of, and updates to, Community Wildfire Protection Plans (CWPPs) adopted within the Santa Clara Unit and assist with grant funding for Community Wildfire Protection projects. CAL FIRE also helps partnering organizations with grant funding from the California Climate Investments program. These grant programs include Wildfire Prevention (managed within SCU), Forest Health, Workforce Development and Biomass Utilization, California Forest Improvement Program, Urban and Community Forestry, and Forest Legacy. Continuance of the Vegetation Management Program (VMP) is a priority for healthy fuels management. Additionally, using this Strategic Fire Plan, the Santa Clara Unit is working with local landowners to reduce unplanned ignitions within the Unit and limit damage caused by uncontrolled fires through the use of education, pre-fire mitigation projects, patrol, and law enforcement to meet the mission statement of the California Department of Forestry and Fire Protection (CAL FIRE).

STATE RESPONSIBILITY AREA

BATTALION	ACREAGE
1	188,233 ACRES
2	175,003 ACRES
3	97,689 ACRES
4	251,899 ACRES
5	296,767 ACRES
6	257,726 ACRES
7	73,599 ACRES
Santa Clara Unit Total:	**1,340,916 ACRES**

Table 1 – State Responsibility Area Acreage 2024



2024 SCU State Responsibility Area by Battalion

UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES

Initial attack forces are essential to keeping unwanted fires to a minimum. The Santa Clara Unit maintains a strong force of personnel and equipment that is always ready to respond to any fire that threatens the wildland. The Santa Clara Unit has twelve state funded fire stations, one helitack base (Alma Helitack), and an Emergency Command Center under its jurisdiction. These stations and the helitack base are fully staffed during the declared fire season with five of the stations staffed year-round (three state funded and two under Cooperative Fire Protection Agreements). These stations combined provide for the staffing of sixteen state owned fire engines, one state owned helicopter, three state owned transports/bulldozers, two Firefighter Hand Crews, and two California National Guard Hand Crews.

Fifteen Battalion Chiefs are available in the Unit and are strategically positioned to maintain quick response times of overhead personnel. There are three Law Enforcement/Prevention personnel; one Battalion Chief and two Fire Captain Specialists, along with one Fire Prevention Specialist and one Training Captain that are available within the Unit and will frequently assist with initial attack operations.

A Forester II (Division Chief), Forester I (Wildfire Resilience) and Environmental Scientist and Pre-Fire Engineer support State Responsibility Area (SRA) fire prevention projects, Vegetation Management Program (VMP) projects, and Manage Wildfire Prevention Program grants to support partnering organizations with similar goals. These positions also assist with Unit and incident overhead needs. Three Defensible Space Inspectors (Forestry Aides) are utilized to conduct defensible space inspections in the SRA pursuant to Public Resources Code 4291.

The Unit’s Morgan Hill Emergency Command Center (ECC) provides dispatch as well as Command and Control through local government cooperative agreements with the City of Morgan Hill Fire Department, the South Santa Clara County Fire District, and the Alameda County Fire Department (Sunol Fire Station only). The ECC also provides dispatch under two Amador Contracts: Pacheco Fire Station and the Sunshine Fire Station.

FIRE ENVIRONMENT

The fire environment is defined as the “surrounding conditions, influences, and modifying forces that determine fire behavior.” The four components that affect fire behavior are fuels, weather, topography, and human behavior. Understanding the relationship between these factors and their influence on fire behavior must be considered to plan the most effective strategies for reducing the threat of unwanted fire.

Of the factors listed above, fuels (vegetation, buildings, etc.) are the component that is targeted most often since this factor is the most easily affected. For example, vegetation can be removed or manipulated in ways that will dramatically reduce the fire risk. Homes can be “hardened”, i.e., built with non-combustible or fire-resistant materials and maintained with adequate defensible space.

While the weather cannot be controlled, it is important to understand what types of weather can occur that increase the fire hazard and what options there are for reducing this hazard. An example of this is limiting certain activities including open burning, welding, or mowing when weather conditions are hot and dry.

As with the weather, topography, the terrain or lay of the land, cannot be significantly altered to reduce the fire hazard. Terrain, however, has a strong influence within the fire environment and should be carefully assessed when designing fire hazard reduction treatments. Aspect has a strong bearing on the type of vegetation present and the temperature and moisture regime of the soil and vegetation. Slope steepness (gradient) is important since fire behavior usually increases with steepness. Slope position (ridge, valley, saddle, draw, etc.) should be considered when planning fire prevention measures. For example, additional defensible space may be necessary and required where slopes are steep and if positioned on a warm southerly aspect and/or within a “chimney” (draw, saddle).

“Full alignment” is a term used to describe the fire environment when all the conditions are conducive for increased fire activity. This occurs when fires burn in heavy fuels, during hot, dry weather with high winds blowing up steep slopes and draws. Highest priority for fire prevention measures should be focused on areas where these types of conditions are known to occur or are considered likely.

SECTION II: UNIT FIRE PLAN COLLABORATION

COMMUNITY / AGENCIES / FIRESAFE COUNCILS

Representatives involved in the development of the Unit Strategic Fire Plan are included in the following table. Their organization and title are indicated below:

Plan Development Team:

Organization	Title
Diablo FireSafe Council	Executive Director
Santa Clara FireSafe Council	Executive Director
Hills Emergency Forum	Staff Liaison
CAL FIRE / Santa Clara Unit	Unit Chief
CAL FIRE / Santa Clara Unit	Unit Forester
CAL FIRE / Santa Clara Unit	Pre-Fire Engineer
CAL FIRE / Santa Clara Unit	Battalion Chiefs

Table 2 – Plan Development Team

FIRESAFE COUNCILS

Four FireSafe Councils include the Santa Clara FireSafe Council, the Diablo FireSafe Council, the South Skyline FireSafe Council and the Oakland FireSafe Council as well as the Hills Emergency Forum assist the Santa Clara Unit. Other organizations that provide similar services include the Guadalupe-Coyote Resource Conservation
District, the Loma Prieta Resource Conservation District, and the Claremont Canyon Conservancy are also involved with Fire Safety and planning in the five-county area. These organizations have access to many grant programs and other funding sources that public agencies are not eligible to receive.

With input and cooperation from these groups, and other stakeholder groups, the Unit's managers establish goals and projects in the Unit Strategic Fire Plan to reduce the threat of large damaging fires. The document is the Units' template for fuels reduction projects that are pending, active, complete, and for public review and comment. The Unit Strategic Fire Plan allows us to respond to the needs and concerns of the public and identifies projects to be funded through cooperative grants and donations. For more California FireSafe Council information visit: https://cafiresafecouncil.org/.

SANTA CLARA COUNTY FIRESAFE COUNCIL

"Mobilizing the people of Santa Clara County to protect their homes, communities and environment from wildfires."

Established in 2002, the Santa Clara County FireSafe Council (SCCFSC) is a non-profit 501(c)(3) organization funded by grants, local funding from the county, cities, fire agencies, contributions from many partners in the community, and donations. Its programs protect thousands of residents and homes and bring together individuals, public and private agencies and companies that share a common, vested interest in preventing and reducing losses from wildfires.

The SCCFSC programs work to create a "FireSafe" Santa Clara County - protecting lives, homes, and the environment, primarily in the areas of: Communications, Outreach and Education, and Hazardous Fuel Reduction. While a county-wide organization, SCCFSC wildfire related programs and projects concentrate on protecting the fourteen designated communities at highest risk for wildfire: Stanford, Palo Alto, Los Altos Hills, Cupertino, Saratoga, Monte Sereno, Los Gatos, Lexington Hills, San Jose, Morgan Hill, San Martin, Gilroy, East Foothills, and Milpitas. Homes, schools, businesses and important county-wide

infrastructure such as power transmission lines, communication facilities, creeks and reservoirs are all present in these areas.

The SCCFSC had an annual budget of 4.5 million in 2020. It has the support of a wide range of agency stakeholders and community leaders who regularly provide input on SCCFSC programs and projects. SCCFSC regularly creates liaison and collaborative relationships that allow agencies from different jurisdictions and responsibilities to work together to achieve landscape scale projects and take advantage of economies of scale, shared expertise, and matching funding opportunities.

Priority outreach programs include a Firewise support program that assist communities in reaching Firewise USA recognition, education presentations including Wildfire Evacuation Workshop, defensible space, home hardening, general outreach to residents of the WUI at community events, distribution of educational materials via mail, published articles, and online content. Educational workshops are delivered to community groups to raise awareness and provide practical information on how to make homes and property more resistant to wildfire, and to remind people of the need for evacuation planning and preparedness. One to one assistance is also available with our Home Ignition Zone Assessments.

Preventative and fire risk mitigation programs including Hazardous Fuel Reduction (HFR) projects community chipping services, subsidized defensible space clearing for low income/disabled, neighborhood fuel reduction projects, roadside evacuation route fuel reduction, dead/hazard tree abatement, and coordination, development, and maintenance of fuel breaks as part of implementing local Community Wildfire Protection Plans (CWPPs) and the Unit Fire Plan.

SCCFSC supports and participates in updating CWPPs, general project planning prior to grant applications, and detailed project planning once funding has been secured.
The SCCFSC also assists with biotic studies, forest and vegetation analysis, and preparation of California Environmental Quality Act (CEQA) documents. CAL FIRE staff aids the SCCFSC in all program areas.

DIABLO FIRESAFE COUNCIL

Diablo FireSafe Council (DFSC) works closely with the CAL FIRE Santa Clara Unit to bring together residents, agencies, and funding to reduce the impact of wildland fire. The organization serves the 2.5 million residents in 37 Federally recognized communities at risk in Alameda and Contra Costa Counties: covering 1500 square miles. The two counties include

over 200 miles of wildland urban interface and a history of devastating fires on long intervals (20+ yrs.)

Throughout the two counties, homes are located among dense vegetation, including highly flammable eucalyptus, pine, and acacia. The size and diversity of vegetation create a challenge for hazard fuel reduction efforts. For instance, the East Bay Hills, with established neighborhoods next to treasured parklands, form a 45-mile-long wildland urban interface. There is abundant vegetation near residences, highly flammable building and roofing materials and difficult access.

The DFSC was founded in 1999 as a public and private coalition. By 2002, DFSC had obtained nonprofit 501(3)(c) status, formed a Board of Directors, established a website, held regular meetings, and received their first federal grant. Their current 9-member Board of Directors includes representative from local fire agencies, resource conservation district, regional park district, as well as homeowners. They work with a wide range of stakeholders including individual property owners, homeowner associations, public utilities, special interest groups, land trusts, city departments and special districts and others. DFSC serves as an umbrella organization providing leadership and resources to community members and other non-profit groups interested in wildfire prevention.

Over the past 5 years, DFSC has received more than $1.7 million in state and private funding, including funding from CAL FIRE's fire prevention grant programs. Collectively their partners in wildfire prevention provided matching funds and in-kind services valued over $1.4 million for more than 200 projects. Programs include $5,000 cost-share funding for defensible space projects working with groups of neighbors linked by common concern of wildfire hazards around their homes. Presentations provide training in wildfire behavior to residents, landscape designers, garden clubs, students, and others, as well as information on local defensible space requirements, ignition prevention, home hardening and evacuation. The two County-wide Community Wildfire Protection Plans for Alameda and Contra Costa Counties have led to local planning efforts in Clayton- Morgan Territory, El Cerrito/ Kensington, City of Richmond, and the community of Sunol. CAL FIRE's Fire Prevention Grant "Good to Go!" expanded DFSC's community fire prevention program to include evacuation from wildfire and included the development of a website with customized information available at: GoodToGoWildfire.com. CAL FIRE's Fire Prevention Grant, A021-2025, provides funding to continue DFSC's "Partners in Wildfire Prevention Program" including outreach and awareness, updates of the countywide CWPPS and their current list of cost-share hazardous fuel reduction projects.

With community Partners in Wildfire Prevention, DFSC completed 25 hazardous fuel reduction projects treating 434 during 2022. Working with a Board member who is a local architect, they have also begun to develop their home hardening program to help community members make their homes more ignition resistant. This pilot program, "Five Easy Actions to Harden Your Home" is being developed with recognize Firewise groups in Berkeley, Oakland, and Moraga-Orinda.

HILLS EMERGENCY FORUM

The Santa Clara Unit is an active member of the Hills Emergency Forum (HEF). Formed in 1992 because of the 1991 Tunnel Fire, the HEF provides a leadership structure to facilitate a broad and cooperative approach among nine local governing organizations for fire prevention mitigation, suppression, and emergency planning for the Wildland urban interface area of the Oakland-Berkeley hills.

HEF members include the City Managers of Berkeley, Oakland, and El Cerrito; the General Managers of East Bay Municipal Utility District and East Bay Regional Park District; Fire Chief of Moraga Orinda Fire District, Director of CAL FIRE, Director of Lawrence Berkeley National Laboratory and Vice Chancellor of University of California, Berkeley.

The HEF's administrative component - the Staff Liaison Committee (SLC) - is comprised of representatives from all member agencies. The SLC is responsible for developing and monitoring progress on the Forum's annual work plan, analyzing HEF policy issues for agency executives, identifying issues for possible legislative support, and coordinating the HEF annual meeting. During their monthly working sessions SLC members will continue to focus on key activities such as: coordination of hazardous fuel reduction projects' regulatory review, permitting and implementation; strategic partnering addressing public information, evacuation preparedness, home hardening, project planning, ignition detection and biomass utilization; providing field tours for special interest groups to share lessons learned and best management practices; and working with local jurisdictions on land use planning to comply with SB1241 and SB379 land use planning requirements and updates of Local Hazard Mitigation Plans.

OAKLAND FIRESAFE COUNCIL

The Oakland FireSafe Council (OFSC) is a grassroots community-based organization dedicated to mobilizing the people of Oakland and Alameda County to reduce the risks of wildfire danger to people and property through outreach, programs, and projects.

Members are residents of the Oakland Hills, survivors of the 1991 Tunnel Fire, open space/park stewards and others working to reduce the risks of wildfire in the East Bay hills. The Oakland FireSafe Council is an affiliate of the Diablo FireSafe Council, serving Alameda and Contra Costa counties.

OFSC's is education and outreach, primarily through the Oakland Community Preparedness & Response Program (OCP&R), and advocacy at the local, regional, state, and national level. While there is increasing attention on wildfire prevention at all these levels, we believe OFSC brings knowledge, experience, and urgency to the needs of residents living in the unique environment of the wildland/urban interface.

SOUTH SKYLINE FIRESAFE COUNCIL

The South Skyline FireSafe Council (SSFSC) is a non-profit organization dedicated to the public benefit, whose mission is to provide education and outreach programs for fire prevention and preparedness to all South Skyline residents within the Council area to prevent the loss of lives and reduce losses of personal and public property and natural resources from wildfire. The SSFSC also plans and manages fuel break construction and homeowner chipping services.

NORTH SANTA CLARA RESOURCE CONSERVATION DISTRICT

The North Santa Clara Resource Conservation District (RCD) was established in 1995 because of merger of the Black Mountain and Evergreen Soils Conservation Districts. The Black Mountain Soil Conservation District was organized in 1943 to cover some 5,500 acres of land in the Calabazas Watershed on the west side of Santa Clara Valley. The Evergreen Soils Conservation District was formed in 1944 and originally covered about 10,000 acres on the east side of the Santa Clara Valley.

The boundaries now cover over 362,000 acres in the northern area of Santa Clara County. Included in the district boundaries are most of the hilly or mountainous land surrounding the Santa Clara Valley north of Morgan Hill. The district also participates in partnerships with other public agencies and community organizations located in incorporated areas to facilitate coordination of efforts benefiting district watersheds.

The long-range plan of the North Santa Clara RCD is to identify long-range opportunities and needs for the conservation and development of natural resources within the district. The District supports proper rangeland management practices for the preservation of species

diversity and proper watershed management of wetlands and riparian corridors for protection of wildlife, aquatic resources, and water quality.

Resource Conservation Districts are closely affiliated with the US Department of Agriculture's Natural Resource Conservation Service. Together, these non-regulatory organizations have specialized staff to provide educational programs, technical assistance, grant funds, and tools to manage and protect land and water resources.

LOMA PRIETA RESOURCE CONSERVATION DISTRICT

The mission of Loma Prieta Resource Conservation District (LPRCD) is to assist community members and partners to conserve and improve technical support and education to landowners, farmers and ranchers creating strategies to protect and restore our local watershed, air and soil quality for our families, community, and future generations.

Established in 1942 as a non-regulatory agency, Loma Prieta Resource Conservation District (LPRCD) was created to develop and administer a program of soil, water, and related resource conservation in Southern Santa Clara County. Since its creation, the District has grown to encompass more than 220,000 acres.

CLAREMONT CANYON CONSERVANCY

The Conservancy is a non-profit, citizen organization with a membership of several hundred individuals and families in the Oakland/Berkeley Hills. It is a catalyst for the long-term protection and restoration of the canyon's natural environment and an advocate for comprehensive fire safety along its wildland urban interface.

The Conservancy works closely with public and private property owners and various government agencies to ensure the best possible stewardship of the canyon as a whole and to reduce wildfire danger. In addition to its bird walks and other educational programs and its regular stewardship workdays to maintain trails and remove fire-prone and invasive species, the Conservancy is collaborating with other community organizations and public officials to build a Joint Powers Agency to coordinate and manage vegetation throughout the East Bay hills wildfire risk zone designated by
CAL FIRE.

CONTRA COSTA RESOURCE CONSERVATION DISTRICT

Contra Costa Resource Conservation District was first incorporated in 1941 as a non-regulatory agency tasked with conserving the air, water, and soil of Contra Costa County. Over the next 80 years, Contra Costa RCD has grown to serve all parts of Contra Costa County with programming in natural resource conservation, watershed stewardship and protection, and conservation on range lands and row crop farming systems. The mission of the Contra Costa Resource Conservation District is to facilitate the conservation and stewardship of the natural resources in Contra Costa County.

BERKELEY FIRESAFE COUNCIL

Berkeley FireSafe Council (BFSC) is a community not-for-profit 501 (c) (3) organization with the primary mission of preventing the next catastrophic fire in Berkeley. We also support our public officials, advocate for needed public action , inform residents and public officials, and support preparedness and training. We also coordinate with other fire safety groups. We are a member of the California Fire Safe Councils, non-profits throughout the state at the city and county levels dedicated to fire safety. CA Fire Safe Council was formed in 1993 by CAL FIRE. BFSC is part of the Hillside Association of Berkeley (HAB), which was formed over 30 years ago to preserve the unique nature of our community and its interests. BFSC was formerly known as the Hillside Fire Safety Group (HFSG).

Our motto of “Before It's Too Late” reflects the fact that, despite significant efforts by public landowners, the threat of a catastrophic fire in Berkeley has not been fully mitigated. Full mitigation will require the removal of all or most of the hazardous fuel in the Berkeley and Oakland Hills and in Tilden Park, primarily eucalyptus, which constitutes much of the hazardous fuel. Eliminating this risk will require cleaning up the understory of eucalyptus groves in Berkeley and Oakland, on the UC Berkeley campus, in Tilden Park, and then replacing the eucalyptus and other hazardous trees with non-hazardous species. It can be done with less money and quicker than most people would believe. We need to remove the fuel that will destroy much of Berkeley, Oakland, and the adjacent cities in the event there is a wildfire - before it's too late.

WEST CONTRA COSTA FIRESAFE COUNCIL

West Contra Costa Fire Safe Council (WCCFSC) was established in 2022 to provide education, exchange information and foster wildfire prevention and fire safety within the County of Contra Costa.

WCCFSC is honored to have Richmond Fire Chief, Angel Montoya, as the Agency Liaison to facilitate collaboration with other fire agencies as well as CAL FIRE, California Fire Safe, East Bay Regional Parks District (EBRPD), East Bay Municipal Utility District (EBMUD), Pacific Gas and Electric Company (PG&E), Caltrans and other stakeholders for wildfire safety in Contra Costa County.

WCCFSC is also focusing on raising public awareness and educating residents and homeowners about becoming Firewise through home hardening and making defensible space around their homes. WCCFSC is working to ensure safe evacuation routes throughout the Very High Fire Hazard Severity Zone (VHFHSZ) area. Measure X funding, managed by Contra Costa County Fire Protection District (CCCFPD), provides Wildland Mitigation and Fuel Reduction throughout the County.

SECTION III: VALUES AT RISK

FIRE RISK vs. FIRE HAZARD

The concept of risk vs. hazard can be confusing and these terms are often used interchangeably. The purpose of this Plan is to assist fire agencies with development of collaborative methods of reducing the fire 'risk' within their jurisdictions by using strategies and tactics that will reduce or eliminate one or more fire 'hazards'. Examples of fire hazards include dense stands of decadent brush, faulty wiring, broken vehicle exhaust systems, and homes that are not built-in accordance with fire code requirements. The fire risk (vulnerability) of a given area constantly rises and falls depending on conditions within the fire environment. Successful implementation of this Plan will result in the meaningful reduction of the fire risk in strategic portions of the county through identification and abatement of important fire hazards.

VALUES

The primary goal of wildland fire protection in the Santa Clara Unit is to safeguard the wide range of values found within the Unit from the effects of wildfire. The values at risk are the public and private assets that the wildland fire protection system is created and funded to protect. The following have been identified as values at risk from wildfires and delineates their economic and non-economic values: people, structures, timber, watershed, wildlife, unique scenic and recreation areas, range, wildlife, and air quality. The table below provides a description of the values evaluated.

Values at Risk	Public Issue Category	Location and ranking methodology
Fire-flood watersheds	Public safety Public welfare	Watersheds with a history of problems or conditions for future problems, ranked based on affected downstream population.
Soil erosion	Environment	Watersheds ranked based on erosion potential.
Water storage	Public welfare	Watershed area up to 20 miles upstream from water storage facility, ranked based on water value and dead storage capacity of facility.
Water supply	Public health	Watershed area up to 20 miles upstream from water supply facility.
Scenic	Public welfare	Four-mile view shed around Scenic Highways and 1/4-mile view shed around Wild and Scenic Rivers, ranked based on potential impacts to vegetation types (tree versus non-tree types).
Timber	Public welfare	Timberlands ranked based on value/susceptibility to damage.

Values at Risk	Public Issue Category	Location and Ranking Methodology
Range	Public welfare	Rangeland ranked based on potential replacement feed cost by region/owner/vegetation type
Air quality	Public health Environment Public welfare	Potential damages to health, materials, vegetation, and visibility; ranked based on vegetation type and air basin.
Recreation	Public welfare	Unique recreation areas or areas with potential damage to facilities, ranked based on fire susceptibility.
Structures	Public safety Public welfare	Ranked based on housing density and fire susceptibility.
Non-game wildlife	Environment Public welfare	Critical habitats and species locations based on input from California Department of Fish and Wildlife and other stakeholders.
Game wildlife	Public welfare Environment	Critical habitats and species locations based on input from California Department of Fish and Wildlife and other stakeholders.
Infrastructure	Public safety Public welfare	Infrastructure for delivery of emergency and other critical services (e.g., repeater sites, transmission lines).
Ecosystem Health	Environment	Ranking based on vegetation type/fuel characteristics.

Table 3 – Values at Risk

An example of a value at risk within the Santa Clara Unit is the Lick Observatory on Mt. Hamilton owned and managed by University of California Santa Cruz (UCSC). This Observatory dates to the late 1800's when an observatory was built at the top of Mount Hamilton, located east of San Jose. This facility would grow throughout the years and now has 9 research grade telescopes located in the area. Many structures including residences and other support facilities exist at the observatory. Nearby Copernicus Peak is the site of numerous radio and microwave towers as well as the Copernicus Fire Lookout. The current lookout built in the 1930's is owned by CAL FIRE on land leased from UCSC. It is staffed during fire season and weekends when there is a high fire danger, by Volunteers In Prevention (VIPs) and/or Unit staff.

Many factors are involved in target area and value at risk identification, including political considerations of the region and suppression cost reductions. By looking at the ‘big picture’ and identifying the values at risk, the Santa Clara Unit staff along with input from other agencies and the public can better protect these areas and prioritize pre-fire projects.

Lick Observatory located in Battalion 2 on Mount Hamilton in San Jose, CA

COMMUNITIES

In recent years, wildfires have burned millions of acres throughout the United States. These fires dramatically illustrated the threat to human lives and development. Under Executive Order, the National Fire Plan was created as a cooperative, long-term effort of the U.S. Forest Service, Department of the Interior, and the National Association of State Foresters, to protect communities and restore ecological health on Federal lands.

A major component of the National Fire Plan was funding for projects designed to reduce fire risks to people and property. A fundamental step in realizing this goal was the identification of areas that are at high risk of damage from wildfire. Federal fire managers authorized State Foresters to determine which communities were under significant risk from wildland fire on Federal lands. CAL FIRE undertook the task of generating the state's list of communities at risk. With California's extensive wildland urban interface situation, the list of communities extends beyond just those on Federal lands.

Three main factors were used to determine wildland fire threat to wildland urban interface areas of California.

Ranking Fuel Hazards: Ranking vegetation types by their potential fire behavior during a wildfire.

Assessing the Probability of Fire: The annual likelihood that a large damaging wildfire would occur in a particular vegetation type.

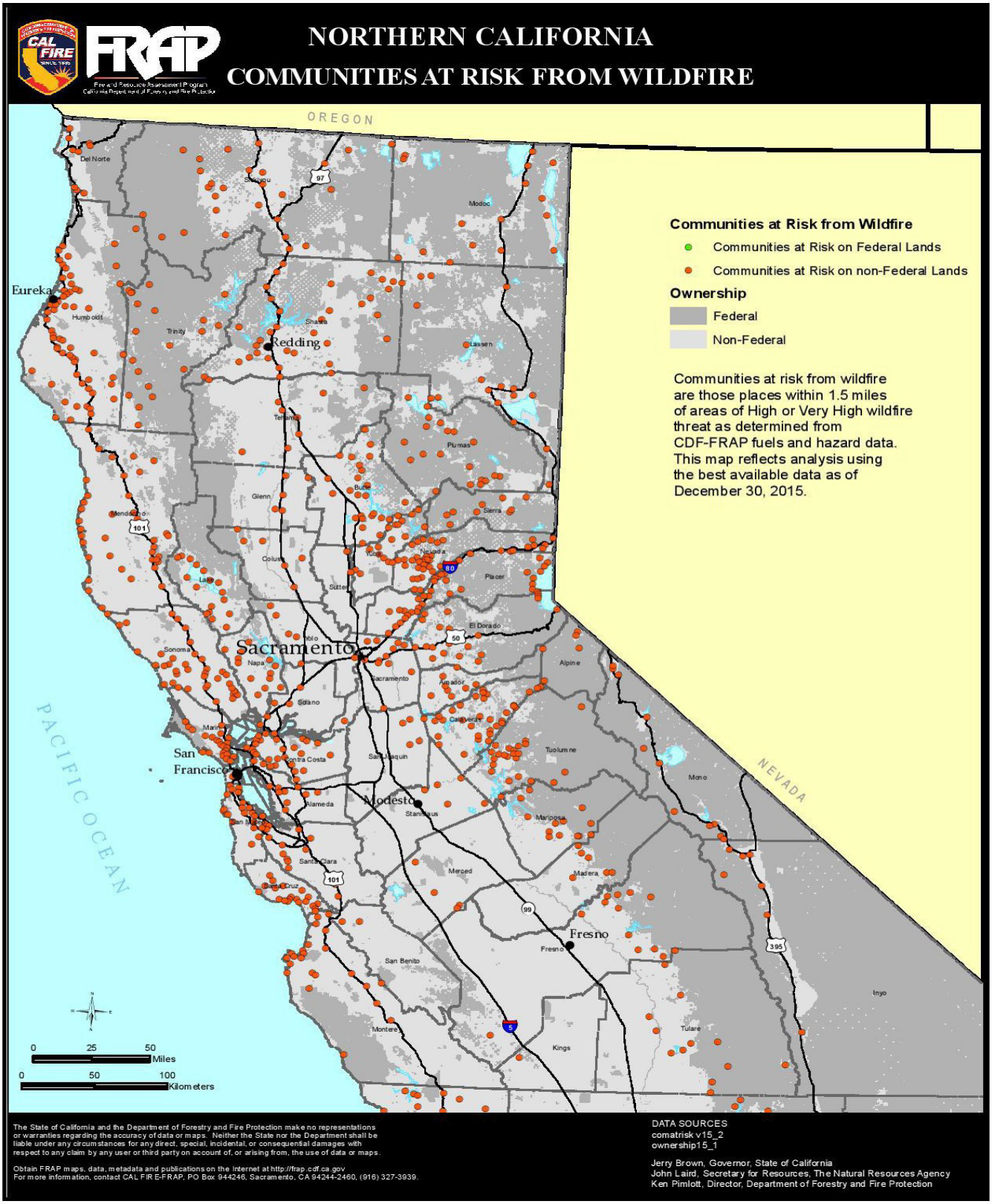
Defining Areas of Suitable Housing Density that Would Create Wildland urban interface Fire Protection Strategy Situations: Areas of intermingled wildland fuels and urban environments that are in the vicinity of fire threats.

To help protect people and their property from potential catastrophic wildfire, the National Fire Plan directs funding to be provided for projects designed to reduce the fire risks to communities. A fundamental step in achieving this goal was the identification of communities that are at high risk of damage from wildfire. These high-risk communities identified within the wildland urban interface, the area where homes and wildland intermix, were published in the Federal Register in 2001. At the request of Congress, the Federal Register notice only listed those communities neighboring Federal lands. The list represents the collaborative work of the 50 States and five Federal agencies using a standardized process, whereby states were asked to submit all communities within their borders that met the criteria of a structure at high risk from wildfire. Within the Santa Clara Unit, there are no federally designated Communities at Risk because of the absence of federally managed land. With California's extensive wildland urban interface (WUI) situation, the list of communities extends beyond just those adjacent to Federal lands. There are 1,327 communities currently on the California Communities at Risk List. The California State Forester (CAL FIRE Director) has assigned the role of managing the list to the California Fire Alliance.

Communities at Risk within the Santa Clara Unit:

Alamo	Antioch	Bellota
Berkeley	Blackhawk	Brentwood
Canyon	Castro Valley	Clayton
Clements	Concord	Crockett
Cupertino	Danville	Dublin
East Foothills	East Richmond Heights	El Cerrito
El Sobrante	Fairview	Fremont
Gilroy	Hayward	Hercules
Kensington	Knights Ferry	La Grange
Lafayette	Lexington Hills	Linden
Livermore	Lockford	Los Alto Hills
Los Gatos	Martinez	Milpitas
Monte Sereno	Moraga	Morgan Hill
Oakdale	Oakland	Orinda
Palo Alto	Pinole	Pittsburg
Pleasant Hill	Pleasanton	Richmond
Riverbank	Rodeo	San Jose
San Leandro	San Leandro	San Martin
San Ramon	Saratoga	Stanford
Union City	Walnut Creek	Waterford
West Pittsburg	N/A	N/A

Table 4 – California Communities at Risk



Northern California Communities at Risk

SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES

Pre-fire management as used in this plan is a collective term that refers to all activities undertaken by county land managers, property owners, agencies, and fire departments intended to reduce the risk of wildfire and resulting suppression costs and to minimize the resulting damage to lives, property, and the environment. This section details the objectives of pre-fire managements two main categories: Fire Prevention and Vegetation Management.

FIRE PREVENTION

To prevent unwanted fires from occurring, it is important to understand what is causing these fires. The Fire Prevention Bureau of the Santa Clara Unit works diligently to determine the cause of all fires with the assistance of Engine Company Officers. By understanding what the causes are, it allows the Bureau to focus on education, enforcement, and patrol activities in a more efficient way.

CalMAPPER
(CAL FIRE Management Activity Project Planning and Event Reporter)

An ongoing effort has been underway to bring the department's records from several different resource management and fire prevention programs into a common database framework with a spatial (GIS) component that facilitates mapping and monitoring of current fuels reduction projects, assists in planning future program activities, and is used primarily by resource management staff. CalMAPPER is currently on its third version and is the designated GIS database and application for collecting activity and fiscal data on forest improvement and fuels reduction projects executed by CAL FIRE.

CalMAPPER is an existing web-based mapping application with supporting tools and business process that serves the following functions:

- Sets a statewide standard for spatially capturing forest and fuels management projects and associated activities across programs within CAL FIRE.
- Provides for GIS and tabular data entry and reporting of project activities in a web browser-based environment.
- Provides access to spatial data and tools useable by non-GIS personnel for data entry, visualization, and reporting.

2023 IGNITION STATISTICS

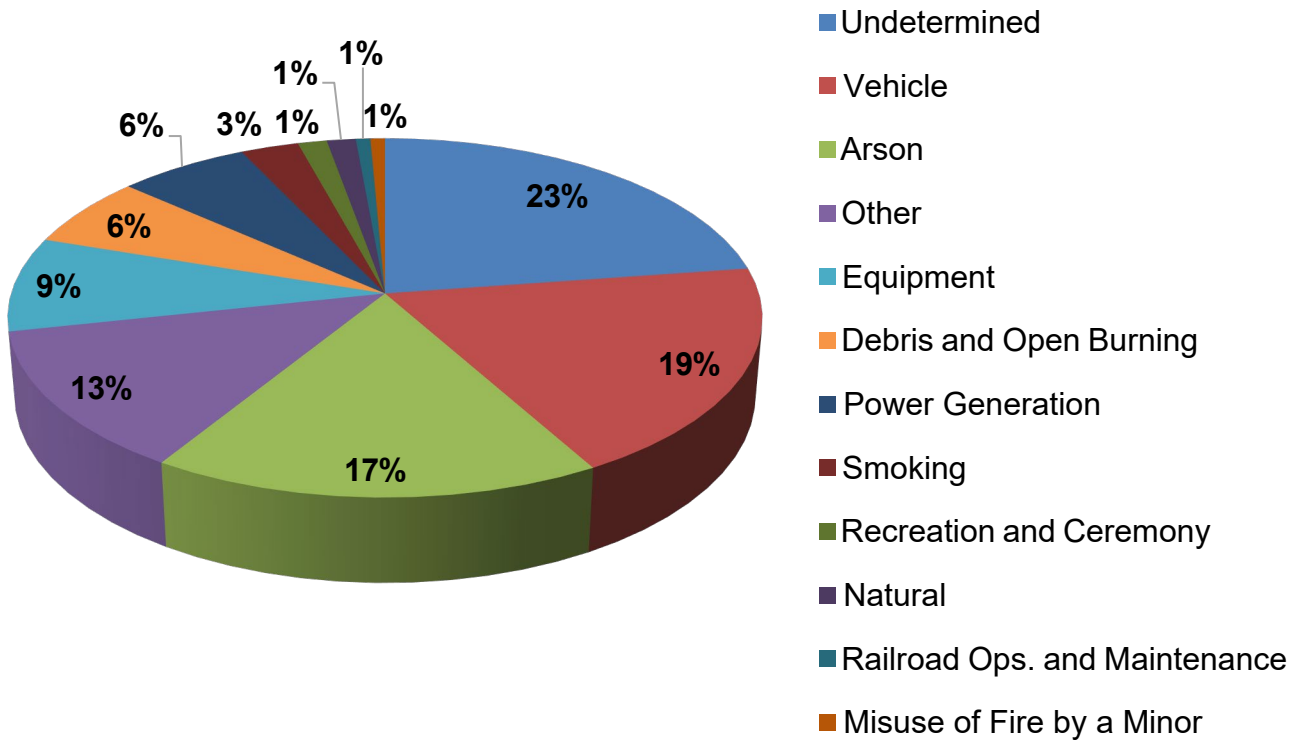
Wildland fire ignition statistics were tracked for the entire year of 2023 in the Santa Clara Unit. The Unit responded to 141 wildland fire incidents where an ignition occurred and were within the Unit's Direct Protection Area (DPA). 90 State Responsibility Area (SRA) ignitions and 51 Local Responsibility Area (LRA) ignitions (Morgan Hill Fire Department and South Santa Clara County Fire Protection District). The 141 ignitions totaled 651.2 acres. Of the 141 ignitions, fourteen were over ten acres in size or approximately 9.93%. The fires over ten acres accounted for 509.16 acres or 78.18% of the Unit total.

MONTH	UNIT IGNITIONS *	TOTAL ACRES	OVER 10 ACRES	% OVER 10 ACRES	STRUCTURES DESTROYED
JAN-MAY	13	41.52	1	55.39%	0
JUNE	25	134.76	3	78.18%	0
JULY	44	242.95	4	81.16%	0
AUGUST	25	174.32	4	82.37%	0
SEPTEMBER	10	2.42	0	0%	0
OCTOBER	15	35.31	1	59.47%	0
NOV-DEC	9	19.92	1	95.38%	0
TOTALS	**141**	**651.2**	**14**	**78.18%**	**0**

Table 5 – Unit Ignitions by Month

*** UNIT IGNITIONS INCLUDES CONTRACT LRA AND STATE SRA**

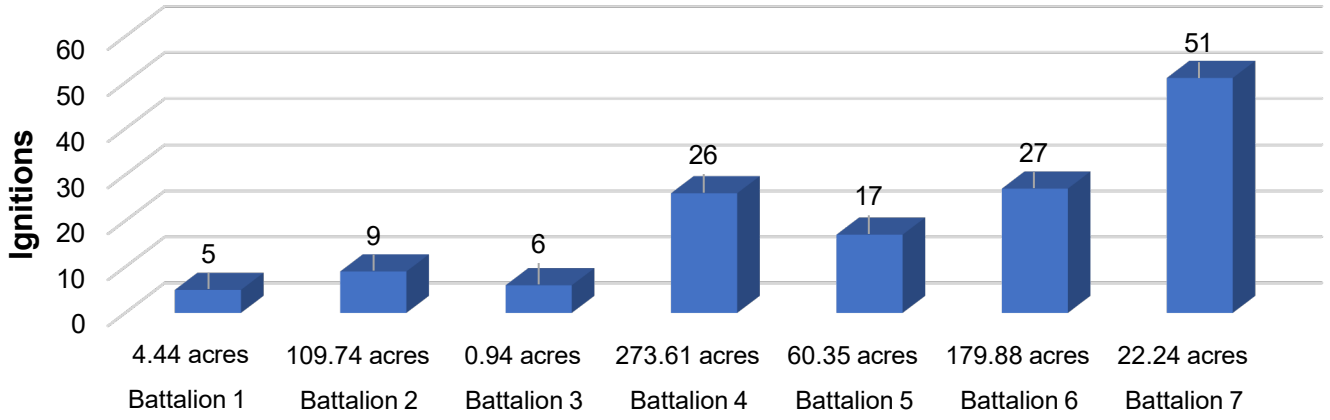
2023 Ignitions by Fire Cause



Wildland Cause	Count	Percentage
Undetermined	32	22.70%
Vehicle	27	19.15%
Arson	24	17.02%
Other	18	12.77%
Equipment	12	8.51%
Debris and Open Burning	9	6.38%
Power Generation	9	6.38%
Smoking	4	2.84%
Recreation and Ceremony	2	1.42%
Natural	2	1.42%
Railroad Ops. and Maintenance	1	0.71%
Misuse of Fire by a Minor	1	0.71%

Table 6 – Ignitions by Fire Cause

2023 Total Ignitions by Battalions

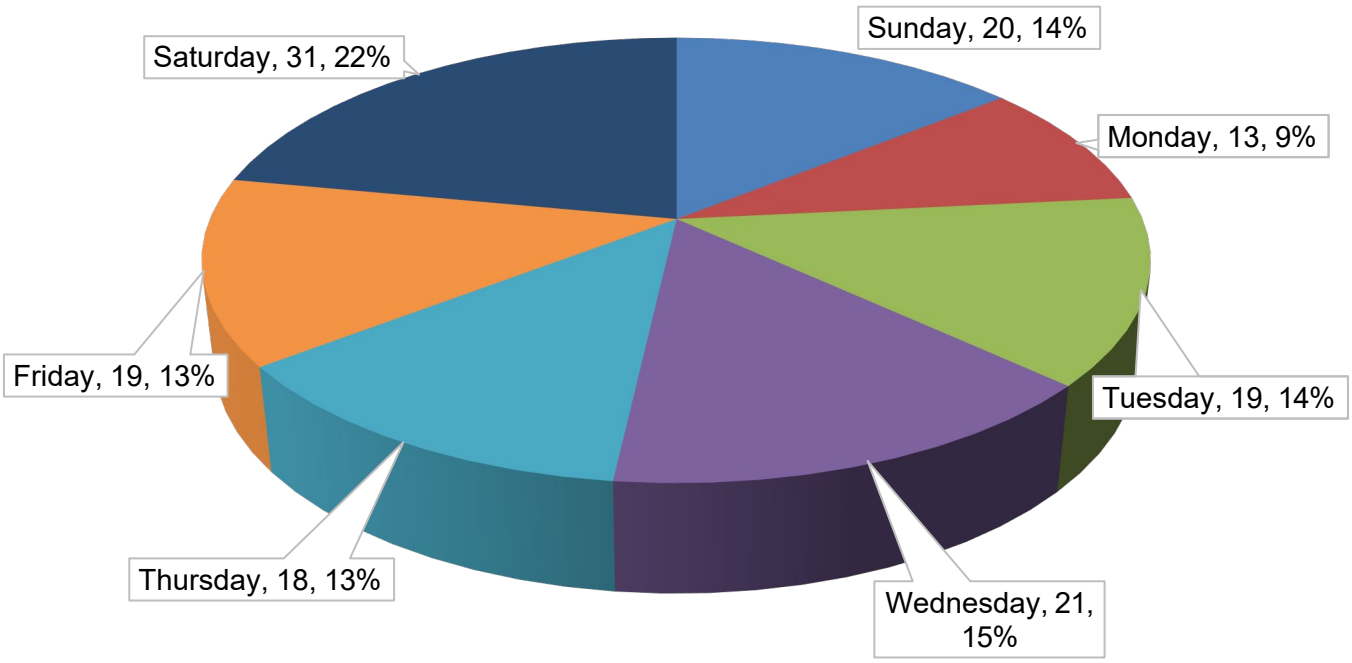


BATTALION	DPA IGNITIONS	DPA ACRES	OVER 10 ACRES
1	5	4.44	0
2	9	109.74	2
3	6	0.94	0
4	26	273.61	6
5	17	60.35	2
6	27	179.88	4
7	51	22.24	0
Total:	**141**	**651.2**	**14**

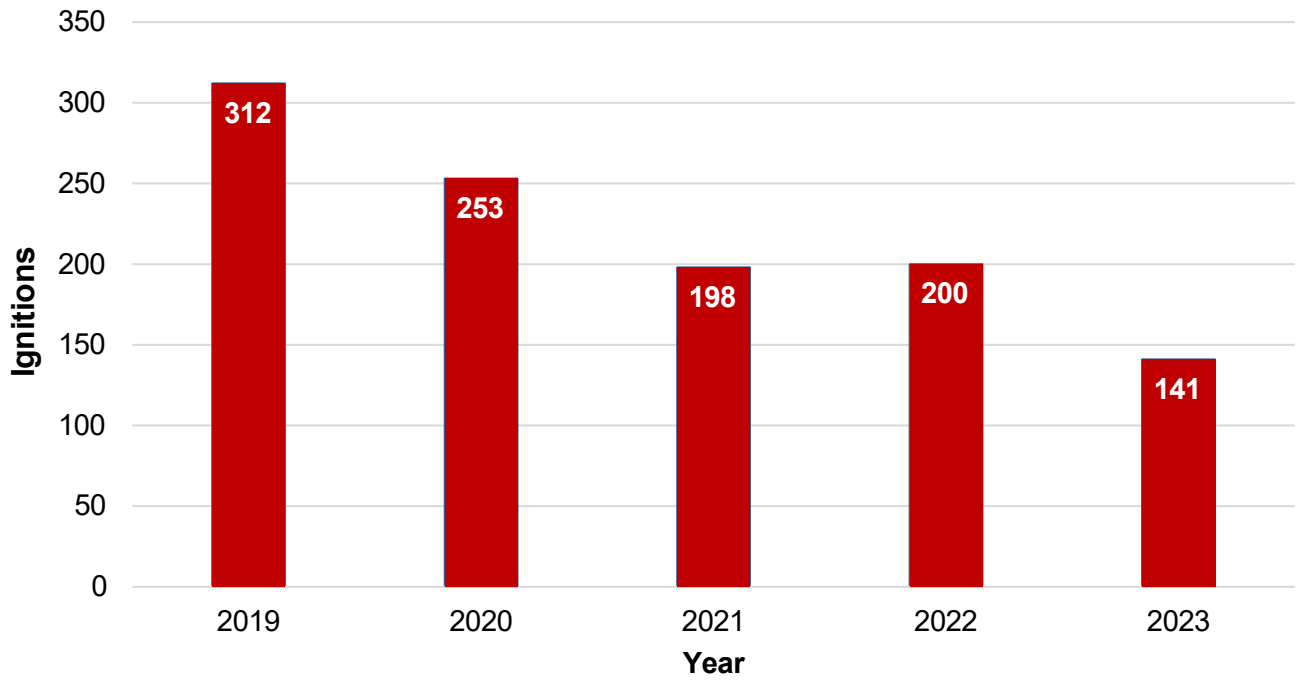
Table 7 – Ignitions by SCU Battalion

*** Morgan Hill Fire Department had 17 ignitions and South Santa Clara Fire Protection District had 34 ignitions in 2023.**

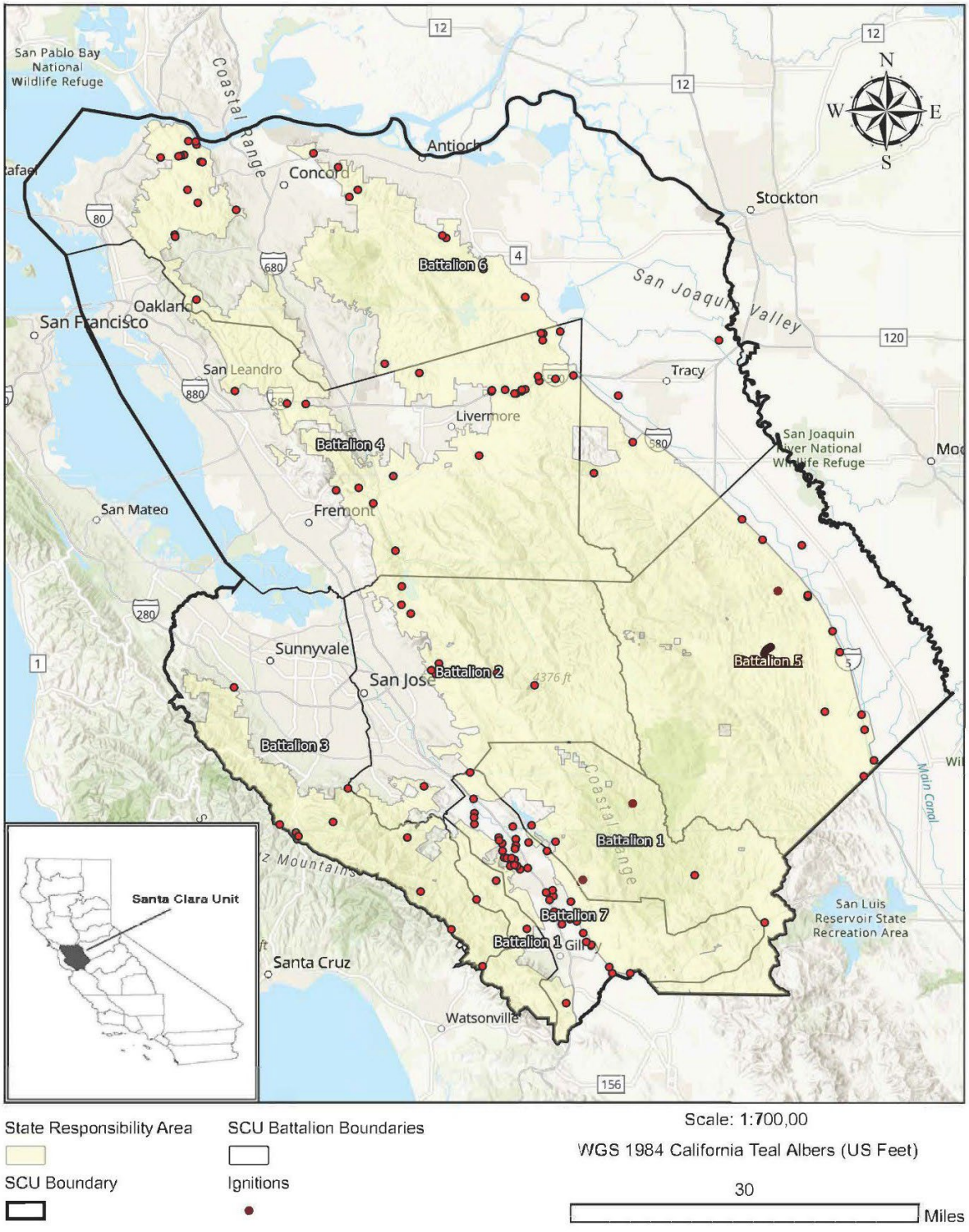
2023 Ignitions by Day of Week



SCU Ignitions - Last Five Years



CAL FIRE Santa Clara Unit 2023 Ignitions Map



ENGINEERING & STRUCTURE IGNITABILITY

The Santa Clara Unit has always known the threat of wildfire. The current weather patterns have impacted the Mediterranean climate that we are accustomed to in the unit. With now warmer and dryer summers along with precipitation that are well below normal, it has resulted in conditions that have significantly impacted receptive fuels such as dry dead fuels, as well as dry grass crops, and brush found throughout the unit. This change to the climate and fuel conditions, along with the increased human activity in wildland areas has made the occurrence of not just the start of a fire but allowing for larger fires to develop. The threat of fire has become more of a danger than ever before. These factors have increased the chances for Mega Fires to develop. What once was rare, now has become increasingly common. Mega Fires are defined as fires that burn more than 100,000 acres and have a significant impact to the population and the environment. These fires have long term effects that do not allow the ecosystem to fully recover. In the event of a large wildfire, there is a potential of not having enough emergency responders and equipment to protect every structure. For a structure to survive it must be able to avoid ignition. Structures can ignite and be potentially destroyed due to multitude of factors which include fire intensity, complexity, rates of fire spread, weather, building construction materials, and surrounding vegetation. State and local fire agencies having jurisdiction within the Santa Clara Unit continually provide wildland fire prevention education to those living in hazardous wildland fire areas. This education provides recommendations to reduce the chances of structure ignition.

The Materials and Construction Methods For Exterior Wildfire Exposure were established to create minimum standards for materials and material assemblies and provide a reasonable level of exterior wildfire exposure protection for buildings in Wildland Urban Interface areas. The use of ignition resistant materials and design to resist the intrusion of flame or embers projected by a wildfire and exposure to it will prove to be the most prudent effort California has made to try and mitigate the losses resulting from our repeating cycle of Wildland Urban Interface fire disasters. California law requires CAL FIRE to identify areas based on the severity of fire hazard that is expected to prevail there. These areas, or “zones,” are based on factors such as fuel (material that can burn), slope and fire weather. There are three zones, based on increasing fire hazard: moderate, high, and very high. These zones serve several purposes. They are used to designate areas where exterior wildfire exposure protection building codes apply to new buildings. It can also be a factor in real estate disclosure.

Fire Hazard Severity Zone maps arose from major destructive fires, prompting the recognition of these areas and strategies to reduce wildfire risk. Legislative response led to mandated mapping across California under the California Public Resources Code 4201-4204, encompassing all State Responsibility Areas (SRA). The CAL FIRE Office of the State Fire Marshal began the regulatory process for the State Responsibility Area in December 2022, the final maps were adopted on January 31, 2024, and became effective April 1, 2024. The Local Responsibility Area Map Process will happen after the State Responsibility Area process has been completed, which is estimated to occur in winter of 2023/2024. You can learn more about FHSZs and search by address to find your current designation on the web at: osfm.fire.ca.gov/FHSZ

Local government considers fire hazard severity in the safety element of their general plan. Apart from the LE-100 program (fire safe clearances around structures); the Santa Clara Unit has delegated the enforcement of these building standards to the local authority. The Unit, however, continues to provide guidance and assistance to local authorities who frequently inquire as to specific building standards, changes to State Responsibility Areas, fire hazard severity zone designations, and through PRC 4290 plans checks.

Alameda County	Contra Costa County	Santa Clara County
Berkeley	Danville	Cupertino
Oakland	El Cerrito	Los Gatos
Piedmont	Lafayette	Monte Sereno
Pleasanton	Martinez	Morgan Hill
San Leandro	Moraga	San Jose
Berkeley	Orinda	Saratoga
	Pinole	Cupertino
	Richmond	

Table 8 – Cities in the Santa Clara Unit for which CAL FIRE has made recommendations on Very High Fire Hazard Severity Zones (VHFHSZ)

INFORMATION AND EDUCATION

CAL FIRE's Fire Safety Education Programs are spread throughout the Santa Clara Unit and come in the form of fair exhibits, school presentations, station tours, posters, flyers, thousands of other printed materials, radio and television spots, community meetings, one-on-one contacts with homeowners, and social media.

The Santa Clara Unit ensures that residents within the Unit are informed as to the dangers of wildfire. Santa Clara Unit has prioritized conducting Defensible Space (LE-100) inspections. These LE-100 inspections are conducted for the property owner/lessee to become educated on Section 4291 of the Public Resources Code (PRC). This section states, in part, that all structures located within State Responsibility Areas shall, always, maintain a clearance of 100 feet around them. By conducting LE-100 inspections, Santa Clara Unit staff have one-on-one contact with the public, providing fire safety education and while enforcing the PRC.

INSPECTION PROGRAM (LE-100)

The LE-100 inspection program is managed by the Units Fire Prevention/Law Enforcement Bureau. Inspection priorities are coordinated between the Bureau and the Unit Battalion Chiefs. Defensible Space Inspectors (DSI) and engine companies are responsible for performing inspections within the Unit, their response areas, and are typically performed during spring and summer months. The DSI’s and engine companies are directed to leave an inspection notice at all properties to inform the property owners/lessees there has been an inspection conducted. DSI’s and engine companies are also instructed to leave notices at residences where access is blocked.

During the inspections, the DSI’s and engine company personnel review and educate the property owner/lessee on fire prevention requirements. After the inspection a notice is issued, and the property owner/lessee is informed of the result. If there were violations noted during the inspection, the property owner/lessee is instructed to mitigate the violations and there will be a re-inspection. The DSI’s or the engine company will schedule a re-inspection for a later date. If, during the re-inspection the violation(s) have not been corrected, the notice will be turned over to the Fire Prevention/Law Enforcement Bureau and a citation may be issued to the property owner/lessee.

STATE REQUIREMENTS (SRA LANDS)

Public Resources Code 4290 (PRC §4290)

(a) The board shall adopt regulations implementing minimum fire safety standards related to defensible space that are applicable to state responsibility area lands under the authority of the department, and to lands classified and designated as very high fire hazard severity zones, as defined in subdivision (i) of Section 51177 of the Government Code. These regulations apply to the perimeters and access to all residential, commercial, and industrial building construction within state responsibility areas approved after January 1, 1991, and within lands classified and designated as very high fire hazard severity zones, as defined in subdivision (i) of Section 51177 of the Government Code after July 1, 2021.

Public Resources Code 4291 (PRC §4291)

The State of California Public Resources Code 4291 requires a property owner/lessee to create defensible space around structures on their property where firefighters can provide fire protection during a wildfire. PRC 4291 applies to areas within the State Responsibility Area (SRA) and includes:

a building or structure in, upon, or adjoining any mountainous area, forest covered lands, brush-covered lands, grass-covered lands, or any land that is covered with flammable material…

California Code of Regulations (CCR) – State Minimum Fire Safe Regulations

CCR Title 14, Division 1.5, Chapter 7, Subchapter 2 is where the regulations that require emergency ingress and egress, signing and building numbering, minimum private water supply reserves for emergency fire use, building setbacks and vegetation modification in areas designated as State Responsibility Area (SRA) can be found.

Subchapter 2 shall be known as the "State Minimum Fire Safe Regulations," and shall constitute the minimum Wildfire protection standards of the California Board of Forestry and Fire Protection.

DEFENSIBLE SPACE FUEL TREATMENT TACTICS

CAL FIRE has outlined two distinct Defensible Space Zones:

- Zone 0 – Ember-Resistant Zone. Extends 5 feet from buildings, structures, decks, etc.
- Zone 1 - Lean, Clean and Green Zone. From the structure outward to 30 feet.
- Zone 2 - Reduced Fuel Zone. From 30 to 100 feet from structures or to the property line.
- Zone 1 and 2 “Outbuildings” and Liquid Propane Gas (LPG) storage tanks shall have 10 feet of clearance to bare mineral soil and no flammable vegetation for an additional 10 feet around their exterior.

The following descriptions of vegetation treatment/hazard reduction operations are provided to promote the education of and compliance with PRC 4291. These requirements published by CAL FIRE should be reviewed by responsible parties and can be viewed at: readyforwildfire.org

1. Maintain a firebreak by removing and clearing away all flammable vegetation and other combustible growth within 30 feet of each building or structure, with certain exceptions pursuant to PRC §4291(a). Single specimens of trees or other vegetation may be retained provided they are well-spaced, well-pruned, and create a condition that avoids spread of fire to other vegetation or to a building or structure.

2. Dead and dying woody surface fuels and aerial fuels within the Reduced Fuel Zone shall be removed. Loose surface litter, normally consisting of fallen leaves or needles, twigs, bark, cones, and small branches, shall be permitted to a depth of 3 inches. This guideline is primarily intended to eliminate trees, bushes, shrubs, and surface debris that are completely dead or with substantial amounts of dead branches or leaves/needles that would readily burn.

3. Down logs or stumps anywhere within 100 feet from the building or structure, when embedded in the soil, may be retained when isolated from other vegetation. Occasional (approximately one per acre) standing dead trees (snags) that are well-space from other vegetation, and which will not fall on buildings or structures or on roadways/driveways may be retained.

4. Within the Reduced Fuel Zone, properties with greater fire hazards will require greater clearing treatments.

5. Clearance distances between vegetation will depend on the slope, vegetation size, vegetation type (brush, grass, trees), and other fuel characteristics (fuel compaction, chemical content etc.). Properties with greater fire hazards will require greater separation between fuels. For example, properties on steep slopes having large sized vegetation will require greater spacing between individual trees and bushes. Groups of vegetation (numerous plants growing together less than 10 feet in total foliage width) may be treated as a single plant. For example, three individual manzanita plants growing together with a total foliage width of eight feet can be "grouped" and considered as one plant and spaced according to the Plant Spacing Guidelines. Grass should not exceed 4 inches in height. However, homeowners may keep grass and other forbs less than 18 inches in height above the ground when these grasses are isolated from other fuels or where necessary to stabilize the soil and prevent erosion. Clearance requirements include:

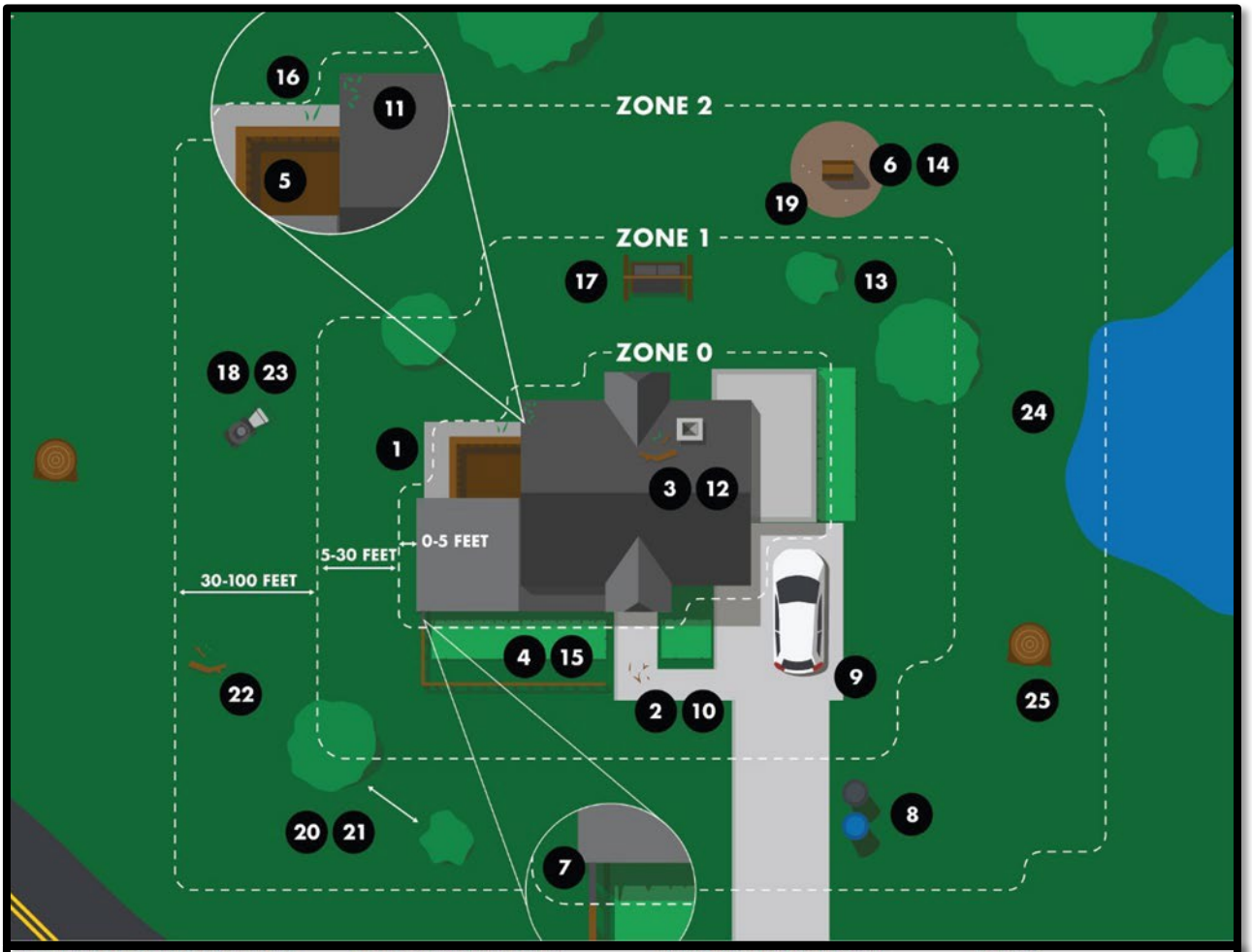
- Horizontal clearance between aerial fuels, such as the outside edge of the tree crowns or high brush. Horizontal clearance helps stop the spread of fire from one fuel to the next.

- Vertical clearance between lower limbs of aerial fuels and the nearest surface fuels and grass/weeds. Vertical clearance removes ladder fuels and helps prevent a fire from moving from the shorter fuels to the taller fuels.

To achieve defensible space while retaining a stand of larger trees with a continuous tree canopy apply the following treatments:

- Generally, remove all surface fuels greater than 4 inches in height. Single specimens of trees or other vegetation may be retained provided they are well-spaced, well-pruned, and create a condition that avoids spread of fire to other vegetation or to a building or structure.

- Remove lower limbs of trees ("prune") to at least 6 feet up to 15 feet (or the lower 1/3 branches for small trees). Properties with greater fire hazards, such as steeper slopes or more severe fire danger, will require pruning heights in the upper end of this range.



Zone 0 extends from zero to five feet from buildings, structures, decks, etc.

1. Use hardscape like gravel, pavers, concrete, and other noncombustible mulch materials. No combustible bark or mulch.
2. Remove all dead and dying weeds, grass, branches, and vegetative debris. Check your roofs, gutters, decks, porches, stairways, etc.
3. Remove all branches within 10 feet of any chimney or stovepipe outlet.
4. Limit combustible items (outdoor furniture, planters, etc.) on top of decks.
5. Relocate firewood and lumber to Zone 2.
6. Replace combustible fencing, gates, and arbors attached to the home with noncombustible alternatives.
7. Consider relocating garbage and recycling containers outside this zone.
8. Consider relocating boats, RVs, vehicles, and other combustible items outside this zone.

Zone 1 extends five to 30 feet from buildings, decks, and other structures.

9. Remove all dead plants, grass, and weeds (vegetation).
10. Remove dead or dry leaves and pine needles from your yard, roof, and rain gutters.
11. Remove branches that hang over your roof and keep dead branches 10 feet away from your chimney or stovepipe outlet.
12. Trim trees regularly to keep branches a minimum of 10 feet from other trees.
13. Relocate exposed wood piles outside of Zone 1.
14. Remove or prune flammable plants and shrubs near windows.
15. Remove vegetation and items that could catch fire from around and under decks.
16. Create a separation between trees, shrubs, and items that could catch fire, such as patio furniture, wood piles, swing sets, etc.

Zone 2 extends from 30 feet to 100 feet from buildings, structures, decks, etc.

17. Cut or mow annual grasses to a maximum height of four inches.
18. All exposed wood piles must have a minimum of 10 feet clearance around them, down to bare mineral soil, in all directions.
19. Create horizontal space between shrubs and trees. (See diagram on page 9)
20. Create vertical space between grass, shrubs, and trees. (See diagram on page 9)
21. Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of three inches.

All zones

22. Mow before 10 a.m., but never when it's windy or excessively dry.
23. Protect water quality. Do not clear vegetation near waterways to bare soil. Vegetation removal can cause soil erosion—especially on steep slopes.
24. Logs or stumps embedded in the soil must be removed in Zone 0. In Zones1and 2 they need to be removed or isolated from other vegetation.

Defensible Space Illustration

RESOURCE MANAGEMENT

Unlike many other CAL FIRE Units, the Santa Clara Unit has little Forest Practice Regulation activity. This is primarily due to the small number of acres legally available for commercial timber harvesting such as timberland production zone (TPZ) within the five counties served by SCU. Instead, most of the resource management concerns involve other activities that maintain or improve forest health, enhance wildfire resilience, improve ecosystem functions, and reduce hazardous vegetative fuel conditions in the State Responsibility Areas (SRA).

Staffing within the Resource Management Division include the following positions:

- 1 Forester II - Unit Forester (D1606)
- 1 Forester I - Wildfire Resilience Forester (F1691)
- 1 Environmental Scientist (F1692)
- 1 Fire Captain - Pre-Fire Engineer (P1625)

CAL FIRE has several programs to assist private landowners, non-governmental organizations, and other agencies to achieve their resource management goals. Below is an overview of some programs managed by SCU Resource Management.

The **Vegetation Management Program (VMP)** and the **Vegetation Treatment Program (VTP)** is a program to assist landowners with their land management objectives using prescribed fire and mechanical treatments. Prescribed fire includes broadcast burns of large contiguous areas and hand pile burning in smaller and more sensitive areas.
The use of prescribed fire mimics natural processes and restores fire to its historic role in wildland ecosystems and provides significant fire hazard reduction benefits that enhance public and firefighter safety. Mechanical treatments include manual cutting and chipping as well as using heavy equipment to masticate vegetation in situations. This may be used to prepare an area for burning or as a stand-alone treatment. Encouraging the best 'mix' of natural resource benefits from these lands, consistent with environmental protection and landowner objectives, is the Department's intent. VMP and VTP projects utilize a programmatic Environmental Impact Report (EIR) to achieve compliance with the California Environmental Quality Act (CEQA).

The **VMP** is a program that focuses on the use of prescribed fire and some mechanical means, for addressing wildland fire fuel hazards and other resource management issues on State Responsibility Area (SRA) lands.

The VMP program has three broad goals, which encompass most Vegetation Management objectives:

- Optimization of soil and water productivity.
- Reduction of conflagration fires.
- Protection and improvement of intrinsic ecosystem values.

The **CalVTP** Programmatic Environmental Impact Report (EIR) supports the use of prescribed burning, mechanical treatments, hand crews, herbicides, and prescribed herbivory as tools to reduce hazardous vegetation around communities in the Wildland-Urban Interface (WUI), to construct fuel breaks, and to restore healthy ecological fire regimes. The VMP/VTP Coordinator in the Santa Clara Unit is also the Unit Forester and CEQA Coordinator (D1606). The coordinator is responsible for all aspects of the planning and development of the landowner agreement and burn plan. The Wildfire Resilience Forester I (F1691) and Environmental Scientist (F1692) assists the Unit Forester in planning and development.

VMP and VTP projects also provide valuable opportunities for training with live fire, command and control functions and logistic support. These training opportunities are extended to many partnering agencies as well. A key distinction between a prescribed burn and a wildfire is that pre-planning a prescribed burn reduces uncertainty and makes the overall VMP project less complex. Prescribed burns are managed to achieve the landowner's goals such as hazardous fuels reduction, native plant restoration/ invasive plant control, increase water yields, and range improvement. The timing of a burn is often critical to the success of achieving these goals; fuel moisture, weather and the life stage of flora are carefully monitored before and during a burn to achieve success while minimizing adverse impacts to desirable flora and fauna. A smoke management plan and applicable burn permits from the Bay Area Air Quality Management District (BAAQMD) are required before the burn to minimize smoke impacts to the public. Prior to ignition, the Incident Commander must confirm that proper approvals and notifications have been performed and then satisfactorily complete the VMP Go/No Go Checklist.

The **California Climate Initiative (CCI) Wildfire Prevention** grant program is managed by CAL FIRE for eligible applicants at the SCU level to support fire prevention activities that mitigate the potential for wildfire to impact habitable structures while improving long term carbon sequestration levels. Qualifying projects include hazardous fuel reduction projects, fire prevention education, and fire prevention training and planning that reduce the risk of wildfire upon habitable structures in the SRA and LRA as worsened by recent drought conditions. Grants awarded within SCU are administered by the Resource Management Division. CAL FIRE often provides substantial additional support for these projects with personnel, equipment, and technical support.

Wildfires throughout the State during 2020 set a multitude of new records in wildfire impacts. These events increased many land manager's interest in fire prevention planning and education as well as vegetation management for reducing hazardous fuel loads. No solicitation occurred in 2020, but in 2021, the CAL FIRE Grants program resumed awarding Wildfire Prevention Grants. Additional solicitation for projects continued through 2022 and is in the process for 2023. SCU continues to anticipate strong interest in the program with many applications expected.

The table below shows the approved and active CCI Fire Prevention funded grants issued to partnering organizations within the Unit that will be active in 2023. SCU Resource Management will provide grant management and other support as needed.

Project Name	County	Project Location	Funding Recipient	Funding Amount	Grant Number
Hazardous Fuels Reduction in Four Wild Land-Urban Interface Parks	Alameda	Oakland Hills	East Bay Regional Park District	$750,000	5GG17199
Partners in Wildfire Prevention in Alameda and Contra Costa County	Alameda, Contra Costa	Alameda and Contra Costa	Diablo Fire Safe Council	$324,020	5GG17201
UC Berkeley Hill Campus Fire Hazard Reduction	Alameda	UC Berkeley Hill Campus	University of California, Facilities Services	$3,621,000	5GG17202
Critical Evacuation Route Planning, Creation, and Community Preparedness	Santa Clara	Santa Clara County	Santa Clara County FireSafe Council	$603,018	5GG18118
Mt. Madonna Fuel Reduction Project	Santa Clara	Mt. Madonna Park	County of Santa Clara Parks and Recreation	$828,574	5GG19139
Wildfire Risk Maps for Fire Prevention Planning in Santa Clara County	Santa Clara	Santa Clara County	San Mateo Resource Conservation District	$365,724	5GG19140
Tunnel East Bay Hills Fuel Break	Alameda	Alameda County	East Bay Regional Park District	$6,630,563	5GA20109 1CA05387
Partners in Wildfire Prevention in Alameda and Contra Costa County, continued	Alameda, Contra Costa	Alameda and Contra Costa	Diablo FireSafe Council	$493,850	5GG20118
Skyline Blvd Evacuation Route	Alameda	Skyline Blvd	City of Oakland	$773,929	5GG20119 8CA05462

Project Name	County	Project Location	Funding Recipient	Funding Amount	Grant Number
Lafayette/Walnut Creek Shaded Fuel Break	Contra Costa	Lafayette/Walnut Creek	Contra Costa County FPD	$3,000,780	5GA21144
Enhancement of Reduced Fuel Zones, Evac. Readiness, and Comm. Prep	Santa Clara	Santa Clara County	Santa Clara County FireSafe Council	$1,456,579	5GG21228
Educational Videos for the Science and Prevention of Wildfires	Statewide	Statewide	Next Vista for Learning	$191,400	5GA21124
Santa Clara County CWPP Update	Santa Clara	Santa Clara County	Santa Clara County FireSafe Council	$250,000	5GA21127
Green Climber Purchase	Santa Clara	Santa Clara County	City of Morgan Hill	$160,000	5GA21128
University of California – Berkeley Lab Wildland Fire Hazard Reduction	Alameda	Berkeley	Regents of the University of California Berkeley	$2,878,104	5GA21143
Grizzly Peak Strategic Fuel Break Collaboration	Alameda, Contra Costa	Alameda and Contra Costa Counties	East Bay Regional Park District	$2,800,000	5GA22212
Augustin Bernal Community Park Fuels Reduction	Alameda	Livermore-Pleasanton	Livermore-Pleasanton Fire Dept.	1,048,900	5GA22213

Table 9 – Active CCI Fire Prevention Grants

The **California Climate Initiative (CCI) Forest Health** grant program is managed by CAL FIRE for eligible applicants at the Sacramento level. This program provides funds for active restoration and reforestation activities aimed at providing for more resilient and sustained forests to ensure future existence of forests in California while also mitigating climate change, protecting communities from fire risk, strengthening rural economies, and improving California's water and air. SCU has one active Forest Health Grant project that was funded for the Santa Cruz Mountains of Santa Clara County between Lexington Reservoir and Page Mill Road. This grant is a partnership with the Santa Clara County Fire Safe Council, San Jose Water Co, Midpeninsula Regional Open Space District, Santa Clara County Parks, and others, known as the Los Gatos Creek Watershed Collaborative or "Collaborative". In May 2023 the Collaborative was awarded over 6.3 million in new Forest Health Grant funding for Phase 2, to continue work in the Los Gatos Creek Watershed, incorporating new treatment areas with Aldercroft Heights Firewise and Lupin Lodge.

Project Name	County	Project Location	Funding Recipient	Funding Amount	Grant Number
Los Gatos Creek Watershed Collaborative Forest Health	Santa Clara	Santa Cruz Mountains	Santa Clara Fire Safe Council	$7,500,000	8GG20604
Los Gatos Creek Watershed Collaborative Forest Health	Santa Clara	Santa Cruz Mountains	Santa Clara Fire Safe Council	$6,336,790	8GG22611

Table 10 – Active Forest Health Grants

The **California Forest Improvement Program (CFIP)** is a State cost-share program aimed at improving the economic value and environmental quality of forest lands. CFIP projects help sustain forest and wildlife resources to meet our future needs for a healthy environment and productive forests. Healthy forests are more resistant to drought, pests, and fire damage. Qualified landowners can generally be reimbursed up to 75 percent of their expenses for tree planting, thinning, release, fuels management, erosion control, and fish and wildlife habitat improvement projects. Ninety percent cost share rates may apply for projects on land damaged by wildfires, diseases, insects, wind, floods, landslides, or earthquakes during the last ten years. This program is managed by forestry assistance specialists (FAS) at the Sacramento level.

Projects funded by CFIP include:

- Preparation of a Management Plan and project supervision by a Registered Professional Forester.
- Site preparation, tree planting, and follow-up activities, such as adding browse guards, to enhance tree survival and growth.
- Tree thinning, release, and pruning.
- Fuels management and slash disposal work, if located more than 100 feet from dwellings.
- Erosion control, including revegetation, road rehabilitation, and installation of structures such as water bars, rocked crossings, or check dams, to reduce soil erosion and stream sedimentation.
- Fish and wildlife habitat improvement, including planting native oaks or riparian species, installing exclusion fencing around watercourses and wetlands, and stream restoration projects.

To qualify, the property must contain at least 20, but not more than 5,000 acres of forest land and the property zoning must allow forest management activities to occur. Forest land is defined as areas having at least ten percent tree cover or suitable land where native tree species will be planted. The minimum project size for tree planting, thin/release/pruning, or fuels management work is five acres. The five-acre limitation does not apply to erosion control or fish and wildlife habitat improvement projects. Any work required under the Forest Practice Act is not eligible for CFIP funding. Planting or thinning of trees for use as Christmas trees, greenery or firewood is also not eligible. Two CFIP contracts were successfully completed in 2021. Currently, there are no active CFIP contracts within SCU. There has been a tremendous amount of interest in the program with several qualifying applicants, however the lack of RPF availability precludes the execution of a formal contract. Multiple landowners in the Santa Cruz Mountains and other rural areas of the Unit have interest in the program.

The **Urban Forestry Program** is managed statewide by staff in the Sacramento-based Urban Forestry Program. This program provides technical expertise and grants to create and maintain sustainable urban forests. Urban trees and community forests are important for providing energy conservation, reduction of storm-water runoff, extend the life of surface streets, improve local air, soil, and water quality, reduce greenhouse gas emissions, improve public health, provide wildlife habitat, and increase property values. Urban Forestry Program foresters provide expert support to communities, non-profit groups, and municipal governments within the Santa Clara Unit to create and maintain sustainable urban forests. These foresters also administer and provide technical support for grants that are offered for activities such as tree planting, municipal tree inventories and management plans, urban forest educational efforts, and innovative urban forestry projects. These grants are now funded through the California Climate Initiative (CCI) program.

The **Forest Health Management Program** provides information to landowners and makes recommendations to the Board of Forestry regarding the health of California's forests. CAL FIRE entomologists and pathologists are available to examine forest health concerns at the local level when requested. They also provide education and training to agency and private foresters on current issues. The Santa Clara Unit Resource Management staff monitors local forest health conditions all year to determine if above normal stress and mortality is occurring. Drought and storm damage can have lasting impacts that not only affect fire hazard severity but also public safety, aesthetics, property values and wildlife habitat. In January of 2024, Invasive Shothole Borers (ISHB) were discovered in California sycamore trees within San Jose City. The list of known host trees is very extensive and the potential impacts to native and non-native trees could be severe. CAL FIRE Forest Health Specialists with expertise in forest pathology and entomology were immediately requested to assess the situation. Their research in concert with other state, Federal and academic institutions continue. Their preliminary assessments strongly suggest that ISHB was unintentionally transported from Southern California where it was first detected in 2003. SCU staff will continue to assist with research into the cause(s), foster information sharing, and promote mitigation measures to minimize the fire hazard, risks to public safety and impacts to habitat and aesthetics.

The **California Forest Stewardship Program** was created to encourage good stewardship of California's private forestland. The program provides technical information and assistance to landowners to promote sound forest management and assists communities in solving forest-related issues. SCU Resource Management Division provides informal consultations to landowners with questions or concerns about general forest management topics and can provide referrals to other organizations when other subject matter expertise is appropriate.

The **Seed Bank Program** based at the L.A. Moran Reforestation Center (LAMRC) in Davis, California is intended to provide insurance against poor natural seed crop years and for maintaining the widest possible genetic variety of forest tree species. The seed bank is a long-term depository of a wide range of commercial and non- commercial native species. LAMRC specializes in forest tree cone and seed processing and seed bank storage. CAL FIRE staff at the center continues to provide technical assistance to the forest industry, other agencies, and private landowners on cone and seed matters and seed collection activities.

CAL FIRE has recently resumed conifer seedling production at LAMRC. The LAMRC also works closely with federal and private nurseries to raise high quality native tree seedlings for reforestation and afforestation needs. The SCU Resource Management Division conducts cone crop surveys, certifies appropriate collection trees and coordinates with LAMRC to provide climbers to collect the cones when a local conifer cone crop is suitable for collecting.

CAL FIRE's Environmental Protection Program within the Santa Clara Unit is managed by the Unit Forester. All projects that CAL FIRE permits, funds, or carries out that may affect the environment, is subject to disclosure and review under the California Environmental Quality Act (CEQA). Santa Clara Unit Resource Management staff performs this work when CAL FIRE is the Lead Agency.

Partnering organization projects are projects sponsored and funded by other governmental agencies like parks, open space districts and non-governmental organizations (NGO's) like Fire Safe Councils. These organizations have identified priority projects such as hazardous fuel reduction work, fire prevention education and fire prevention planning. CAL FIRE often provides substantial additional support for these projects with personnel, equipment, and technical support. Santa Clara Unit personnel support for fuel reduction projects includes Engine Companies, Helitack Crews, and firefighter fuels crews.

SCU also has access to Conservation Camp crews from Ben Lomond Camp (San Mateo-Santa Cruz Unit), Delta Camp (Lake-Napa Unit), and Gabilan Camp (San Benito- Monterey Unit). The Santa Clara Unit has chippers, chainsaws, a bulldozer brush rake, ball and chain, brush mower, terra torch, a skid steer masticator, and other tools specifically for fuel treatment projects. Technical support includes developing treatment prescriptions to achieve landowner's objectives while mitigating potential adverse environmental impacts and preparing the CEQA compliance documentation.

SCU supports projects considered to be a high priority within Community Wildfire Protection Plans (CWPP) and those developed by stakeholders in High and Very High Fire Severity Zones as identified by CAL FIRE's Forest and Range Assessment Program.

SCU staff are aware of many projects in the planning stage that are intended to address areas and conditions of particular concern. SCU would like to support these projects with grants, crews, and technical advice to the extent possible. A table of proposed and active projects is included in Appendix A.

Priority Areas

In general, the Unit's priority for vegetation management are areas with Very High Fire Hazard Severity Zone designations, little or no recent fire history, and areas with high population in the SRA (especially in the wildland-urban Interface). Each of the Unit's Battalion Chiefs have identified specific priority areas within their Battalion. A table of planned projects that SCU anticipates assisting partnering organizations with during 2024 are included in Appendix A.

Objectives

- Reduce hazardous vegetation for defensible space at CAL FIRE facilities such as fire stations, radio repeater sites and fire lookouts.
- Plan, prepare, and conduct prescribed burn projects.
- Maintain Truck Trails where CAL FIRE has use agreements and CEQA compliance. This requires periodic maintenance of roadside vegetation and road surfaces to ensure adequate emergency response capability.
- Promote CFIP agreements with local qualifying landowners to restore and enhance ecosystem functions and to reduce hazardous vegetative fuel conditions.
- Provide grant administration and technical assistance to projects funded by CCI grants.
- Provide technical assistance and material support whenever possible, to partnering organization's projects.

SECTION V: PRE-FIRE MANAGEMENT TACTICS

Pre-fire management tactics are employed by the Santa Clara Unit though multiple programs available to each planning area. These programs can be tailored to meet the needs at a countywide or community level. These programs are also scalable to meet the needs of the county and communities we serve.

DIVISION / BATTALION / PROGRAM DESCRIPTION & PLANS

The following pages contain descriptions of each field Battalion and lists of projects and goals for the implementation of the Santa Clara Unit's Strategic Fire Management Plan. They are compiled by the field Battalion Chiefs with input from the Unit's Pre-Fire Engineer, FireSafe Councils, other stakeholders, and the public through community outreach. While they reflect an amazing cross section of goals and ideas, they are not inflexible or cast in stone, nor are they the only options available to mitigate a problem. These are suggestions and a starting point for the journey, not the end point.

BATTALION 1

Battalion 1 covers portions of Western, Southern and Eastern Santa Clara County and lies solely in the State Responsibility Area (SRA). The boundary of the Western portion follows the south side of Bailey Road (San Jose) in the Northwest; East of Uvas Road; then westward on the Redwood Retreat Road; South along the Santa Cruz County line to San Benito County line. The boundary of the Eastern portion follows the San Benito County Line at San Felipe Road to the Henry Coe State Park and private ranches to the west side of County Line Road, including the Highway 152 corridor - from Dinosaur Point to Dunne Hill.

Battalion 1 is comprised of three state facilities, Pacheco, Coyote, and Headquarters. Pacheco Fire Station is located along Highway 152 and is home to one Type III Engine. Coyote Fire Station is located near Coyote Creek and Hunting Hollow and is home to one Type III Engine, staffed with personnel during peak fire season. Headquarters Fire Station is located within the City of Morgan Hill along Monterey Road and Butterfield Boulevard and is home to two Type III Engines staffed with personnel during peak fire season. Headquarters also houses one of three Bulldozers in the Santa Clara Unit.

Headquarters Fire Station is co-located with South Santa Clara County Fire District (SSCCFD) Fire Station 1 under a cooperative fire agreement with CAL FIRE, SSCCFD, and the City of Morgan Hill. Headquarters is also home to the Emergency Command Center (ECC), Fleet Management Shop, Logistics Center, Resource Management, Training Bureau, and Fire Prevention Bureau.

Topography in the Battalion ranges from rolling hills bordering the Santa Clara Valley and Highway 152 corridor to steep slopes at higher elevations covered with brush and conifers at the mid and upper elevations. Portions of the Battalion such as Henry Coe State Park and the Western border with the San Mateo-Santa Cruz Unit (CZU) are remote and require extended travel times for ground resources to make access. The Battalion also encompasses thousands of acres of watershed, critical to domestic drinking water, contains a habitat critical to numerous animal and plant species and has an abundance of historic and pre-historic cultural sites.

Fuels in the Battalion range from annual grass and oak woodland at (60%) of the lower more arid elevations, to conifers at (10%) of the upper elevations of the western border of the Battalion with CZU. The mid elevations as well as shaded slopes of the lower elevations and the Southern aspects of the upper elevations have a significant amount of California mixed chaparral species at (30%). Depending on the live fuel moisture content of these fuel models and any adverse weather conditions, these fuels can present significant fire behavior and resistance to fire control efforts.

Due to the moderating influence of the Pacific Ocean, Battalion 1 typically enjoys a mild Mediterranean climate. Summer months in the western portion of the Battalion are characterized by coastal fog which arrives from the ocean around 10 p.m. and dissipates the next morning by 10 a.m. The eastern portion of the Battalion above 2000 feet is often above the marine influence allowing fires to burn actively at night. Both wind and low relative humidity play important roles in influencing fire behavior in the Battalion. On most days, afternoon winds in the Santa Clara Valley blow from 10- 15mph. During the night, dry air over the higher elevations of the eastern portion of the Battalion sinks towards the Central Valley causing moderate downslope winds and a drop in humidity, commonly into the single digits typically between midnight and 4:00 a.m. above 1500 feet. Extended travel times into these areas combined with heavy fuel loads can create significant fire behavior concerns.

In addition to CAL FIRE and its cooperative agreements, there are two paid fire agencies operating in Battalion 1 that border SRA. Historically, major wildland fire occurrence has been in the remote and sparsely populated eastern portion of the Battalion. The 1936 Fire, 1961 Bollinger Ridge Fire and the 2007 Lick Fire are some of the largest fires recorded in the Santa Clara Unit. The Croy Fire occurred in fall of 2002 in the hills west of Morgan Hill City and burned for a week destroying numerous structures. Other recent notable fires include the Hummingbird and Whitehurst Fires in 2008 and the Crews Fire in 2020. These fires required a significant commitment of resources and time to prevent structure loss.

A complex wildland urban interface zone (WUI) exists in the Battalion. Many residences are in areas with poor access, steep slopes, and heavy fuels. Fires in the Battalion often require significant resource augmentation and coordination with local government resources. With the cooperation of local fire agencies, Mutual Threat Zones (MTZ'S) have been created, allowing a significant increase in initial attack capabilities and therefore an increased probability of fires being contained with the initial attack response.

Fire prevention in Battalion 1 will focus on comprehensive defensible space inspections (LE-100a), public education, fuel reduction projects, shaded fuel break construction and improving road access to remote areas. One of the oldest Firesafe demonstration gardens in the State is in the Battalion at the SCU Headquarters. The "Chris W. Morgan Firesafe Demonstration Garden" is named in honor of retired Fire Prevention Specialist II Chris Morgan and his years of service to fire prevention in SCU. Other notable ongoing projects in the Battalion include the County Line Road fuel break and fire road maintenance, cooperative operations with other

public entities on various Vegetation Management Program projects in and around Henry Coe State Park and Santa Clara County Parks (State Parks, Fish and Wildlife, and Santa Clara County Open Space) requiring close interagency cooperation and planning. These ongoing projects accomplish both fuel reduction and provide access to isolated areas of eastern Santa Clara County.

Priority Areas

1. Continue to maintain the Santa Clara County Line Road Fuel Break. This Road runs from the San Antonio Valley at Hwy 130 to Hwy 152 just east of Pacheco Fire Station. This road serves as a critical access to fires in Coe Park and the Orestimba Creek Watershed.

2. Continue the development of concise pre-response and evacuation plans for Croy Road, and Watsonville Road areas. These plans and maps will provide personnel, including ECC staff, and incident management teams with the location of strategic control points and access into remote SRA land.

3. Obtain and install additional water tanks for fire protection at the Coyote Fire Station and the Canada de Los Osos Ecological Reserve.

4. Develop and establish a Firesafe demonstration garden at Pacheco Station.

5. Install fire prevention signs for the public at Coyote Fire Station.

6. Assist Henry Coe State Park and private ranchers in fuel modification projects.

7. Assist County of Santa Clara with Mt. Madonna fuels reduction project.

Objectives

1. Continue to maintain the Santa Clara County Line Road Fuel Break (along Stanislaus County). This Road connects the San Antonio Valley at Highway 130 to Highway 152 just east of the Pacheco Fire Station. This road serves as a critical access to fires in Henry Coe Park and the Orestimba Creek Watershed. The road is maintained by Unit personnel every two years or when needed pursuant to longstanding agreements with local landowners.

2. Conduct vegetation management project in cooperation with California Department of Fish and Wildlife within the area of Cañada de los Osos Ecological Reserve.

3. Continue homeowner defensible space inspections (LE100 Inspections) for habitable structures with Volunteers in Prevention (VIP), Engine Companies, and dedicated defensible space inspectors.

4. Continue providing input on all new construction and developments with the Santa Clara County Fire Marshall's office.

5. Participate in various local community activities (i.e., Back Country Event and Tarantula Festival).

6. Assist with training and planning to assist local government for the possibility of natural or man-made disasters.

7. Support the findings of the Santa Clara Countywide Community Wildfire Protection Plan.

8. Maintain Pacheco Peak repeater site due to it being a key communication site for the Unit.

9. Assist Henry Coe State Park and private ranchers in fuel modification projects.

10. Develop concise pre-response and evacuation plans for the battalion. These plans and maps will provide new personnel, ECC staff, and incident management teams with the location of strategic control points and access into the vast area of SRA lands.

11. Whenever dealing with the media suggest fire prevention messages to be included and integrated into their story.

12. Conduct public information and education programs at local schools.

13. Distribute FireSafe educational materials at public gatherings and public venues.

14. Improve awareness and involvement between the Santa Clara County Firesafe Council and South Santa Clara County communities with personnel at the fire station.

BATTALION 2

Battalion 2 encompasses approximately 250 square miles of SRA lands in the Northeastern portion of Santa Clara County and the SRA lands in the Almaden Valley. A major portion of the Battalion covers the remote undeveloped area of the Diablo Range.

Topography in Battalion 2 ranges from the foothills South and East of the bay to the mountainous areas of the Diablo Range. Fuel types are generally grassland (30%), oak woodland (30%) California mixed chaparral (30%) and mixed conifer (10%) along the ridgelines of the Diablo Range.

Most of fuels in the wildland urban interface (WUI) areas on the border of San Jose City would be classified as a grass model except for the Alum Rock area. The fuel type that presents the greatest threat for this interface area is the eucalyptus trees. These trees will be the main source of fire brand production and have the potential to cause moderate to long range spot fire ignitions and will make control efforts and structure defense difficult.

Higher elevations above the frequent inversion layer stay very dry and commonly experience nighttime subsidence with an offshore component dropping the relative humidity into the single digits. Extreme fire behavior has been observed on several wildfires above 2,000 feet in elevation in the Diablo Range due to this microclimate. In late summer and fall when the offshore flow is more prevalent, and the live fuel moistures reach critical levels, large fire potential is quite high. Strong pressure gradients between interior California and the ocean produce very strong winds through the area.

Most of Battalion 2 encompasses the rural areas East of San Jose. An expansive Wildland urban interface zone exists in the East San Jose foothills as well as in the Almaden Valley area South of San Jose City. This creates the potential for a significant wildfire within the City of San Jose that could result in considerable structure loss. Some high-density Local Responsibility Area (LRA) communities in the lower foothills are intermixed with native wildland fuels, eucalyptus trees, and flammable non-native landscaping.

Alignment of a high wind event could drive a fire front through these subdivisions with the structures themselves becoming the main source of fuel loading and fire spread. The remote SRA areas also have a high potential for major fires, but ignitions are limited. In 2003 and 2020, lightning ignited numerous fires in the Diablo Range with several becoming major incidents.

Most fires in the Battalion are typically contained by the initial attack resource assignment. Cooperation with San Jose Fire Department and augmented dispatches provides a significant factor in rapid containment of fire starts in the wildland urban interface zone.
Fire Prevention in Battalion 2 focuses on public information and education.
Additional, fuel reduction projects are a priority in the areas of Grant Ranch County Park and the Lick Observatory. Several vegetation management burns are also planned for private landholdings in the Eastern portion of the Battalion.

Priority Areas

The priority areas within the Battalion were based on three factors: Values at Risk, Communities at Risk, and Watershed Value. The five areas are:

1. Smith Creek Truck Trail Maintenance
2. Lick Observatory
3. The Community of Twin Creeks
4. North and South Fuel Breaks
5. Casa Loma Road

Objectives

1. Continue homeowner defensible space inspections (LE100 Inspections) for habitable structures.
2. Conduct Vegetation Management Program (VMP) projects within the Grant Ranch and Calero County Parks.
3. Provide support for establishment of a Santa Clara County-wide Community Wildfire Protection Plan.
4. Continue development and maintenance of a fuel break around Copernicus Lookout.
5. Continue repairs and improvements to the Copernicus Lookout.
6. Install additional water tanks for fire protection at Smith Creek Station.

7. Conduct public information and education programs at local schools.
8. Distribute Fire Safe educational materials at public gatherings and public venues.
9. Educate the public on proper techniques and procedures for home hardening.
10. Implement wildland exercises and training with cooperators and adjoining agencies.

BATTALION 3

Battalion 3 is in Santa Clara County and is along the eastern slope of the Santa Cruz Mountains from Los Altos right at the San Mateo County line south to Hecker Pass (Hwy 152) west of Gilroy. The Battalion resides solely in the State Responsibility Area (SRA) and enjoys positive working relationships with the Santa Clara Central Fire Protection District in the north, San Jose Fire Department centrally, and Morgan Hill and South Santa Clara County Fire District (CAL FIRE cooperative fire protection agreements) to the South. Within the Battalion are the primary domestic water supply watersheds for Silicon Valley providing water to over two million residents through six reservoirs and two water companies: the Santa Clara Valley Water District and the San Jose Water Company. The Battalion is home to a large amount of coast redwoods protected from development by Open Space Districts and County Parks.

The large population centers of Palo Alto, Cupertino, Los Gatos, and Saratoga are all within the Local Responsibility Areas (LRA) but are treated as Mutual Threat Zones (MTZ). Weather in Battalion 3 is typical of a Mediterranean climate. Fog often rolls in during the evening hours and burns off late the next morning. Onshore breezes from the Pacific raise humidity and moderate fire danger most summer afternoons. Evening inversions that set up above the fog layer create extremely low humidity levels overnight and create humidity readings that can be as much as 30% lower 500 ft. above the fog. Offshore flow, coupled with low 100 and 1000-hour fuel moisture levels in late summer, fall and even in the winter months create critical fire weather conditions. The historic large fires in this battalion have occurred under the influence

of strong north winds which bring the entire Santa Cruz Mountain range into a critical wind alignment when they surface. The East Slope of the Santa Cruz Mountains receives on average 25 inches of rain per year. Strong moist Pacific storms come off the ocean and create orographic lift on the mountain range producing significant rainfall. During drought conditions as seen in the Battalion between 2012- 2016, live fuels can become extremely stressed and hit critically low levels around August instead of mid-September and result in fires that become resistant to control as seen in the 2008-2009 fire season, and the Loma Fire in 2016.

Fuels in Battalion 3 are diverse and can change rapidly over the mountain range depending on slope, aspect, and elevation. Elevations in the Battalion range from 350ft above sea level in the valley up to nearly 4000 ft. on the summits of Loma Prieta and Mt. Umunhum. Grass/Oak woodlands dominate the lower elevations transitioning to mixed conifers and mixed chaparral on the upper slopes. Conifers presents include coast redwood, Douglas Fir, Gray Pine, Knobcone Pine and Monterey Pine. Chapparal is dominant and extremely continuous on the southwest aspects of the eastern mountain range, with some stands having little to no recorded fire history.

The National Fire Danger Rating System (NFDRS) fuel models most common in the battalion are V, X, Y, and Z. The State Highway 17 corridor is densely populated and has a large amount of coastal redwood, a significant understory of brush and young trees from decades of build-up.

Fires starting along Highway 17 can take large amounts of resources to control due to the down and dead fuel components in the understory and extended travel times due to the route being heavily travelled by commuters. Traffic coming to a standstill on major and alternate routes during a fire can extend resource response times to more than triple their regular response times due to the congestion.

The battalion has two fire stations: Alma Fire Station in Los Gatos at Lexington Reservoir and Stevens Creek Fire Station in Cupertino on the Stevens Creek Reservoir. Both stations are staffed with one Type 3 Engine Company. The battalion is also home to the Alma Helitack Base which houses one S70i Fire Hawk Helicopter, and one Helicopter Support Unit.

During fire season the battalion responds to SRA related wildland fires and responds with Santa Clara Central Fire Protection District to assist with their life/property mission. During the winter months, Stevens Creek station is closed, and Alma station remains open to assist with Unit Vegetation Management Projects and assist Santa Clara County with emergency incidents such as vehicle accidents, structure fires, medical aids, and any other emergency within their initiate response area. The Helicopter is also staffed 7 days a week and is available for water dropping and rescue missions.

The battalion has a history of large devastating fire occurrences including the 2016 Loma Fire, the 2009 Loma Fire, the 2008 Summit Fire, 2002 Croy Fire, 1996 Cats Fire, and the 1985 Lexington Fire. Alma Fire Station, named after the town of Alma, was the original Santa Clara Unit Headquarters before it was moved for the construction of the dam at Lexington Reservoir in 1953. The towns of Alma and Lexington were consumed when the reservoir was created. When the reservoir lowers during drought years, foundations from houses and structures from the towns as well as the original “Santa Cruz Highway” can be seen. The station was moved to its present location and headquarters was then moved to Morgan Hill.

Priority Areas

1. Lexington Basin area including Aldercroft Heights, Chemeketa Park, Redwood Estates, Soda Springs Canyon, and the State Highway 17 Corridor. These communities combined cover 3,000 acres and include an estimated population of 2,400 residents. The average number of vehicles travelling per day on State Route 17 past the Alma Fire Station location is 55,000 and includes many commuters to the Silicon Valley and other locations in the Bay Area. There is also a significant amount of commercial traffic travelling through the area supporting large communities in Santa Cruz and Santa Clara Counties.

2. Saratoga area including the Highway 9 and Highway 35 Corridors, Stevens Canyon Road, Redwood Lodge Road, and Sanborn County Park.

3. Loma Chiquita and Casa Loma area of the former PL-566 Llagas Creek Watershed Project. These communities combined cover 5,500 acres and include an estimated population of 175 residents.

4. SRA Lands that border urban areas urban areas such as Los Altos Hills and others.

5. Watershed areas controlled by Santa Clara County Open Space Authority, Mid-Peninsula Open Space District, San Jose Water Company, and Santa Clara County Parks.

Objectives

1. Continue fuel modification work within the Lexington Basin in support of the Lexington Hills Community Wildfire Protection Plan (CWPP) and the new Santa Clara County CWPP on projects including Montevina Road, Morell Road, Moody Gulch, Black Road, Bear Creek Road, and Hwy 17.

2. Conduct fuel modification work within the vicinity of Saratoga (including Highway 35 and Highway 9), Redwood Lodge Road, Sanborn County Park, and Stevens Canyon Road.

3. Conduct fuel modification work along escape routes on Loma Chiquita and Casa Loma Roads, fuel break around the Loma Prieta repeater site, fuel modification along Chual Spur Road.

4. Conduct fuel modification at Rancho Canada Del Oro Open Space and the Sierra Azul Open Space Preserve.

5. Assist the Santa Clara County Fire Safe Council thru grants to expand a chipper program to include stakeholders in the Croy Ridge, Loma Chiquita, and Casa Loma communities.

6. Assist in gaining stakeholder support for a shaded fuel break along the western boundary of Santa Clara County.

7. Assist Santa Clara County Parks on a shaded fuel break around campgrounds and cabin structures in Mt. Madonna County Park.

8. Continue maintenance of evacuation routes on Morrill, Montevina and Wright Station Roads.

9. Assist in securing grant money in pursuit of above ground water storage tanks for fire suppression use at the Bear Creek Stables in the Sierra Azul Open Space Preserve.

10. Assist County Parks and the South Skyline Fire Safe Council in maintaining a fuel break along Charcoal Road from Table Mountain through to Sanborn County Park.

11. Continue homeowner defensible space inspections (LE 100) in and around the Lexington Basin with a focus on the communities of Aldercroft Heights and Soda Springs Canyon.

12. Continue homeowner defensible space inspections (LE 100) in the Stevens Canyon area with a focus on Montebello and Redwood Lodge Roads.

13. Continue collaborative work with the South Skyline Firesafe Council in Santa Cruz County along Skyline Road (Highway 35) including fuel modification work to maintain an evacuation route between Santa Clara and Santa Cruz Counties.

14. Distribute Firesafe educational materials at public gatherings and public venues.

15. Whenever dealing with the media suggest fire prevention messages to be included and integrated into their story.

BATTALION 4

Battalion 4 covers the entire County of Alameda. Alameda County has a population of 1.5 million people. It is geographically located on the Eastern side of the San Francisco Bay and stretches eastward from Oakland into the greater San Joaquin valley near Tracy. Contra Costa County borders it to the north while Santa Clara and San Joaquin border it to the south and east.

Topography ranges from rolling hills near the bay to mountainous elevations up to 4000 feet with steep canyon drainages south of Livermore. Fuel types are generally grass (50%), chaparral (30%) and oak woodland (20%). Weather during fire season is temperate near the bay and hotter and drier further inland approaching the inland valleys. The most significant weather factor in Alameda County is wind. Wind patterns are predominately west to east during fire season due to the cooler marine air flowing from the San Francisco Bay into the Livermore and San Joaquin valleys. Wind speeds vary but on most summer days the winds near the bay are 10 to 20 mph, in the eastern portion of the county on those same days wind velocities will be 15 to 25 mph. Wind velocities of 40 to 50 mph in the eastern portion of the Battalion are not uncommon under normal weather patterns. Even though relative humidity is tempered by the marine influence, the higher wind speeds adversely affect fire behavior. Any fire starts with sustained fuel continuity downwind of the origin of the fire quickly progress into moderate to rapid rates of spread at the fire's head. Quick initial attack by fire suppression forces is critical in these conditions.

Sunol Fire Station is home to two Type III Engines and one Type II Bulldozer. Sunol Fire Station is also home to one Type I Advanced Life Support (ALS) Engine and one Type VI Engine staffed by CAL FIRE personnel under a cooperative fire agreement with the Alameda County Fire Department (ACFD).

Operationally, Battalion 4 is a complex environment for CAL FIRE. There are eleven local government fire agencies operating in Alameda County. Combined, there are 125 paid companies in the Alameda County Fire Service. Nine of the eleven departments border CAL FIRE state responsibility areas (SRA).

There are approximately 70 miles of wildland urban interface (WUI) separating local government responsibility areas (LRA) from the 286,000 acres of CAL FIRE jurisdiction. The interface area is densely populated with homes that easily exceed one million dollars each. The high values at risk in Battalion 4 and the windy conditions have combined to create high damage loss fires historically. A single two-acre fire in the Oakland Berkeley Hills destroyed two homes and damaged a third for a total damage loss of four million dollars. The 1991 Tunnel fire destroyed 3,000 homes for a loss of 1.8 billion dollars. Life safety at wildland fires is a major concern.

There have been 28 wildland fire fatalities in Alameda County going back to 1968 including citizens, police, and firefighters. Coordination during wildland fire evacuations in the densely populated interface areas is a major challenge. Coordination with local government fire resources is critical to fire response in Alameda County. An extensive cooperative effort over the past ten years to create and manage mutual threat zones and responses to fires has dramatically increased CAL FIRE's initial attack capability in this area. That coupled with CAL FIRE moving additional fire engines and helicopters into the East Bay during times of high fire danger increases the probability of keeping fires small and therefore reducing the need for evacuations and reducing dollar loss.

The focus for fire prevention in Battalion 4 is public education, information, planning, and fuel reduction in prioritized areas. This focus includes a strong relationship with stakeholders to maximize effectiveness of limited resources to accomplish prioritized objectives. East Bay Regional Parks and University of California, Berkeley completed Environmental Impact Report to address fuels management by way of the establishment of fuel breaks, shaded fuel breaks and the reduction of hazardous trees and other vegetation within their jurisdiction of Alameda County. Similar environmental compliance documents are in progress by the City of Oakland for their open space lands.

CAL FIRE is partnered with local government fire agencies, the Diablo Firesafe Council (DFSC), and the Hills Emergency Forum. This partnership is designed to reach beyond the fire service to involve homeowners, community leaders, planners, developers, insurance companies, public utilities, and others to reduce the risk of wildfire before a fire starts. In 2018 University of California Berkeley received a $3.6 million grant for fire hazard reduction and protection of key evacuation zones on their Hill Campus. In 2021 the University of California, Board of Regents certified the Final Environmental Impact Report (EIR) for the UC Berkeley Hill Campus Wildland Vegetative Fuel Management Plan. The Plan identifies two fuel break projects, four temporary refuge areas, and three fire hazard reduction treatments, totaling approximately 600 acres.

Evacuation support projects completed under the grant included along Centennial Drive, Claremont Avenue, and the Jordan Fire Trail. In November 2020, Berkeley residents voted for Measure FF to create a parcel tax generating $12.7 million for emergency response and preparedness. In 2021 the Fire Department formed their Wildland Urban Interface Division with enhanced vegetation management inspection program, development of a Community Wildfire Protection Plan (CWPP), the City's Safe Passages program focused on evacuation, and risk reduction in collaboration with adjacent agencies. In 2022 the Berkley Fire Department started putting together their Community Wildfire Protection Plan (CWPP) and it was approved on May 16th, 2023.

In 2021, five projects were completed in high fire areas in Oakland, and Castro Valley, expending almost $23,500 in grant funds, matched by over $176,500 in community funds and sweat equity. Focus areas for new grant funding, will be used for a cost share program for hazardous fuel reduction “defensible space” and chipping, outreach, and education, planning for new projects and preparing residents for evacuation. In addition, over $100,000 of DFSC obtain grant funds were spent removing trees that could fall and block key evacuation routes in Oakland.

Funding will also be used to work with CAL FIRE and Alameda County Stakeholders to update the Alameda Countywide Community Wildfire Prevention Plan (CWPP) during 2022-23, participate in development of the first Regional Priority Plan (RPP) and identify future community focused appendices. Alameda County adopted its first Community Wildfire Prevention Plan (CWPP) in 2011 and adopted an updated plan in 2015. The community of Sunol adopted a site specific CWPP plan in 2017. In 2021 new grant funding of $493,850 for both Alameda and Contra Costa will extend the program to March 2025.

Priority Areas

Wildland urban interface (WUI) areas that are SRA/ local responsibility area (LRA) jurisdiction:

1. Oakland-Berkeley Hills - 16,200 acres protecting an estimated population over 500,000. Oakland Fire, Berkeley Fire, East Bay Regional Park District, University of California, Berkeley, and CAL FIRE have jurisdiction. Continuing to work with Diablo Fire Safe Council and community members on cost share hazardous fuel reduction projects including those in Berkeley and Oakland.

2. San Leandro-Castro Valley Hills - 8,500 acres protecting an estimated population of 154,800. Alameda County Fire, East Bay Regional Park District and CAL FIRE have jurisdiction. Continuing to work with Diablo Fire Safe Council and community members on cost share hazardous fuel reduction projects including those in Castro Valley and San Leandro.

3. Hayward Hills - 5,000 acres protecting an estimated population of 58,969 in Hayward & Fairview. Hayward Fire, East Bay Regional Park District and CAL FIRE have jurisdiction.

4. Union City-Fremont Hills - 10,000 acres protecting an estimated population of 310,460. Alameda County Fire, Fremont Fire and CAL FIRE have jurisdiction.

5. Pleasanton Ridge - Kilkare Woods - Sunol - 4,000 acres protecting an estimated population of 5,000. Alameda County Fire, Livermore-Pleasanton Fire, East Bay Regional Park District and CAL FIRE have jurisdiction. Affected by the 2020 SCU Lightening Complex Fire. Continuing to work with Diablo Fire Safe Council and community members on cost share hazardous fuel reduction projects including those along Pleasanton Ridge, and in Kilkare Woods and Sunol.

6. Palomares - Niles Canyon - 3,500 acres with an estimated population of 1,500. Alameda County Fire, Hayward Fire, Fremont Fire, East Bay Regional Park District and CAL FIRE.

7. San Francisco Water District - Alameda County Watershed, 5000 acres.

Objectives

Continue and enhance fuel modification and fuel reduction projects in the wildland urban interface areas. Coordinate resources with the Hills Emergency Forum and the Diablo Fire Safe Council and community members on cost share hazardous fuel reduction projects. Projects include but are not limited to:

1. Sunol-Diablo Fire Safe Council cost share hazardous fuel reduction projects with Sunol and Kilkare Woods community members.

2. Castro Valley-Diablo Fire Safe Council cost share hazardous fuel reduction projects with Castro Valley community members.

3. Berkeley upper Strawberry Canyon fuel reduction project, including University of California, Berkeley evacuation support project hazardous fuel reduction along Centennial Road and Claremont Avenue.

4. Diablo Fire Safe Council East Bay roadside clearance and evacuation support hazardous fuel reduction projects.

5. East Bay Regional Park Claremont Canyon fuel reduction project and University of California, Berkeley evacuation support project hazardous fuel reduction along Claremont Canyon Road and East West Trail (ridgetop).

6. Tilden Park eucalyptus removal project.

7. Oakland-Berkeley Hills 15-mile fuel break project and Diablo Fire Safe Council cost share hazardous fuel reduction projects with Oakland and Berkeley communities.

8. Oakland Shepherd Canyon shaded fuel break project.

9. East Bay Regional Parks Anthony Chabot Park fuel reduction project. East Bay Regional Park District is currently operating a carbonator for their fuel reduction project of 80 initial acres at Anthony Chabot Regional Park. The carbonator is turning the fuels burned into bio char and will be shipped out of the park for use in gardens and several other uses.

10. Highway 24 Caldecott Tunnel fuel reduction project.

11. Hayward Hills-Fairview Diablo Fire Safe Fuel Reduction Project.

12. Support investigations on tree dieback issues related to unknow pest/ disease affecting acacia, eucalyptus, Monterey pine and other species. First recognized in 2020 and under investigation with CAL FIRE forest specialists and USDA US Forest Service Research Lab staff.

13. Assist local partner agencies with locating facilities that accept biomass from fuel reduction projects.

14. Permits requiring numbering and marking gates and road access utilizing the standards of PRC 4290 with regards to signage.

15. Conduct geographic information system (GIS) / global positioning satellite (GPS) mapping and marking of wind farm gates and road system for emergency responses.

16. Conduct public information and education programs at local schools.

17. Distribute Fire Safe educational materials at public gatherings and public venues. Support fire wise community activities.

18. Utilize Defensible Space Inspectors and Volunteers in Prevention for targeted inspections of dwellings and buildings for LE 100 inspections and compliance with PRC 4291. Support local partner agencies in distributing home hardening information.

19. Whenever dealing with the media suggest fire prevention messages to be included and integrated into their story.

20. Conduct meetings with agricultural groups such as the Cattleman’s Association and Farm Bureau to provide information and encourage the use of firebreaks and clearance around all improvements such as dwellings, barns, out buildings and wells.

21. Conduct training exercises and pre-fire season briefings with cooperating fire agencies and share pre-fire plans for special target hazards.

22. Assist with an update of the countywide community wildfire prevention plan (CWPP); update planned for 2024. Assist with development of Regional Priority Plan for forestry, fire protection and watershed improvements in support of California’s Wildfire and Forest Resilience Action Plan (Governor’s Forest Management Task Force Plan, Jan 2021).

23. Work with the Alameda County Evacuation Task Force to develop concise pre response and evacuation plans for priority areas in the Battalion. These plans and

maps will provide new personnel, ECC staff, and incident management teams with the location of strategic control points and access into the SRA lands.

24. Work with Diablo Fire Safe Council to promote evacuation preparedness in community members, in conjunction with wildfire prevention and Alameda County Evacuation Task

25. Assist with development of Regional Priority Plan for forestry, fire protection and watershed improvements in support of California's Wildfire and Forest Resilience Acton Plan (Governor's Forest Management Task Force Plan, Jan 2021)

BATTALION 5

Battalion 5 covers Western Stanislaus County West of the San Joaquin River between San Joaquin County to the North and Merced County to the South.

Most of Stanislaus County between the San Joaquin River and Interstate 5 is a local responsibility area (LRA). The Battalion also includes a portion of Eastern Santa Clara County; including the San Antonio Valley and is bordered by the top of the China Grade on Mount Hamilton Road to the west of the San Antonio Valley.

The vegetation and topography in Battalion 5 transitions from annual grass rangelands on rolling foothills along the Interstate 5 corridor to remote, steep, brush, and pine- covered mountains to the west. The area includes over 230,000 acres of watershed critical to maintaining downstream water quality. All runoff flows into the San Joaquin River, a valuable fishery and source of agricultural and domestic water supply. Numerous plants and animals that are designated as rare, threatened, or endangered species, or are candidates for such designation, occur here.

The Battalion includes sparsely populated rural and ranch properties and a planned upscale residential resort community in the Salado Creek area, being developed under the Diablo Grande Specific Plan. Currently, development at Diablo Grande consists of a golf course and just over 800 homes. The Battalion includes wilderness areas of Henry Coe State Park and the Frank Raines Off-Highway Vehicle Park.

Frank Raines Park is an 800-acre multi-use park operated by Stanislaus County, located 18 miles west of Patterson in Del Puerto Canyon. Eight hundred acres of the park are designated for off-highway vehicle (OHV) use. The OHV portion of the park is in very steep and treacherous terrain. Because of the steep terrain and the potential fire risk, the OHV portion of the park is typically closed from June through October of each year. The 23,300-acre wilderness area of the 87,000-acre Henry Coe State Park is in Western Stanislaus County. The wilderness area is environmentally sensitive and has several archeological sites within its boundaries.

The Battalion has a significant history of large damaging wildland fires. With many of the fires starting along the Interstate 5 corridor, most large damaging fires have occurred in the more remote areas of the Battalion. The primary factors contributing to the difficulty of control have been the steep inaccessible terrain, the extreme burning conditions from decadent brush and pine trees, and the prolonged response time for fire suppression resources to the remote areas of the Battalion.

Priority Areas

1. Diablo Grande Development Fire Break / Fuel Reduction Project in the wildland urban interface (WUI).

2. Diablo Grande Development is a 28,500 acre Planned Residential, and Resort Community (Specific Plan) located nine miles west of Patterson. Currently constructed are one 18-hole golf course and approximately 800 residential homes. This project consists of a combination of fire breaks, fuel reduction projects, and green belts.

3. The Mount Oso Road fire break is maintained by CAL FIRE to provide safe access and to act as a critical fire break to protect the critical communications facilities, which serve central California, located at the summit of Mount Oso.

4. Stanislaus/Santa Clara County Line Road fire break. This primarily ridge-top road runs from the San Antone Valley to Highway 152 at the Merced and Santa Clara County lines. The road serves as a critical access road and a fire break between the urban interface of Santa Clara County and the environmentally sensitive wilderness areas of Henry Coe State Park and the Orestimba Creek watersheds.

Objectives

1. Improve local operational efficiency and effectiveness by continuing to improve mutual and auto-aid agreements between CAL FIRE and West Stanislaus Fire Protection District and the City of Patterson. This will include improving communications systems and dispatch procedures. The Current Automatic Aid Agreement with the City of Patterson has been in place since 2014 and updated in 2021. An Automatic Aid Agreement with West Stanislaus Fire Protection District was completed in May of 2022.

2. Review all development projects for compliance with PRC 4290 and make recommendations for fire defense improvements.

3. Continue Participating as a voting member of the Stanislaus County Fire Authority in developing improved local fire codes, ordinances, and fire prevention processes.

4. Work with Caltrans and local landowners on mowing, disking, and other fuel reduction projects along the I-5 corridor, to prevent large wind-driven fires that endanger the motoring public and interrupt transportation and commerce through the area.

5. Work with Caltrans on opening in the median of I-5 for an emergency vehicle to cross.

6. Work with the electric utilities (PG&E and TID) on grading fire roads and maintaining fuel breaks along critical transmission lines.

7. Work closely with local fire officials to improve communications between agencies.

8. Maintain critical fire roads and fuel breaks.

9. Work with West Stanislaus County Fire Protection Districts and Stanislaus County Parks on improving fire safety conditions in Frank Raines OHV Park.

10. Develop concise pre-response and evacuation plans for priority areas within the Battalion. These plans and maps will provide new personnel, ECC staff, and incident management teams with the location of strategic control points and access to the SRA lands.

11. Repair the Mt. Oso Fire Lookout Facility and bring it back to operational status to use in the detection of wildfire on the East side of the Unit. Seek funding and a fiscal sponsor to establish a fire detection camera at Mt. Oso.

12. Distribute Fire Safe educational materials at public gatherings and public venues.

13. Whenever dealing with the media suggest fire prevention messages be included and integrated into their story.

BATTALION 6

In Battalion 6, the focus in fire prevention is public education, information, and fuel reduction in prioritized areas. One of our biggest partners in this field is the Diablo FireSafe Council (DFSC). The DFSC has been very successful in obtaining grant money to further Fire Safety and fuels management projects. In 2021 the DFSC received a grant for $493,850 for both Contra Costa and Alameda Counties to extend the partners in wildfire prevention program until March 2025. Past grants have included in 2018 $324,020 and $246,185 to partner with communities in Alameda and Contra Costa Counties. Past grants have included over $170,000 for the Clayton/Morgan Territory area, $260,000 to partner with the communities of Orinda and Moraga and East Bay Regional Park District, as well as $187,320 to use in high fire areas throughout Alameda and Contra Costa Counties. In 2021, fourteen projects were completed in high fire areas of El Cerrito, Kensington, Lafayette, Moraga, Orinda, and Walnut Creek (Rossmoor) expending almost $63,00 in grant funds, matched by over $516,750 in community funds and sweat equity.

Focus areas for current grant funding, which will run through March 2025, will be used for a cost share program for hazardous fuel reduction “defensible space” and chipping, outreach, and education, planning for new projects and preparing residents for evacuation. In addition, almost $84,000 were spent removing trees that could fall and block key evacuation routes in Orinda.

Funding will also be used to work with SCU and Contra Costa County Stakeholders to implement their Community Wildfire Protection Plan (CWPP) and identify future community focused appendices. The Contra Costa County CWPP was updated in 2019 (Board of Supervisor approval May 2020). DFSC also have facilitated development of two community-focused appendices for the Clayton- Morgan Territory area and El Cerrito-Kensington area which partnered with Richmond Fire to complete an appendix for the City of Richmond. DFSC also participated in development of the first Regional Priority Plan (RPP). Battalion 6 personnel will continue to support the CWPP, RPP and all other projects, while meeting the State mission.

CAL FIRE will be continuing its relationship with the Hills Emergency Forum (HEF). This Forum made up of nine stakeholder agencies in both Alameda and Contra Costa Counties has worked tirelessly for over 2 decades, since the 1991 Tunnel Fire, to both prevent and prepare for another wildland urban interface event that could occur in the Oakland Hills area.

Priority Areas

Wildland urban interface (WUI) areas that are SRA/LRA jurisdiction as well as sensitive infrastructure and cultural areas:

1. Canyon: 1,200 acres with an estimated population of 500. This area borders Contra Costa and Alameda Counties and has very poor ingress and egress for citizens. Moraga-Orinda Fire, East Bay Regional Parks and CAL FIRE have jurisdiction. Continuing to work with Diablo FireSafe Council and community members on cost share projects.

2. Mt Diablo State Park: 30,000 acres that border the communities of Danville, Alamo, Diablo, Walnut Creek, Clayton, Morgan Territory. Estimated population effected of 20,000. Many endangered species as well as a very high cultural importance to Native American Indians. Currently working with Save Mt. Diablo to provide technical assistance in fuel modification and with Diablo FireSafe Council and community members on adjacent cost share projects in Clayton and Morgan Territory.

3. Alhambra Valley, Wildcat Canyon, and West Contra Costa County: 25,000 acres with an estimated population of 20,000. Richmond Fire, Contra Costa County Fire, Moraga-Orinda Fire, Pinole Fire, Rodeo-Hercules Fire, Crockett Fire, East Bay Regional Parks, and CAL FIRE have jurisdiction. Continuing to work with Diablo FireSafe Council and community members on cost share projects including those in Briones, East Richmond Heights, Moraga, Orinda, Richmond.

4. Bollinger Canyon and Las Trampas Ridge: 5,400 acres with an estimated population of 5,000 including Saint Mary's College in Moraga. Moraga-Orinda Fire, San Ramon Valley Fire, East Bay Regional Parks, and CAL FIRE have jurisdiction. Continuing to work with Diablo FireSafe Council and community members on cost share projects including those in Bollinger Canyon and Hunsaker Canyon.

5. Los Vaqueros Watershed and Mallory Ridge: 25,000 acres with an estimated population of less than 2,000. This area includes the Los Vaqueros Reservoir which provides drinking water to nearly a half million citizens.

6. North Orinda Shaded Fuel Break: 19 miles long with over 1,500 acres the North Orinda Shaded Fuel Break was created in 2019 along Lafayette Ridge in Briones Regional Park, following Happy Valley Road in Orinda through Russell Reserve, east along Bear Creek Road to Wildcat Canyon Road then north along Inspiration Point. Protecting not only the 62,000 residents of Orinda and Lafayette, but also the Briones and San Pablo Reservoirs, which provide drinking water to over 1.4 million residents. The shaded fuel break is designed to slow the spread of wildfire across county lines into Alameda County and the cities of Albany, Berkeley, Emeryville, Oakland, and Piedmont. The North Orinda Shaded Fuel Break also will slow the spread of fire into other Contra Costa County communities including: Acalanes Ridge, Alamo, Alhambra Valley, Canyon, Castle Hill, Concord, Contra Costa Center, East Richmond Heights, El Cerrito, El Sobrante, Hercules, Kensington, Martinez, Moraga, Pacheco, Pinole, Pleasant Hill, Reliez Valley, Richmond, San Miguel, Saranap, Shell Ridge and Walnut Creek. Where Moraga-Orinda Fire, Contra Costa County Fire protection District, East Bay Municipal Utilities District, East Bay Regional Parks, Berkeley Fire, and CAL FIRE have jurisdiction.

7. Lafayette / Walnut Creek Shaded Fuel Break: 14 miles long with 250 acres in Lafayette, Moraga, and Walnut Creek. Contra Costa County Fire Protection District requested grant funding for this project from California Climate Investments Fire Prevention Grant through Cal Fire. The primary fuels reduction effort will consist of two fuel reduction modules each consisting of a hand crew, a chipper, and two medium duty excavators equipped with forestry rotary brush cutters on articulating arms. In areas that the excavators cannot reach work will be accomplished using hand crews and chippers. The prescription consists of ladder fuels removed, duff and litter greater than 1” diameter removed or piled for winter burning, concentrations of brush thinned or removed, low hanging branches within 6’ of the ground trimmed. Annual grass and weeds cut or grazed to less than 6” by cattle and goats. The second operation will be the removal of dead, dying, or diseased trees within the identified fuel break. Most hazard fuels will be piled for winter burning. Cut trees will be removed or chipped on site dependent on size, health of tree, and access. To mitigate brood stratum opportunities for beetles, downed logs will not be left on site in accordance with Forest Practice Rules and VMPs.

Objectives

1. Continue and enhance the fuel modification, fuel reduction and roadside clearance evacuation support projects in the wildland urban interface areas. Coordinate resources with the Diablo FireSafe Council and Hills Emergency Forum. Projects include but are not limited to:

    i. Morgan Territory / Marsh Creek

    ii. Kensington Hills

    iii. Moraga area

    iv. Orinda area

    v. Lafayette area

    vi. El Cerrito area

    vii. Richmond area

    viii. Walnut Creek area (Rossmoor)

    ix. Hills Emergency Forum fuel reduction projects

    x. Highway 24 Caldecott Tunnel

    xi. Grizzly Peak Boulevard – County boundary with Alameda County

    xii. Russell Reserve and North Orinda shaded fuel break

2. In cooperation with Moraga-Orinda Fire conduct LE-100 inspections and look at access and egress issues within the Community of Canyon. Promote evacuation preparedness, in conjunction with wildfire prevention.

3. Review/update Mt. Diablo State Park pre-fire management plan with State Parks and other local agency cooperators

4. Utilize Defensible Space Inspectors and Volunteers in Prevention for targeted priority areas.

5. Continue working with Contra Costa Water District to protect and enhance the Los Vaqueros watershed and nature area.

6. Update the countywide CWPP and develop appendices for communities working with Diablo Fire Safe Council. Support Firewise communities in their efforts to assist with implementation of projects at the local level.

7. Assist with development of Regional Priority Plan for forestry, fire protection and watershed improvements in support of California's Wildfire and Forest Resilience Acton Plan (Governor's Forest Management Task Force Plan, Jan 2021).

8. Support investigations on tree dieback issues related to unknow pest/ disease affecting acacia, eucalyptus, Monterey pine and other species. First recognized in 2020 and under investigation with CAL FIRE forest specialists and USDA US Forest Service Research Lab staff.

9. Assist local partner agencies address biomass disposal issues and opportunities related to fuel reduction projects.

10. Upkeep, maintenance, and mapping of the Contra Costa County fire trails.

11. Remain active in the Diablo FireSafe Council.

12. Participate in public education events at public gatherings and venues.

13. Conduct training exercise and pre-fire season briefings with cooperating fire agencies and share pre-fire plans for special target hazards.

14. Develop concise pre attack plans and compartment maps that will provide new personnel, ECC staff, and overhead teams with the location of strategic control points and access into the vast areas of SRA lands.

15. Educate the public on equipment caused fires.

16. Reduce arson fires.

17. Conduct public information and education programs at local schools.

18. Distribute FireSafe educational materials at public gatherings and public venues.

19. Whenever dealing with the media suggest fire prevention messages to be included and integrated into their story.

20. Inspections of dwellings and buildings for LE-100 inspections and compliance with PRC 4291. Support local partner agencies in distributing home hardening information.

BATTALION 7 (Cooperative Fire Protection)

The South Santa Clara County Fire District and the Morgan Hill Fire Department together are known as Battalion 7, located in the southern end of Santa Clara County.

Battalion 7 provides All-Risk emergency services, including Advanced Life Support (Paramedics). The Battalion serves a population of approximately 70,000 people in the City of Morgan Hill and the unincorporated areas of Gilroy, San Martin, Pacheco Pass, and Coyote. The Battalion has six fire stations that cover approximately 300 square miles.

Battalion 7 protects residential, commercial, and light industrial occupancies, wildland, wildland urban interface communities, ten wildland Mutual Threat Zones, 80 miles of State Highways 152, 156, 25, and 101, and 45 miles of two separate rail lines owned by Southern and Union Pacific Railroads, which Cal Train Commuter and Amtrak trains also use.

The San Andreas, Hayward, and Sergeants Fault Zones run through Battalion 7. A major water supply from San Luis Reservoir and a major natural gas transmission pipeline also runs through the Battalion.

Since 1999, Battalion 7 has provided Advanced Life Support (ALS) services for all community members. Battalion staff works closely with the local ambulance provider Rural Metro and Santa Clara County EMS. Along with fire suppression and emergency medical service (EMS), battalion personnel are trained in many other aspects of emergency responses. These include vehicle extrication, hazardous material response, earthquake, and river and flood preparedness. The Battalion also provides fire prevention education, and code enforcement to the public. Battalion staff includes four Battalion Chiefs (Battalion 67 overseeing South Santa Clara County Fire District operations, Battalion 57 overseeing Morgan Hill Fire Department operations, Battalion 59 as the Fire Marshal for the City of Morgan Hill, and Battalion 69 as Battalion 7 EMS Coordinator), one Fire Captain in the position of deputy Fire Marshal for the City of Morgan Hill, nine Fire Captains/Paramedics, six Fire Captains, fifteen Fire Apparatus Engineers/Paramedics, fourteen Fire Apparatus Engineers, three Firefighter II/Paramedics, one Mechanic, four Communication Operators, and two Staff Services Analysts.

The Battalion operates seven Type I Fire Engines, one 105-foot Aerial Fire Truck, one Paramedic Squad, one Ambulance, one Type III engines, two 3,000-gallon Water Tenders, two Utility Vehicles, four Chief Officer's Vehicles, one all-terrain vehicle and one Technical Rescue Unit. The Battalion is supported by its sixteen Volunteer Firefighters. In addition to emergency response, Volunteer Firefighters are frequently utilized to staff stations when front-line engines are on other emergencies. Volunteer Firefighters are also involved in numerous charitable activities and fundraisers.

Battalion 7 actively participates in automatic aid agreements with the Gilroy Fire Department, California Department of Forestry and Fire Protection (CAL FIRE), Pajaro Valley Fire District, Hollister Fire Department, and the San Jose Fire Department.
Battalion 7 is also an active participant in the Santa Clara County and State of California Mutual Aid Plans responding to disasters in the County and throughout California.
The Battalion is an all-risk emergency response battalion. Personnel responds to approximately 6,500 incidents per year, including various assists to other fire departments, emergency medical services, structure, vehicle accidents, wildland fires, hazardous materials spills, water rescues, and public service assists.

BATTALION 7 - South Santa Clara County Fire District

South Santa Clara County Fire District Mission Statement

The South Santa Clara County Fire District preserves life, property, and natural resources, through the delivery of fire prevention, fire suppression, and emergency medical, services. We work collaboratively with neighbors and stakeholders to ensure consistency, professionalism, and cost-efficiency, in our service delivery.

The South Santa Clara County Fire District was established in 1980 when the Gilroy Rural Fire District merged with the Morgan Hill Rural Fire District.

Personnel and administration for the South Santa Clara County Fire District are provided by the California Department of Forestry and Fire Protection (CAL FIRE) under a cooperative agreement. CAL FIRE is the largest All-Risk emergency service and resource protection agency within the United States. SCU is responsible for over 1.34 million acres of State Responsibility Area (SRA), as well as Local Responsibility (LRA).

The Insurance Service Organization Rating (ISO) rating for the South Santa Clara County Fire District is a 5/10. The ISO rating of 5 is for properties within five miles of any fire station or any fire department that we currently have an auto aid agreement with. The ISO rating of 10 is anything outside of that five-mile zone.

A seven-member Board of Fire Commissioners oversees the South Santa Clara County Fire District. The Santa Clara County Board of Supervisors appoints them. Each Board Member lives in a different area of the Fire District and represents the local community's diversified views. The Board provides input, oversight, and budget management, as representatives of the Santa Clara County Board of Directors. Properties in Battalion 7 that are in the SRA are inspected for defensible space against wildfire.

BATTALION 7 - City of Morgan Hill Fire Department

Morgan Hill Fire Department Mission Statement

The Morgan Hill Fire Department is committed to the Protection of Life, Property, and the Environment through Performance, Preparedness, and Prevention.

The City of Morgan Hill was incorporated in 1906 and is a General Law City operating under the Council-Manager form of government. It is a community of approximately 13 square miles, serving over 45,000 people. It is located 12 miles south of San Jose and 50 miles northeast of Monterey. It is a comfortable, thriving residential community, surrounded by agricultural lands producing fruits, vegetables, and wines. Two fire stations provide fire and emergency medical service (EMS) delivery in the City; El Toro and Dunne Hill fire stations.

In 2022, the city added a two-person Paramedic Squad to increase the available resources to respond to emergency incidents. The construction of a third fire station started in 2023 and is scheduled for completion in November 2024.

The Insurance Service Organization Rating (ISO) rating for the City, updated in 2014, is 3/3X. The ISO rating of 3 is for properties within five miles of any fire station or any fire department that we currently have an auto aid agreement. The ISO rating of 3X (formerly 9) is anything outside of that 5-mile zone.

BATTALION 7- Morgan Hill Fire Marshal’s Office

The Office of the Fire Marshal is committed to the Protection of Life and Property through the development and application of Fire Prevention Engineering, Education and Enforcement.

The Fire Marshal's Office provides planning input for developers, plan checking and inspection services at the various levels required by the City of Morgan Hill. Plan checks for all specialized fire detection and suppression systems are performed by outside resources, while the inspection of these systems is performed by the Fire Marshal’s Office personnel and recorded through our Streamline program.

Additionally, the Fire Marshal’s Office provides oversight for fire prevention in wildland areas, represents the Department on matters relating to the development, promulgation, and enforcement of related codes and ordinances, and conducts presentations to City Council and/or represent the Department at civic or professional group meetings. The Fire Marshal’s office also provides training and education to both fire staff and the public.

By ensuring the enforcement of all fire prevention laws, regulating the use and maintenance of buildings, codes, and ordinances relative to the protection of life, property, and the environment from fire and unauthorized or accidental hazardous material releases the Morgan Hill Fire Marshal’s Office makes the community a safer please for everyone.

Priority Areas

Conduct homeowner defensible space inspections (LE-100 inspections within the State responsibility areas):

1. Holiday Lake Estates/ Jackson Oaks
2. El Matador Drive
3. Redwood Retreat Road
4. Developed areas East of New Avenue.
5. Day Road
6. Burchell Road
7. Chesbro Reservoir and Live Oak area

Objectives

1. To keep structure fires to the room of origin on the valley floor, to the floor of origin in rural locations, and to the building of origin in extremely rural or mountainous areas of Battalion 7.
2. To treat, package, and transport patients to definitive care within 1 hour.
3. To meet designated EMS response times 95% or above.
4. To adopt the California Fire Code every three years.
5. To minimize the interface fire threats.
6. To identify high fire severity zones and complete pre-response and evacuation plans.
7. To identify fuel reduction and modification projects in the high fire severity zones.
8. To support a Community Emergency Response Team (CERT).
9. To maintain adequate staffing at all fire stations.
10. To pursue additional funding for improved service using grant resources.

11. To continue exploring regionalization possibilities.

12. Educate the public about the Santa Clara County FireSafe Council.

13. Maintain school and special event programs.

14. Assist CAL FIRE staff in conducting homeowner defensible space inspections.

15. Continue to recruit and retain volunteer firefighters.

16. To provide employees with the latest fire and EMS training to support objectives 1 and 2.

17. Continue to work with and support all our cooperators.

18. Work in cooperation with the Santa Clara County FireSafe Council, local law enforcement, and our local cooperators to develop evacuation plans and fire plans for communities at risk susceptible to a major incident.

19. Utilize the reverse 911 system for public notification during major incidents which may impact their communities.

BATTALION 9 (Emergency Command Center)

Emergency Command Center Mission Statement

The Mission of the CAL FIRE Morgan Hill Emergency Command Center is to provide timely, professional, consistent, accurate and coordinated command and control functions; utilizing existing and future resources, funding sources and technology in a creative manner to produce the best possible service to those in need.

The SCU Emergency Command Center (ECC) is one of 21 Emergency Command Centers within the agency. Using the radio call sign “Morgan Hill”, the ECC provides command and control services for seven field Battalions, 18 fire stations, the Fire Prevention Bureau and one Helicopter Base. The 12 State funded fire stations in SCU are strategically positioned within Santa Clara, Alameda, Contra Costa, Western San Joaquin, and Western Stanislaus Counties.

Those 12 stations house 16 Type III Engine Companies to protect State Responsibility Areas (SRA). Six fire stations under “Schedule A” cooperative agreements house six Type I advanced life support (ALS) Engines, one ladder truck, one Type III Engine, one Squad and two Type I water tenders serving the South Santa Clara County

Fire District, the City of Morgan Hill, and Alameda County Fire. The one Helicopter Base houses a State-owned Type I fire/ rescue capable helicopter. Two of the SRA stations provide fire protection outside of State declared fire season under Amador contracts serving Contra Costa Fire District and the South Santa Clara County Fire District.

ECC staffing consists of one full time Battalion Chief, six permanent full time Fire Captains, and six permanent full time Communications Operators and one Research Data Specialist II. The ECC always maintains a staffing level of two qualified staff on duty. During State declared Fire Season the staffing is augmented to three qualified staff during daylight hours. One Duty Officer (Fire Captain) is always on duty as a part of our staffing model.

The ECC provides communications, logistical support and maintains command and control of all resources within SCU. Resources may be utilized to mitigate wildfires and to assist local, State and Federal Government with any emergency management needs including, but not limited to fires, floods, and earthquakes in the Local Responsibility Areas (LRA) within SCU or elsewhere in the State.

A portion of the LRA lands in SCU are protected by means of 110 Mutual Threat Zone Agreements (MTZs) established between CAL FIRE and local governments. MTZs are divided into geographic areas dictated by community, geography, and structure density, in relationship to State Responsibility Areas (SRA).

The ECC works hand in hand with our cooperators by means of Mutual Aid and Automatic Aid Agreements. On a day-to-day basis, the ECC assists adjoining jurisdictions by means of Automatic Aid Agreements. These agreements allow CAL FIRE and its cooperators to dispatch the closest available resource to any given incident. On a broader scale, if a given entity determines the incident, they are responding to will exceed or has exceeded their capabilities, CAL FIRE will assist as requested to manage and mitigate the incident.

The ECC provides a leadership role in the monitoring of fire weather conditions within SCU. The issuing of Red Flag Warnings and Fire Weather Watches are a foundation for determining wildfire threat. The ECC works closely with the Monterey and Sacramento Fire Weather Office to anticipate such weather events, which allows the ECC to augment staffing prior to potentially higher fire activity that accompanies some weather events. The ECC also works closely with the SCU Duty Chief and the Northern Region Operations Center (NOPS) Duty Officer as it pertains to pre-positioning of CAL FIRE resources in critical areas of the State and tracking of costs associated with these movements and augmentations.

The ECC manages two Remote Automated Weather Stations (RAWS) and monitors fourteen others (which are the property of State Parks, San Francisco Water Department, East Bay Regional Parks, Contra Costa Water District, Central Fire

Protection District, and the San Ramon Valley Fire Protection District) stations daily to set the appropriate dispatch levels based on calculated burn indices. A Standard Response is pre-determined for each dispatch level in the event of a wildfire, or other type of fire determined to be a threat to the wildland. Dispatch levels and responses are determined based on the Unit's Fire Danger Operating Plan.

The ECC Expanded Operation (SCU Expanded) is a co-located facility that supports operations on an incident that goes beyond the scope of initial attack, to be managed off the main ECC floor. The ECC can then continue to maintain the day-to-day business of the Unit with less distraction. The SCU Expanded operation can fully manage Crews, Equipment, Overhead, Supplies, and General Information. When an initial attack incident occurs that has the potential to become an extended attack or major incident, the ECC Duty Officer can request to open the SCU Expanded. Additional staffing can be requested by call-back of off duty ECC personnel or by requesting an ECC Support Team to be activated by NOPS.

Priority Areas

1. The ECC will endeavor to meet or exceed the call processing and dispatching recommendations set forth in NFPA 121 and NENA Standards.

2. To hold the public and fire service personnel safety as the number one priority in relation to ECC responsibilities.

3. Provide proper notification to the public through designated processes including the media, regarding incidents and events that have a potential effect on their safety.

4. Maintain efficiency of all tasks required and perform them in a timely manner.

5. To maintain a proper database to use in the event of an emergency to query and activate proper resources to mitigate an event.

6. Maintain a high level of customer service to the public and cooperating agencies.

Objectives

1. To provide accurate and timely dispatching services to the population served by the CAL FIRE Santa Clara Unit and cooperators through training, instruction, and procedural guidelines.

2. To provide notifications to CAL FIRE and cooperator resources of all incidents in the Santa Clara Unit based on information collected, the approved standard response plans, and the Duty Officer's knowledge and experience.

3. To keep Unit personnel and cooperators informed in areas of significance; including the media, regarding incidents and events that have a potential effect on their safety.

4. Aggressively initiate the Fire Management Assistance Grant (FMAG) request process as soon as an incident is identified to meet the criteria of any given wildland fire which is damaging or threatening to damage infrastructure within SCU.

5. To maintain the ECC and Unit telecommunications resources to meet the needs of Unit personnel with fiscal responsibility.

6. Employ new technologies for incident information gathering and sharing such as with the Next generation ICS (NICS) software program in cooperation with resources on the incident and the ECC.

7. Provide accurate and timely incident information to NOPS and Sacramento staff through the ICS 209 reporting program and the Report on Conditions (ROC) procedures.

8. Continue to improve and expand SCU's frequency management capabilities using Schedule A funded Command Frequencies to be used as alternate command channels.

9. Monitor the ALERT California cameras as an aide to detecting wildfire.

BATTALION 20 Fire Prevention / Law Enforcement Bureau

Prevention Bureau Mission Statement

The mission statement of the Santa Clara Fire Prevention Bureau is to work to reduce unplanned ignitions within the unit, limit damage caused by uncontrolled fires, through the use of education, pre-fire mitigation projects, patrol, and law enforcement to meet the mission statement of the Department of Forestry and Fire Protection.

The Santa Clara Fire Prevention Bureau falls under the direction and supervision of the Unit Chief. The Bureau is staffed by a Battalion Chief, three Fire Captain Specialists (FCS), a Fire Prevention Specialist (FPS), a Forestry Technician (AB-38 Inspector), seasonal Defensible Space Inspectors, and Volunteers In Prevention (VIP's). The Battalion Chief and Fire Captain Specialists are granted Law Enforcement authority by the CAL FIRE Director under California Public Resources Code (PRC) 4156 and are California POST certified Peace Officers, authorized under California Penal Code 830.2 (g). The Bureau is involved in all areas of law enforcement, fire prevention, education, engineering, and enforcement. There are three separate, but related functions handled by the individuals assigned to the Bureau, Education, Prevention and Enforcement.

In 2023, Defensible Space Inspectors and Unit staff conducted 4,055 PRC 4291(LE-100) inspections. The Defensible Space Inspectors are continuously interacting and educating the public on the importance of defensible space around buildings in our communities. In 2024, the Santa Clara Unit is again taking an aggressive approach to conducting LE-100 inspections using Defensible Space Inspectors, Unit staff, and VIPs to handle the large task.

Another successful program within the Santa Clara Unit is the Volunteers in Prevention (VIP) program. The VIP's program is administered and coordinated by the FCS and FPS. The VIP's currently have 30 members and conduct public education programs, staff Mt. Copernicus Lookout, and logistical support in the Unit when requested. The VIP's staff the Lookout with a minimum of two personnel, eight hours a day on the weekends and during some weekdays during fire season. When combined with other projects, they have donated hundreds of hours of their personal time to fire prevention education in the Unit. We are continuously seeking VIPs to join the team and continue our efforts within the Santa Clara Unit.

The Law Enforcement branch of the Bureau includes fire origin and cause (O&C) investigations, issuing citations, processing criminal complaints with local District Attorneys, and civil cost recovery, which the funds are returned to the State's General Fund. The Bureau maintains active membership in the Santa Clara County Arson Task Force. In addition to actively fostering working relationships with the over 40 other Law Enforcement agencies within the Units boundaries.

Objectives

1. Identify arson fires early, develop suspects and make arrests swiftly to protect the public.

2. Utilize Defensible Space Inspectors for residential fire inspections (LE-100) according to PRC 4291.

3. Utilize the AB 38 inspection process, inspecting recently sold homes according to PRC 4291, while educating the public in wildfire preparedness.

4. Educate the public on the laws and how to properly remove flammable vegetation to maintain clearance in and around inhabited structures to prevent structures from being damaged, and to provide a means for firefighters to defend them.

5. Directly patrol the area's that pose a high fire danger risk to citizens for education and enforcement.

6. Provide Law Enforcement mutual aid, as requested from other agencies.

7. Implement the Unit's Fire Management Plan to reduce the threat of large damaging fires by vegetation management treatments.

8. Implement the SCU VIP Program to assists the Unit in a variety of Fire Prevention Activities to educate the public in wildfire awareness.

9. Collaborate with the Local Agency fire investigators in the detection and investigation of fires that occur within the SRA and assist with fire investigations in LRA.

SANTA CLARA UNIT HAND CREWS

Mt. Hamilton Fire Center – MHC 1 & MHC 2 Overview

CAL FIRE in cooperation with the California Military Department have agreed to accomplish fire prevention, firefighter training, and incident support by performing hazardous fuel reduction and wildland fire suppression. There are a total of 14 Fire Crews that have been established across the State of California, as a part of “Taskforce Rattlesnake”. The Santa Clara Unit is hosting two of these crews, and they will be based out of the National Guard Armory on Hedding Street in San Jose.

Program Staffing

6 - CAL FIRE Fire Captains
6 - CAL FIRE Fire Apparatus Engineers
48 - CMD Personnel

Schedule

Shifts for the CAL FIRE personnel have been adjusted to support two crews Monday- Friday, when most of the fuel reduction work will be accomplished. There will be one crew working Saturday and Sunday. Typical staffing for each crew will be 1 - Fire Captain, 1 - CAL FIRE FAE and 12-20 CMD personnel. Thursday is a dedicated training day, as both crews are on duty.

Training

The Fire Captains assigned to the program assisted with the initial training of the National Guard members at Camp Roberts the week of April 5th. The Unit is hosting an additional two weeks of formal training. As part of their initial training, the program members will be training with the CZU Unit Fire Crews as they prepare for their readiness exercise. The Fire Captains and Engineers are receiving specialized Fire Crew Supervisor training. The goal is to have all personnel trained and ready for the annual certification exercise, which is held annually in mid-May.

Location

The operation is based out of the National Guard Armory on 251 W. Hedding Steet in San Jose, CA. The facility is home to the 1113th Transportation Company where the Taskforce was given the use of three former repair bays and an office area to use. CAL FIRE and service members have spent a few weeks cleaning the
area of surplus material and painting.

The building will house the two emergency crew transport vehicles and can be used as a classroom. The rear of the building has a separate room that is being used to store and maintain the hand tools. The office area has been painted, had carpet installed, desks added, and they have also created a storage area break room.

The program members utilized tables, benches, and filing cabinets to create a chainsaw maintenance area to securely store and maintain the small motor equipment.

Fuels Reduction Projects

The Units Resources Management team has identified fuel reduction projects to utilize the CMD crews. The near-term projects include prescribed fire preparation at Grant Ranch County Park and fuel mitigation work at. San Born County Park, Joaquin Miller Park. These projects will also prepare the CMD crews for the readiness exercise, as they train to become qualified as a Type I Initial Attack Crew.

Type I Fire Crew

These Type I Fire Crews can operate without restrictions, performing the full range of wildland fire duties. These duties include initial attack, fireline construction, firing operations, and mop up. The crew will have a minimum 1- B-level sawyers and 4 level A Sawyers. They will respond in Emergency Crew Transports and may have support vehicles as well. Their radio identifiers are “MTH1” and “MTH2” and may be in a strike team configuration, as a “Golf”.

Pacheco Fire Center – PCH 1 & PCH 2

Overview

CAL FIRE Pacheco Fire Fighter Hand Crew was formed to accomplish fire prevention, firefighter training, and incident support by performing hazardous fuel reduction and wildland fire suppression. The Santa Clara Unit is host to one firefighter crew that is based out of the San Jose Airport at (1433 Airport Blvd, San Jose, CA.)

Program Staffing

4 - CAL FIRE Fire Captains
3 - CAL FIRE Fire Apparatus Engineers
40 - Firefighter 1 Crew members
1 - Cook
1 - Office Assistant

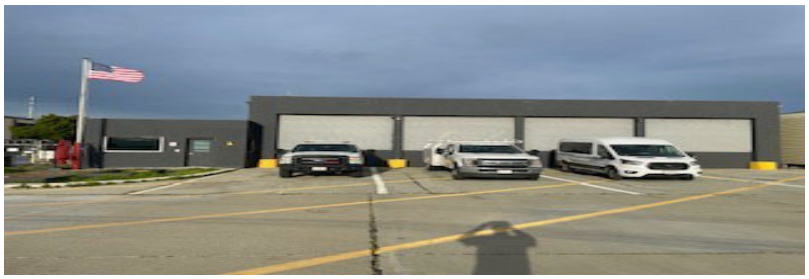
Schedule

Shifts for the CAL FIRE personnel have been adjusted to support one crew a day, seven days a week. Monday-Thursday they are assigned to Fuels reduction work throughout the Unit. Both crews are assigned a dedicated training day with PCH 1 training on Sundays and PCH 2 training on Fridays. Saturdays are unassigned days utilized for training, administrative duties, fuels reduction projects or station projects.

Training

Firefighters receive two weeks of formal crew specific training after their initial CAL FIRE new hire / rehire Fire Fighter Academy hosted in Unit. As part of their initial training, the program members train with the California National Guard Fire Crews as they prepare for their readiness exercise. The Fire Captains assigned to the program go through the CAL FIRE C-212 process to be a certified Crew Boss. Additionally, the Captains assigned to the program have assisted with the initial training of National Guard members at Camp Roberts. The goal is to have all personnel trained and ready for the annual certification exercise before peak fire season. After the successful completion of the exercise both crews will be certified as Type I crews for the Unit and region response.

Location



The operation is based out of San Jose Airport at 1433 Airport Blvd, San Jose, CA. The facility was formerly San Jose City Airport Fire Station #20. Crew members spent several weeks cleaning the old station fire station, making it their own. The facility consists of two buildings, the main building includes a barracks with beds for thirty firefighters, kitchen, dining room and restrooms. The second building is a Detached Garage converted into a day room and training room. In addition to the buildings three Conex boxes have been utilized for a gear locker, a storage room, tool room / supply cache and a saw / small motor equipment shop.

Fuels Reduction Projects

The Unit's Resources Management team has identified fuel reduction projects within the Santa Clara Unit for which the Pacheco crews will be utilized. Recent projects include prescribed fire preparation and VMP at Grant Ranch County Park and fuel mitigation work in Morgan Hill. These projects will also prepare the PACHECO for the readiness exercise as they train to become qualified as a Type I crew.

Type I Fire Crew

These Type I Fire Crews can operate without restrictions, performing the full range of wildland fire duties. These duties include initial attack fireline construction, firing operations and mop up. The crew has a minimum of one B-level sawyer and four personnel trained to the A-level. They will respond in Emergency Crew Transports and may have support vehicles as well. Their radio identifiers are "PCH 1" and "PCH 2" and may be in a strike team configuration, as a "Golf".

SAFETY PROGRAM

Safety Program Mission Statement

The mission of the Santa Clara Unit Safety Program is to provide the most current national industry standards for safety in all mentioned program areas with the highest attention given to providing safety in the work environment. The Program tracks work-related injuries and illnesses for the Santa Clara Unit employees through the Injury and Illness Prevention Program to provide for the overall safety of the Santa Clara Unit permanent and seasonal employees.

The vision of the Santa Clara Unit Safety Program is to enhance fire department safety by seeking creative and alternative safety training mechanisms, encourage employee support within the safety program, and ensure employee participation at all levels for a successful safety program.

The CAL FIRE Santa Clara Unit's sphere of influence includes Santa Clara, Alameda, Contra Costa and portions of Stanislaus, and San Joaquin Counties. It shares jurisdictional boundaries with 35 separate city fire departments and fire protection districts, two State Parks, numerous county and special district parks, several open space districts, and several public and private domestic water provider watersheds.

The Santa Clara Unit Safety Program actively participates in the Santa Clara County, Contra Costa, and Alameda Counties Safety Officer's Associations. In addition, the Santa Clara Unit Safety Battalion Chief participates in regular meetings with the East Bay Regional Parks District, Mount Diablo and Henry Coe State Parks, the Morgan Hill Police Department, the Santa Clara County Sheriff's Office, the California Highway Patrol, and other responding agencies.

The Safety Battalion Chief (B-1618) oversees Unit Safety Committee meetings to discuss safety issues, review personnel and vehicle accidents, identify issues that could lead to potential employee injuries or hazards, and ensure CAL FIRE's safety policies and procedures are being adhered to in the fire stations and on incidents.

Priorities

1. Protect the life and physical well-being of employees.
2. Protect the life, physical well-being, and property of the public.
3. Provide a safe and healthy work environment for employees.
4. Identify potential work hazards and initiate reasonable actions to eliminate or control them before they contribute to accidents, injury, or illness.
5. Respond to employee reports of Unsafe Practices (IIPP-8) in a timely and effective manner.
6. Make safety a normal part of all work practices and procedures.
7. Investigate work-related accidents, injuries, and illnesses promptly and implement improved accident prevention methods.
8. Maintain employee well-being and minimize the loss of productivity due to injury.
9. Reduce the frequency and severity of occupational illnesses, injuries, and property damage.
10. Comply with safety-related laws, regulations, and policies, such as state safety orders published in the California Code of Regulations (CCR), Title 8.
11. Assist with the Units Health and Wellness Program.
12. Ensure all CAL-OSHA inspections or violations are handled in an appropriate manner.
13. Conduct Unit and State Safety meetings to ensure any unsafe issues are discussed and handled in a timely and appropriate manner.
14. Ensure the department’s Critical Incident Stress Management teams are utilized when necessary.

Objectives

1. Review accident reports to determine causation and develop prevention recommendations.

2. Review IIPP-8 forms submitted by employees and follow through with solutions and reply to the employees in a timely manner.

3. Develop a “Lessons Learned” educational format to disseminate information to the Unit for Safety Review.

4. Recommend guidelines and programs for safety education and training.

5. Exchange ideas to improve methods of operations safely and efficiently.

6. Maintain an active role in the Unit-wide safety inspections to address concerns with health and safety issues at all Unit facilities.

7. Develop recommendations regarding Unit policy and procedures within the program.

8. Disseminate safety information to keep managers, supervisors, and employees informed of safety hazards and prevention techniques.

9. Evaluate the effectiveness of the Unit Safety Program on an annual basis.

10. Participate and evaluate the employee fitness program and monitor employee nutrition.

11. Maintain an open line of communication at the Unit and State level with CAL-OSHA and its regulations.

12. Facilitate quarterly Unit safety meetings and annual State safety meetings.

TRAINING BUREAU

Training Bureau Mission Statement

The Santa Clara Unit Training Bureau's responsibility is to provide on-going training, education, and certification to fire service personnel. All training is focused on providing and maintaining the highest quality emergency service at both fire and medical responses to the citizens of California. Instructional programs target operational efficiency with emphasis on safe operating procedures for our personnel in all aspects of fire and emergency operations.

The Santa Clara Unit's sphere of influence includes Santa Clara, Alameda, Contra Costa and portions of Stanislaus, and San Joaquin Counties. It shares jurisdictional boundaries with 35 separate city fire departments and fire protection districts, two State Parks, numerous county and special district parks, several open space districts, and several public and private domestic water provider watersheds. Cooperative training is held with local, county and volunteer fire departments, emergency medical services (EMS) agencies, FireSafe Councils, five different Sheriff Offices, the California Highway Patrol, County Parks, and various city police departments.

SCU Training Bureau personnel actively participate in the Santa Clara County, Contra Costa County, and Alameda County Training Officer's Associations. In addition, SCU Battalion Chiefs participate in regular meetings with the Santa Clara County FireSafe Council, the Diablo Fire Safe Council, East Bay Regional Parks District, Mount Diablo State Park, Henry Coe State Park, Morgan Hill Police Department, Santa Clara County Sheriff's Office, and other responding agencies. The Battalion Chiefs assist these agencies with wildland fire training exercises and provide the Training Battalion with a list of training needs so joint operations may take place. This provides for cost effective operations and allows for enhanced interagency partnerships.

To accomplish the training objectives in 2024, the Bureau provided a total of over 25,000 student contact hours to over 122 Company Officers, 171 Firefighter I's, 117 Volunteer Firefighters, and other local cooperators. There are also numerous training hours logged by all personnel using the online training program Vector Solutions. There was also a significant amount of staff time spent to coordinate students, courses, instructors, recording and tracking training, and ensuring those newly qualified and trainees are listed in the statewide Interagency Resource Ordering Capability (IROC) program. The Training Bureau is also managing the training needs assessment for CAL FIRE SCU personnel which supports personnel becoming qualified through attending Incident Command System (ICS) courses. The Incident Qualification System (IQS) is a program managed by the Training Bureau following the guidelines set in CAL FIRE's Position Development Guide.

The #1 priority of the Santa Clara Unit Training Bureau is to provide for the overall safety for all permanent personnel and seasonal employees through instructional programs that target operational efficiency with emphasis on safe operating procedures in all aspects of fire and emergency operations. The Training Bureau's responsibility is to facilitate and ensure coordination of the Unit-wide Training Plan, match training courses with approved personnel training requests, and to maintain a central location for updated training records for all employees.

The Staff includes: one Battalion Chief, one permanent Fire Captain, one Fire Captain EMS Coordinator, and one Fire Captain that works in training during non-peak staffing periods. The Training Bureau is responsible for training five volunteer fire companies in Santa Clara County under a cooperative agreement with Santa Clara County. Staff continually strives to provide creative, cost effective, innovative training with the highest commitment to safety. The State-funded training operations, which are divided into 18 separate program areas, are a seven-day a week operation, and listed below are:

Administrative and Office Staff	Pre-Fire Engineering
Battalion Chiefs	Vegetation Management
Company Officers	Emergency Medical Services
Firefighters	Hazardous Materials Responses
Training Bureau	Volunteer Firefighters
Emergency Command Center	Volunteers-in-Prevention (VIPs)
Alma Helitack	Fire Safe Councils
Fire Prevention	Joint-Agency Operations
Automotive Fleet Maintenance	Joint Apprenticeship Program (JAC)

Table 12 – Training Program Areas

Priorities

1. Deliver continual professional training in an annual workshop and provide a 12-month training program via internet-based training and Engine Company level training, ongoing.

2. Attend Training Officer's meetings with local cooperators to determine their needs in response to all-risk incidents.

3. Participate in the county wildland exercises in Santa Clara, Alameda, and Contra Costa Counties. – Spring 2024.

4. Work with the South Bay Regional Training Consortium to facilitate continuing education training with the Unit personnel, ongoing.

5. Facilitate and coordinate the Unit's instructors and develop additional cadre members within the Unit, ongoing.

6. Continue to improve user ability and education with the Vector Solutions program. Items include the tracking of the 3-year apprenticeship completion for Unit personnel in the JAC program, annual CAL FIRE assignments, EMS, and OSHA based requirements per rank, ongoing.

7. Enter the Unit's data into IQS and empower each employee to determine ICS track based off their training and experience. Their needs will assist in establishing their training needs analysis and as well as completing open task books, ongoing.

8. Provide Strike Team Leader- Engine presentations for our local government cooperators, ongoing.

9. Maintain the Annual Training Plan with a monthly training and EMS topic stemming from a variety of all-risk drills and safety training for Santa Clara Unit personnel, ongoing.

10. Meet with the Volunteer Fire Companies to discuss their needs and share with them the mandates for fire and rescue responses commensurate with their level of training and equipment. Develop training calendar for summer and coordinate with on duty engine companies. Assist annually with training support and ensure classes are held to meet the minimum requirements for response, ongoing.

11. Identify personnel that can act in the capacity of mentors and establish a list of personnel who need to be mentored, succession planning as well in specialized positions and cadres, ongoing.

12. Provide Chief Officer and Company Officer certification courses through State Fire Training to Chief and Company Officers within Santa Clara Unit, ongoing.

13. Instruct 200/300 level ICS courses designed for Firefighters through Battalion Chief ranks to strengthen the Units ability to manage Type 3 incidents and to support incidents outside SCU, ongoing.

14. Determine the stakeholders and reach out to them to establish an Optional Skill Program that will work for response between all counties, ongoing.

15. Work with the Training Officers in the San Mateo-Santa Cruz, Sonoma Lake Napa Unit, Marin County Fire Department, Madera Mariposa Unit, and San Benito-Monterey Units to co- host classes that fulfill the needs of all unit's personnel such as JAC and specialty courses, ongoing.

16. Working jointly with the Santa Clara Unit ECC, review and update the Unit's Emergency Resources Directory (ERD), maintaining.

17. Working with the Program Managers and Battalion Chiefs, determine the Unit's training needs for the Northern Region Training allocations worksheet. Fill the student selections based off allocated training slots and advise their respective program managers for their planning purposes, ongoing.

18. Enhance electronic dissemination of training announcements utilizing Vector Solutions, social media, and Training Officers websites, ongoing.

19. Seek outside funding through South Bay Consortium for all training related items, not limited to training props, supplies, and curriculum, ongoing.

20. Maintain agreement at Mallaguerra Training Center with a classroom and outdoor gym.

21. JAC Program 1st and 3rd year test. Completing all mandatory training with their 3-year time frame, ensuring all JAC personnel are given abilities to attend required courses.

Objectives

1. Provide continual professional training to the all personnel in the Unit through classroom-based, manipulative based, and technology-based training.

2. Ensure local cooperators are receiving the required training for response to all risk emergencies.

3. Provide and coordinate law enforcement (LE) training to the Unit's LE Officers and cooperators.

4. Foster and improve personnel involvement in instructional cadres.

5. Provide a process for employees to successfully complete their JAC required training.

6. Implement the IQS program to better track and qualify our personnel in ICS.

7. Improve the Unit's physical fitness program and base them off the Peace Officer's Standardized Training (POST) Standards.

8. Provide a Unit Readiness Drill to measure the performance of our personnel and to identify training deficiencies.

9. Provide annual Strike Team Leader refresher classes to our cooperators.

10. Establish and maintain a training calendar for the Unit's Personnel.

11. Maintain a priority trainee list for incidents within and outside of the Unit.

12. Develop and maintain a standardized training program for the volunteer companies.

13. Provide support and mentoring for new Fire Captains, Battalion Chiefs, and Division Chiefs in the Unit.

14. Train our Company Officers and Chief Officers to the State Fire Training Standards.

15. Host 200 level ICS courses and JAC program courses.

16. Develop and support Optional Scope of Skills training programs for the Unit's Emergency Medical Technicians (EMTs).

17. Work with the adjacent San Mateo-Santa Cruz, Sonoma Lake Napa Unit, Marin County Fire Department, and San Benito-Monterey CAL FIRE Units on a regional training plan, cohost courses benefitting unit personnel, and a Fire Truck Academy.

18. Identify the legal State and Federal requirements for training in each program area. Work with CAL FIRE and local government agencies to determine mandates.

EMS BUREAU

The Santa Clara Unit EMS program is a very dynamic and constantly evolving program. EMS responses account for over 75% of all incidents our resources respond to throughout 5 counties. The program is overseen by one Battalion Chief and oversees approximately 275 Emergency Medical Technicians (EMT), 30 Paramedics, and 40 Public Safety-First Aid (PSFA) Responders. Approximately 20% of the EMT's and Paramedics are funded by Schedule A contracts and the other 80% of the employees are funded by the State.

The EMT's and Paramedics staff at peak 23 fire engines, one squad, one truck, four crew buses, one helicopter, three bulldozers, and numerous administrative vehicles. It is the responsibility of the EMS Program to ensure all EMT's, Paramedics, and PSFA's are in good standing with all certifications and licenses. It is the EMS Programs responsibility to ensure all PSFA, EMT's, Paramedics are trained in all new and previous protocols and policies that are implemented at the State Emergency Medical Services Authority (EMSA) and Local Emergency Medical Services Authority (LEMSA), as well as ensure PSFA, EMT's, and Paramedics are delivering the highest level of professional EMS services.

EMS Training and License/Certification Renewal

Our employees are required to be certified or licensed prior to being hired. EMS training and education occurs throughout the calendar year. Each EMT is required to have 24 hours of Continuing Education Units (CEU) every two years and Paramedics are required to have 48 hours of CEU's every 2 years. With all the employees combined it requires 7,200 hours of training and education every two years to maintain their certifications and licenses. To achieve the need of 7,200 hours of EMS training the EMS program utilizes many different training platforms and formats to accomplish this need.

Every two years, each employee receives CPR training with each class being 4 hours long. Every two years every Paramedic receives 16-24 hours of refresher training in Advanced Cardiac Life Support (ACLS) and Pediatric Advanced Life Support (PALS). The EMS program ensures that each EMT or Paramedic are current with their certifications/licenses and assist with any renewal issues and their applications. Each EMS class that is going to be a CE qualified class requires multiple aspects to have it fall within regulations to issue a CE to an employee. Each class requires a qualified instructor of record, course outline, course content, written or hands on testing, and an evaluation. Once the course meets the criteria then the CE must be issued/printed utilizing security techniques outlined by regulations.

EMSA/LEMSA

In SCU, each of the five counties we serve in, has its own Local Emergency Medical Service Agency (LEMSA). Each LEMSA have their own staff and Medical Director which create their own protocols/policies as well as committees/meetings. Each LEMSA has 3-5 different meetings or committees that the SCU EMS program attends. These meetings many times overlap with other meetings with another LEMSA. Since employees can work in all 5 counties/LEMSA's, every employee needs to be educated of each protocol and policy in every

county. It is the responsibility of the EMS Battalion Chief (EMS BC) to ensure the employees are current with their protocols and policies in every county we operate in. For example, the 5 different LEMSA's do not have the same protocol for treating a patient in cardiac arrest.

The EMS program must instruct each employee on the five different ways we perform CPR on a cardiac arrest patient depending on which LEMSA you are currently working under in SCU. Each year the Emergency Medical Service Agency (EMSA) or LEMSA updates or revises their protocols and policies based on science, new equipment, new data, and new procedures. When this occurs, it requires the EMTs and Paramedics to be trained in person or online to the new standard for each LEMSA. On average these annual trainings are an additional four hours of training and education for each EMT and Paramedic.

It is the responsibility of the EMS BC to attend different monthly and quarterly meetings for each of the five LEMSAs, to ensure SCU is recognized as an EMS provider in each LEMSA, and we are current on any upcoming changes. It is the EMS programs responsibility to work with the LEMSA and EMSA if there are any patient care issues. The EMS program is ultimately responsible to ensure all apparatus meet the minimum EMS equipment and employees meet the required training levels.

Data Management and CQI/QA

It is the responsibility of the EMS BC to ensure that all the EMT's and Paramedics are utilizing a Patient Care Record (PCR) for all EMS responses. The EMS BC will weekly ensure all PCRs are complete and accurate and we are following each LEMSA's Requirements. Continuous Quality Improvement/Quality Assurance is a critical process to ensure our EMT's and Paramedics are providing the highest level of care within their scope of practice. This is done by reviewing patient care records (PCR's), conducting in person EMS scenarios, and the EMS BC responding to incidents to witness patient care evaluations and treatment. It is the goal of the EMS program that 25% of all PCR's are reviewed by the EMS program. State EMSA and LEMSA's set "core measures" for CQI/QA which requires the EMS program to review all PCR's when a patient was in cardiac arrest, deceased, had certain medications administered to the patients, patient refused care, all patients that received controlled substances, all major trauma victims, all patients having a heart attack, all patients having a stroke, and all pediatric patients. During this process, we determine if the PCR is complete, accurate, routine medical care was given, and all protocols and policies were followed correctly. If determined that something in the PCR is missing or the protocol/policy was not followed correctly, then follow up with the EMT or Paramedic is done determine if it was a documentation error or truly a protocol/policy breach. If there was a breach in protocol or policy, then initiate an investigation and determine a course of action either by education or discipline.

Morgan Hill Fire Department and South Santa Clara County Fire District contract with Stanford Emergency Medical Services for a Medical Director. The Medical Director assigned to us is Dr. Mulkerin. He is very proactive with CQI/QA and training our Schedule A employees and he also assists with training Schedule B employees. He is an integral part of our EMS program that helps us with training and new procedures and protocol updates. He is also vital in ensuring our EMTs and Paramedics are providing the highest level of care. He will work with

the LEMSA to help with any personal improvement plans that our EMTs or Paramedics might be placed on due to numerous reasons that could occur.

CAL FIRE has implemented for all Schedule B apparatus the first time ever an electronic PCR (ePCR) program, this new program will increase the workload for CQI and troubleshooting IT issues when it comes to login issues, iPad issues, and adding new employees and removing employees that no longer work in SCU. With this new ePCR program it will increase the coordination needs with all five LEMSAs to ensure data is properly being received by the appropriate LEMSA. This will also incur additional new employee training and refresher training for employees.

EMT & Paramedic Accreditation

It is the responsibility of the EMS program to ensure that each EMT and Paramedic is meeting the accreditation requirements in certain LEMSAs.

1. Santa Clara County LEMSA requires all EMT's and Paramedics to be accredited in the county to be able to work in the county and to utilize the optional scope of practices. Each EMT and Paramedic need to apply online, schedule with LEMSA a written test, conduct a live scan, and take certain online classes to meet the requirements. Annually, at the end of the calendar year each EMT and Paramedic is required to attend an "EMS Update" class to maintain their accreditation. Paramedics are required to go through a five-field evaluation process when initially accrediting as a Paramedic.

2. Alameda County requires each Paramedic to be accredited. This entails the Paramedic to attend a County LESMA class. Then the paramedic must take and pass multiple written exams. Once complete, then the paramedic will do the 5-call evaluation with one of our cooperators. After that is complete, the paramedic must go through "critical thinking evaluations" with a panel of Paramedics. Once successful with the above, the Paramedic can then perform all roles as a solo Paramedic. To continue their accreditation, they must attend annual skill sessions and "EMS updates" at the end of the year.

CAL FIRE EMS

The SCU EMS program is very proactive with working collaboratively the CAL FIRE EMS Program. The EMS BC attends a monthly EMS statewide EMS Coordinators Conference Call. This meeting tends to last about two hours and has a wide variety of EMS topics we review and discuss.

EMS Contractual Agreements

It is the responsibility of the EMS program that we follow all EMS contracts. This entails making sure we are meeting our response time requirements, staffing, and other requirements as outlined in our contracts. Each month the EMS BC reviews all "late calls" for Morgan Hill

Fire Department and the South Santa Clara County Fire District. During the review of these “late calls” the EMS BC determines if the call is late. The EMS BC will utilize various ways to obtain accurate information and programs to review the “late call”. The EMS BC will review CAD notes, communicate with the ECC and ECC BC to review conduct a tape review, will contact the responding crew to see there was any other factors, and will contact other cooperators if they responded to the incident because they were the closes resource. The EMS BC will ensure our naming convention and staffing levels of apparatus meets the requirements of Santa Clara County EMS.

American Heart Association (AHA) Training Site

SCU is an approved AHA training site that requires time and effort to maintain. SCU has five certified AHA instructors that are certified to teach CPR, ACLS, and PALS to our employees. To maintain this status each instructor must meet certain criteria each year to maintain their instructor rating. Once an instructor has completed teaching a course, all course documentation must be collected, be accurate, and stored for duration of four years and then course completion certification must be emailed via the AHA website to the student.

Controlled Substances

The EMS Program is responsible to ensure SCU is following all current Federal/State/Local laws, regulations, and policies regarding controlled substances. The EMS Program ensures this by writing policy/procedure for the unit and ensure engineering controls are in effect to reduce the chances of errors and diversion. The EMS program ensures we have the documentation off all controlled substances from “cradle to grave” for each vial of controlled substance in our possession.

Equipment and Supply Management

The EMS program is responsible for ensuring the inventory of the correct EMS supplies and equipment. Each month fire stations submit their equipment or supply needs. The EMS program then will fill their request using on hand stock of supplies or equipment. If needed, then the EMS program will order through a vendor the equipment, or supplies needed to send to the stations. Since we have five different LEMSAs the equipment and supplies can be different depending on what fire station is ordering because of the LEMSA jurisdiction the apparatus is located in.

Priorities

1. Ensure all employees maintain their required level of training and certifications to respond to all types of Emergency Medical Services (EMS) related incidents.

2. Ensure all apparatus have the required EMS related equipment, supplies, and devices outlined by State Emergency Medical Services Authority (EMSA), Local Emergency Medical Services Authority (LEMSA), and CAL FIRE.

3. Ensure all employees are trained in the use of all EMS related equipment, procedures, medications, supplies, and devices based on their EMS level of certification and scope of practice outlined by EMSA, LEMSA, and CAL FIRE.

4. Ensure the EMS Program maintains constant communications and relationships with all five LEMSA's and cooperators we provide service in.

5. Ensure the unit is performing and maintaining Continues Quality Improvement (CQI) and Quality Assurance (QA) programs that meet the requirements outlined by Federal, State, and Local guidelines.

6. Maintain and accurate data base of all personnel's EMS certifications and EMS licenses and their expirations.

7. Maintain weekly and monthly communications with our Medical Directors for CAL FIRE and the Schedule A program.

Objectives

1. Provide a minimum of 5,000 hours of EMS Continuing Education Units (CEU) annually via in person classes, virtual platforms, or online training which will ensure personnel are trained and educated in existing or any new policy changes, protocol changes, scope of practice changes, and equipment/device/medication/procedure changes.

2. Perform CQI/QA review and core measure reviews on all incidents that are required by State and Local policies for example: 100% review of all cardiac arrest patients, pediatric patients, major trauma patients, and when certain medications were administered by our personnel to a patient.

3. Perform weekly reports and audits of personnel's EMS certifications and licenses expirations.

4. Attend all monthly LEMSA and EMS Cooperator meetings in all five counties we provide services to.

5. Attend EMS conventions and workshops to know the recent or proposed changes to protocols, policies, medications, or legislation.

6. Harbor great communications and relationships with our Medical Directors, Medical Administrators, EMS Specialists, EMS Chiefs that work for CAL FIRE, State EMSA, LEMSAs, and all our fire department and ambulance cooperators.

7. Maintain EMS budgets that allow for the purchase of EMS devices, equipment, and medications.

SECTION VI: REFERENCES

Software

- Google Earth Pro
- ArcGIS Pro

On-Line Mapping Resources

- ArcGIS Online
- Google Maps

SECTION VII: APPENDICES

APPENDIX A: PRE-FIRE PROJECTS

Project Name	Status	Project Type
Albany City Project	Active	Fuel Reduction
Bear Ridge Project	Active	Broadcast Burn
Butterfield Channel Project	Active	Fuel Reduction
Calero Dead Man's Curve	Active	Fuel Reduction
Charcoal Road Project	Active	Fuel Reduction
Copernicus	Active	Fuel Reduction
Grant Ranch Fuel Reduction	Active	Fuel Reduction
Grant Ranch VMP 2022-2033	Active	Broadcast Burn
Joaquin Miller Park	Active	Fuel Reduction
Malaguerra	Active	Fuel Reduction
Malech	Active	Fuel Reduction
Mt. Diablo Drought Resiliency	Active	Fuel Reduction
Mt. Madonna	Active	Fuel Reduction
Mt. Madonna Fuel Reduction	Active	Fuel Reduction
Mt. Madonna Fuel Reduction Project	Active	Fuel Reduction
Mt. Madonna Summit	Active	Fuel Reduction
Pacheco Peak	Active	Fuel Reduction
Palo Alto Project	Active	Fuel Reduction
Pine Creek	Active	Fuel Reduction
Rodeo	Active	Broadcast Burn
Sanborn County Park Fuel Reduction	Active	Fuel Reduction
Sanborn Tree Farm	Active	Fuel Reduction
Santa Teresa Pueblo	Active	Fuel Reduction
Sleepy Hollow 5A	Active	Broadcast Burn
Tunnel East Bay Hills Fuel Break	Active	Fuel Reduction

Below is a table of planned projects that the Santa Clara Unit plans to participate in:

Project	County	Project Location	Partnering Organization
CWPP Update	Contra Costa	County-Wide	Diablo FSC
Fuel Reduction Assistance and Burning	Contra Costa	Mt. Diablo State Park	CA State Parks
CWPP Annex Development	Santa Clara	South Santa Clara County, City of Morgan Hill	South Santa Clara County Fire District, City of Morgan Hill
Genasys Protect (Zonehaven) Implementation	Santa Clara	South Santa Clara County, City of Morgan Hill	South Santa Clara County Fire District, City of Morgan Hill
Regional Priority Plan	Alameda/ Contra Costa	County-Wide	Alameda County RCD, Contra Costa County RCD
CWPP Update	Santa Clara	County-Wide	Santa Clara County FSC, Santa Clara County Fire Department, Santa Clara County Office of Emergency Management
Fire Plan	Santa Clara	County-Wide	Santa Clara Valley Open Space Authority
Fuel Break	Santa Clara	Los Gatos	Santa Clara County FSC, Caltrans
Fuel Break/ Evacuation Route	Santa Clara	State Routes 9 and 35 Corridor	South Skyline and Santa Clara County FSCs
Fuel Break/ Evacuation Route	Santa Clara	Casa Loma & Loma Chiquita vicinity	Santa Clara County FSC
Fuel Break/ Evacuation Route	Santa Clara	Summit & Mt Madonna Road	Santa Clara County FSC
Fuel Break/ Evacuation Route	Santa Clara	Croy Road, Page Mill Road, Hwy 9, Hwy 35. Loma Prieta and Mt. Madonna Road areas	Santa Clara County FSC
Fuel Break	Santa Clara	Los Altos Hills County Fire District; areas along SRA lands	Los Altos Hills County Fire District

Project	County	Project Location	Partnering Organization
Fire Prevention Education	Santa Clara	County-Wide	Santa Clara County FSC
Homeowner Assistance Chipping	Santa Clara	County-Wide	Santa Clara County FSC
Fuel Break and Pile Burning	Santa Clara	Mt. Madonna County Park	Santa Clara County Parks
Fuel Break / Evacuation Route	Santa Clara	Loma Prieta to Mt. Umunhum	Mid-Peninsula Open Space District
Fuel Break	Santa Clara	Copernicus Peak Lookout	UCSC - Lick Observatory
Fuel Break	Santa Clara	Pacheco Peak	Bourdet Ranch
VMP Rx Burn	Santa Clara	Joseph D. Grant Park	Santa Clara County Parks
VMP Rx Burn	Santa Clara	Henry W Coe State Park & San Felipe Ranch	CA State Parks & Recreation & San Felipe Ranch
VMP Rx Burn	Santa Clara	Gilroy	Castro Valley Ranch
VMP Rx Burn	Santa Clara	Isabel Valley	Isabel Valley Ranch
VMP Rx Burn	Santa Clara	Isabel Valley	Jarret Farms
VMP Rx Burn	Santa Clara	Motorcycle County Park	Santa Clara County Parks, Santa Clara Valley Open Space Authority
VMP Rx Burn	Santa Clara	Canada de los Osos Preserve	CA Dept. of Fish and Wildlife
Fuel Break	Santa Clara	Gilroy	Castro Valley Ranch
Fuel Break/ Fire Road Maintenance	Santa Clara/ Stanislaus	County Line Road	Henry Coe State Park

Project	County	Project Location	Partnering Organization
Fuel Reduction Planning Assistance	Santa Clara	Lexington Basin	San Jose Water Company
VMP Rx Burn	Santa Clara	Canada de los Osos Ecological Reserve	CDFW, AMLT
VMP Rx Burn	Santa Clara	San Antonio Valley	Hurner Family Properties
VMP Rx Burn	Santa Clara, Alameda	San Antonio Valley	Biel Properties
Fuel Reduction Assistance and Pile Burning	Santa Clara	Henry Coe State Park	CA State Parks
Fire Ecology & Fire Weather Research Assistance	Multiple	County-Wide	San Jose State University Fire Weather Lab
Fuel Break/ Evacuation Route	Multiple	County-Wide	Caltrans District 4

APPENDIX B: UNIT GOALS AND OBJECTIVES

Goal 1:

Develop a method to integrate fire and fuels management practices with landowner priorities and multiple jurisdictional efforts within local, state, and federal responsibility areas.

Objective:

Support the availability and utilization of CAL FIRE hand crews and other CAL FIRE resources, as well as public and private sector resources, for fuels management and activities, including ongoing maintenance.

Measurement Criteria:

CAL FIRE will report to the Board of Forestry on the number of crews available each year with a description of projects, including acres treated, completed by each Unit. Report the number of agreements and/or amount of funding and acres treated that involve grants or partnerships with federal agencies, resource conservation districts, local FSCs, fire districts, watershed groups or other nonprofit or community groups that support the ability to carry out fuel's reduction projects.

Goal 2:

Address post-fire responsibilities for natural resource recovery, including fire suppression repair (FSR) at the Unit and or Incident Management Team's (IMT) discretion.

Objectives:

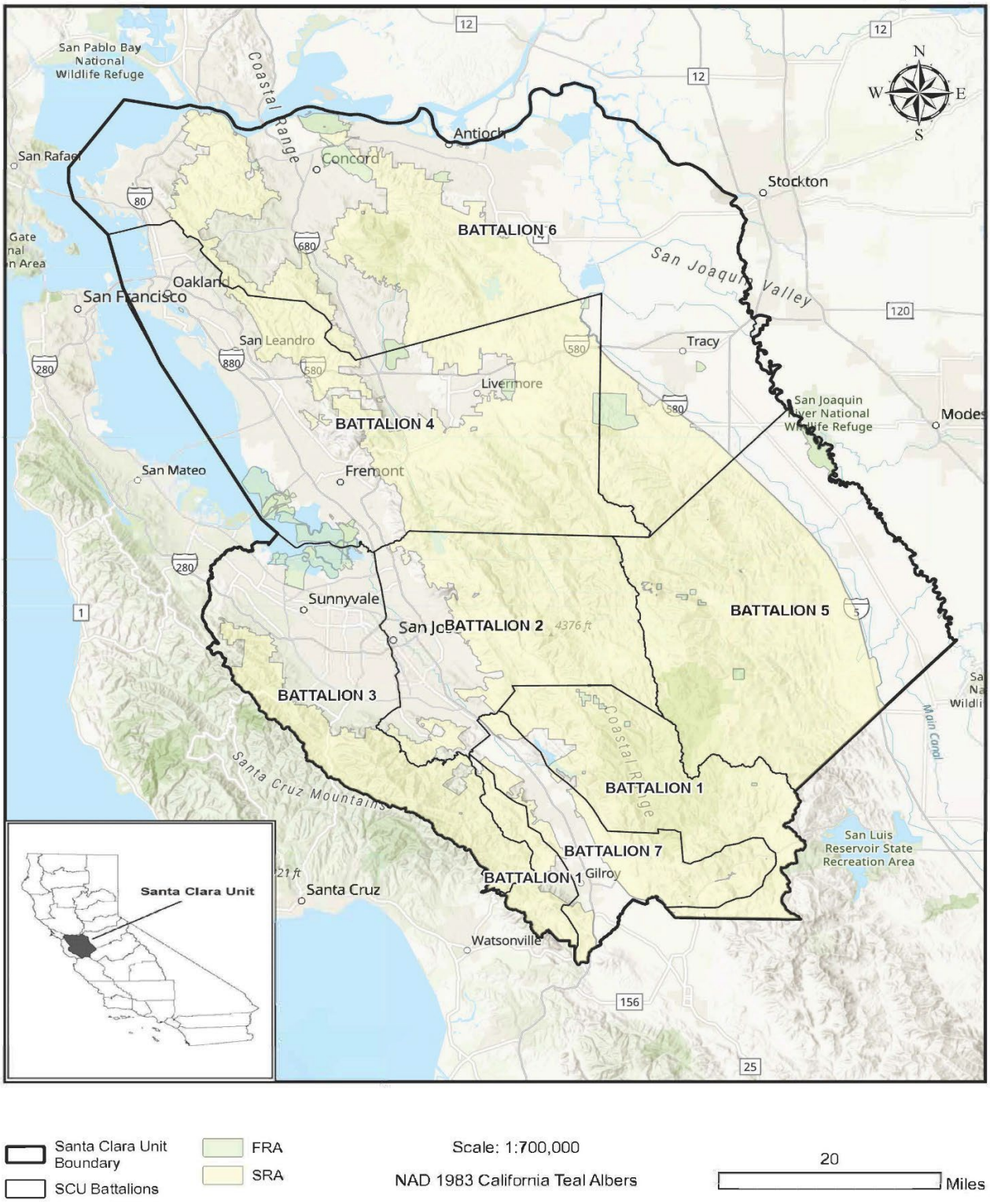
Assist landowners and local government in the evaluation of the need to retain and utilize features (e.g., fuel breaks, fire lines) developed during a fire suppression effort, taking into consideration those identified in previous planning efforts.

Measurement Criteria:

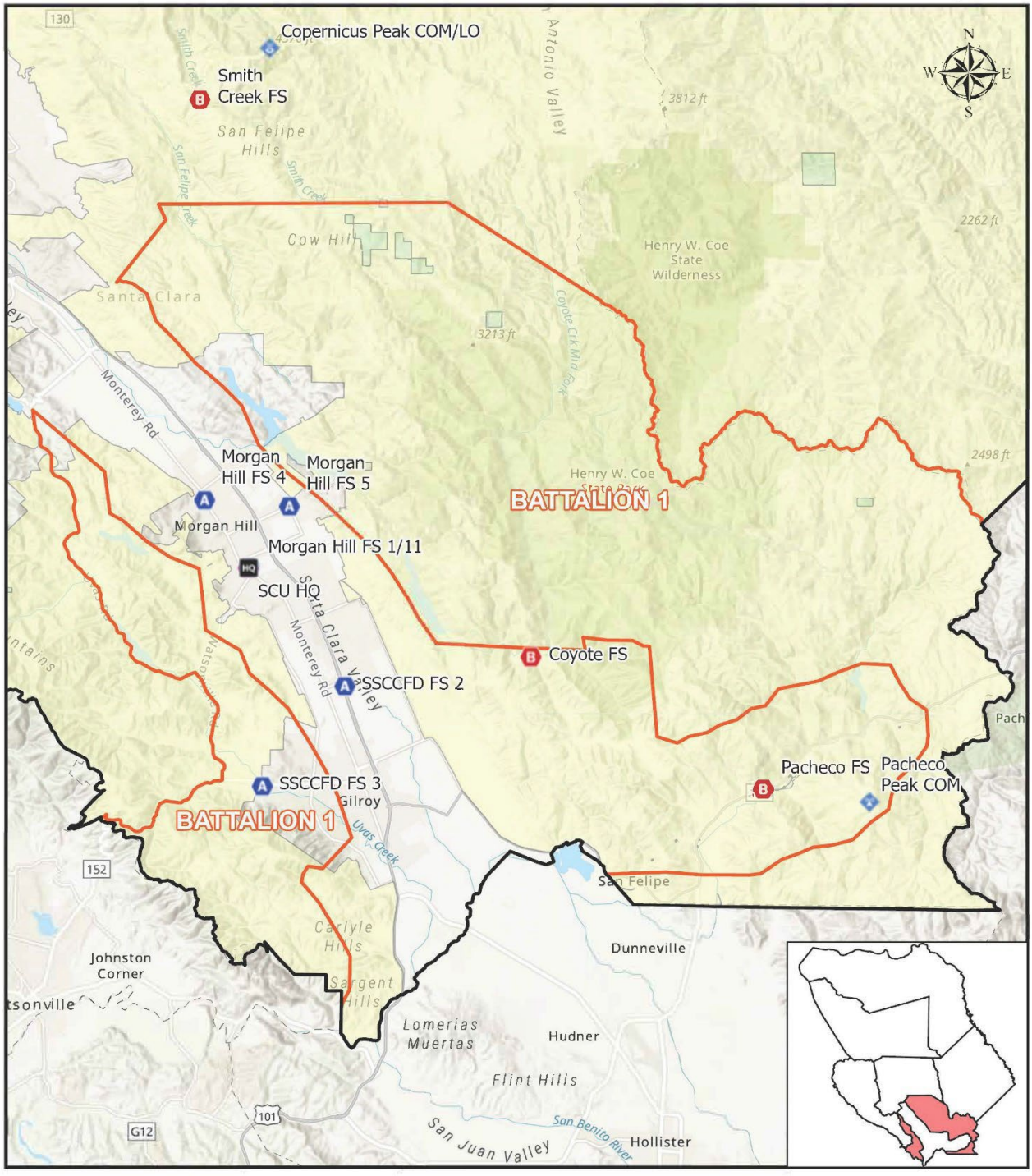
CAL FIRE (utilizing Incident Management Teams) to schedule a post-fire review of the planning documents that cover the area affected by the fire. Review the goals, objectives, and projects (implemented and planned) to identify successes and failures. Review the features developed during the fire and incorporate them into the existing Unit fire plan documents. This objective will only be reported when a fire occurs in an area with an existing Unit fire plan document. Incident Management Teams may conduct this post-fire assessment under the direction of the Unit Chief. FSR tasks that exceed Unit capabilities may be referred to incident Comp/Claims or the Victim's Compensation Board for consideration.

APPENDIX C: UNIT MAPS

CAL FIRE Santa Clara Unit Overview Map



CAL FIRE Santa Clara Unit Battalion 1 Map



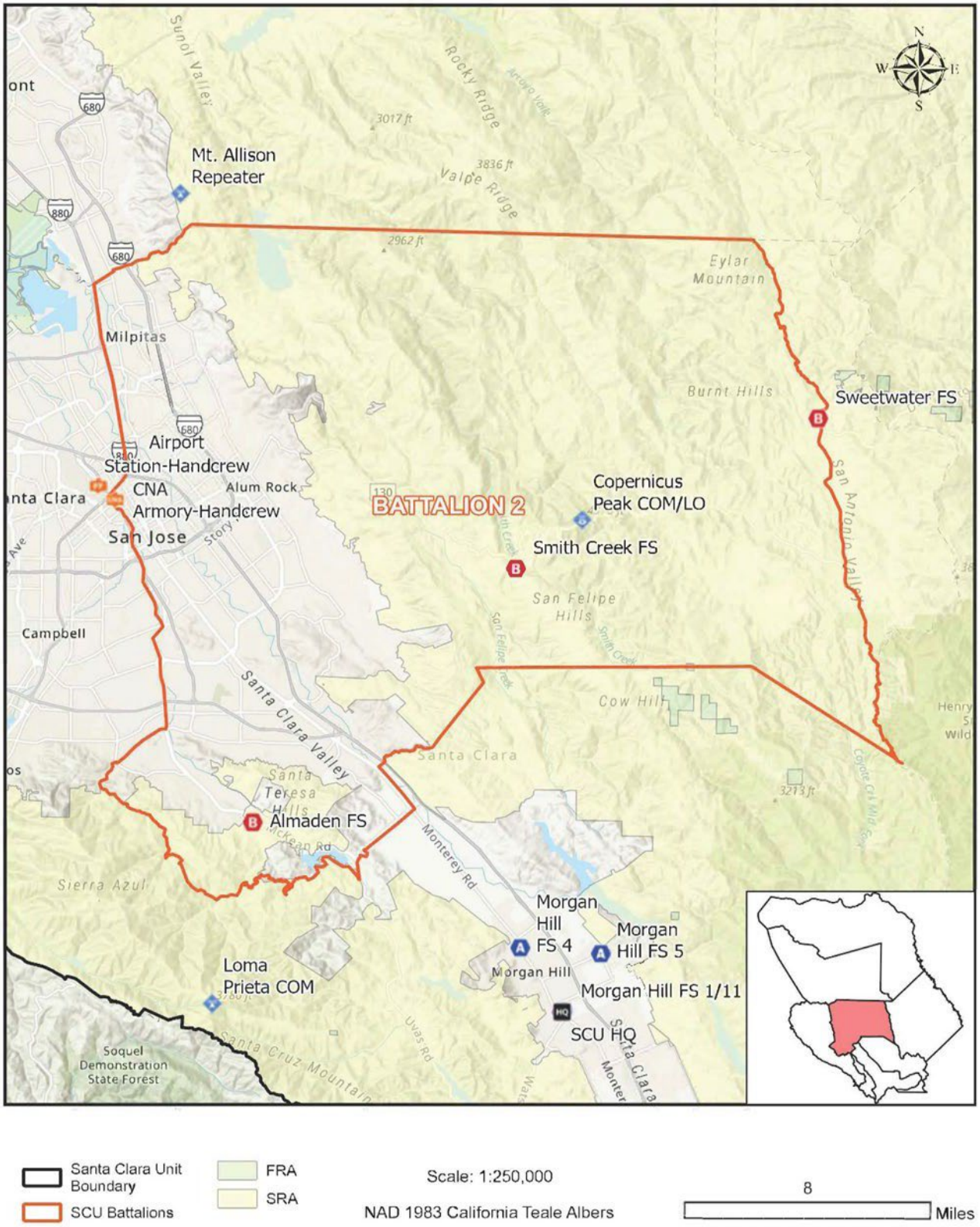
Santa Clara Unit Boundary
SCU Battalions
FRA
SRA

Scale: 1:250,000

NAD 1983 California Teale Albers

8 Miles

CAL FIRE Santa Clara Unit Battalion 2 Map



CAL FIRE Santa Clara Unit Battalion 3 Map

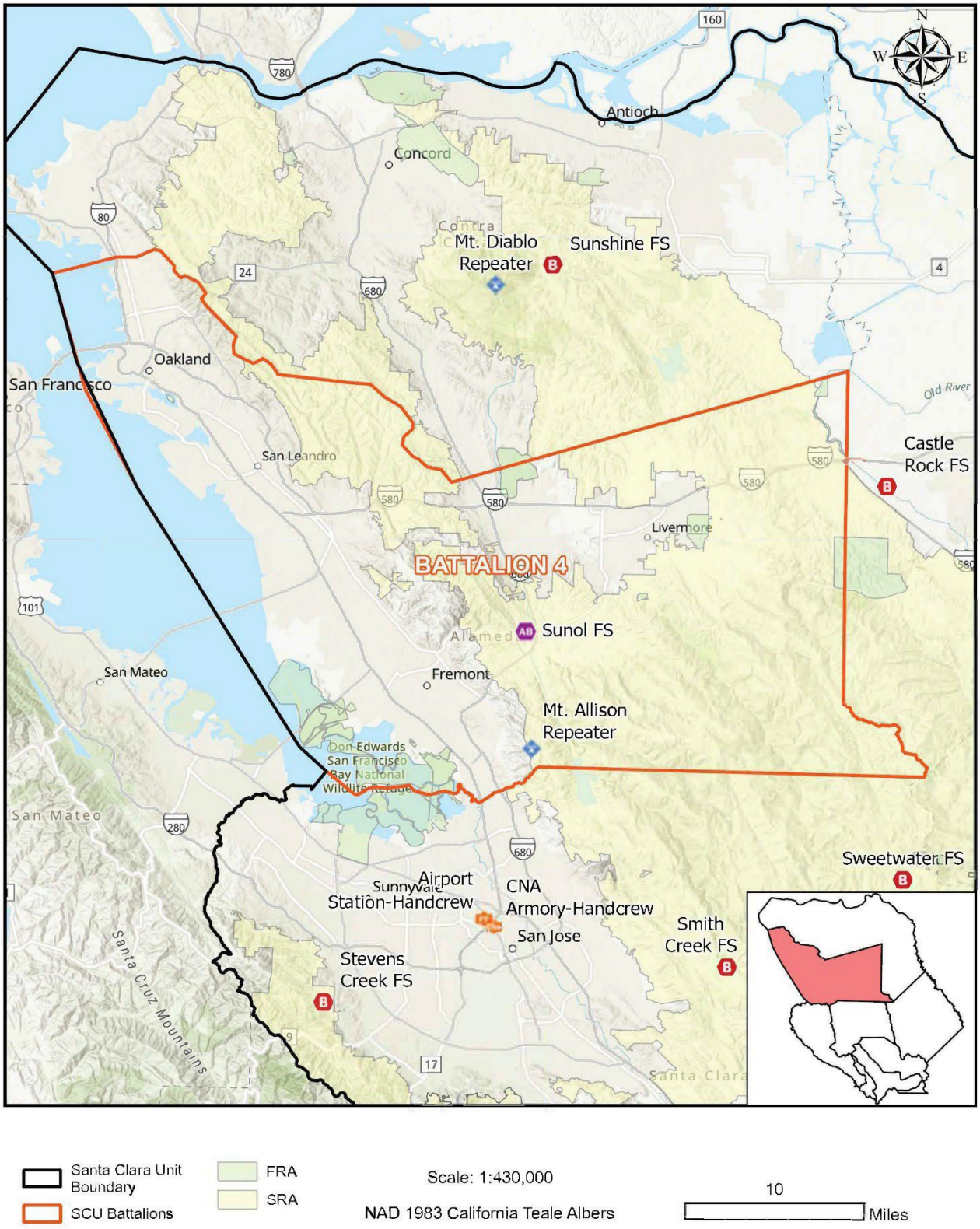
Santa Clara Unit Boundary
SCU Battalions
FRA
SRA

Scale: 1:300,000

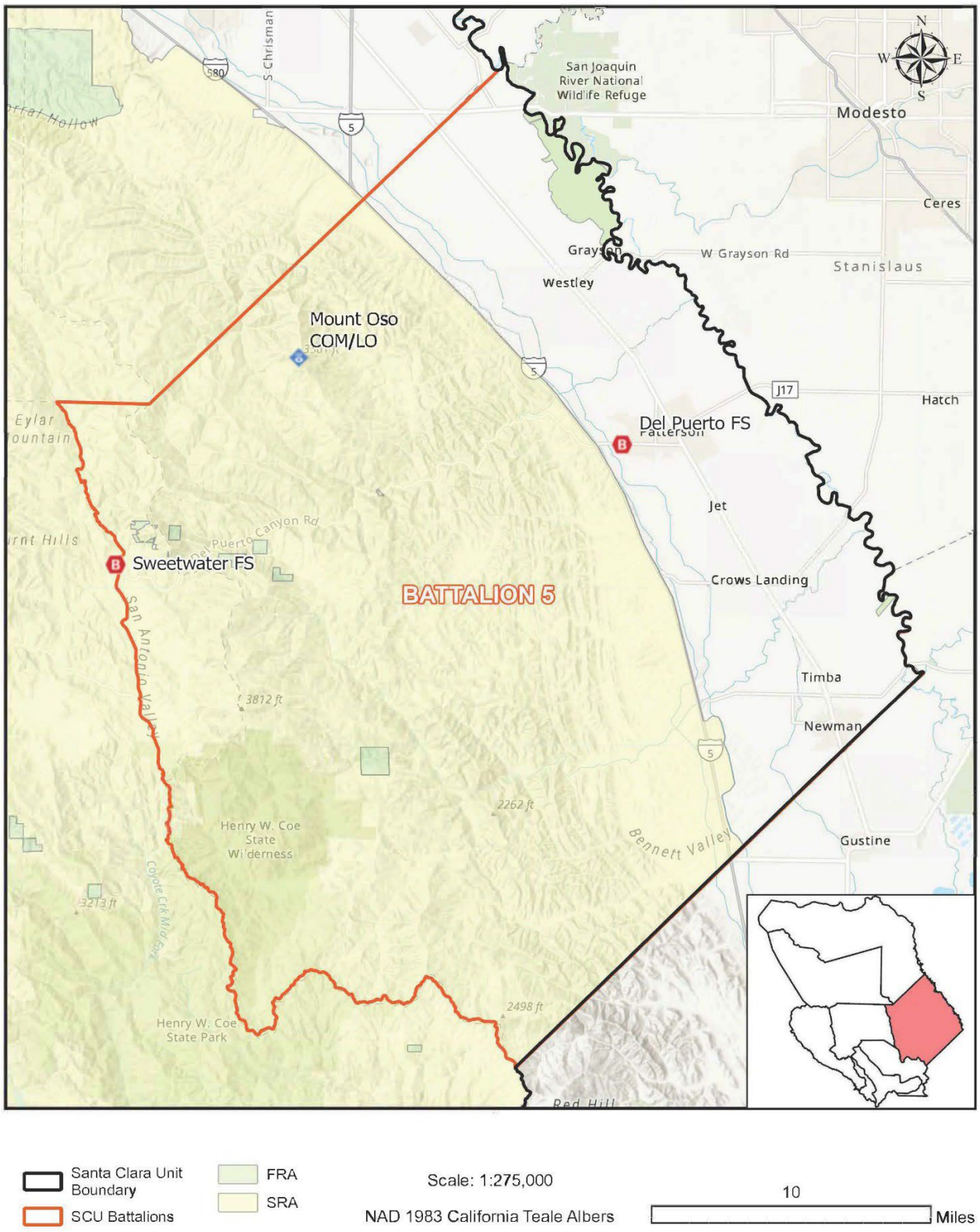
NAD 1983 California Teale Albers

10 Miles

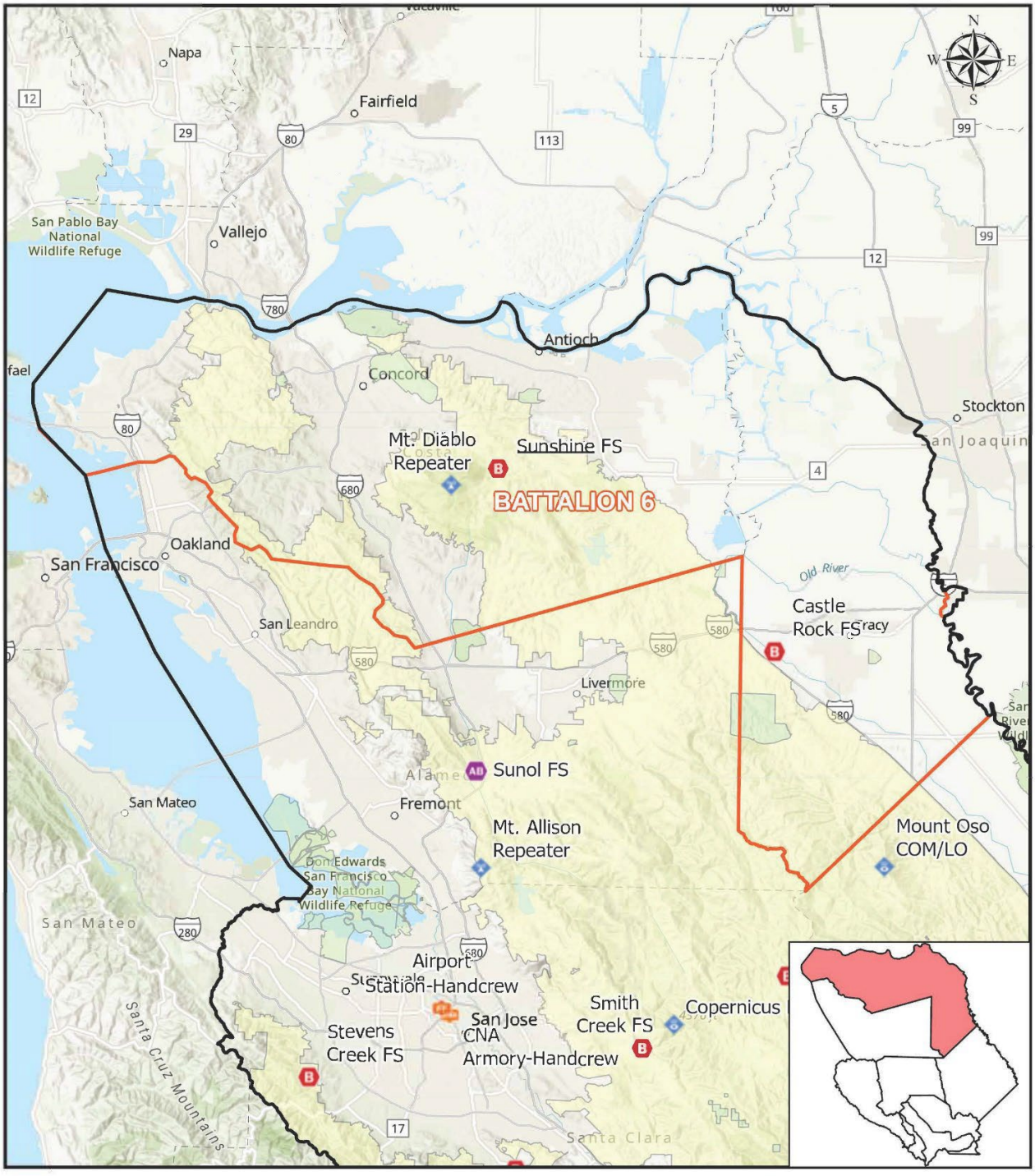
CAL FIRE Santa Clara Unit Battalion 4 Map



CAL FIRE Santa Clara Unit Battalion 5 Map



CAL FIRE Santa Clara Unit Battalion 6 Map

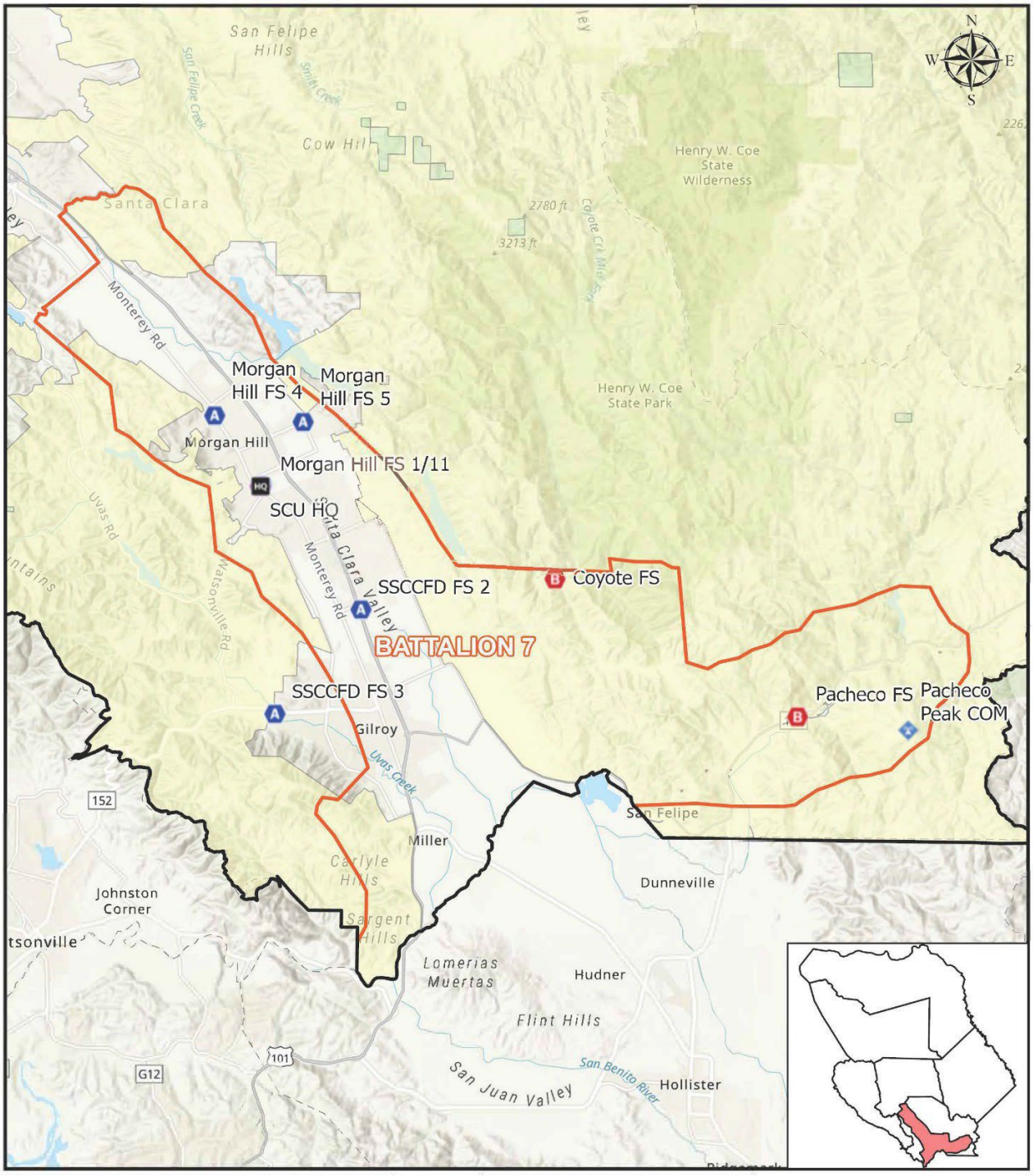


Santa Clara Unit Boundary
SCU Battalions
FRA
SRA

Scale: 1:550,000
NAD 1983 California Teale Albers

20 Miles

CAL FIRE Santa Clara Unit Battalion 7 Map



APPENDIX D: FIRE STATIONS AND APPARATUS
(PEAK STAFFING LEVEL)

South Division

Battalion 1
Headquarters Station
- E1661, E1671, D1641

Coyote Station
- E1681

Pacheco Station
- E1677

Battalion 2
Smith Creek Station
- E1662

Almaden Station
- E1672

Battalion 3
Alma Station
- E1673

Stevens Creek Station
- E1663

Alma Helitack Base
- Alma Copter

East Division

Battalion 4
Sunol Station
- E1664, E1684, D1644
- E14, E614 (ACF)

Battalion 5
Del Puerto Station
- E1675, E1685, D1645

Sweetwater Station
- E1665

Battalion 6
Sunshine Station
- E1666, E1676

Castle Rock Station
- E1656

Cooperative Fire Protection

Battalion 7
Morgan Hill Station (SCC)
- E67, WT67

Masten Station (SCC)
- E68, WT68

Treehaven Station (SCC)
- E69, E369

El Toro Station (MRG)
- E57, T57, SQ59, RM58

Dunne Hill Station (MRG)
- E58

Hand Crews

Mount Hamilton Fire Center
- Mount Hamilton Crew 1
- Mount Hamilton Crew 2

Pacheco Fire Center
- Pacheco Crew 1
- Pacheco Crew 2

Peak Staffing Summary

7 – Battalions
18 – Fire Stations
2 – Fire Centers
17 – Type 3 Engines
6 – Type 1 Engines
1 – Type 6 Engine
3 – Type 2 Dozers
4 – Type 1 Hand Crews
1 – Type 1 Helicopter
2 – Type 1 Water Tenders
1 – Quint
1 – ALS Squad
1 – ALS Ambulance

APPENDIX D: FIRE STATIONS AND APPARATUS

Station	Address	Apparatus
Headquarters	15670 Monterey Rd, Morgan Hill	Engine 1661 Engine 1671 Dozer 1641
Coyote	8900 Canada Rd, Gilroy	Engine 1681
Pacheco	12280 Pacheco Pass Hwy, Hollister	Engine 1677
Smith Creek	22805 Mt. Hamilton Rd, San Jose	Engine 1662
Almaden	20255 McKean Rd, San Jose	Engine 1672
Alma	19650 Santa Cruz Hwy, Los Gatos	Engine 1673
Stevens Creek	13326 Stevens Canyon Rd, Cupertino	Engine 1663
Alma Helitack	19650 Santa Cruz Hwy, Los Gatos	Alma Copter
Sunol	11345 Pleasanton Sunol Rd, Pleasanton	Engine 1664 Engine 1684 Dozer 1644 ACF Engine 14 ACF Engine 614
Del Puerto	2142 Sperry Rd, Patterson	Engine 1675 Engine 1685 Dozer 1645
Sweetwater	47405 Mines Rd, Livermore	Engine 1665
Sunshine	11851 Marsh Creek Rd, Clayton	Engine 1666 Engine 1676
Castle Rock	16502 Schulte Rd, Tracy	Engine 1656
Morgan Hill	15670 Monterey Rd, Morgan Hill	SCC Engine 67 SCC Water Tender 67
Masten	10810 No Name Uno, Gilroy	SCC Engine 68 SCC Water Tender 68
Treehaven	3050 Hecker Pass Rd, Gilroy	SCC Engine 69 SCC Engine 369
El Toro	18300 Old Monterey Rd, Morgan Hill	MRG Engine 57 MRG Truck 57 MRG Squad 59 MRG Rescue Medic 58
Dunne Hill	2100 E. Dunne Ave, Morgan Hill	MRG Engine 58
Mount Hamilton Fire Center	251 W. Hedding St, San Jose	Mt. Hamilton Crew 1 Mt. Hamilton Crew 2
Pacheco Fire Center	1433 Airport Blvd, San Jose	Pacheco Crew 1 Pacheco Crew 2

APPENDIX E: GLOSSARY

Authority Having Jurisdiction (AHJ) – The organization, office, or individual responsible for approving equipment, materials, an installation, or a procedure (NFPA, NFPA 1144, 2002).

Aspect – Compass direction toward which a slope faces (NFPA, NFPA 1144, 2002).

Building – Any structure used or intended for supporting or sheltering any use or occupancy (NFPA, NFPA 1144, 2002).

Built Environment – Human-made surroundings that provide the setting for human activity, ranging in scale from buildings to parks, including the human-made space in which people live, work, and recreate on a day-to-day basis.

Climate Change – Any long-term significant change in the "average weather" that a given region experiences. Average weather may include average temperature, precipitation, and wind patterns.

Combustible – Any material that, in the form in which it is used and under the conditions anticipated will ignite and burn or will add appreciable heat to an ambient fire (NFPA, NFPA 1144, 2002).

Community Wildfire Protection Plan (CWPP) – Address issues such as wildfire response, hazard mitigation, community preparedness, or structure protection. The process of developing a CWPP can help communities clarify and refine their priorities for the protection of life, property, and critical infrastructure in the wildland urban interface (Source: Preparing a Community Wildfire Protection Plan. March 2004).

Condition Class – Describes fire-related risk to ecosystems and relates current expected wildfires to their historic frequency and effects. Condition class ranks are defined as the relative risk of losing key components that define an ecosystem. Higher ranked areas present greater risk to ecosystem health. Condition class is a measure of the expected response of ecosystems to fire given current vegetation type and structure that often is far different from that historically present.

Cooperative Fire Protection Agreements – Agreements established between federal, state, tribal and local government entities to provide long-term fire and emergency service protection.

Defensible Space – An area as defined by the AHJ (typically a width of 30 feet or more) between an improved property and a potential wildland fire where combustible materials and vegetation have been removed or modified to reduce the potential for fire on improved property spreading to wildland fuels or to provide a safe working area for fire fighters protecting life and improved property form wildland fire (NFPA, NFPA 1144, 2002), or as defined by PRC 4291.

Direct Protection Areas (DPA) - Intermingled and adjacent lands delineated by boundaries regardless of jurisdictional agency. Wildfire protection in these areas is negotiated, created, and agreed to by the administrative units of either the Federal Agencies or the State.

Disaster – Disaster is characterized by the scope of an emergency. An emergency becomes a disaster when it exceeds the capability of the local resources to manage it. Disasters often result in great damage, loss, or destruction (Greene, R.W., Confronting Catastrophe, ESRI Press, 2002).

Dry Hydrant – An arrangement of pipe permanently connected to a water source other than a piped, pressurized water supply system that provides a ready means of water supply for fire-fighting purposes and that utilizes the drafting (suction) capability of fire department pumpers (NFPA, NFPA 1144, 2002).

Dwelling – One or more living units, each providing complete and independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking, and sanitation (NFPA, NFPA 1144, 2002).

Emergency – A deviation from planned or expected behavior or course of events that endangers or adversely affects people, property, or the environment (Greene, R.W., Confronting Catastrophe, ESRI Press, 2002).

Evacuation/Escape Route - An organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.

Fire Behavior – The way a fire reacts to the influences of fuel, weather, and topography.

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 (CDF FRAP 2010 Forest and Range Assessment).

Fire Hazard – A fuel complex, defined by volume, type condition, arrangement, and location, which determines the degree of ease of ignition and of resistance to control.

Fire Hazard Severity Zones – Areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, then define the application of various mitigation strategies to reduce risk associated with wildland fires.

Fire Hydrant – A valved connection on a water supply system having one or more outlets and that is used to supply hose and fire department pumpers with water (NFPA, NFPA 1144, 2002).

Fire Lane – A means of access or other passageway designated and identified to provide access for emergency apparatus where parking is not allowed (NFPA, NFPA 1141, 1998).

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

Fire Protection – All measures taken to reduce the burden of fire on the quality of life. Fire protection includes measures such as fire prevention, fire suppression, built-in fire protection systems, and planning and building codes (NFPA, NFPA 1141, 1998).

Fire Protection System – Any fire alarm device or system or fire extinguishing device or system, or their combination, which is designed and installed for detecting, controlling, or extinguishing a fire or otherwise alerting occupants, or the fire department, that a fire has occurred (NFPA, NFPA 1141, 1998).

Fire Threat – The combination of two factors: 1) fire frequency, or the likelihood of a given area burning, and 2) potential fire behavior (hazard). Components include surface fuels, topography, fire history, and weather conditions (Source: CDF FRAP)

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 (CDF FRAP 2010 Forest and Range Assessment).

Fire Resilient – The ability of a vegetation type, ecosystem, or community to respond positively to or recover quickly from the effects of a wildfire burning within, across or adjacent to them. Fire Resistant – The condition of an asset that resists ignition and damage from wildfire. Structures are built using ignition resistant materials such as stucco, tile roofs, and boxed eaves with the likelihood that they will withstand most wildland fires or at least reduce damage caused by them.

Fire Risk –The chance of fire starting, as determined by the presence and activity of causative agents; a causative agent or a number related to the potential number of firebrands to which a given area will be exposed during the day.

Fire Rotation – An area-based average estimate of fire frequency, calculated as the length of time necessary for an area equal to the total area of interest to burn. Fire rotation is often applied to regionally stratified land groupings where individual fire-return interval across the variability of the strata (i.e., the fine scale pattern of variation in timing of fires) is unknown, but detailed information on fire size is known. Hence, fire rotation is a common estimate of fire frequency during periods of recorded fire sizes (CDF FRAP 2010 Forest and Range Assessment).

Fire Weather – Weather conditions which influence fire ignition, behavior, and suppression.

Firebreak – A natural or constructed barrier used to stop or check fires that may occur, or to provide a control line from which to work.

Fireshed – A contiguous area displaying similar fire history and problem fire characteristics (e.g., intensity, resistance to control) and requiring similar suppression response strategies.

Fire Suppression Resources – State, federal, tribal, local, and private equipment and resources gathered to extinguish and mitigate wildland fires.

FIREWISE – A national program designed to reach beyond the fire service by involving homeowners, community leaders, planners, developers, and others in the effort to protect people, property, and natural resources from the risk of wildland fire before a fire starts. The Firewise program is community driven.

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.

Fuels – Any combustible material, especially petroleum-based products, and wildland fuels.

Fuel Loading – The amount of fuel present expressed quantitatively in terms of weight of fuel per unit area. This may be available fuel (consumable fuel) or total fuel and is usually dry weight.

Fuel Models – Description of the types of vegetative combustible material:

- Light Fuels – grasses, forbs
- Medium Fuels – short light brush and small trees
- Heavy Fuels – tall dense brush, timber, and hardwoods
- Slash Fuels – logs, chunks, bark, branches, stumps, and broken understory trees and brush.

Fuel Modification – Manipulation or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control (e.g., lopping, chipping, crushing, piling, and burning).

Fuels Reduction Projects – The modification of vegetation to reduce potential fire threat. These projects often result in improved wildlife habitat capability, timber growth, and/or forage production.

GIS - Geographic Information Systems - The combination of skilled persons, spatial and descriptive data, analytic methods, and computer software and hardware – all organized to automate, manage, and deliver information though geographic presentation (i.e., maps) (Zeiler, M., Modeling Our World, ESRI Press, 1999).

Ground Fuels – All combustible materials below the surface litter, including duff, tree or shrub roots, punky wood, peat, and sawdust that normally support a glowing combustion without flame.

Hand Crews – A number of individuals organized, trained, and supervised principally for fire suppression or fuel reduction projects. A CAL FIRE hand crew may be staffed by inmates or California Conservation Corps.

Hazard – Refers generally to physical characteristics that may cause an emergency. Earthquake faults, flood zones, and highly flammable brush fields are all examples of hazards (Greene, R.W., Confronting Catastrophe, ESRI Press, 2002). Also see **Fire Hazard**.

Healthy Forests Restoration Act (HFRA), 2003 – Gives incentives for communities to engage in comprehensive forest planning and prioritization. This legislation includes statutory incentives for the US Forest Service (USFS) and the Bureau of Land Management (BLM) to consider the priorities of local communities as they develop and implement forest management and hazardous fuel reduction priorities. The Act emphasizes the need for federal agencies to work collaboratively with communities in developing hazardous fuel reduction projects, and it places priority on treatment areas identified by communities themselves in a CWPP (Source: Preparing a Community Wildfire Protection Plan. March 2004).

Improved Property – A piece of land or real estate upon which a structure has been placed, a marketable crop is growing (including timber), or other property improvement has been made (NFPA, NFPA 1144, 2002).

Intermix – An area where improved property and wildland fuels meet with no clearly defined boundary (NFPA, NFPA 1144, 2002).

Ladder Fuels – Fuels which provide vertical continuity between strata, thereby allowing fire to carry from surface fuels into the crowns of trees or shrubs with relative ease.
They help initiate and assure the continuation of crowning. (National Wildlife Coordinating Group, 2014)

Land Use Planning – A comprehensive assessment leading to a set of decisions that guide use of land within an identified area.

Local Responsibility Areas (LRA) – Lands in which a local government agency is responsible for all fire protection.

Managed Fire – The use of natural or human-caused ignition within burn a prescription for purposes, including public safety and ecosystems benefits, where allowed under the policy of the agencies with primary jurisdiction.

Mutual Aid – An agreement in which two or more parties agree to furnish resources and facilities and to render services to each and every other party of the agreement to prevent and combat any type of disaster or emergency.

Mitigation – Action that moderates the severity of a fire or risk (NFPA, NFPA 1144, 2002).

National Fire Protection Association (NFPA) – An international nonprofit organization, established in 1896, to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus codes and standards, research, training, and education (NFPA, 2009)

Native Species Seed Bank – A storage area for seed that is collected from a species which is a part of the original vegetation of the area in question.

NFPA-1144 Standard for Protection of life and Property from Wildfire – Standard developed by the NFPA to be used to provide minimum planning, construction, maintenance, education, and management elements for the protection of life, property, and other values that could be threatened by wildland fire. The standard shall be used to provide minimum requirements to parties responsible for fire protection, land use planning, property development, property maintenance, and others responsible for or interested in improving fire and life safety in areas where wildland fire could threaten lives, property, and other values (NFPA, NFPA 1144, 2002).

Noncombustible – Any material that, in the form in which it is used and under the conditions anticipated will not ignite and burn nor will add appreciable heat to an ambient fire (NFPA, NFPA 1144, 2002).

Overstory – the level of forest canopy that includes the crowns of dominant, codominant, and intermediate trees. (Maryland Department of Natural Resources, 2003)

Prescribed Fire – A planned wildland fire designed to meet specific management objectives.

Reforestation –The establishment of forests on land that had recent (less than 10 years) tree cover.

Risk – The potential or likelihood of an emergency to occur. For example, the risk of damage to a structure from wildfire is high if it is built upon, or adjacent to, a highly flammable brush field or other area deemed to have a high Fire Threat (Greene, R.W., Confronting Catastrophe, ESRI Press, 2002).

Safe Zone – An area cleared of flammable materials used for escape in the event the line is outflanked or in case a spot fire causes fuels outside the control line to render the line unsafe. In firing operations, crews progress so as to maintain a safety zone close at hand allowing the fuels inside the control line to be consumed before going ahead. Safety zones may also be constructed as integral parts of fuel breaks; they are greatly enlarged areas which can be used with relative safety by firefighters and their equipment in the event of blowup in the vicinity. (National Wildlife Coordinating Group, 2014)

Salvage – The harvesting of dead, dying, and damaged trees to recover their economic values that would otherwise be lost to deterioration.

Situational Awareness –The application of the human senses to current and predicted weather, fire, or other emergency conditions to plan and execute actions that provide for the safety of all personnel and equipment engaged in an emergency; this includes development of alternative strategies of fire suppression and the net effect of each.

Slope – The ratio between the amount of vertical rise of a slope and horizontal distance as expressed in a percent. One hundred feet of rise to 100 feet of horizontal distance equals 100 percent. Upward or downward incline or slant (NFPA, NFPA 1144, 2002).

Turnaround – A portion of a roadway, unobstructed by parking, which allows for a safe reversal of direction for emergency equipment (NFPA, NFPA 1144, 2002).

Turnouts – A widening in a travel way of sufficient length and width to allow vehicles to pass one another (NFPA, NFPA 1144, 2002).

Understory – The layer formed by the crowns of smaller trees in a forest. (Mountain Association for Community Economic Development, 2014)

Water Supply – A source of water for fire-fighting activities (NFPA, NFPA 1144, 2002).

Wildland –Those unincorporated areas covered wholly or in part by trees, brush, grass, or other flammable vegetation.

Wildfire – An unplanned ignition; unwanted wildland fire including unauthorized human caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out.

Wildland Fire – Fire that occurs in the wildland as the result of an unplanned ignition.

Wildland Urban Interface (WUI) –The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.