



**San Benito - Monterey**



**2023 UNIT STRATEGIC FIRE**

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This Plan:

- Was collaboratively developed. Interested parties, federal, state, city, and county agencies within the Unit 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 Unit.
- 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.

DocuSigned by:  
*George Munez*  
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**Unit Chief**

5/9/2023

**Date**

DocuSigned by:  
*Brice Muenzer*  
AA56839482F5478...

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**Pre-Fire Engineer**

5/9/2023

**Date**

# Executive Summary

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California's Strategic Fire Plan is the state's road map for reducing the risk of wildfire. By placing the emphasis on what needs to be done long before a fire starts, the Strategic Fire Plan seeks to reduce firefighting costs and property losses, increase firefighter safety, and to contribute to ecosystem health. The San Benito-Monterey Unit, with the cooperation of key stakeholders, has designed a plan with the intention of meeting the goals set by both the stakeholders and the California Strategic Fire Plan. Pre-Fire Management projects are designed to reduce costs and losses, especially during periods of severe fire weather. The use of fire-resistant landscaping, mechanical fuels treatment, prescribed burns, building construction standards, infrastructure, land use planning, and escape plans, the Unit strives to keep what would otherwise be a large, catastrophic fire, to smaller fire with less intensity, reducing suppression costs and property loss.

The San Benito-Monterey Unit management intends to support the Fire Plan and make it successful by meeting the following objectives:

1. Collect, analyze, and prepare data to assess communities at risk and in need of fuel reduction or other projects.
2. Continue to provide operational training that will support safe and successful suppression operations.
3. Nurture and build relationships with local public and private industries to develop cooperative project plans.
4. Educate the public on fire prevention and incorporating fire resistant landscaping and construction to their property, as well as hazardous fuel reduction to keep their lives, homes, property, and natural resources safe from catastrophic wildfires.
5. Work with grant writers and stakeholders to secure funds to implement projects.
6. Continue to support the implementation of fire safe clearance around structures.

Considering the goals above, the Unit strives to reduce fire suppression costs, property loss, and damage to our environment and local ecosystems. This Fire Plan is intended to assist the San Benito-Monterey Unit in meeting the Mission, Vision, and Values set forth by CAL FIRE.

# Unit Strategic Fire Plan Amendments

<b>Date</b>	<b>Section Updated</b>	<b>Page Numbers Updated</b>	<b>Description of Update</b>	<b>Updated By</b>
1/07/14	Dispatch Agreements	5	Deleted "Monterey Airport Fire District"	CST
4/26/14	Appendix A	36 - 50	Updated Battalion Projects	CST
5/9/14	Section II Collaboration	6	Added stakeholders	CST
12/19/14	Battalion/Program Plans	29	Combined Batt 7 with Batt 5	CST
12/19/14	Appendix A	49 - 50	Combined Batt 7 with Batt 5	CST
4/1/16	Annual Accomplishments	57-58	Updated Annual Accomplishments	EPM
4/1/16	Appendix A	40 - 48	Updated Battalion Projects	EPM
4/1/16	Exhibits: Maps	50 - 58	Unit Maps and Battalion Maps	EPM
4/1/16	Figure C: Fire History Map	56	Updated Fire History Map	EPM
5/2/17	Annual Accomplishments	55-56	Updated Annual Accomplishments	EPM
5/2/17	Figure C: Fire History Map	54	Updated Fire History Map	EPM
5/2/17	Appendix A: Pre-Fire Projects	33-45	Updated Appendix A: Pre-Fire Projects	EPM
5/2/17	Appendix B: Ignition Data	46-47	Updated Appendix B: Ignition Data	EPM
4/16/18	Appendix A: Pre-Fire Projects	33-45	Updated Appendix A: Pre-Fire Projects	EPM
4/16/18	Appendix B: Ignition Data	46-47	Updated Appendix B: Ignition Data	EPM
4/16/18	Exhibits: Maps	55-56	Unit Maps, Land Ownership	EPM
4/16/18	Figure C: Fire History Map	54	Updated Fire History Map	EPM
4/16/18	Annual Accomplishments	56-57	Updated Annual Accomplishments	EPM
4/10/19	Appendix A: Pre-Fire Projects	41-52	Updated Appendix A: Pre-Fire Projects	EPM
4/10/19	Appendix B: Ignition Data	53-54	Updated Appendix B: Ignition Data	EPM
4/10/19	Exhibits: Maps	55-57	Unit Maps, Land Ownership, Fire History	EPM
4/10/19	Annual Accomplishments	59	Updated Annual Accomplishments	EPM

4/10/20	Appendix A: Pre-Fire Projects	49-61	Updated Appendix A: Pre-Fire Projects	EPM
4/10/20	Appendix B: Ignition Data	62-63	Updated Appendix B: Ignition Data	EPM
4/10/20	Exhibits: Maps	64-66	Unit Maps, Land Ownership, Fire History	EPM
4/10/20	Annual Accomplishments	67-68	Updated Annual Accomplishments	EPM
4/20/21	Appendix A: Pre-Fire Projects	57-71	Updated Projects	CJC
4/20/21	Appendix B: Ignition Data	72-77	Updated and added Battalion specific data	CJC
4/20/21	Exhibits: Maps	78-83	Updated maps	CJC
4/20/21	Annual Accomplishments	83-85	Updated Accomplishments	CJC
4/27/22	Fuels	27-30	Updated Fuels to FDRA	CJC
4/20/22	Appendix A: Pre-Fire Projects	57-71	Updated Projects	CJC
4/20/22	Appendix B: Ignition Data	72-77	Updated and added Battalion specific data	CJC
4/20/22	Exhibits: Maps	78-82	Updated maps	CJC
4/20/22	Annual Accomplishments	83-85	Updated Accomplishments	CJC
4/1/23	Appendix A: Pre-Fire Projects	61-80	Updated Projects	BEM
4/20/23	Appendix B: Ignition Data	81-87	Updated and added Battalion specific data	GMH
4/1/23	Exhibits: Maps	88-92	Updated maps	GMH
4/1/23	Annual Accomplishments	93-97	Updated and added Battalion specific data	BEM



## Section I: Unit Overview

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***Unit Description*** The San Benito-Monterey Unit is located along the central coast between San Luis Obispo County to the south and Santa Cruz and Santa Clara Counties to the north. The Pacific Ocean abuts the western side of the Unit, and the Diablo Mountains and the San Joaquin Valley lie to the east. The Los Padres National Forest lies along the coast south of the Carmel Highlands encompassing the Ventana Wilderness and the Silver Peak Wilderness. The community of the former Ft. Ord also lies within the Unit and has largely become Bureau of Land Management (BLM) land for public recreational use. Pinnacles National Park is centered in the Unit in both Monterey and San Benito Counties.

The Unit encompasses over 3 million acres, of which 2.1 million acres are State Responsibility Area (SRA), representing one of the largest state responsibility jurisdictions in CAL FIRE.

The topography of the Unit varies from steep and rugged mountains with moderate to heavy vegetative cover to rolling hills used for livestock grazing. Plant species vary by aspect, slope, elevation, soil type, past fire history, and distance from the coast. The predominant vegetation types are coastal chaparral, and grass/oak woodland, with the Monterey Peninsula supporting stands of various coastal tree species.



The weather in the Unit is divided into two basic patterns. The northwestern area of the Unit experiences a common coastal weather pattern with low clouds and fog which by mid-day give way to temperatures in the mid 70's to 80's, recovering in the evening with the marine layer moving in. This tends to keep fires near the coast to the first burn period. The eastern and southern areas of the unit generally have less fog and temperatures commonly reach the 90 to 100 degree range with strong afternoon valley winds upwards to 10-15 mph. Fires in the eastern and southern parts of the Unit have greater potential of going into extended attack, especially late in the fire season when heavier fuels are dry. Winters are mild with rainfall from 7 to 30+ inches. Wind speed and direction is variable, but is predominantly northwest at 7-10 mph.

The coastal weather influence, together with periods of extreme fire weather conditions, provides a window for extreme wildland fire behavior in areas of potentially high dollar loss. These conditions combine with the expanding wildland interface and urban population to yield the potential for large, damaging, and costly wildfires. These areas at risk are defined further in the "Priority Areas" section of the Strategic Fire Plan. The Unit has an overall fire hazard rating of High (56% of Unit) in the State Responsibility Area (SRA), while 30% is rated Very High and 14% is in the Moderate Fire Hazard Severity Zone.

Fire history in the San Benito-Monterey Unit is collected for every fire 10 acres and larger. Much of the fire history is in and around the Los Padres National Forest on the west side of the Unit, primarily caused by lightning and campfires. Fires in the foothills of the Salinas Valley in light, flashy fuels tend to be afternoon, wind driven incidents ranging from under 100 acres to over 1,000 acres, depending on temperatures, wind speed, and topography.

There are several priority areas identified in the Unit, which are further addressed in the Battalion priorities where fuel reduction projects and public education are discussed. Primary businesses in the Unit include agriculture and industry as well as hospitality and tourism.



# Unit Preparedness and Firefighting Capabilities

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The San Benito-Monterey Unit is operationally divided into three divisions and further into six battalions and offer a wide variety of special programs which include: Law Enforcement and Fire Prevention Bureau, Fire Prevention and Planning Bureau, Emergency Command Center, Resource Management and Wildfire Resiliency Bureau, Training Bureau, Aviation Program, including Fixed Wing and Rotary Wing Programs, a Conservation Camp Program and California National Guard Program, and Cooperative Fire Protection.

## Firefighting Resources

Fire Stations – CAL FIRE .....	12
Fire Stations – Cooperative Fire.....	10
Air Attack – Helitack Base .....	1
Conservation Camp .....	1
CNA Station.....	1
Volunteer Fire Stations .....	4

## Equipment

Engines – CAL FIRE .....	19
Engines – Cooperative Fire .....	16
Dozers – CAL FIRE .....	3
Water Tenders – Cooperative Fire .....	2
Aerial Apparatus (100', 75') – Cooperative Fire .....	2
Patrol – Cooperative Fire .....	2
Squad – Cooperative Fire.....	3
Air Tankers – CAL FIRE .....	2
Helicopter – CAL FIRE .....	1
Air Attack plane – CAL FIRE .....	1
Rescue Boat (IRB) - Cooperative Fire .....	2
Rescue Water Craft (RWC) – Cooperative Fire.....	2
UTV/RTV .....	3

## Personnel

Permanent – CAL FIRE.....	285
Seasonal – CAL FIRE.....	131
Defensible Space Inspector– CAL FIRE.....	4
Volunteer FF.....	25
Inmate Crews .....	2
California National Guard Crew .....	1

## Cooperative Fire Protection Agreements

- Aromas Tri-County Fire Protection District
- Carmel Highlands Fire Protection District
- City of Soledad Fire Department
- Cypress Fire Protection District
- Pebble Beach Community Services District
- South Monterey County Fire Protection District



## Dispatch Agreements

- Cachagua Fire Protection District

## Mutual Threat Zone Response Areas

- Fort Hunter Liggett

## Automatic and Mutual Aid Agreements

CAL FIRE maintains several Automatic and Mutual Aid Agreements itself and through the Cooperative Fire Protection agreements in the Unit. All agencies in Monterey County are party to a countywide mutual aid agreement. Many of our contract districts maintain automatic aid agreements with neighboring jurisdictions such as:

**Aromas Tri-County Fire Protection District has Automatic Aid with:**

- North Monterey County Fire District
- Pajaro Valley Fire District
- San Benito County Fire Department

**Carmel Highlands Fire Protection District has Automatic Aid with:**

- Cypress Fire Protection District

**Cypress Fire Protection District has Automatic Aid with:**

- Carmel Highlands Fire Protection District
- Monterey County Regional Fire District
- The City of Monterey Fire Department
- Pebble Beach Community Services District Fire Department

**Pebble Beach Community Services District Fire Department has Automatic Aid with:**

- Cypress Fire Protection District
- The City of Monterey Fire Department

**The City of Soledad Fire Department has Automatic Aid with:**

- The City of Greenfield Fire Department
- Mission Soledad Rural Fire Protection District
- Correctional Training Facility Fire Department

**South Monterey County Fire Protection District has Automatic Aid with:**

- The City of Greenfield Fire Department
- Fort Hunter Liggett Fire Department

**CAL FIRE has local operating agreements with:**

- USFS-Los Padres National Forest
- Pinnacles National Park
- Bureau of Land Management-Central Coast Field Office

## Section II: Collaboration

**Community, Agencies, Fire Safe 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:

<b>Organization</b>	<b>Title</b>
Fire Safe Council for Monterey County	President – Glenn Church
San Benito Fire Safe Council	Chair – Richard Pitschka
Monterey County Fire Chiefs Association	President – Michelle Vaughn
USDA Forest Service – Monterey Ranger District	District Ranger – John (Fin) Eifert
Bureau of Land Management	Fire Management Specialists – Ed Fulton
Resource Conservation District of Monterey County	Fire Fuel Mitigation Program and Forest Health Coordinator – Jaime Tuitele-Lewis
County of Monterey – Resource Management Agency	Director – Carl P. Holm
Pacific Gas & Electric	Vegetation Management Manager – Scott Carlton

## Section III: Values at Risk

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**Values** Valued assets susceptible to fire damage are identified in the Fire Plan as air quality, rangelands, recreation, hospitality and tourism industry, agriculture, structures, timber, water and watersheds, wildlife and habitat, and other resources (cultural, historical, and scenic). The focus of this plan and relative importance of each value has been determined by reviewing input from local stakeholders and CAL FIRE managers. The San Benito-Monterey Unit Fire Plan has been engineered with these issues in mind.

The priority values in the San Benito-Monterey Unit are tourism, recreation, and agriculture. Pinnacles National Park is split on the border of Monterey and San Benito County attracting visitors all year. The Monterey Peninsula thrives on tourism year-round as home of the Monterey Bay Aquarium, Cannery Row, Pebble Beach's 17-Mile Drive, and many world-famous golf courses. The Big Sur area is another popular attraction bordering the Los Padres National Forest (LPF) that was heavily impacted during the recent River, Carmel, and Dolan Fires of 2020.

Weathertech Raceway Laguna Seca is a popular recreational facility playing host to several large events throughout the year primarily focusing on auto and motorcycle racing.

Agriculture is a big industry in the Unit. The Salinas Valley is known as the "Salad Bowl of the World" producing fruit and vegetables that are distributed and consumed around the globe. California Central Coast American Viticulture Area (AVA) and Monterey AVA produce world renown wines drawing tourists to wineries throughout the Salinas Valley, Carmel Valley, Monterey Peninsula, and parts of San Benito County. While most of the floor of the Salinas Valley is crops of various produce and vineyards line the foothills of the valley, there are many cattle ranches that encompass hundreds of thousands of acres of rangelands in the Unit.

Communications such as repeater sites, cell towers, radio towers, Federal Aviation Administration (FAA) communications, and the Big Sur Voice Operating Recording (VOR) device are among the highest priorities to protect from wildfires. The unit maintains access roads to the repeater towers and removes vegetation buildup, to minimize impacts to the towers in the event of a fire.



## ***Priority Areas***

Several areas have been identified as priority areas by the San Benito-Monterey Unit management team. The identification of these specific areas was based on available data from Pre-Fire Engineering assessments and stakeholder input. Additionally, local employees provided anecdotal and historical information that was considered useful in understanding local conditions. priority areas described in this plan are not listed in order of priority but rather as elements of the overall Unit Plan and are listed below:

- State Highway 68 Corridor between Salinas and Monterey Peninsula / Laureles Grade
- Carmel Valley / Carmel Valley Village
- Carmel Highlands / Palo Colorado Canyon
- San Juan Canyon (San Benito County)
- Cachagua (Carmel Valley)
- Pine Canyon (King City)
- North Monterey County / Aromas
- Jacks Peak / Pebble Beach

Following the assessment of each priority area, a series of potential mitigation actions was identified and agreed upon by the Unit Management Team. The following describes each area's geographic location, values, and potential mitigation actions:





### ***State Highway 68 Corridor / Laureles Grade:***

This area is in the western portion of the unit, between Salinas and the Monterey Peninsula. The area is bounded on the east by the Salinas Valley, on the north and west by the former Fort Ord Army Base, on the south by Carmel Valley, and on the west by Jacks Peak.

Values include many single and multi-family residences. Highway 68 is a major travel route between Salinas and the Monterey Peninsula. Several commercial / industrial parks are located along Highway 68, including the Laguna Seca Recreation Area. Large areas of BLM wildland are located along the northern border. This area contains large plots of vegetation that have not burned in several decades, resulting in a build-up of decadent fuels.

### **Priority Area Goals:**

- Increased public awareness and education relative to wildland fire threat and defensible space
- Reduction of available wildland fuels, particularly adjacent to identified values and primary access/egress routes

### **Potential Mitigating Actions:**

The following actions have been identified to achieve the Fire Plan goals for this priority area:

- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 for at least 33% of structures within this priority area.
- Strive to provide chipper services as available to assist property owners in meeting the wildland fire safety requirements of Public Resources Code Section 4291 and reducing the overall wildland fuels load adjacent to identified assets at risk.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the probability of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.
- Encourage development and distribution of wildland emergency plans for specific sub-areas of the priority area. Such plans should identify access routes, water sources, helibases and helispots, command posts, staging areas, and/or any other significant element of a wildland fire strategy for the priority area that can be pre-planned and identified.

### ***Carmel Valley / Carmel Valley Village:***

This area is in the western portion of the Unit on both sides of Carmel Valley Road from State Highway 1 west to the Sleepy Hollow subdivision. It is bordered by Jacks Peak and State Highway 68 on the north, Garland Ranch Regional Park on the south, City of Carmel-by-the-Sea on the west, and Cachagua Fire Protection District on the east.

Values include a concentration of single and multi-family residences and other rural structures. Carmel Valley Road is a primary travel route leading to and from the Monterey Peninsula from Hwy 101 in the Salinas Valley to Hwy 1 in Carmel. Several commercial/retail centers are located along Carmel Valley Road as well as the Quail Lodge and Carmel Valley golf courses. Several wineries are also located in the area. Large areas of National Forest wildland / wilderness are located to the south of the priority area. This area contains large plots of vegetation that have not burned in several decades, resulting in a build-up of decadent fuel.

### **Priority Area Goals:**

- Increased public awareness and education relative to wildland fire threat and defensible space
- Reduction of available wildland fuels, particularly adjacent to identified values and primary access/egress routes

### **Potential Mitigating Actions:**

The following actions have been identified to achieve the Fire Plan goals for this priority area:

- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 for at least 33% of structures within the priority area.
- Strive to provide chipper services, as available, to assist property owners in meeting the wildland fire safety requirements of Public Resources Code Section 4291 and reducing the overall wildland fuel load adjacent to identified assets at risk.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the incidence of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.
- Encourage development and distribution of wildland emergency plans for specific sub-areas of the target area. Such plans should identify significant elements of a wildland fire strategy for the target area that can be pre-planned.
- Work closely with the Fire Safe Council for Monterey County and local stakeholders to identify additional mitigating actions suitable for the area.
- Maintain and improve the Palo Corona-White Rock Fire Roads project. Phase 1 was completed and now work is continuing to expand the fuel modification efforts.

### ***Carmel Highlands / Palo Colorado Canyon:***

This area is in the western coastal area of the Unit and is bordered by the City of Carmel-by-the-Sea on the north, the Los Padres National Forest on the east, Andrew Molera State Park and Big Sur on the south, and the Pacific Ocean on the west.

Values include single and multi-family residences and other rural structures, many located in remote areas with limited access. Point Lobos State Reserve, and the California Sea Otter Refuge are also within this priority area. Highway 1 is the only access/egress route for this priority area.

#### **Priority Area Goals:**

- Increased public awareness and education relative to wildland fire threat and defensible space.
- Reduction of available wildland fuels, particularly adjacent to identified values and primary access/egress routes.

#### **Potential Mitigating Actions:**

The following actions have been identified to achieve the Fire Plan goals for this priority area:

- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 with a goal of 100% compliance in the priority area.
- Continue to provide chipper services, as available, to assist property owners in meeting the wildland fire safety requirements of Public Resources Code Section 4291 and reducing the overall wildland fuels load adjacent to identified assets at risk.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the incidence of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.
- Continue development and distribution of wildland emergency plans for specific sub-areas of the priority area. Such plans should identify access routes, water sources, helibases and helispots, command posts, staging areas, and/or any other significant element of a wildland fire strategy for the priority area that can be pre-planned and identified.
- Work closely with the Fire Safe Council for Monterey County and local stakeholders to identify additional mitigating actions suitable for the area.
- Maintain and improve the Palo Colorado Fuel Break project. Phase 1 was completed, and now work is continuing to expand the fuel modification efforts.
- Carmel Highlands FPD is working toward implementing the plan for the proposed Carmel Highlands Fuel Break on the foothills along the Wildland Urban Interface.

### ***Jacks Peak / Pebble Beach:***

This area is located on the Monterey Peninsula in the western portion of the Unit and is bordered by the Pacific Ocean on the west, the City of Monterey on the north, Carmel Valley and the Highway 68 corridor on the east, and the City of Carmel-by-the-Sea on the south. This area represents one of the most scenic and affluent communities in California.

Values for this area are varied, including resort areas, championship golf courses, commercial properties, single family, and multi-unit residential structures. Highway 1 is the primary north-south travel route, providing access to Big Sur and other coastal areas to the south. The potential for a large damaging fire in this area is high due to the volume of mature and decadent Monterey pine and Monterey cypress trees in the area. The entire priority area has limited access and egress.

#### **Priority Area Goals:**

- Increased public awareness and education relative to wildland fire threat and defensible space.
- Reduction of available wildland fuels, particularly adjacent to identified values and primary access/egress routes.

#### **Potential Mitigating Actions:**

The following actions have been identified to achieve the Fire Plan goals for this priority area:

- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 with a goal of 100% compliance in the priority area.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the incidence of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.
- Continue development and distribution of wildland emergency plans for specific sub-areas of the priority area. Such plans should identify access routes, water sources, helibases and helispots, command posts, staging areas, and/or any other significant element of a wildland fire strategy for the priority area that can be pre-planned and identified.
- Continue enforcement of the Cypress FPD and Pebble Beach Community Service District Fire Defense Plan to ensure compliance and maintenance of emergency access routes, designated open space areas, and undeveloped parcels.
- Work closely with the Community Service District, the Monterey County Fire Safe Council, the Resource Conservation District for Monterey County, and local stakeholders to identify additional mitigating actions suitable for the area.

### ***Cachagua: (Carmel Valley)***

This priority area is in the western portion of the Unit and is situated south of Carmel Valley Road and north of the Las Padres National Forest east of Carmel Valley Village. The area is served by the Cachagua Fire Protection District.

Values include single and multi-family residential structures, and several large ranches, many of which are in remote areas with limited access. Fire history in the area is minimal, leading to the overgrowth of dead brush and light flashy fuels. However, the recent Tassajara, Carmel and Soberanes Fires all posed significant threats to the area.

#### **Priority Area Goals:**

- Increased public awareness and education relative to wildland fire threat and defensible space.
- Reduction of available wildland fuels, particularly adjacent to identified values and primary access/egress routes.

#### **Potential Mitigating Actions:**

The following actions have been identified to achieve the Fire Plan goals for this priority area:

- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 for at least 33% of structures within the priority area.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the incidence of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.
- Continue development and distribution of wildland emergency plans for specific sub-areas of the priority area. Such plans will identify access routes, water sources, helibases and helispots, command posts, staging areas, and/or any other significant elements of a wildland fire strategy for the priority area that can be pre-planned and identified.
- Work closely with the Fire Safe Council for Monterey County, the Resource Conservation District for Monterey County, and local stakeholders to identify additional mitigating actions suitable for the area.
- Maintain and improve the Laurel Springs / Hennicksons Ridge Fuel Break project. Phase 1 was completed, and work is continuing to expand the fuel modification efforts.

### ***North Monterey County / Aromas:***

This area is in the northwestern part of the Unit, situated west of State Highway 101, south of State Highway 129, north of State Highway 156, and east of Highway 1. It includes the communities of Aromas, Pajaro, Las Lomas, Prunedale, Royal Oaks, and Moss Landing.

Values include the four major highways noted above. Each of these routes is vital to vehicular traffic in the region. Although considered a “rural” region, the area contains many single-family dwellings, ranchland, and commercial/retail properties. Additionally, the Moss Landing power plant and Moss Landing Harbor are located on the western edge of the priority area. Moss Landing and Zmudowski State beaches and the Elkhorn Slough provide scenery, recreation, and wildlife refuge. The potential for a large damaging fire in this area has increased dramatically due to the large number of eucalyptus trees throughout the area.

### **Priority Area Goals:**

- Increased public awareness and education relative to wildland fire threat and defensible space.
- Reduction of available wildland fuels, particularly adjacent to identified values and primary access/egress routes.

### **Potential Mitigating Actions:**

The following actions have been identified to achieve the Fire Plan goals for this priority area:

- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 for at least 33% of structures within priority area.
- Strive to provide chipper services, as available, to assist property owners in meeting the wildland fire safety requirements of Public Resources Code Section 4291 and reducing the overall wildland fuels load adjacent to identified values.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the incidence of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.
- Encourage development and distribution of wildland emergency plans for specific sub-areas of the priority area. Such plans should identify access routes, water sources, helibases and helispots, command posts, staging areas, and/or any other significant element of a wildland fire strategy for the target area that can be pre-planned and identified.
- Work closely with the Fire Safe Council for Monterey County, the Resource Conservation District for Monterey County, and local stakeholders to identify additional mitigating actions suitable for the area.

### ***San Juan Canyon: (San Juan Bautista)***

This area is southwest of the community of San Juan Bautista and is bordered by State Highway 156 on the north, Fremont Peak on the west, Hollister Hills SVRA on the east, and Wildhorse Canyon on the south.

Values include single and multi-family residential structures, many located in remote areas with limited access, and several large ranches. Access to and egress from the entire priority area is very limited.

#### **Priority Area Goals:**

- Increased public awareness and education relative to wildland fire threat and defensible space.
- Reduction of available wildland fuels, particularly adjacent to identified values and primary access/egress routes.

#### **Potential Mitigating Actions:**

The following actions have been identified to achieve the Fire Plan goals for this priority area:

- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 for at least 33% of structures within the Priority Area.
- Continue to provide chipper services, as available, to assist property owners in meeting the wildland fire safety requirements of Public Resources Code Section 4291 and reducing the overall wildland fuels load adjacent to identified assets at risk.
- Reduction and/or removal of wildland fuels along primary access/egress routes to reduce the incidence of roadside ignitions, and to ensure safe access and egress by firefighters and residents in the event of a wildland fire emergency.
- Encourage development and distribution of wildland emergency plans for specific sub-areas of the target area. Such plans should identify access routes, water sources, helibases and helispots, command posts, staging areas, and/or any other significant element of a wildland fire strategy for the target area that can be pre-planned and identified.
- Work closely with the San Benito County Fire Safe Council and local stakeholders to identify additional mitigating actions suitable for the area.
- Maintain and improve the San Juan Canyon Shaded Fuel Break project. Phase 1 was completed, and work is continuing to expand the fuel modification efforts.
- Several VMP's are planned in this priority area along the Gabilan Range to create a landscape level mosaic.

### ***Pine Canyon: (King City)***

This area is southwest of the community of King City in southern Monterey County. It is bordered by Hwy 101 on the north and east, and Fort Hunter Liggett to the west.

Values include single family and multi-unit residential structures. This area continues to grow with the construction of new residential sub-division projects in the planning stages.

#### **Priority Area Goals:**

- Increased public awareness and education relative to wildland fire threat and defensible space.
- Reduction of available wildland fuels, particularly adjacent to identified values and primary access/egress routes.

#### **Potential Mitigating Actions:**

The following have been identified as potential methods of achieving the Unit's Fire Plan goals for this priority area:

- Annual inspection and enforcement of fire safety and clearance requirements of Public Resources Code Section 4291 for at least 33% of structures within the Priority Area.
- Roadside fuel modification to ensure egress / exit route safety and reduce the possibility of "roadside starts".
- Work closely with the Monterey County Fire Safe Council, the Resource Conservation District for Monterey County, and local fire agencies to identify additional prescriptions suitable for the area, including the recently funded Monterey County Multi-Community Chipping Grant.
- The Unit will seek opportunities to maintain the Dolan Fire Contingency Line above Pine Canyon.



## Communities

<b>Monterey County</b>	<b>San Benito County</b>
Aromas*	Antelope Valley
Big Sur*	Bitterwater
Bryson-Hesperia	Cienega Canyon
Cachagua	Hollister*
Carmel-by-the-Sea*	Paicines
Carmel Highlands*	Panoche Valley
Carmel Valley*	Ridgemark
Carmel Valley Village*	San Juan Bautista*
Corral de Tierra	San Juan Canyon
Del Monte Forest*	Tres Pinos
Del Rey Oaks*	
Elkhorn*	
Fort Ord*	
Gonzales*	
Greenfield*	
Jamesburg	
King City*	
Las Lomas*	
Lucia*	
Marina*	
Monterey*	
Pacific Grove*	
Pajaro*	
Pinnacles National Park*	
Prunedale*	
San Benancio	
Soledad*	
Sand City*	
Salinas*	
Seaside	

For more information on Communities at Risk and the California Fire Alliance go to [Communities at Risk \(ca.gov\)](http://Communities at Risk (ca.gov))

\* Communities listed as Communities at Risk on the California Fire Alliance website

## Section IV: Pre-Fire Management Strategies

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***Fire Prevention and Law Enforcement - Battalion 4620*** The primary goal of the San Benito-Monterey Unit Strategic

Fire Plan is to prevent the ignition and spread of unwanted, human-caused fires with an emphasis on reducing losses because of large damaging fires. Utilizing fire history, fuels data, weather data, and assets at risk, as well as incorporating input from the Monterey County Community Wildfire Protection Plan, San Benito County Community Wildfire Protection Plan, and Federal partners, the Unit has identified Priority Areas as indicated in this document. Proactive pre-fire suppression activities, public information, and education programs are key elements of this plan.

The San Benito-Monterey Unit management team addresses fire prevention through the engineering, education, and law enforcement programs. Their shared objective is reduced fire hazard and risk. This is more narrowly addressed in a planning process based on ignition management and loss reduction, including biomass utilization, fire resistant landscaping, mechanical fuels treatment, building construction standards, infrastructure, land use planning and pre-fire safety zone and escape plans.

Ignitions are managed by preventing fires likely to exceed the capabilities of available suppression forces that could result in large damaging fires. Loss reduction is integral to mitigating large and damaging fires. Significant improvement can be achieved by reducing hazards (fuel buildups around structures and communities) and working with private industry to implement hazard reduction plans around residential developments in the rural-urban intermix areas. Additionally, pre-designated suppression and ingress/egress routes are effective tools in ensuring civilian and firefighter life safety. Successful programs permit more effective utilization of CAL FIRE's initial attack forces and enhance firefighter and citizen safety.

*See Appendix B for Ignition Data*

### **Engineering and Structure Ignitability**

While many structures in the Unit are not built to current standards, all new construction is being held to the California Building Code, Chapter 7 (Fire-Resistance-Rated Construction) and Chapter 7A (SFM - Materials and Construction Methods for Exterior Wildfire Exposure) building construction standards. Fire Hazard Severity Zones (FHSZ) dictate what codes are to be followed in which areas. A map showing the FHSZs in the Unit is shown in the “Maps” portion of this document.

**Title 19, Public Resources Code 4290** - Addresses fire apparatus access and water requirements and is implemented at the County level.

**Protection Planning** - Fire Protection planning is reviewed at the subdivision and parcel map level and typically implemented at the development stages of a project.

**Code Enforcement** - Carmel Highlands Fire Protection District, Cypress Fire Protection District, and Pebble Beach Community Services District have full time Fire Protection Planners who review all building permits. Among other codes, they enforce the current California Building Codes, which include Chapter 7 (Fire-Resistance-Rated Construction) and Chapter 7A (SFM - Materials and Construction Methods for Exterior Wildfire Exposure).

**Title 19, Public Resources Code 4291** - Addresses defensible space around structures. Each battalion has predetermined areas in where to perform Defensible Space Inspections each year. Some battalions, due to housing density, have more inspections and are on a three-year cycle to alternate neighborhoods. Inspections will be done on any structure(s) when requested.

**Pre-Plans** - Unit personnel are constantly gathering updated data in each battalion to submit to Unit GIS personnel in efforts to produce updated battalion pre-plan maps. The San Benito-Monterey Unit also works with students from local colleges for pre-plan mapping of communities for emergency response. The goal of this is to increase public and emergency responder awareness of community values, hazards, ingress/egress routes, potential safe refuge areas, and coordinate emergency responders, while also providing students with the opportunity to engage in GIS projects and emergency planning for college credit.

**Fire Hazard Severity Zones (FHSZs)** – In 2007, FHSZs were updated with improved accuracy and adopted throughout the Unit— not only on state responsibility lands, but also in local jurisdictions. All cities affected within the San Benito-Monterey Unit adopted recommended changes in the Very High FHSZs, and now adhere to building code regulations contained in California Building Code Chapter 7A.

## Information and Education

Fire safety education is a high priority in the Unit, whether it is a formal school program or advising residents on how to keep their homes safe inside and out.

An analysis of San Benito-Monterey wildfire ignition data shows that recent vegetation fires caused by equipment use, smoking, and vehicles have been reduced. Unit managers believe that public education efforts are having a positive influence on members of the public. The Unit has fire prevention signs placed in strategic locations throughout the San Benito and Monterey County to spread fire safety messages. Several of the signs have been placed at fire stations of local fire agencies to gain high visibility of the dangers of wildfire.

The San Benito Fire Safe Council and Fire Safe Council for Monterey County actively seek grant funding to work with local landowners and stakeholders as well as CAL FIRE personnel to reduce roadside fuels, increase public awareness, build fuel breaks around communities, and develop updated egress/ingress plans in the Unit. Grant funding will enable Unit personnel to purchase newspaper ads, large roadside signs, fund a Unit website and other avenues for public outreach.

San Benito-Monterey Unit prioritizes making Public Information Officer (PIO) available to notify the media of emergencies in the unit. Since most fires are human caused, we believe public awareness is key to reducing ignitions and have partnered with the California Wildland Fire Coordinating Group (CWCG) in the “One Less Spark, One Less Wildfire” campaign. This campaign educates Californians about how to prevent wildfires caused by sparks from sources around the home and vehicle, as well as by industrial usage.

The San Benito-Monterey Unit has been proactive in gaining defensible space compliance by hiring Defensible Space Inspectors to conduct Defensible Space inspections in the interface areas. Public perception has been positive as residents are educated on the various ways that they can be compliant with the law, and still maintain an attractive landscape that will assist fire personnel in the event of a wildfire in their neighborhood. The Unit’s ability to keep fires small with minimal damage in and around structures has proven that more residents are becoming fire safe and our education efforts are working.



## ***Fuel Reduction and Vegetation Management***

### **Vegetation Management Program (VMP)**

The San Benito-Monterey Resource Management and Wildfire Resiliency Program strives to enhance the Unit's natural resources for both present and future use. The Unit has a Fuels Battalion Chief, a Registered Professional Forester, an Environmental Scientist, and a Pre-Fire Engineer on staff to provide assistance and education to landowners on forestry issues.

The Unit administers an active Vegetation Management Program (VMP). The purpose of the VMP program is to reintroduce fire to the landscape, restoring aspects of historic fire regimes, and to reduce flammable vegetation that may contribute to large, damaging wildfires and high fire suppression costs. The flammable vegetation on public or private lands can be reduced through prescribed burning or mechanical treatment. Vegetation management also results in benefits to grazing, wildlife, plant diversity, and water quality.

#### **Overview:**

The Vegetation Management Program is a cost-sharing program that focuses on the use of prescribed fire and mechanical means for addressing wildland fire fuel hazards and other resource management issues on State Responsibility Area (SRA) lands. The use of prescribed fire mimics natural processes restores fire to its historic role in wildland ecosystems and provides significant fire hazard reduction benefits that enhance public and firefighter safety.



VMP allows private landowners to enter a contract with CAL FIRE to use prescribed fire to accomplish a combination of fire protection and resource management goals. Implementation of VMP projects is by CAL FIRE Units. The projects which fit within a Unit's priority areas (e.g., those identified through the Fire Plan) are considered most valuable to the unit.

## **History:**

The Vegetation Management Program allows public and private landowners to participate in wildland fuel reduction projects. The primary tool used is prescribed fire, although in more recent years CAL FIRE has used the program for mechanical treatments of vegetation as well.

Vegetation Management, or VMP, was preceded by the Range Improvement Program that was used aggressively by CAL FIRE to remove undesired woody vegetation and increase forage production for domestic stock and wildlife. Early records indicate that range improvement burns were conducted by CAL FIRE as early as 1945, when CAL FIRE was known as the Division of Forestry under the Department of Natural Resources. Acres burned during the period of 1949-1953 averaged 141,400 acres per year and totaled approximately 707,000 acres for the same period (T. F. Arvola Deputy State Forester, Inter Office Memo, April 5, 1954). These burns were carried out in cooperation with landowners primarily interested in improving forage for livestock.

In July of 1980 Senate Bill 1704 (Keene) created the Chaparral Management Program. This legislation provided CAL FIRE authorization to contract with private and public landowners for the purpose of fuel hazard reduction, vegetation management, and the improvement of wildlife, range, and forest resources. The program is currently known as the Vegetation Management Program; however, the objectives and authority for fuel reduction projects are still guided by the statutes created by Senate Bill 1704.

VMP acres treated have declined significantly in recent years, averaging approximately 13,000 acres per year since 1999. Increasing rural populations, air quality issues, and new CAL FIRE programs have reduced the use of prescribed fire in many areas of the state. However, VMP is a cost-effective tool that is still used to treat vegetation where physical and social conditions are conducive to its use. The program has proven to be well suited for controlling invasive weeds and improving wildlife habitat under joint projects with organizations such as the Nature Conservancy. Its use to establish fuel breaks and eliminate heavy fuel accumulations in many areas of the state will continue.

## **Local Program:**

Locally, the emphasis is on projects in the Wildland-Urban Interface (WUI) and the Wildland-Urban Intermix. The intention is to treat hazardous fuel accumulations near structures and infrastructure to reduce potential losses during wildfire. Other items of concern for VMP project selection are watershed protection, habitat enhancement (especially for threatened and endangered species), and property owner goals.

The Unit has multiple projects in various stages of planning that are addressed in each Battalion section of this plan. CAL FIRE shall work, to the extent feasible, with other public agencies, landowners, and the communities themselves to implement these projects to implement rapid treatment of fuels. The department has assigned fuels engines and activated the California National Guard to the Unit, to assist with completing these projects.

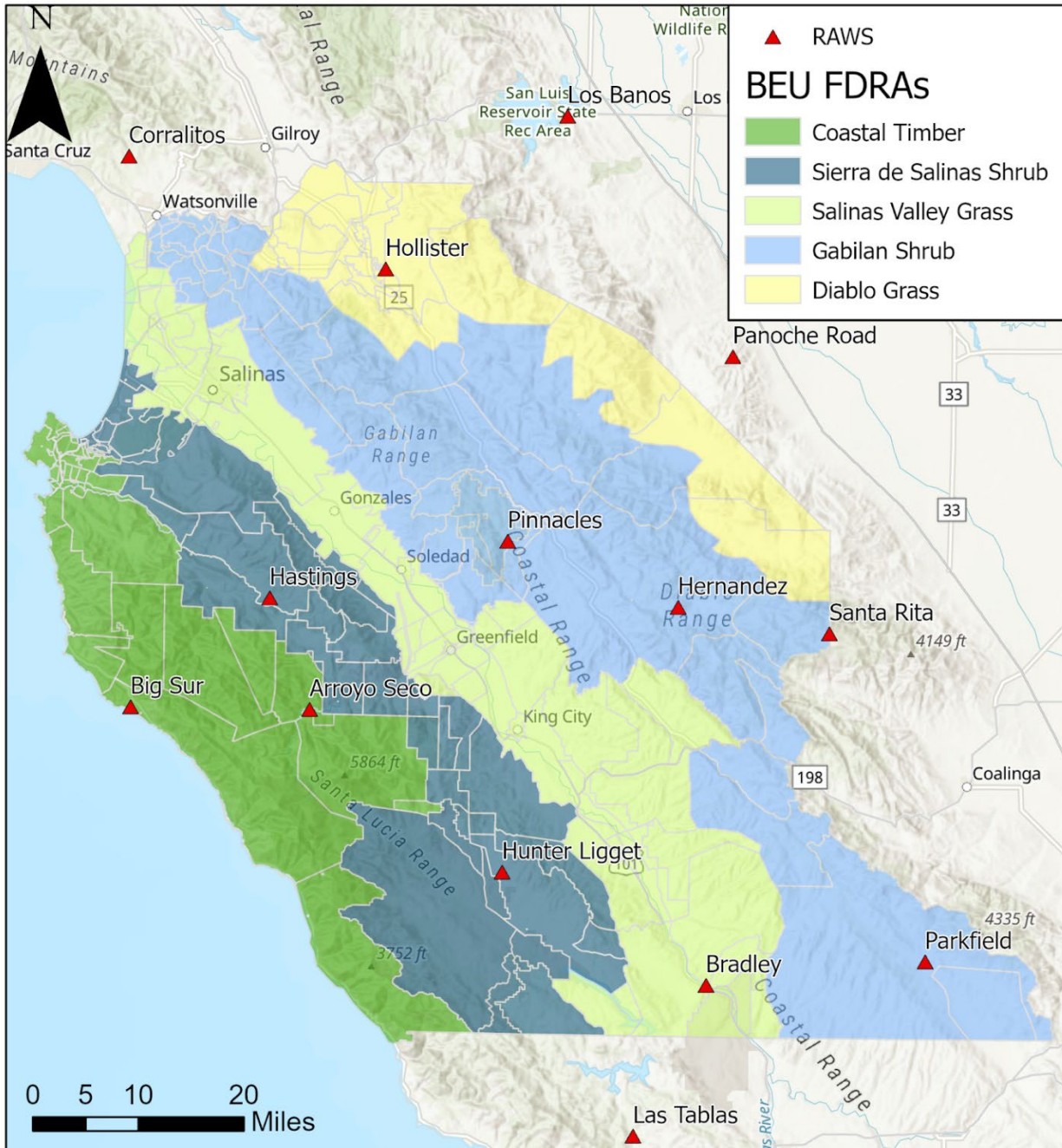
Depending upon weather conditions and resource availability, we may be able to conduct multiple prescribed burns this year on projects with an active contract. Public notification of an impending prescribed burn shall be through a press release to local media outlets and may include road signs, as well.

### **Vegetation Treatment Plan**

The new California Vegetation Treatment Program (CalVTP), developed by the Board of Forestry and Fire Protection, is a critical component of the state's multi-faceted strategy to address California's wildfire crisis. The CalVTP includes a variety of treatments including prescribed burning, mechanical treatments, manual treatments, herbicides, and prescribed herbivory. These tools allow us to reduce hazardous vegetation around communities in the Wildland-Urban Interface (WUI), to construct fuel breaks, and to restore healthy ecological fire regimes. The CalVTP Program Environmental Impact Report (Program EIR) provides a powerful tool to expedite the implementation of vegetation treatments to reduce wildfire risk while conserving natural resources.



**Fuels:**



**Figure 1:** The map depicts the five (5) Fire Danger Rating Areas (FDRA's) for the San Benito Monterey Unit. These FDRA's are delineated geographic areas based on relatively homogeneous vegetation, climate, and topography. For more information, please see the Fire Danger Operating Plan for the San Benito-Monterey Unit.



### ***Coastal Timber***

**Location:** The Coastal Timber FDRA is bounded to the north by Pacific Grove, the Sierra de Salinas range in the east, continuing down to Fort Hunter Liggett and the Los Padres National Forest (LPNF) - Monterey Ranger District in the south, and includes the coastal mountains of the Santa Lucia Range

**Fuel Type:** This FDRA is dominated by shrub (182,566 acres) which is closely followed by timber (155,597 acres). Interior areas of this region are dominated by grass fuels (109,247 acres).

**Topography:** The terrain of coastal timber is largely characterized by steep, rugged wilderness (Class 3, mean slope of 51.31% or 27.18 degrees). Elevations range from sea level up to 5870 ft atop Junipero Serra Peak. Other notable geographic features include Pico Blanco (3680 ft), Mount Manuel (3524 ft), Ventana Double Cone (4870 ft), Cone Peak (5155 ft) and Chews Ridge (5050 ft).

**Climate:** Weather patterns in this FDRA vary based on distance from the coastline. The influence of the Pacific Ocean keeps temperatures moderate west of the Coast Ridge Road and around the Monterey Peninsula. Fog events occur often during the summer months. East of the coast ridge and the more interior areas of this FDRA experience much more arid tendencies. Precipitation across the entirety of Coastal Timber is higher than any other FDRA in BEU.



### ***Salinas Valley Grass***

**Location:** The Salinas Valley Grass FDRA covers the entirety of the Salinas River Valley and borders the Pajaro Valley in the north, Gabilan Range in the east, Sierra de Salinas Range in the west, and Bradley (Camp Roberts) and San Luis Obispo County line to the south.

**Fuel Type:** The region is dominated by agriculture and non-burnable fuel types (1,148,078 acres). Significant areas of grass (916,969 acres) cover the foothills of the Gabilan and Diablo Ranges in the east, and the Sierra de Salinas Range in the west.

**Topography:** Terrain is dominated by the generally flat (Class 1, average slope 18.53% or 10.5 degrees) Salinas River Valley. Other notable geographic features include the northern flats of the Arroyo Seco watershed.



**Climate:** Consistently strong winds blow through the Salinas Valley from the ocean following the valley floor to the southwest towards Bradley and the San Luis Obispo County line. The region experiences relatively low precipitation and temperatures follow an upward trend as the distance from the ocean increases.

### ***Sierra de Salinas Shrub***

**Location:** The Sierra de Salinas Shrub FDRA covers the region between the city of Marina in the north, Salinas Valley in the east, Bryson-Hesperia in the south, bordering the Santa Lucia Range in the west.

**Fuel Type:** The dominant fuel type is shrub (282,737 acres) covering the majority of the Sierra de Salinas Range and grass (163,140) encompassing the areas surrounding the Jolon Valley. Timber (84,776 acres) is present along riparian corridors and at moderate to high elevations.

**Topography:** Terrain in this rating area is varied, but generally covers the foothills of the eastern Santa Lucia range (Sierra de Salinas Range). Slope here is moderate (Class 2, average slope of 30.57% or 17 degrees). Notable geographic features include Mount Toro (3550ft), Ell peak (4280ft), large portions of the Arroyo Seco watershed, and Fort Hunter-Liggett.

**Climate:** Weather patterns in the Sierra de Salinas Shrub vary from temperate coastal influence in the northern areas around Fort Ord, to much warmer, arid characteristics in the areas around Arroyo Seco and the Jolon Valley. The FDRA experiences moderate precipitation which increases with elevation.



### ***Gabilan Shrub***

**Location:** Gabilan shrub is the largest FDRA in BEU. The region borders Watsonville in the north, follows San Juan and Panoche Valley in the east, Cholame Valley in the south, and Salinas Valley to the west. This FDRA covers the entirety of the Gabilan range, and portion of the southern Diablo range.

**Fuel Type:** The dominant fuel type is shrub (579,122 acres) along the Gabilan range and southern Diablo range. Shrub is followed by grass (332,093 acres) which encompass the Chalome Valley, Peachtree Valley, and Highway 25.

**Topography:** Gabilan Shrub terrain can be characterized by moderate slopes (Class 2, average slope 31.47% or 17.47 degrees) and moderate elevation. This FDRA encompasses the entirety of the Gabilan Range, and a portion of the southern Diablo Range. Notable geographic features include Fremont Peak (3160 ft), Chalone Peak (3300 ft), and San Benito Mountain (5250 ft).

**Climate:** Gabilan shrub climate varies with distance from the ocean. Northwestern areas of Prunedale and Aromas experience more temperate, coastal influenced climates, while central and southern areas encompassing Pinnacles National Park and the Gabilan and Diablo range tend to be drier and more arid. The region experiences moderate precipitation which increases with elevation, and temperatures tend to increase from west to east.



## ***Diablo Grass***

**Location:** Diablo Grass is the easternmost FDRA in the BEU. The region borders Gilroy in the north, the Fresno County line (and BEU boundary) in the east, Ciervo Hills in the south, and the San Benito River valley to the west.

**Fuel Type:** This region is dominated by grass (180,233 acres) which covers the majority of the northern Diablo Range and significant areas of shrub (102,307 acres) lie along the north facing slopes in the Diablo Range.

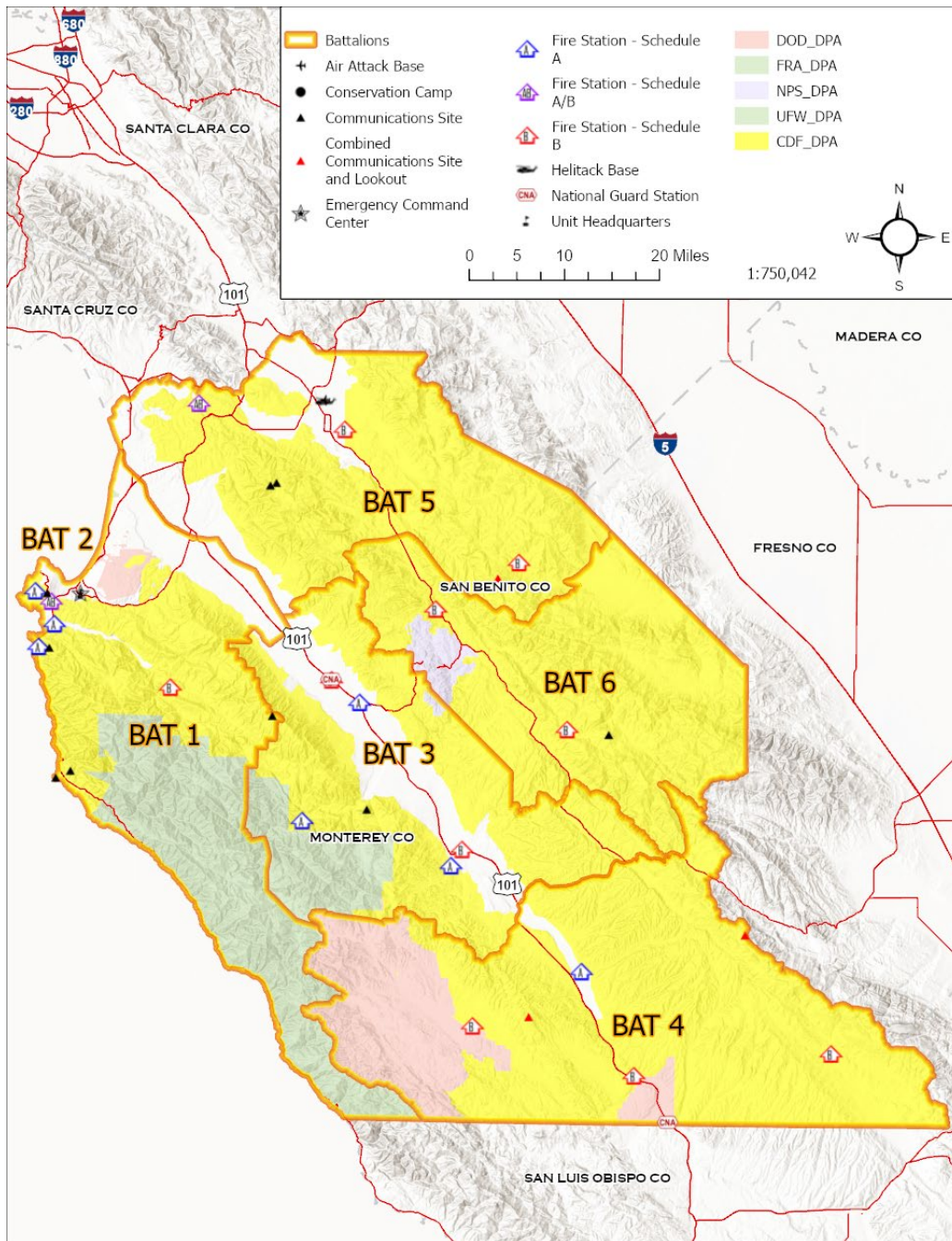
**Topography:** Terrain of the Diablo Grass FDRA is generally characterized by low slope (Class 1, average slope 18.53% or 10.5 degrees) rolling hills, and dispersed mountain peaks. This region covers BEU's northern Diablo Range, the Panoche Valley, and Vallecitos. Notable geographic features include Santa Ana Mountain (3120 ft), Henrietta Peak (3590 ft), and the Quien Sabe Valley.

**Climate:** This region experiences a very dry climate and receives low precipitation. Temperatures range from 29 F in winter (January) to 100 F in the late fall (September). Relative humidity (%) continues from the low 60s in late fall to the mid 70s in winter.



# Section V: Pre-Fire Management Tactics

There are three divisions within the San Benito-Monterey Unit, with six battalions. The West Division incorporates Battalion 1 and Battalion 2. It is important to note that Battalion 2 does not cover a large area and includes the contract counties, which are surrounded by Battalion 1. The South Division is comprised of Battalion 3 and Battalion 4. The North Division encompasses Battalion 5 and Battalion 6.



**Figure 2:** This map shows the distribution of battalions, facilities, and Direct Protection Area (DPA) within the San Benito-Monterey Unit.

## ***Division, Battalion, Program Plans: West Division***

### **Battalion 1: Carmel Battalion - Battalion 4611**

#### ***Description***

The Carmel Battalion is in the western area of the San Benito / Monterey Unit. Encompassing more than 900 square miles, it contains a diverse amount of topography and vegetation. To the west, the Pacific Ocean beaches rise into the steep Santa Lucia coastal mountains, transitioning from coastal chaparral to redwood canyons bordered on the ridges by oak and grass woodlands. Inland, several east to west running valleys are bounded by the Sierra de Salinas Range to the east. The valley floors are predominantly grass and oak woodlands rising to dense chaparral stands on the south aspects and hardwood forests on the north aspects. Throughout most of these valleys, residential development has occurred both on the ridges and the floors, creating pockets of Wildland-Urban Interface (WUI). The uppermost part of the battalion is comprised of an area of ancient sand dunes hosting the West Coast's largest maritime chaparral community in the former Fort Ord area. Most of that land remains in a natural state and is the State Direct Protection Authority of Federal Responsibility Areas (FRA). To the northwest, the Monterey Pine stands of the Monterey Peninsula intermingle with a dense population of WUI. To the south, Battalion 1 borders the northern boundary of the vast Los Padres National Forest and Ventana Wilderness.

#### ***Values at Risk***

Interspersed throughout the varied topography and vegetation, one will find the Battalion 1 assets at risk. They include large cattle ranches, exclusive gated communities, federal, state and local forests, parks and recreation areas, commercial / industrial developments, vineyards, and many WUI communities.

#### ***Statistics:***

Below is the breakdown of the Responsibility Area and Direct Protection Area for Battalion 1.

- LRA acres: 86,245
- FRA acres: 249,722
- SRA acres: 252,330
- Total acres: 594,243
- CAL FIRE DPA acres: 232,940

#### ***Fire History and Occurrence***

Fire history in Battalion 1 is varied. Many wildland fires have been started by lightning in inaccessible areas. Some of these have started on Federal lands and burned into State Responsibility Areas (SRA). Unattended controlled burns or campfires have historically contributed to damaging fires. Power line failures are also a common cause of fires due to the corrosive effects of the marine air on the lines. Major Fires in the battalion have included Marble

Cone 1977, Rat Creek - Gorda Complex Fire 1985, Morse Fire 1987, Kirk Complex 1999, Basin Complex, 2008, Soberanes 2016, River Fire 2020, Carmel Fire 2020, and Dolan Fire 2020.

### ***Weather***

The weather patterns in Battalion 1 during the summer may range from cool and foggy 60s near the coast to 100s in the upper reaches of the inland valleys. The normal summer northwest air flow generally carries the cool moist marine air inland by evening, somewhat moderating the fire risk at night in the valleys. A summer inversion often keeps the upper elevations warm and dry throughout the 24-hour cycle.

### ***Fire Prevention Plan Development***

The Fire Prevention Plan was developed through a systematic approach from statistical values and mapping data of the following criteria: fuels, housing density, historical data of fire ignitions and major infrastructure including major highways and power lines. These target areas allow for a focus and prioritization that is specific and unique to the battalion and the assets at risk. Three target areas were identified in Battalion 1.

**Target Area 1:** The community of Palo Colorado, limited egress and narrow road ways.

**Target Area 2:** The communities of Jamesburg and Cachagua, which have a major WUI issue with narrow roads and limited access to homes.

**Target Area 3:** Carmel Valley at large. Carmel Valley is a WUI issue with narrow driveways and limited access to homes and steep driveways and many one way in and one way out areas.

The 3 target areas are adjacent to major fire history, including Marble Cone, Kirk, Basin, Soberanes and Carmel fires.

### ***Mitigation Strategies and Action Plan***

#### **1. Public Education/Contact:**

Public contact and education continue to be a priority within Battalion 1 to reduce the number of fire ignitions. The local Battalion Chief will work the Monterey County Fire Safe Council, the Resource Conservation District for Monterey County, and community stakeholders in order to prioritize projects and grant funding.

##### **A. Burn Permit Administration**

LE-62's (Residential Burn Permit – Burn Pile) will be issued online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) . Monterey Bay Air Resources District (MBARD) determines burn day status.

LE-5's (California Inter-Agency Burning Permit) is requested online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) an inspection may be required depending on weather conditions. An authorized CAL FIRE employee determine if an inspection is required



and set up the inspection. These projects burn permits are typically used to remove larger piles of agricultural material.

LE-7/LE-8's (Project Type Burning Permit/Minimum Precautions for Project Type Burning) are requested online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) are issued for specific projects such as Range Improvement burns.

## **B. Public Education Forums**

Battalion staff remains involved in multiple public education programs. Ongoing events throughout the year:

- Monterey County Fair
- Fire Prevention Signage
- Fire Safe Council for Monterey County Meeting and functions
- Battalion 1 Fire Danger Rating System (FDRS) signs

## **C. Stakeholder**

Battalion staff works with the following stakeholders to ensure there is a common vision of fire prevention education:

- Pebble Beach Company (PBCo)
- Monterey County Regional Fire District (MCF)
- Cachagua Fire Protection District (CFC)
- Mid Coast Fire Brigade (MCFB)
- Big Sur Volunteer Fire (BSF)
- California Department of Fish and Wildlife (DFW)
- California Department of Parks and Recreation (CSP)
- Monterey Peninsula Regional Park District (MPRPD)
- United States Forest Service, Los Padres, Monterey District (USFS)
- Bureau of Land Management (BLM)
- Santa Lucia Preserve (SLP)
- Big Sur Land Trust (BSLT)
- South Monterey County (SoMoCo)
- Hastings National History Reservation
- Del Monte Forest Conservancy (DMFC)
- Carmel Highlands Fire Protection District (CHF)

- Pebble Beach Community Services District (PBCSD)
- Cypress Fire Protection District (CYP)
- Resource Conservation District of Monterey County (RCDMC)
- Local, State and Federally Elected Officials

## **2. Fire Prevention Engineering**

Battalion 1 will also focus its available resources to support the prevention of large wildfires in target areas 1, 2 and 3. The battalion, in cooperation Fire Safe Council for Monterey County, Pre-Fire Planning and Prevention Staff, with Defensible Space Inspectors, and various other local public agencies will continuously educate, evaluate, and propose current and new efforts to prevent a large-scale wildfire in this area.

### **A. Strategic Community Fuel Breaks:**

During the 2016 Soberanes Fire, there were many control lines established south of Carmel Valley which are being maintained as fuel breaks. These included but are not limited to:

- Palo Corona-White Rock Fire Roads - Carmel Valley
- Chamisal Ridge-San Clemente Fuel Break - Carmel Valley
- Laurel Springs/Hennicksons Ridge Fuel Break - Jamesburg
- Long Ridge-Green Ridge-Mescal Ridge - Palo Colorado
- Palo Corona-Corona-Red Wolf-Mal Paso area - Carmel Highlands
- Coast Ridge and Partington Ridge - Big Sur
- Pico Blanco-Mt. Manuel-North Coast Ridge - Big Sur

### **B. Vegetation Management:**

Battalion staff works with the Fire Safe Council for Monterey County, Resource Conservation District Monterey County, and other cooperators to reduce fuels with community chipping projects.

Fuel reduction programs involving mechanical means and controlled burns are being used to reduce fuel loads, create strategic fuel breaks to protect communities, and maintain safe egress in case of fire.

### **C. Pre-Fire Engineering:**

Battalion 1 works with Caltrans, Monterey County Public Works, and BLM to ensure fuels reduction practices on each agency's public easements is completed. These fuel reductions include mowing or clearing vegetation in a manner to reduce significant fire spread from a public roadway to the vegetation caused by vehicle

caused fires. The application of the current fire and building codes to new construction in Battalion 1 directs homeowners in the safest ways to build their homes.

**D. Inspection:**

Battalion staff will continue working with PG&E to guide and assist in powerline engineering and PRC 4293 enforcement. This will include prioritizing their line inspections to be in line with the identified target areas along with identifying and removing any hazard vegetation that could compromise the lines and create a fire ignition.

**3. Law Enforcement**

The Unit has four Law Enforcement/Fire Investigators in its Fire Prevention Bureau. These officers are tasked with enforcing all forestry and fire laws within the Unit and State. Law Enforcement duties include enforcement of PRC 4291, citation issuance for negligently caused fires, and investigations of all fires. The Unit has additional Law Enforcement Officers who are available to assist the Fire Prevention Bureau with the enforcement of all Forestry and Fire Law within the Unit and Battalion.

**A. Defensible Space Inspections:**

PRC 4291 inspections serve a dual purpose. First, they are a vegetation management motivator. The second purpose is as a public education tool. In 2021, the goal is to complete LE-100 inspections of all the residential structures within the SRA in target areas 1 and 2. All inspections will follow the criteria found on the CAL FIRE LE-100 Defensible Space Inspection Worksheet. LE-100 inspection process will take place based on resource availability and completion of LE-100 inspections and fuel reduction projects in target Area 2.

Battalion 1 will work with Monterey County Regional Fire Department to complete the remainder of SRA LE-100 inspections within target area 3.

## **Battalion 2: Peninsula Battalion (Schedule A – Contract Districts)**

Battalion 21 – Cypress FPD & Carmel Highlands FPD

Battalion 22 – Pebble Beach CSD

Battalion 25 – Prevention & Planning

### ***Description***

Battalion 2 is comprised of three Local Government Cooperative Fire Protection Agreements or “Schedule A” contracts made up of the Pebble Beach Community Services District (PBCSD), Cypress Fire Protection District, and Carmel Highlands Fire Protection District.

The Pebble Beach area is entirely within the State Responsibility Area (SRA). Also referred to as the Del Monte Forest, this area has a closed-cone coniferous forest with areas of chaparral and coastal scrub, as well as small remnants of coastal prairie in the common areas. There are homes throughout the forested areas, including homes interfaced between golf courses and timber. Small fires that occur in these areas pose a major threat to many high-dollar homes. The Morse Fire in 1987, started by an illegal campfire, burned 190 acres, and destroyed 31 structures, causing an estimated damage of approximately \$18,000,000. Fire road signage, mapping, and maintenance are a high priority in the district due to recreation and fire occurrences in the open spaces within the forest.

The Cypress FPD borders the southern end of Pebble Beach and wraps around the city of Carmel-by-the-Sea on the north, east, and south, stretching from the beaches to approximately two miles east from the mouth of Carmel Valley and bordering Carmel Highlands FPD to the south. The lower part of the district to the east encompasses Highway 68, Josselyn Canyon, and the homes surrounding the Del Monte Golf Course. Cypress FPD is in both the SRA and Local Responsibility Area (LRA) with housing developments surrounded by wooded areas.

The Carmel Highlands FPD is the southern-most district in Battalion 2, with the northern border just south of the Carmel River, down to Mal Paso Creek, encompassing the wildland-urban interface on the west facing slope. The district has many large homes under a tall canopy of closed-cone coniferous forest with areas of chaparral and coastal scrub, as well as small remnants of coastal prairie in the common areas. Most of the district, both SRA and LRA, is rated as Very High Fire Hazard Severity Zones.

### ***Fire Prevention***

The three districts maintain good working relationships collaborating on fuel reductions projects with several different agencies such as Monterey Peninsula Regional Parks District, Pebble Beach Company, California State Parks, California Department of Fish and Wildlife, Caltrans, PG&E, homeowner associations, and private homeowners.

Defensible space remains a high priority in Battalion 2 due to the housing density within the Wildland Urban Interface (WUI). The battalion has an aggressive LE-100 program employing Veterans utilizing the Disabled Veterans’ Outreach Program, to educate homeowners and to ensure compliance throughout the districts. Each district has a goal of 100% compliance with the LE-100 program.

## ***Division, Battalion, Program Plans: South Division***

### **Battalion 3: King City Battalion - Battalion 4613**

#### ***Description***

The King City Battalion covers an area of approximately 556,841 total acres with approximately 776 residents. The Battalion is comprised almost entirely of SRA; starts from the Chualar area and encompasses both sides of the Salinas Valley “ridge top to ridge top” south to Highway 198.

This area includes the west entrance to Pinnacles National Park, Arroyo Seco, Mission Soledad Rural Fire Protection District, and many vineyards, cattle ranches and infrastructure to name a few of the values at risk. There are two Federal Responsibility Areas (FRA) within the Battalion: The west side of the Pinnacles National Park (NPS) and the eastside of Los Padres National Forest- Monterey District (LPF).

#### ***Values at Risk***

The battalion is mostly located within the central and southern portion of Monterey County. The eastside of the Salinas Valley follows with the westly contour of the Gabilan Range, which is home to many large cattle ranches and grass-covered rolling hills (Fuel Model 1). The western side is home to Santa Lucia Highlands American Viticulture Area consisting of 50 wineries with over 6,200 acres under vine. The Santa Lucia Highlands has a mix of rural residential and commercial buildings on the foothills of the eastern side of the Santa Lucia Range, which is steep rugged terrain with heavy fuels brush (Fuel Model 4) and conifers (Fuel Model 9).

#### ***Statistics***

Below is the breakdown of Responsibility Area and Direct Protection Area for Battalion 3.

➤ FRA acres:	96,782
➤ SRA acres:	337,248
➤ LRA acres:	122,811
➤ Total acres:	556,841
➤ CAL FIRE DPA acres:	343,996

#### ***Fire History and Occurrence***

Fire history shows that equipment use is a leading cause of ignitions and has resulted in several large, damaging fires in Battalion 3. As a result, the Unit has made it a high priority to educate ranchers and homeowners on the importance of spark arresters and mowing in cooler weather conditions. Large billboard signs are posted in the battalion stating to “mow before 10 a.m.” before the heat of the day. Statistics show that these efforts have been successful, and ignitions have decreased. Powerline caused fires are also among the frequent ignitions in Battalion 3. Prevention staff have been working with the utility company to upgrade powerline equipment to reduce the number of fires in the Unit. Debris burning used to constitute a large

percentage of ignitions, however, education of landowners on laws of debris burning has reduced the amount of control burn escapes in the Unit.

### ***Weather***

The weather patterns in Battalion 3 during the summer months range from the 70s and into the low 100-degree mark. The valley winds ranging from 10-25 mph, usually begin early afternoon and subside around sunset when the marine layer occasionally blows in to cool the valley temperatures. The strong winds affect the early season fires, pushing grass fires from a few hundred acres into the thousands in the cattle grazing pastures of the eastern foothills. The steep terrain of Arroyo Seco and southern end of Carmel Valley has driven some large wildland fires in the late summer/fall crossing borders into the LPF where access for firefighting equipment becomes very challenging.

### ***Fire Prevention Plan Development***

The Fire Prevention Plan was developed through a systematic approach from statistical values, mapping data of the following criteria: fuels, housing density, historical data of fire ignitions and major infrastructure including major highways, railroad routes, and power lines. These areas are overlaid with historical data of fire ignitions and perimeters, revealing clear target areas. These target areas allow for a focus and prioritization that is specific and unique to the battalion and the assets at risk.

**Target Area 1:** The communities of Pine Canyon, which have a major WUI issue with narrow roads and limited access to homes.

**Target Area 2:** Arroyo Seco East Carmel Valley road, with narrow roads and limited access to homes.

**Target Area 3:** Southwest of Pinnacles, stretching from Stonewall Canyon, Metz Road and Highway 146 including Pinnacles National Park, which is a very narrow canyon with narrow roads and limited access to homes.

Three target areas were identified in Battalion 3. The first is the southwest of Pinnacles, stretching from Stonewall Canyon, Metz Road and Highway 146 including Pinnacles National Park. Second, including Arroyo Seco/East Carmel Valley Road and Arroyo Seco Road. The second is geographically located west of the community of Greenfield. Third is Pine Canyon, west of King City. This incorporates areas of Monterey County, Jolon Road west towards the Los Padres National Forest and Fort Hunter Liggett boundaries.

### ***Mitigation Strategies and Action Plan***

#### **1. Public Education:**

Public contact and education continue to be a priority within Battalion 3 to reduce the number of fire ignitions. The local staff will work with the Monterey County Fire Safe Council

and community stakeholders to prioritize projects and grant funding. The action plan for public contact and education is as follows:

#### **A. Burn Permit Administration**

LE-62's (Residential Burn Permit – Burn Pile) will be issued online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) . Monterey Bay Air Resources District (MBARD) determines burn day status.

LE-5's (California Inter-Agency Burning Permit) is requested online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) an inspection may be required depending on weather conditions. An authorized CAL FIRE employee determine if an inspection is required and set up the inspection. These projects burn permits are typically used to remove larger piles of agricultural material.

LE-7/LE-8's (Project Type Burning Permit/Minimum Precautions for Project Type Burning) are requested online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) are issued for specific projects such as Range Improvement burns.

#### **B. Public Education Forums**

Battalion staff remains involved in multiple public education programs. Ongoing events throughout the year:

- Salinas Valley Fair
- School Programs at Santa Lucia, San Lucas Union School and Soledad High School career day.
- Fire Prevention Signage
- Monterey County Fire Safe Council Meeting and functions
- YMCA National Night Out and Career Day

## **2. Fire Prevention Engineering**

Battalion personnel in conjunction with the Fire Safe Council for Monterey County, Pre-Fire Engineers and Prevention staff, Defensible Space Inspectors, and various other local public agencies will continuously educate, evaluate, and propose current and new efforts to prevent a large-scale wildfire in this area. Battalion 3 prioritizes educating the public as well as providing information regarding equipment use and fire safe programs. In addition to Fire Danger Rating System (FDRS) signs, the battalion has posted prevention signs with interchangeable messages based on the season.

#### **A. Roadside Disk Line Program:**

Property disking is an additional tool that can be implemented on larger lots to reduce fire spread. Property boundary disking to assist in controlling and even containing

fires to a specific area. Property owners can significantly affect the containment of fires by supporting CAL FIRE in this program.

The priority road is Metz Road, which is identified as the main thoroughfare in target area 1. This, combined with Caltrans and Monterey County roads providing PRC road clearance, will assist in preventing the highest percentage of ignitions for the battalion, a roadside start, from expanding to a large-scale conflagration.

The following are the program components:

- On vacant lots or tracts of wild land, disk a fire break line, 20 feet wide adjacent to roadways and or property lines.
- May 15th is the preferred date by which to create your fire break. However, any time after the grasses cure and are available to burn is a good time to disk your fire break.
- Call your local CAL FIRE station upon completion of your fire break and provide either your address or APN number or general location of the property. This information assists department personnel with pre-fire planning in the event of a fire on the property.

#### **B. Vegetation Management:**

The vegetation management programs are directed at reducing the potential of a large fire and reducing the damage from a large fire. The Sierra de Salinas VMP, totaling over 16,000 acres is in the planning stage and has been moved down on the priority list due to the extent of the River Fire in 2020. Unit staff will be revisiting this VMP to look for windows of opportunity to begin implementing the plan soon. This will provide a large reduction of fuels in the battalion, assisting in providing fuel breaks, establishing dozer lines, and limiting the extent of large scale, extended attack fires. It will also reduce decadent brush to enhance landscape heterogeneity and improve wildlife habitat.

Battalion staff are continually looking at new VMPs along Pine Canyon, as well as working with and educating landowners of the benefits/differences and avenues of RI (Range Improvement) burns and VMP burns. Battalion staff regularly meet with local stakeholders regarding prescribed fire and fuel reduction projects. Both Battalion staff and Unit staff will be available as a resource to assist in planning and implementation of an RI burn. This will help ensure efficient and effective RI prescriptions, that align with both the landowner and the Department objectives.

Target areas 1, 2 and 3 have been identified to give prioritization to areas of the battalion for future VMP planning. In concurrence with the Annual Operating Plan



(AOP) for Pinnacles National Park, the opportunity for a fuel break or VMP to hinder a fire entering or exiting the Park is in the planning stages.

### **C. Pre-Fire Engineering:**

In conjunction with Battalion 4 and the South Division, Battalion 3 staff will continue to focus on compiling water sources, road access, and assets at risk for battalion pre-plans. Battalion staff will also work to improve the database of historical fire perimeters, including Range Improvement burns.

## **3. Law Enforcement**

The Unit has four Law Enforcement/Fire Investigators in its Fire Prevention Bureau. These officers are tasked with enforcing all forestry and fire laws within the Unit and State. Law Enforcement duties include enforcement of PRC 4291, citation issuance for negligently caused fires and in investigations of all fires. The Unit has additional Law Enforcement Officers that are available to assist the Fire Prevention Bureau with the enforcement of the Forestry and Fire Laws within the Unit and Battalion.

### **A. Defensible Space Inspections:**

The primary objectives in Battalion 3 will be to prioritize areas within the battalion that have a significant wildland fire threat, and to inspect homes utilizing the PRC 4291 program. May and June are the more appropriate time of year to conduct inspections within the battalion because it aligns with the primary fuel type (annual grass) dead fuel moisture. The goal is to inspect all habitable structures in the battalion with 50% completion acceptable due to fire activity and drawdown, covering 100% of willing property owners over two years.

## **Battalion 4: Bradley Battalion – Battalion 4614**

### ***Description***

The Bradley Battalion is in the south end of the San Benito-Monterey Unit in Monterey County. The north end of the Bradley Battalion aligns with the Highway 198 corridor going east from Highway 101 to the San Benito county line and runs west of Highway 101 along the eastern base of the Santa Lucia Mountain Range to the southeastern border of the Los Padres National Forest. The east side of the battalion runs south from the San Benito county line along the Diablo Mountain Range, encompassing Priest Valley, Peach Tree Valley, Cholame Valley and the community of Parkfield running parallel with the San Andreas Fault and Fresno County border to the northern edge of San Luis Obispo County. Fuels on the eastern side of the Battalion are predominantly open rangeland, transitioning to heavier fuels with extremely steep topography moving east. The west side of the battalion follows the Los Padres National Forest border south to the San Luis Obispo county line, encompassing the communities of Bryson-Hesperia, Lockwood, Bradley, San Ardo, and the Lake San Antonio Recreation Area. Fuels on the western side of the battalion are predominantly grass, oak woodland, and chamise, which transitions to heavier fuels with steeper terrain. Battalion 4 is also comprised of two (2) Department of Defense military compounds: Fort Hunter Liggett and the northern section of Camp Roberts which also extends into San Luis Obispo County.

### ***Values at Risk***

Valued assets within the Battalion include rangelands, communication towers and repeaters (i.e., Calandra and Smith Mountain), residential structures, recreation areas, agricultural land, watershed resources, and an abundance of oil fields in the southern Salinas Valley. Working in conjunction with multiple entities— Bureau of Land Management (BLM), United States Forest Service (USFS), Monterey County Water Authority, Salinas River Cogeneration Facility, and the Fire Safe Council for Monterey County, staff will work on mitigating fire hazards and protect the people, property, and resources.

### ***Statistics:***

Below is the breakdown of Responsibility Area and Direct Protection Area for Battalion 4.

➤ LRA acres:	11,345
➤ FRA acres:	193,097
➤ SRA acres:	602,072
➤ Total acres:	806,514
➤ CAL FIRE DPA acres:	615,788

### ***Fire History and Occurrence***

Statistics have shown that most of the fires started within Battalion 4 are due to roadside starts, with the leading causes of ignitions being equipment use, vehicles, and electrical power.

History has shown the Diablo Mountain Range and Santa Lucia Mountain Range have sustained the larger fires in the Battalion, with recent fires such as the 2018 Turkey Fire (2,225 acres), 2016 Coleman Fire (2,520 acres), and the 2006 Rico Fire (14,507 acres), which was classified as a major fire.

### ***Weather***

The weather patterns in Battalion 4 during the summer months range from the 70's and into the low 100-degree mark, with some areas reaching the 110-degree mark. The valley winds range from 15-25 mph, usually begin early afternoon, and subside around sunset when the marine layer occasionally blows in, cooling valley temperatures.

The southern Salinas Valley area of the battalion has seen wind driven fires extend into the hundreds of acres, where the Parkfield and Lockwood areas have been protected from topography and do not typically see the high winds.

### ***Fire Prevention Plan Development***

The Fire Prevention Plan was developed through a systematic approach from statistical values, mapping data of the following criteria: fuels, housing density, historical data of fire ignitions and major infrastructure including major highways, railroad routes, and powerlines. These areas overlaid with historical data of fire ignitions and perimeters then gave clear target areas. These target areas allow for a focus and prioritization that is specific and unique to the battalion and the assets at risk. Three target areas were identified in Battalion 4.

**Target Area 1:** Bryson-Hesperia, a WUI community with narrow driveways and limited access to homes with steep driveways, and limited ingress and egress.

**Target Area 2:** Lockwood-Jolon at large, a WUI area with narrow driveways and limited access to homes with steep driveways, and limited ingress and egress.

**Target Area 3:** The communities of Parkfield and Cholame Valley, which have narrow roads and limited access to homes.

Three target areas were identified in Battalion 4. The first target area is the Bryson-Hesperia area that has moderate to high population density in some areas and is still going through fuel modification efforts. This area is comprised of Copperhead Road, Hesperia Road, Sapaque Valley Road, Smith Road, Pleyto Road, and Interlake Road. Target area 2 encompasses Lockwood-Jolon. This includes the Lockwood-San Lucas Road, Jolon Road, and the Calandra infrastructure, with the residential communities on the east/west flats of the southern portion of the Santa Lucia Mountain Range. Target area 3 is comprised of the Parkfield Community and

the Cholame Valley area. This area includes Ranchita Canyon Road, Turkey Flat Road, Vineyard Canyon Road, and Slacks Canyon.

### ***Mitigation Strategies and Action Plan***

#### **1. Public Education/Contact:**

Public contact and education continue to be a priority within the battalion to reduce the number of ignitions. Target areas have been identified which prioritizes areas within the battalion.

These identified target areas work in conjunction with the Fire Safe Council of Monterey County, BLM, and through community outreach programs that help fund projects through prioritizing.

##### **A. Burn Permit Administration**

LE-62's (Residential Burn Permit – Burn Pile) will be issued online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) . Monterey Bay Air Resources District (MBARD) determines burn day status.

LE-5's (California Inter-Agency Burning Permit) is requested online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) an inspection may be required depending on weather conditions. An authorized CAL FIRE employee determine if an inspection is required and set up the inspection. These projects burn permits are typically used to remove larger piles of agricultural material.

LE-7/LE-8's (Project Type Burning Permit/Minimum Precautions for Project Type Burning) are requested online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) are issued for specific projects such as Range Improvement burns.

##### **B. Public Education Forums**

Battalion staff remains involved in multiple public education programs and ongoing events throughout the year:

- Fire Prevention Signage
- Fire Safe Council of Monterey County Meetings and functions
- Local School Programs
- Battalion 4 Fire Danger Rating System (FDRS) signs
- Parkfield Community Meetings
- Bryson-Hesperia Community Meetings

#### **2. Fire Prevention Engineering**

Battalion personnel in conjunction with the Fire Safe Council for Monterey County, pre-fire engineering and prevention staff, Defensible Space Inspectors, and various other local

public agencies will continuously educate, evaluate, and propose current and new efforts to prevent a large-scale wildfire in this area. The battalion is educating the public as well as providing information regarding equipment use and fire safe programs. In addition to FDRS signs, the battalion has posted prevention signs with interchangeable messages based on the season.

#### **A. Roadside Disk Line Program:**

Property disking is an additional tool that can be implemented on larger lots to reduce fire spread. Property boundary disking to assist in controlling and even containing fires to a specific area. Property owners can significantly affect the containment of fires by supporting CAL FIRE in this program.

The following are the program components:

- On vacant lots or tracts of wild land, disk a fire break line, 20 feet wide adjacent to roadways and or property lines.
- May 15th is the preferred date by which to create your fire break. However, any time after the grasses cure and are available to burn is a good time to disk your fire break.
- Call your local CAL FIRE station upon completion of your fire break and provide either your address or APN number or general location of the property. This information assists department personnel with pre-fire planning in the event of a fire on the property.

#### **B. Vegetation Management:**

The Vegetation Management Programs are directed at reducing fuel loads and continuity of fuels to help reduce fire spread which can prevent fires from going into extended attack or a major fire. To start the fuel mitigation process in the battalion's first target area, CAL FIRE will start vegetation management (brush clearing, burn piles, masticating and property owner education) along the Santa Lucia Mountain Ridge line which extends 27 miles from the Jolon north road to the Jolon south road. This process is labor-intensive and time-consuming and will be in conjunction with the Bureau of Land Management (BLM). The vegetation management process for the second target area will be mitigated using multiple techniques (roadway brush clearing, masticating, range improvement burns, disk lines, and property owner education). The vegetation management process in the third target area will be to continue public education and enforcement of the LE-100 program utilizing the department's defensible space inspectors and engine company personnel.

### **C. Pre-Fire Engineering:**

Battalion personnel in conjunction with the Unit Pre-Fire Engineer will continue creating pre-fire plans for areas within the battalion by compiling water sources, road egress routes, staging areas and hazards that can interfere with suppression capabilities. These pre-fire plans assist fire department personnel with resource needs to contain/control a vegetation fire and give the public a methodical route to travel to safety.

Battalion 4 personnel will also be working with the Monterey County Fire Safe Council to continue the Chipping and Fuel Reduction program, which assists homeowners with clearing unnecessary fuel adhering to the Department's LE-100 program.

### **3. Law Enforcement**

The Unit has four Law Enforcement/Fire Investigators in its Fire Prevention Bureau. These officers are tasked with enforcing all forestry and fire laws within the Unit and State. Law Enforcement duties include enforcement of PRC 4291, citation issuance for negligently caused fires and in investigations of all fires. The Unit has additional Law Enforcement Officers that are available to assist the Fire Prevention Bureau with the enforcement of all Forestry and Fire Law within the Unit and Battalion.

#### **A. Defensible Space Inspections:**

PRC 4291 inspections serve a dual purpose. First, they are a vegetation management motivator. The second is a public education tool. In 2023 we anticipate a 100% LE-100 inspection process will take place on all structures within the SRA in all target areas. All inspections will follow the criteria found on the CAL FIRE LE-100 Defensible Space Inspection Worksheet. LE- 100 inspection process will take place based on resource availability and completion of LE-100 inspections and fuel reduction projects.

## ***Division, Battalion, Program Plans: North Division***

### **Battalion 5: Hollister Battalion – Battalion 4615**

#### ***Description***

The Hollister Battalion is located at the north end of the San Benito-Monterey Unit in San Benito County and northwestern Monterey County. The Hollister Battalion includes Highway 101 to Salinas to Old Stage Road down to Chualar Canyon and follows the San Benito County line on the east down to the end of Cienega Road and East to South of the Panoche and Antelope Valleys. The west side (Gabilan Mountain Range) of the battalion is comprised of steep terrain and heavy fuels up near Fremont Peak. Included in the Battalion are the communities of Aromas, Castroville, Las Lomas, Pajaro, Prunedale, Royal Oaks, and Moss Landing. The east side (Diablo Mountain Range) is predominately grasslands, home to many large cattle ranches, and quickly transitions into steep rugged terrain. The fuels commonly encountered in Battalion 5 are grass, oak woodland, chamise, and gray pine, with the Aromas-Las Lomas areas containing some heavily wooded areas of eucalyptus groves.

#### ***Values at Risk***

The major values at risk in Battalion 5 are the life and property of local residences including residential structures, recreational areas, agriculture, watershed, and infrastructure. Major Highway corridors 101, 129 and 156 run through the battalion. Infrastructure values at risk include communication and repeater sites as well as major PG&E transmission and gas lines.

Cooperation of members from the San Benito Fire Safe Council, Fire Safe Council of Monterey County, BLM, California Department of Parks and Recreation, and CAL FIRE BEU North Division, will be diligent in protecting our local citizens and their properties and valued infrastructure.

#### ***Statistics:***

Below is the breakdown of Responsibility Area and Direct Protection Area for Battalion 5.

- FRA acres: 3,493
- SRA acres: 443,646
- LRA acres: 120,625
- Total acres: 459,201
- CAL FIRE DPA acres: 446,827

#### ***Fire History and Occurrence***

Most fires within the battalion occur as roadside starts. These fires are classified as equipment, vehicle, electrical, or are undetermined as to specific ignition source. Most of these fires are contained at less than 20 acres. Large fires are not a regular occurrence in the battalion. Some recent fires in the area include the Panoche Fire, Cienega Fire, Santa Ana Valley Fire, Massa Fire, and the Willow Springs Fire. Hollister Hills SVRA also experiences small fires that are

usually contained to less than 20-30 acres. In 2021 the largest fire to occur in Battalion 5 was the Panoche Fire which burned 145 acres of grass and brush near the Antelope station. The Panoche Fire threatened parts of the Willow Springs Community.

### ***Weather***

The weather patterns in Battalion 5 during the summer months range from the high 70s and into the low 100-degree mark with the marine layer moving in most evenings and burning off mid-morning. The winds in the Hollister area range from 5-15 mph. The terrain is predominately rolling hills with some areas of brush-covered, steep slopes.

### ***Fire Prevention Plan Development***

The Fire Prevention Plan was developed through a systematic approach from statistical values, mapping data of the following criteria: fuels, housing density, historical data of fire ignitions and major infrastructure including major highways, railroad routes, and powerlines. These areas overlaid with historical data of fire ignitions and perimeters produced clear target areas. These target areas allow for a focus and prioritization that is specific and unique to the battalion and the assets at risk. Three target areas were identified in Battalion 5.

**Target Area 1:** The unincorporated area from Hwy 101, Hwy 129 and San Juan Canyon Road, which are areas of highly traveled highways to a very narrow canyon with one way in/one way out roads and narrow driveways.

**Target Area 2:** Cienega road area, which has with narrow roads and limited access to homes.

**Target Area 3:** Prundale - San Miguel Canyon, Highway 101 corridor, Paradise Canyon, Strawberry Canyon, Castroville Boulevard, Crazy Horse Canyon Road.

Three target areas were identified in Battalion 5. The first is the Aromas Tri County and North Monterey County areas. This includes areas of Monterey and San Benito Counties, including Highway 101, Highway 129, and San Juan Road.

The second is geographically located in the WUI area of Cienega Road and State Highway 25, southwest of the community of Hollister.

The third target area is in and around the area of Prundale with large stands of eucalyptus that create significant Wildland Urban Interface and Intermix issues.



## ***Mitigation Strategies and Action Plan***

### **1. Public Education/Contact:**

Public contact and education continue to be a priority within Battalion 5 to reduce the number of fire ignitions. Target areas have been identified within the battalion to give prioritization to the respective areas. These target areas have been identified to work in conjunction with the San Benito County Fire Safe Council, and Monterey County Fire Safe Council.

#### **B. Burn Permit Administration**

LE-62's (Residential Burn Permit – Burn Pile) will be issued online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) . Monterey Bay Air Resources District (MBARD) determines burn day status.

LE-5's (California Inter-Agency Burning Permit) is requested online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) an inspection may be required depending on weather conditions. An authorized CAL FIRE employee determine if an inspection is required and set up the inspection. These projects burn permits are typically used to remove larger piles of agricultural material.

LE-7/LE-8's (Project Type Burning Permit/Minimum Precautions for Project Type Burning) are requested online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) are issued for specific projects such as Range Improvement burns.

#### **C. Public Education Forums**

Battalion staff remains involved in multiple public education programs. Ongoing events throughout the year:

- San Benito County Fair
- Fire Prevention Signage
- San Benito County Fire Safe Council Meeting and functions
- Fire Safe Council for Monterey County Meetings
- Battalion 5 Fire Danger Rating System (FDRS) signs
- Aromas Day, parade and open house
- Aromas School Fire Prevention Poster Contest

## **2. Fire Prevention Engineering**

The North Division will also focus its available resources to support the prevention of large wildfires in target areas 1 and 2 & 3. The North Division, in cooperation with the San Benito Fire Safe Council, the Fire Safe Council for Monterey County, Pre-Fire Planning and Prevention Staff, Defensible Space Inspectors, and various other local public agencies will continuously educate, evaluate, and propose current and new efforts to prevent a large-scale wildfire in this area.

Staff continue to educate the public and provide information regarding equipment use and fire safe programs. In addition to FDRS signs, the battalion will post prevention signs with interchangeable messages based on the season.

### **A. Vegetation Management:**

In 2021, San Benito-Monterey Unit staff successfully implemented multiple phases of large-scale Vegetation Management Programs (VMP) and continues to plan additional VMP's to be executed in the future.

Completed Vegetation Management Programs include:

- Phase 1 of the San Juan Canyon Grade fuels reduction project. This completed work includes manual removal of brush, diseased and dead trees and overgrown vegetation. Phase 1 of this project treated 200 acres.
- Phase 1 of the Cienega VMP includes the building of control lines for future prescribed fire use. Within these control lines represent 900 acres to be treated.

VMP planning conducted in 2021 consisted of multiple phase projects in the Gabilan Range including: Bengard VMP-3200 acres, Stone Canyon Ranch-5200 acres, San Juan Canyon VMP-80 acres, Cienega VMP-Phase 1-900 acres.

In 2022, staff will focus its vegetation management efforts on executing work on the planned VMP's. New projects are being planned and developed for inclusion into future Fire Plans. Focus will remain on projects that impact the three target areas.

In 2022 VMP's that were completed. Cienega VMP 900 acres and the Bengard VMP 2700 acres were treated.

### **B. Pre-Fire Engineering:**

Public roadways have experienced significant number of ignitions. These ignitions can have a direct influence in the target areas due to heavy fuel loading and density of structures. Battalion 5 will petition Caltrans, Monterey County Public Works, and San Benito County Public Works Departments to perform fuels reduction practices on each agency's public easements in these target areas. The fuel reduction methods

include mowing or clearing vegetation in a manner to reduce significant fire spread from a public roadway to the vegetation. Reduction of fuels adjacent to public roadways can also directly affect strategies and tactics for offensive and defensive fire control during wildfire events.

### **3. Law Enforcement**

The Unit has four Law Enforcement/Fire Investigators in its Fire Prevention Bureau. These officers are tasked with enforcing all forestry and fire laws within the Unit and State. Law Enforcement duties include enforcement of PRC 4291, citation issuance for negligently caused fires and in investigations of all fires. The Unit has additional Law Enforcement Officers that are available to assist the Fire Prevention Bureau with the enforcement of all Forestry and Fire Law within the Unit and Battalion.

#### **A. Defensible Space Inspections:**

PRC 4291 inspections serve a dual purpose. First, they are a vegetation management motivator. The second is a public education tool. In 2021, our goal is to complete LE- 100 inspection of all residential structures within the SRA's identified target areas. All inspections will follow the criteria found on the CAL FIRE LE-100 Defensible Space Inspection Worksheet. LE-100 inspection process will be a primary inspection for compliance, with a follow up inspection if needed.

## **Battalion 6: Bear Valley Battalion – Battalion 4616**

### ***Description***

The Bear Valley Battalion covers an area of approximately 484,322 acres with approximately 200 residents. The Battalion is comprised almost entirely of SRA. However, Pinnacles National Park (NPS) lies within the battalion and is comprised of 26,000 acres FRA; and the Clear Creek Recreation and Laguna Mountain Area (BLM) 77,000 acres CAL FIRE DPA. The battalion lies on the east side of the Unit in San Benito County and contains Highway 25, (also known as Airline Hwy) running north/south down the center of the valley. The northern border is Cienega Road with the southern border being Hwy 198/ Priest Valley. The east/west boundaries are the Fresno and Monterey County lines, respectively. Terrain ranges from rolling hills on the east side (west aspects of the Diablo Range) to steep rugged terrain with heavy fuels on the west side (east aspects of the Gabilan Range). Fuels are comprised of grass, oak woodland, chamise, and gray pine. The area is populated with rural residential properties varying in size from 5-50,000 acres. The fuels and topography are influenced by the local weather.

Traditional weather patterns during fire season range from mid-70's to low 100 degrees with low overnight RH recoveries. On average, winds range from 5-10 mph.

### ***Statistics***

Below is the breakdown of Responsibility Area and Direct Protection Area for Battalion 6.

- FRA acres: 103,095
- SRA acres: 380,561
- Total acres: 484,322
- CAL FIRE DPA acres: 460,105

### ***Fire History and Occurrence***

A clear majority of fires within the battalion occur as roadside starts. These fires are classified as equipment, vehicle, electrical, or are undetermined as to specific ignition source. Most of these fires are contained at less than 20 acres. Large, costly, and damaging fires are not a regular occurrence in the battalion, although 2018 had 2 large-scale extended attack fires in the Beaver Dam area of the battalion. To mitigate the hazard from roadside starts, a fence line disk program was initiated in 2020.

### ***Fire Prevention Plan Development***

The Fire Prevention Plan was developed through a systematic approach from statistical values. Mapping data of hazard severity zones along with housing density and assets were combined. These areas overlaid with historical data of fire ignitions and perimeters then gave clear target areas. These target areas allow for a focus and prioritization that is specific and unique to the battalion and the assets at risk. Two target areas were identified in Battalion 6.

**Target Area 1:** Pinnacles, stretching from La Gloria Road south to include Pinnacles National Park, a narrow canyon with one way in and one way out roads and narrow driveways.

**Target Area 2:** The Coalinga Road corridor from Highway 25 to Clear Creek, this area has narrow roads and limited access to homes.

### ***Mitigation Strategies and Action Plan***

#### **1. Public Education/Contact:**

Public contact and education continue to be a priority within Battalion 6 to reduce the number of ignitions. Target areas have been identified to give prioritization to areas of the battalion. These identified target areas work in conjunction with the San Benito County Fire Safe Council. The action plan for public contact and education is as follows:

##### **A. Burn Permit Administration**

LE-62's (Residential Burn Permit – Burn Pile) will be issued online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) . Monterey Bay Air Resources District (MBARD) determines burn day status.

LE-5's (California Inter-Agency Burning Permit) is requested online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) an inspection may be required depending on weather conditions. An authorized CAL FIRE employee determine if an inspection is required and set up the inspection. These projects burn permits are typically used to remove larger piles of agricultural material.

LE-7/LE-8's (Project Type Burning Permit/Minimum Precautions for Project Type Burning) are requested online via [www.burnpermit.fire.ca.gov](http://www.burnpermit.fire.ca.gov) are issued for specific projects such as Range Improvement burns.

##### **B. Public Education Forums**

Although very rural, battalion staff remain involved in multiple public education programs. Ongoing events throughout the year:

- San Benito County Fair
- Cattleman's Association Meetings to reach farmers and ranchers
- School Programs at Jefferson and Bitterwater Schools
- Fire Prevention Signage
- San Benito County Fire Safe Council Meeting and functions
- Battalion 6 FDRS signs

Battalion staff will educate local homeowners and assist San Benito County Fire Department and San Benito Fire Safe Council in educating the public as well as provide information regarding equipment use and fire safe programs. In addition to FDRS signs, the battalion will post prevention signs with interchangeable messages based on the season.

## **2. Fire Prevention Engineering**

### **A. Roadside Disk Line Program:**

Property disking is an additional tool that can be implemented on larger lots to reduce fire spread. Property boundary disking is used to assist in controlling and containing fires. Property owners can significantly affect the containment of fires by supporting CAL FIRE in this program.

The following are the program components:

- On vacant lots or tracts of wild land, disk a fire break line, 20 feet wide adjacent to roadways and or property lines.
- May 15th is the preferred date by which to create the disced line. However, any time after the grasses cure and are available to burn is a good time to disk your fire break.
- Call your local CAL FIRE station upon completion of your fire break and provide either your address or APN number or general location of the property. This information assists department personnel with pre-fire planning in the event of a fire on the property.

The priority roads are Highway 25, Coalinga Road and La Gloria Road. These roads are identified as the main thoroughfares in target areas 1 and 2. Private discing combined with Caltrans and San Benito County Roads providing road clearance, will reduce the number of roadside ignitions extending into the vegetation.

### **B. Vegetation Management**

The vegetation management programs are directed at reducing the potential of a large fire and reducing the damage from a large fire. There are currently three VMP/VTP's in progress: The Stone Canyon VMP-8,000 acres, and the Moody VMP-4,500 acres. Completion of these projects will greatly reduce fuels in areas of the battalion, assist with creation of fuel breaks and establish dozer lines. It will also convert acres of uniform brush to enhance wildlife habitat.

Battalion staff are continually looking for opportunities for new VMP's along the Gabilan Range, as well as working with and educating landowners of the alternate

methods to help manage their land. Staff will explain the benefits/differences and avenues of RI (Range Improvement) burns and VMP (Vegetation Management Program) burns. Battalion staff regularly meet with local stakeholders regarding prescribed fire and fuel reduction projects. Unit staff will be available as a resource to assist in planning and implementation of RI burns helping to ensure efficient and effective RI prescriptions, that align with both the landowner and the Department objectives. Target areas 1 and 2 have been identified to give prioritization to areas of the battalion for future VMP planning. Additionally, staff is working with the Pinnacles National Park, developing a fuel break to help prevent a fire from entering or exiting the park.

### **C. Pre-Fire Engineering:**

Staff will continue to focus on compiling water sources, road access, and assets at risk for battalion pre-plans. Battalion staff will also work to improve database of historical fire perimeters, including Range Improvement burns, allowing better strategic planning when focusing on the target areas.

## **3. Law Enforcement Law Enforcement**

The Unit has four Law Enforcement/Fire Investigators in its Fire Prevention Bureau. These officers are tasked with enforcing all forestry and fire laws within the Unit and State. Law Enforcement duties include enforcement of PRC 4291, citation issuance for negligently caused fires and in investigations of all fires. The Unit has additional Law Enforcement Officers that are available to assist the Fire Prevention Bureau with the enforcement of all forestry and fire law within the Unit and Battalion.

### **A. Defensible Space Inspections:**

PRC 4291 inspections serve a dual purpose. First, they serve as a vegetation management motivator. The second purpose is as a public education tool. The Battalion 6 goal will be to target areas within the battalion that have a significant wildland fire threat, and to inspect homes using the PRC 4291 program. Bear Valley Station will focus on the Highway 25 corridor from Baker Grade to Pinnacle NP entrance, expanding out from there. Beaver Dam will start at the densest housing east of Hernandez Reservoir and work west along Coalinga Hernandez Road. These areas are prioritized by outputs of the data which determined the target areas. May and June are the more appropriate time of year to conduct inspections within the battalion, due to the annual grass component as the primary fuel type. The goal is to inspect all habitable structures in the battalion with 50% completion, covering 100% of willing property owners over two years.

## ***Programs***

### **Training – Battalion 4607**

The San Benito-Monterey Unit Training Division (BEU Training) maintains a highly active and dynamic program. BEU Training is tasked with providing and delivering the departmental training program at the Unit level. Staff coordinate and instruct training classes for over 400 CAL FIRE permanent and seasonal personnel, and up to 25 volunteers. Delivering and tracking of certifications for CAL FIRE personnel, the BEU Training utilizes a web-based service – Vector Solutions – to deliver online training courses, log training hours, maintain credentials, and track certifications. Additionally, BEU Training coordinates and delivers the annual Wildland Fire Preparedness Exercises.

BEU Training provides two key functions in support of the Unit Fire Plan:

1. Provides training to ensure all staff meet operational readiness.
2. Provides training to support the Unit's Pre-Fire/Resource Management, Education and Prevention (PEP) programs.

BEU Training also provides basic and intermediate training courses to support the entry-level firefighter through the Chief Officer/Command Staff disciplines to ensure all firefighters are proficient. Key training classes provided by BEU Training include Wildland Firefighter Safety and Survival, C-234 Intermediate Firing Operations and CAL FIRE Incident Command System (ICS) courses. BEU Training also coordinates with the Unit's Emergency Command Center (ECC) and tracks the number and type of Incident Command System qualified and trainee positions within the Unit. BEU Training also insures:

1. All fire suppression employees receive A-Faller training/certification.
  - a. Selected personnel will be chosen to attend Class "B" or "C" faller training.
2. All Chief Officers and Fire Captains receive CAL FIRE(C-234) Intermediate Firing Operations training/certification.
3. Requalification of certifications.



BEU Training provides and coordinates training that integrates departmental programs. An example, all BEU Fire control personnel assigned to the Aviation Program attend the following training where applicable: RT-372 Helicopter Manager Refresher Training, RT-378 Air Attack Group Supervisor, Basic Helicopter Safety – Hoist Rescue, and Air Base Safety Training.



BEU Training is instrumental in new employee orientation and coordinating the new and/or Re-Hire Academies. BEU Training also ensures Joint Apprenticeship Committee (JAC) employees are on track per their contracts and get the classes needed to journey.

### **Gabilan Conservation Camp – Administered by Division 4603**

Gabilan Conservation Camp (CC #38) is centrally located in Monterey County and the only camp servicing the CAL FIRE San Benito- Monterey Unit. The facility is situated in the front of CTF – Soledad and the Salinas Valley State Prison on Highway 101 between the cities of Soledad and Gonzales. Gabilan Camp has occupancy for approximately 60 to 70 low-risk inmates under the direction of the California Department of Corrections and Rehabilitation (CDCR) and CAL FIRE. CAL FIRE operates 2 Type I Fire Crews and a Mobile Kitchen Unit (MKU) from Gabilan Camp. The crews are available to respond year-round to all-risk emergencies throughout the state such as wildland fires, floods, rescues and other disasters.

In preparation for emergency response, Gabilan Camp conducts an annual Fire Crew Preparedness Exercise, which evaluates each inmate fire crew's performance through arduous evolutions in preparation for the upcoming fire season.

Gabilan Camp is actively engaged in Pre-Fire Management. Gabilan Fire Crews perform community service and hazard fuel reduction projects with the local governments, state and federal agencies within Santa Clara, Monterey, San Benito and San Luis Obispo Counties.

Cooperators who sponsor Fuel Reduction and project work with Gabilan Camp include (but are not limited to): Hollister Hills State Park; California State Parks and Recreation; Monterey County Parks; Laguna Seca Raceway; City of Monterey; City of Del Rey Oaks; City of Soledad; Camp Roberts National Guard Base; Monterey Peninsula Regional Park District; Salinas Valley Fairgrounds; Salinas Airshow; San Benito County Park; San Benito County Historical Park; Monterey Peninsula College; Gonzales Unified School District; Washington Union School District; National Park Service; Bureau of Land Management; and San Benito-Monterey and Santa Clara CAL FIRE facilities. Numerous federal hazardous fuel reduction grant projects were also completed.

Since the opening in 1986, Gabilan Conservation Camp has continued to be a valuable resource for the State of California and the citizens of San Benito and Monterey Counties through conservation and the protection of life, property, and natural resources.



## **Air Attack/Helitack Program – Battalion 4608**

Hollister Air Attack base was established in 1962 at Hollister Airport. The base is located 30 miles south of San Jose, within the San Benito-Monterey Unit. Hollister Airport started as a grass strip that was used by agricultural aircraft and then as a US Navy training field during World War 2. In 1947 the Navy deeded the Airport to The City of Hollister. The Helitack module began in 1987 under the name Bitterwater Helitack located near King City. In 1992, it became Bear Valley Helitack when the program moved to Bear Valley Fire Station. The program moved a third time when the Helicopter moved to Hollister Air Base in 2021. Hollister Airbase responds to approximately 350 incidents per year.

Aircraft assigned to the Hollister Air Base include one OV-10A Bronco Air Tactical platform, two Type 3 S-2T Air Tankers, and one type one S-70i Helicopter. The base also houses multiple utility vehicles and the Helitender which carries fuel, supplies and equipment required for the operation of the Helicopter. The base can produce 90,000 gallons of retardant per day. In 2020 the base pumped over 1 Million gallons supporting major fires in the area.

Staff at the base consists of one Battalion Chief, seven Fire Captains, four Forestry Fire Pilots, six Fire Apparatus Engineers, and 21 Seasonal Firefighters. The base provides initial attack for 3.1 million acres encompassing 11 counties, an area spanning north to Mt. Diablo, south of King City, east to Interstate 5 and west to the Pacific Ocean including portions of the Los Padres National Forest.

The OV-10A Bronco Air Attack platform daily staffing includes one DynCorp Air Tactical Pilot and one Air Tactical Group Supervisor. The Broncos tandem seating configuration offers great visibility for the Pilot and Air Attack Officer, combined with 5.5 hours of endurance making it an ideal platform for coordinating aircraft operations on wildland fires.

The S-2T tankers originally operated by the Navy as S-2As with radial engines were limited to 800 gallons of retardant. CAL FIRE converted the tankers to S-2Ts with turbine engines giving them better performance and reliability, allowing tankers to carry a maximum of 1,200 gallons of retardant. The S-2T tankers are considered Type 3 Air Tankers and are staffed with one DynCorp Air Tanker Pilot.

In 2019 CAL FIRE acquired S-70i CAL FIRE HAWKs to replace their fleet of Vietnam era UH-1H Hueys. The CAL FIRE HAWK is a Type I Helicopter with a fixed tank capable of carrying 1,000 gallons of water. The daily staffing for the Hawk includes one Fire Pilot, two Fire Captains, a Fire Apparatus Engineer, and five Firefighters. Once the Hawk arrives on a wildland incident the back-seat Fire Captain and five Firefighters are deployed to engage the fire. The Pilot, front seat Fire Captain and Fire Apparatus Engineer stay on the Hawk to drop water from the fixed tank, and coordinate fire activities with other firefighting aircraft. The CAL FIRE HAWK also has an externally mounted hoist system which can be used to rescue injured people from remote, austere environments. The helicopter performs approximately 12 rescues per year.

## Appendix A: Pre-Fire Projects

<b>PROGRAM</b>	<b>PROJECT NAME</b>	<b>Project Status</b>	<b>Treatment Footprint Acres</b>
Fire Plan	Aromas/North County	Complete in Maintenance	5.84
VMP	Bengard VMP BEU	Complete in Maintenance	3,616.83
Fire Plan	Bradley Community	Complete in Maintenance	
Fire Plan	Cachagua Rd/Tassajara Rd Fuel Break	Complete in Maintenance	42.59
Fire Plan	Camp Roberts	Active	11,141.32
Fire Plan	Carmel Highlands Community Fuel break	Active	60.71
Fire Plan	Carmel Knolls - Rancho Rio Vista Fuel Reduction	Complete in Maintenance	3.93
VMP	Church Ranch VMP	Complete in Maintenance	365.82
VMP	Cienega VMP	Planned	8929
VMP	Cienega VMP Phase 1	Complete in Maintenance	928
Fire Plan	Corona Road Fuel Reduction	Complete in Maintenance	13.86
Fire Plan	Del Mesa Carmel	Complete in Maintenance	0.58
Fire Plan	Fire Prevention All Battalion's	Active	
Fire Plan	Ft. Hunter Liggett	Active	10,050.38
VMP	Handley VMP	Planned	
Fire Plan	Haul Road	Active	33.16
Fire Plan	High Meadows	Active	24.33
VMP	Jack Ranch VMP	Planned	
Fire Plan	La Gloria Fuel Break	Planned	

Fire Plan	Laurel Springs-Hennicksons Ridge Fuel Break	Complete in Maintenance	433.84
Fire Plan	Lockwood Valley Fuel Reduction	Planned	
Fire Plan	Los Padres Strategic Community Fuelbreak Collaborative Project	Active	2,015.82
Fire Plan	Multi-Community Cooperative Chipping for Monterey County	Active	
Fire Plan	Outlook Drive	Complete in Maintenance	1.54
Fire Plan	Pacific Meadows Fuel Reduction	Complete in Maintenance	139.66
Fire Plan	Palo Colorado Fuel Break	Complete in Maintenance	862.42
Fire Plan	Palo Corona Fire Roads	Active	457.8
Fire Plan	Pebble Beach Fuel Reduction	Active	436.2
Fire Plan	Pescadero Canyon	Active	110.41
Fire Plan	Pine Canyon	Planned	
Fire Plan	Point Lobos Fuel Reduction	Active	26.65
Fire Plan	Ranchita Canyon Truck Trail	Active	
Fire Plan	Rocks Rd Fuel Break	Planned	
VMP	Rocks Springs VMP	Active	7,133.23
Fire Plan	San Juan Canyon Shaded Fuel Break	Active	1,831.65
Fire Plan	Shepherds Knoll	Active	10.77
VMP	Sierra de Salinas VMP	Planned	13,103.00
VMP	South Pasture	Planned	
Fire Plan	Westside Fuel Break	Active	
Fire Plan	White Rock Ridge Fuel Break	Complete in Maintenance	11.3
Total Acreage			61790.64

## **Battalion 1 Projects:**

### **Project #1**

Name: Palo Colorado Wildland Fire Pre-Plans  
Description: Pre-plan community with updated maps and wildfire tactical planning  
Community: Palo Colorado, South of Carmel  
Collaborators: CAL FIRE, Mid Coast Fire Brigade, Monterey FSC

### **Project #2**

Name: Hatton Canyon Fuel Break Maintenance  
Description: Maintain current fuel break in canyon between subdivisions  
Community: Carmel at the mouth of Carmel Valley  
Collaborators: CAL FIRE, Cypress FPD, CA. State Parks

### **Project #3**

Name: Outlook to Outlook Fuel Break Maintenance  
Description: Maintain current fuel break in canyon between subdivisions  
Community: Carmel at the mouth of Carmel Valley  
Collaborators: CAL FIRE, Cypress FPD, Monterey County Public Works, Private Landowners

### **Project #4**

Name: Cachagua Road / Tassajara Road Fuel Break  
Description: Establish a fuel break along Cachagua and Tassajara Roads  
Community: Cachagua, east of Carmel Valley  
Collaborators: CAL FIRE, Monterey County Public Works, Monterey FSC, Private Landowners

### **Project #5**

Name: Carmel Valley Regional Fuel Break  
Description: Establish a fire road for emergency access  
Community: Carmel Valley  
Collaborators: CAL FIRE, Cachagua FPD, Monterey FSC, Private Landowners

### **Project #6**

Name: Robinson Canyon Road Fuel Break  
Description: Establish a shaded fuel break along Robinson Canyon Road  
Community: Carmel Valley, Santa Lucia Preserve  
Collaborators: CAL FIRE, Monterey County Public Works, Santa Lucia Preserve, Community of White Rock

### **Project #7**

Name: Palo Corona Fire Roads  
Description: Maintain the clearance on the existing roadway for access  
Communities: Carmel Highlands, Carmel Valley, White Rock, Palo Colorado areas  
Collaborators: CAL FIRE, Monterey Peninsula Regional Parks District, CA. Department of Fish & Wildlife, Community of White Rock

**Project #8**

Name: Cachagua and White Rock Residential Chipping Programs  
Description: Treatment and disposal of vegetative material created during defensible space maintenance by the property owners  
Community: Cachagua, White Rock areas  
Collaborators: CAL FIRE, Private Landowners



## Battalion 2 Projects:



### **Project #1**

Name: Aguajito/Jacks Peak Fuel Reduction  
Description: Maintain the clearance on the existing roadway for access  
Community: Gentry Hill, Olmstead Road, Loma Alta, Aguajito  
Collaborators: CAL FIRE, Cypress FPD, Monterey County Regional Parks, PG&E, Monterey County Public Works, Monterey County FSC

### **Project #2**

Name: Del Mesa Carmel / Pacific Meadows Fuel Reduction  
Description: Maintain the clearance on the existing roadway and fuel break  
Community: Del Mesa Carmel, Pacific Meadows  
Collaborators: CAL FIRE, Cypress FPD, Monterey County Public Works

### **Project #3**

Name: Hatton Canyon Fuel Break Maintenance  
Description: Maintain current fuel break in canyon between subdivisions  
Community: Carmel at the mouth of Carmel Valley  
Collaborators: CAL FIRE, Cypress FPD, CA. State Parks

### **Project #4**

Name: Carmel Knolls Rancho Rio Vista Fuel Reduction  
Description: Reduce fuels in open space areas and large parcels  
Community: Carmel Knolls and Rancho Rio Vista  
Collaborators: CAL FIRE, Cypress FPD, Monterey County FSC, PG&E, Monterey County Public Works

### **Project #5**

Name: Quail Meadows Fuel Reduction  
Description: Maintain the clearance on the existing roadway for access  
Community: Quail Meadows subdivision south of Carmel Valley Road  
Collaborators: CAL FIRE, Cypress FPD, Monterey County FSC, PG&E, Monterey County Public Works

### **Project #6**

Name: High Meadows Fuel Reduction  
Description: Reduce fuels in open space areas, increase defensible space to 100 feet around community and maintain the clearance on the roadway  
Community: Via Mar Monte, Carmel Hills Drive, High Meadows



Collaborators: CAL FIRE, Cypress FPD, Monterey County Regional Parks, PG&E, Monterey County Public Works, CA. State Parks, Caltrans

**Project #7**

Name: Cypress FPD District Wide Chipping Program

Description: Treatment and disposal of vegetative material created during defensible space maintenance by the property owner

Community: All communities within Cypress Fire Protection District

Collaborators: CAL FIRE, Private Landowners



**Project #1**

Name: Carmel Highlands Community Fuel Break  
Description: Provide 100-foot fire line along the foothills of Carmel Highlands  
Community: Carmel Highlands  
Collaborators: CAL FIRE, Carmel Highlands FPD, CA. State Parks, Private Landowners

**Project #2**

Name: San Jose Creek Fuel reduction  
Description: Maintain the clearance on the existing roadway for access  
Community: Carmel Highlands, Red Wolf Drive  
Collaborators: CAL FIRE, Carmel Highlands FPD, CA. State Parks

**Project #3**

Name: Ribera Road (Carmel River State Park) Fuel Reduction  
Description: Maintain the clearance on the existing roadway for access  
Community: Carmel Meadows subdivision  
Collaborators: CAL FIRE, Carmel Highlands FPD, CA. State Parks

**Project #4**

Name: Carmel Highlands Fuel Reduction  
Description: Maintain the clearance on the existing roadway for access  
Community: Carmel Highlands  
Collaborators: CAL FIRE, Carmel Highlands FPD, Monterey County FSC, Monterey County Regional Parks, Monterey County Public Works, PG&E, Caltrans

**Project #5**

Name: Victorine Ranch Fuel Reduction  
Description: Maintain the clearance on the existing roadway for access  
Community: Victorine Ranch south end of Carmel Highlands  
Collaborators: CAL FIRE, Carmel Highlands FPD, Victorine Ranch Homeowners Association, Carmel Lahaina Water Co.

**Project #6**

Name: Carmel Highlands FPD District Wide Chipping Program  
Description: Treatment and disposal of vegetative material created during defensible space maintenance by the property owner  
Community: Carmel Highlands  
Collaborators: CAL FIRE, Private Landowners

**Project #7**

Name: Corona Road Fuel Reduction  
Description: Maintain the clearance on the existing roadway for access  
Community: Carmel Highlands, Corona Road  
Collaborators: CAL FIRE, Carmel Highlands FPD, Corona Road private HOA

**Project #8**

Name: Mal Paso Creek Fuel Reduction  
Description: Maintain the clearance on the existing roadway and fuel break  
Community: Carmel Highlands, Mal Paso Creek area  
Collaborators: CAL FIRE, Carmel Highlands FPD, Carmel Riviera Water Management District, Mal Paso Creek Property Owners



**Project #1**

Name: Sunridge Pines common area Fuel Reduction  
Description: Maintain the clearance on the existing roadway for access  
Community: Pebble Beach, Sunridge Pines  
Collaborators: CAL FIRE, Pebble Beach CSD, PG&E

**Project #2**

Name: Huckleberry Hill Fuel Reduction  
Description: Maintain the clearance on the existing roadway for access  
Community: Pebble Beach, Sunridge Pines  
Collaborators: CAL FIRE, Pebble Beach CSD, PG&E, Del Monte Forest Conservancy

**Project #3**

Name: Shepherd's Knoll Fuel Reduction  
Description: Maintain the clearance on the existing roadway for access  
Community: Pebble Beach, Shepherds Knoll, Sunridge, 17 Mile Dr  
Collaborators: CAL FIRE, Pebble Beach CSD

**Project #4**

Name: Navajo Tracts (Area B and Area C) Fuel Reduction  
Description: Maintain the clearance on the existing roadway and fire roads  
Community: Pebble Beach, Forest Lodge Road  
Collaborators: CAL FIRE, Pebble Beach CSD, Del Monte Forest Conservancy

**Project #5**

Name: Forest Lake Fuel Reduction  
Description: Maintain the clearance on the existing roadway and fire roads  
Community: Pebble Beach, Lopez Road, Congress Road  
Collaborators: CAL FIRE, Pebble Beach CSD, California American Water

**Project #6**

Name: Indian Village (Indian Village Annex) Fuel Reduction  
Description: Maintain the clearance on the existing roadway and fire roads  
Community: Pebble Beach, Spyglass Hill, Stevenson Drive  
Collaborators: CAL FIRE, Pebble Beach CSD, Del Monte Forest Conservancy

**Project #7**

Name: Crocker Grove / SFB Morse Memorial Fuel Reduction  
Description: Maintain the clearance on the existing roadway and fire roads  
Community: Pebble Beach, Cypress Point X Portola Road  
Collaborators: CAL FIRE, Pebble Beach CSD,  
Del Monte Forest Conservancy

**Project #8**

Name: Pescadero Canyon Fuel Reduction  
Description: Maintain the clearance on the existing roadway and fire roads  
Community: Pebble Beach, Carmel Woods X Carmel Way  
Collaborators: CAL FIRE, Pebble Beach CSD, PG&E,  
Del Monte Forest Conservancy

## **Battalion 3 Projects:**

### **Project #1**

Name: Pine Canyon Residential Chipping Program  
Description: Treatment and disposal of vegetative material created during defensible space maintenance by the property owners  
Community: Pine Canyon area west of King City  
Collaborators: CAL FIRE, Private Landowners

### **Project #2**

Name: Sierra de Salinas VMP  
Description: Fuel Modification using multiple vegetation management techniques  
Community: Greenfield, Soledad, Paraiso Springs areas  
Collaborators: CAL FIRE, Bureau of Land Management, Private Landowners

### **Project #3**

Name: Santa Lucia School Program  
Description: Community outreach and public education about fire safety  
Community: King City  
Collaborators: CAL FIRE, Santa Lucia School Staff

### **Project #4**

Name: Arroyo Seco Homeowners Association  
Description: Community outreach and public education about fire safety  
Community: Arroyo Seco west of Greenfield  
Collaborators: CAL FIRE, South Monterey County Fire Department (SoMoCo)

### **Project #5**

Name: Deer Creek Homeowners Association  
Description: Community outreach and public education about fire safety  
Community: King City, Deer Creek Subdivision, Pine Canyon Road  
Collaborators: CAL FIRE, Deer Creek HOA, SoMoCo

### **Project #6**

Name: Highland Hills Homeowners Association  
Description: Community outreach and public education about fire safety  
Community: King City, Highland Hills Subdivision, Pine Canyon Road  
Collaborators: CAL FIRE, Highland Hills HOA, SoMoCo

### **Project #7**

Name: Via Cañada Homeowners Association  
Description: Community outreach and public education about fire safety  
Community: King City, Via Cañada Subdivision, Pine Canyon Road  
Collaborators: CAL FIRE, Via Cañada HOA, SoMoCo

**Project #8**

Name: Paloma Truck Trail  
Description: Establish a fuel break along Paloma Truck Trail  
Community: Pine Canyon  
Collaborators: CAL FIRE, Private Landowners

**Project #9**

Name: La Macchia VMP  
Description: Fuel Modification using multiple vegetation management techniques  
Community: Soledad and Pinnacles Nation Park  
Collaborators: CAL FIRE, Private Landowners

**Project #9**

Name: Handly VMP  
Description: Fuel modification using prescribed fire.  
Community: Chualar  
Collaborators: CAL FIRE, Private Landowners

**Project #10**

Name: Right of Way Clearance  
Description: Establish egress for the communities.  
Community: Reliz, Monroe, Vaquero, Ramus, Arroyo Seco, Pine Canyon, Carmel Valley, Old Jolon Rd.  
Collaborators: CAL FIRE, Monterey Public Works, Monterey FSC, Private Landowners

## **Battalion 4 Projects:**

### **Project #1**

Name: West Side Fuel Break  
Description: Fuel modification using multiple vegetation management techniques  
Community: Lockwood, Santa Lucia Mountain Range, Calandra Lookout, Williams Hill Recreation Area, Paris Valley Road  
Collaborators: CAL FIRE, Bureau of Land Management, Private Landowners

### **Project #2**

Name: Ranchita Canyon Truck Trail VMP  
Description: Fuel Modification using multiple vegetation management techniques  
Community: Parkfield, Cholame, San Miguel  
Collaborators: CAL FIRE, Private Landowners

### **Project #3**

Name: Bryson Hesperia Area Fuel Management  
Description: Maintain and improve the clearance on the existing roadway for access. Community outreach and public education about fire safety  
Community: Bryson Hesperia Road, Interlake Road  
Collaborators: CAL FIRE, Monterey County FSC, PG&E

### **Project #4**

Name: Parkfield Area Pre-Plan  
Description: Identify evacuation routes, temporary refuge areas (TRA), water sources, and fire suppression hazards  
Community: Parkfield, Cholame Valley, Slacks Canyon, Parkfield Grade  
Collaborators: CAL FIRE

### **Project #5**

Name: Jack Ranch VMP  
Description: Fuel Modification using multiple vegetation management techniques  
Community: Parkfield, Cholame, San Miguel  
Collaborators: CAL FIRE, Private Landowners



## **Battalion 5 Projects:**

### **Project #1**

Name: Rocks Rd Fuel Treatment  
Description: Hazard trees in the area of Highway 101 and Rocks Rd.  
Community: Aromas  
Collaborators: CAL FIRE, CAL TRANS, CHP, San Benito Fire Safe Council, Private Landowners

### **Project #2**

Name: Battalion 5 Hazard Assessment  
Description: Use hazard assessment data to evaluate possible targets of opportunity for future pre-fire projects, update pre-plans and tactical/strategic planning  
Community: Aromas, North Monterey County  
Collaborators: CAL FIRE

### **Project #3**

Name: San Benito County Fair  
Description: Community outreach and public education about fire safety  
Community: County of San Benito  
Collaborators: CAL FIRE, San Benito Fire Safe Council

### **Project #4**

Name: Bengard VMP  
Description: 3,500 acres of fuel modification using prescribed fire  
Community: East of Salinas  
Collaborators: CAL FIRE, Private Landowners

### **Project #5**

Name: Cienega VMP  
Description: 10,000 acres of fuel modification using prescribed fire  
Community: South San Benito County  
Collaborators: CAL FIRE, Wilbur Ranch, Enz Ranch, Clements Ranch, Private Landowners

### **Project #6**

Name: Thompson Truck Trail Improvement  
Description: Clearance, brushing, installing water bars, and grading for access  
Community: Thompson Truck Trail runs from Cienega Road to San Juan Canyon Road on the West side of San Benito County Line Road  
Collaborators: CAL FIRE, San Benito Fire Safe Council, Private Landowners

**Project #7**

Name: San Juan Canyon Shaded Fuel Break  
Description: Maintain a fuel break along San Juan Canyon up to Fremont Peak  
Community: San Juan Canyon, South of San Bautista  
Collaborators: CAL FIRE, SBFSC, State Parks, Private Landowners

**Project #8**

Name: South Pasture VMP  
Description: Fuel Modification using multiple vegetation management techniques  
Community: Salinas, North Monterey County  
Collaborators: CAL FIRE, private landowners

**Project #9**

Name: Fuel Reduction - Range Improvement Program  
Description: Multiple Salinas Valley property owners - Taylors RI, Silacci RI, Gabilan Ranch RI, Bengard RI  
Community: Eastern foothills of Salinas Valley  
Collaborators: CAL FIRE, Central Coast Prescribed Burn Association, Private Landowners

**Project #10**

Name: Residential Chipping Program  
Description: Treatment and disposal of vegetative material created during defensible space maintenance by the property owners.  
Community: Aromas, North Monterey County  
Collaborators: CAL FIRE, Aromas Water District, Private Landowners

**Project #11**

Name: Gabilan CALVPT  
Description: 3248 acres of fuel modification using prescribed fire  
Community: San Juan Canyon  
Collaborators: CAL FIRE, Ca State Parks, Private Landowners

**Project #12**

Name: Long Canyon Shaded Fuel Break  
Description: Fuel break  
Community: Prunedale  
Collaborators: CAL FIRE, Elkhorn Slough Foundation

**Project #13**

Name: 101/156 Corridor  
Description: Fuel break Highway 101 x Y Rd x Highway 156  
Community: Aromas and San Juan Bautista  
Collaborators: CAL FIRE, CAL TRANS, Private Landowners

## **Battalion 6 Projects:**

### **Project #1**

Name: San Benito County Fair  
Description: Community outreach and public education about fire safety  
Community: County of San Benito  
Collaborators: CAL FIRE, San Benito Fire Safe Council

### **Project #2**

Name: Stone Canyon CalVTP  
Description: 8,000 acres of fuel modification using prescribed fire and herbicide treatments  
Community: Northwest of the Pinnacles National Park between Highway 25 and the Monterey County line.  
Collaborators: CAL FIRE, Private Landowners

### **Project #3**

Name: Rock Springs VMP  
Description: 6,970 acres of fuel modification using prescribed fire  
Community: Northwest of Beaver Dam FFS #48, South of Rock Spring Peak.  
Collaborators: CAL FIRE, Private Landowners

### **Project #4**

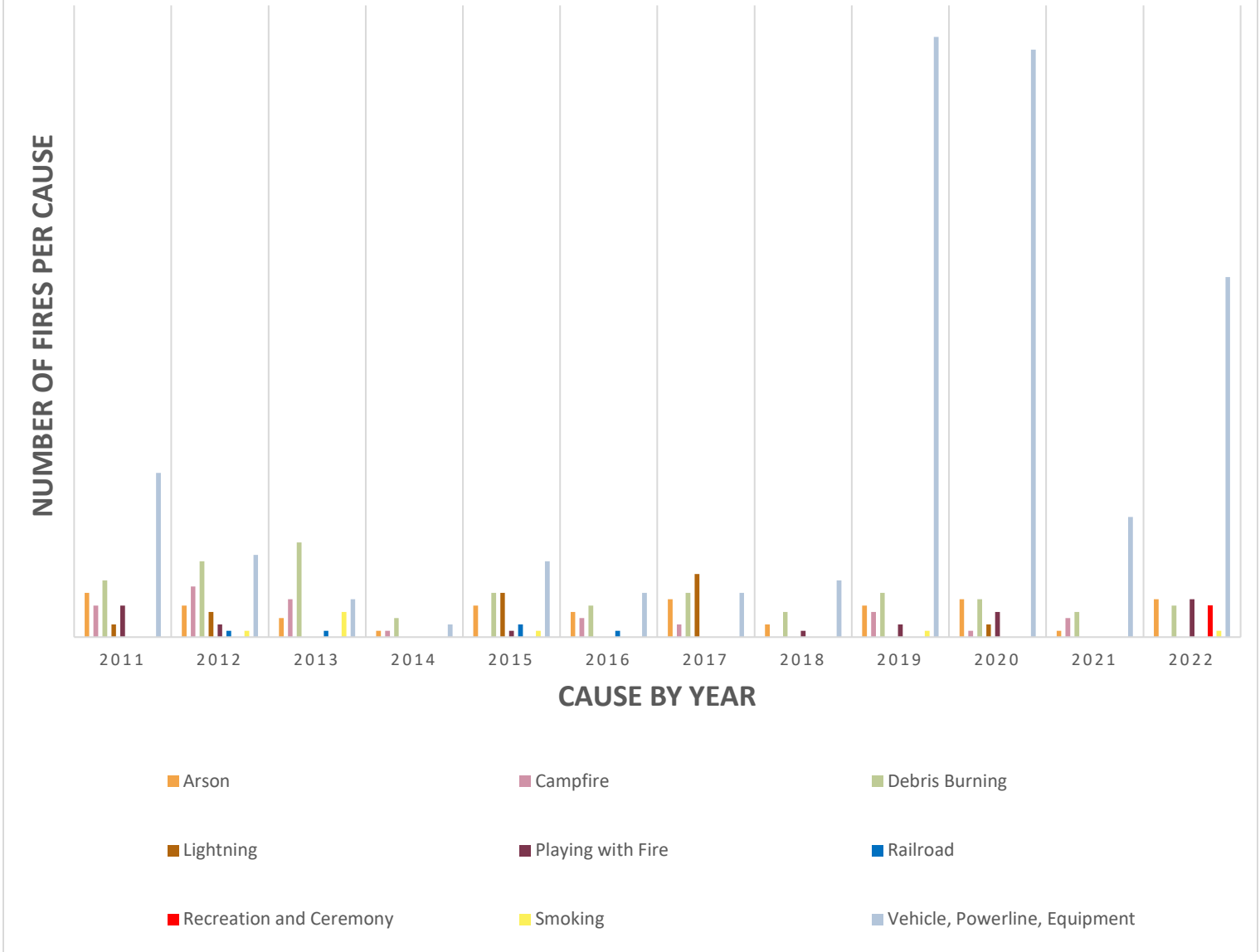
Name: La Gloria Fuel Break  
Description: 12 miles of Fuel Break from Highway 25 to the Salinas Valley.  
Community: Painices, La Gloria Rd, North of Pinnacles National Park  
Collaborators: CAL FIRE, Private Landowners

# Appendix B: Ignition Data

## Overview

Years	Arson	Campfire	Debris Burning	Lightning	Playing with Fire	Railroad	Recreation and Ceremony	Smoking	Vehicle, Powerline, Equipment	Other, Undetermined, Under Investigation	Acres By Year
2011	26	137	144	8	8				637	1,451	2,411
2012	15	1	16	4	2	12		0	2,663	257	2,970
2013	2	214	13			1		2	1,276	285	1,793
2014	0	0	1						4	390	395
2015	1087		21	71	3	1		0	145	719	2,047
2016	5	132,127	6,398			3			51	825	139,409
2017	7	0	6	79					29	2194	2,315
2018	12		21		0				185	6,306	6,524
2019	24	2	46		4			4	4,077	317	4474
2020	125,038	195	2	48,089	43				8,860	2,115	184,342
2021	0	2,879	5						1,585	37	4,506
2022	90.5		687.9		7.7		0.33	0.1	464.46	64.7	1,316
Acres per Cause	126,306.5	135,555	7,360.9	48,251	67.7	17	0.33	6.1	19,976.46	14,960.7	35,2502

## 2011-2022 IGNITION CAUSE STATISTICS



According to the statistics in the San Benito-Monterey Unit, the majority of fires were caused by vehicles, powerlines, and equipment<sup>1</sup>. The cause of the largest fires within the last 11 years were “Arson”, “Campfire”, and “Lightning”. In 2022, there were numerous starts, however the largest fire was the Colorado incident which burned around 687 acres and was caused by “Debris Burning”.

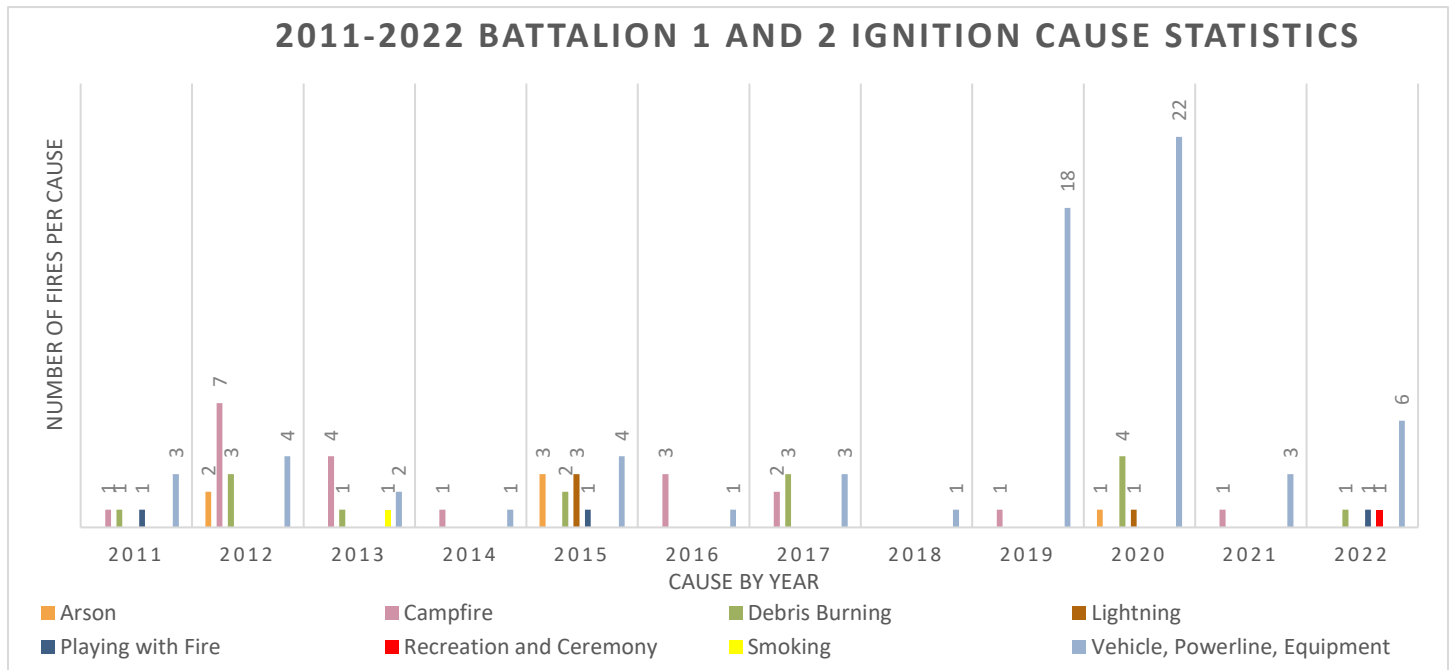
<sup>1</sup> “Other, Undetermined, Under Investigation” Category was not evaluated for cause statistics

## Fire Occurrence Battalion Statistics

### **Battalion 1 and 2**

Year	Arson	Campfire	Debris Burning	Lightning	Other, Undetermined, Under Investigation	Playing with Fire	Recreation and Ceremony	Smoking	Vehicle, Powerline, Equipment	Acres By Year
2011		0	4		4	1			7	16
2012	0	0	1		17				1	19
2013		213	0		7			1	917	1,138
2014		0			7				4	11
2015	1,087		0	1	1	3			98	1190
2016		132,127			0				0	132,127
2017		0	2		2				10	14
2018					6				0	6
2019		0			316				3	319
2020	124,924		1	48,088	1				6,911	179,925
2021		2,877			0				4	2,881
2022			687		4.97	0.03	0.01		1.7	693
2022					0.13		0.25		6.27	7
<b>Acres By Cause</b>	<b>126,011</b>	<b>135,217</b>	<b>695</b>	<b>48,089</b>	<b>366.1</b>	<b>4.03</b>	<b>0.26</b>	<b>1</b>	<b>7,963</b>	<b>318,347</b>

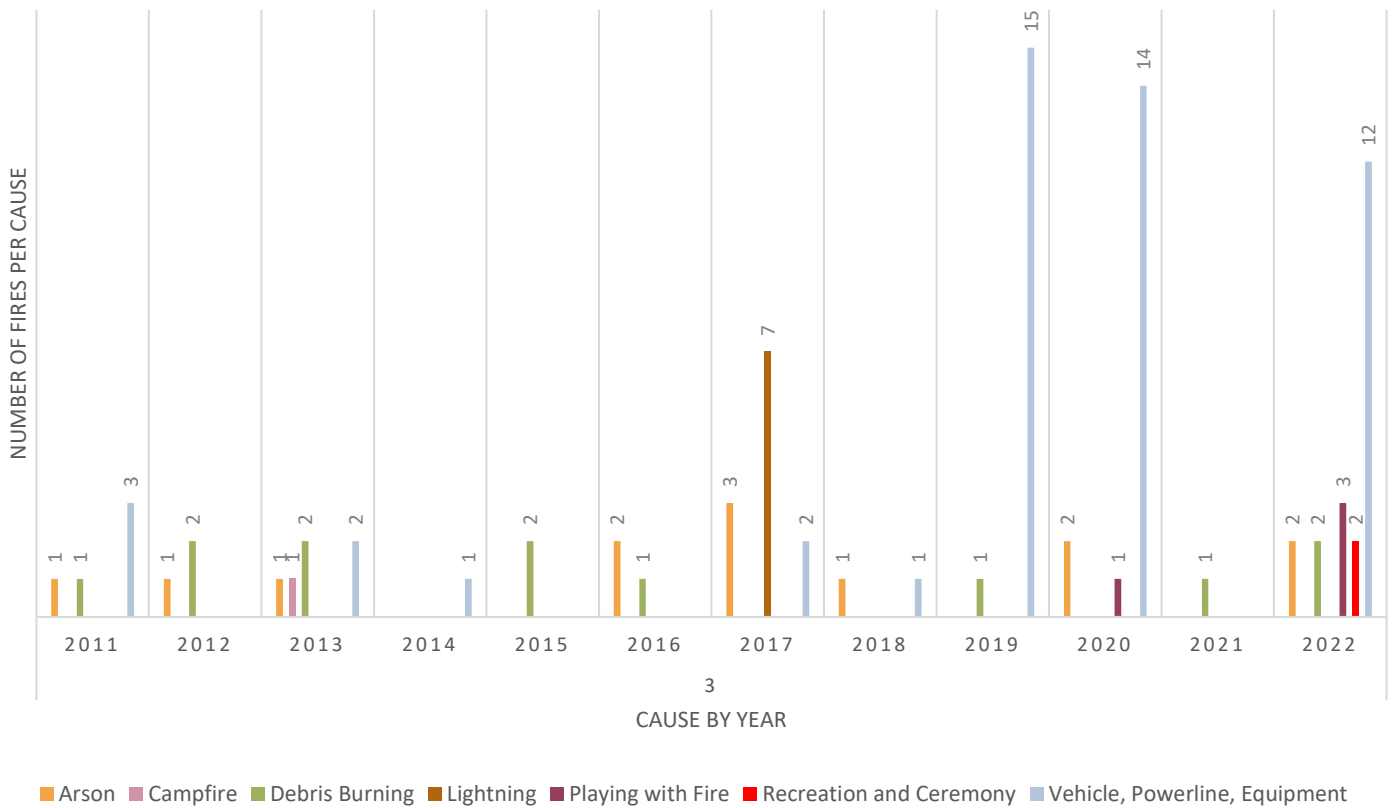
### 2011-2022 BATTALION 1 AND 2 IGNITION CAUSE STATISTICS



### Battalion 3

Year	Arson	Campfire	Debris Burning	Lightning	Other, Undetermined, Under Investigation	Playing with Fire	Vehicle, Powerline, Equipment	Acres By Year
2011	1		2		897		310	1,210
2012	0		3		174			177
2013	1	1	5		152		4	163
2014					65		0	65
2015			9		3			12
2016	1		3,876		186			4,063
2017	6			78	62		2	148
2018	2				430		10	442
2019			3				2576	2,579
2020	63				574	32	315	984
2021			2		33			35
2022	90		1		6	1	54	151
<b>Acres By Cause</b>	<b>164</b>	<b>1</b>	<b>3,901</b>	<b>78</b>	<b>2,582</b>	<b>33</b>	<b>3,271</b>	<b>10,029</b>

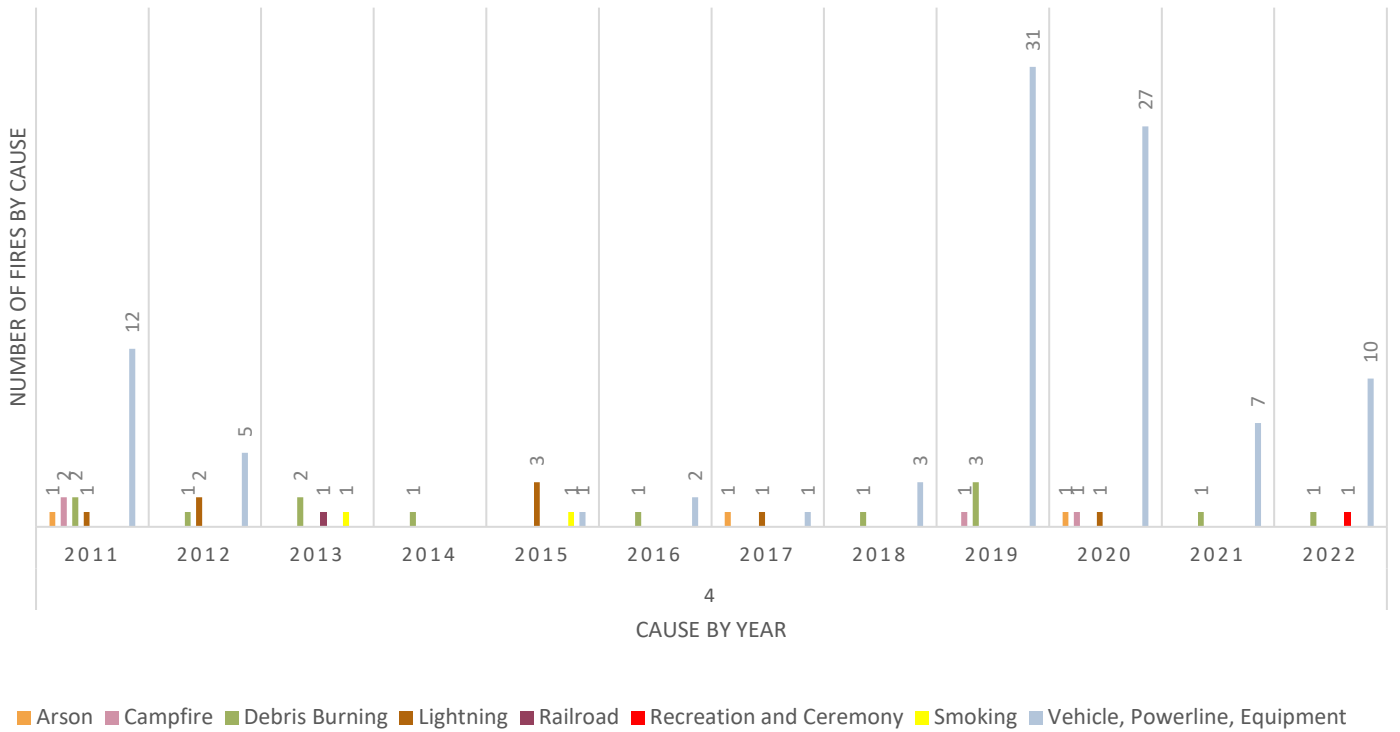
### 2011-2022 BATTALION 3 IGNITION CAUSE STATISTICS



**Battalion 4**

Year	Arson	Campfire	Debris Burning	Lightning	Other, Undetermined, Under Investigation	Railroad	Recreation and Ceremony	Vehicle, Powerline, Equipment	Acres By Year
2011	19	135	91	7	412			232	896
2012			6	3	19			2,650	2,678
2013			1		20	1			22
2014					102				102
2015				66	6			4	76
2016			2,520		194			6	2,720
2017				1	2,002			17	2,020
2018			2		3,232			167	3,401
2019		2	41		1			1224	1,268
2020		195		1	50			733	979
2021			1		4			1111	1,116
2022								146	146
<b>Acres By Cause</b>	<b>19</b>	<b>332</b>	<b>2,662</b>	<b>78</b>	<b>6,042</b>	<b>1</b>	<b>0</b>	<b>6,290</b>	<b>15,424</b>

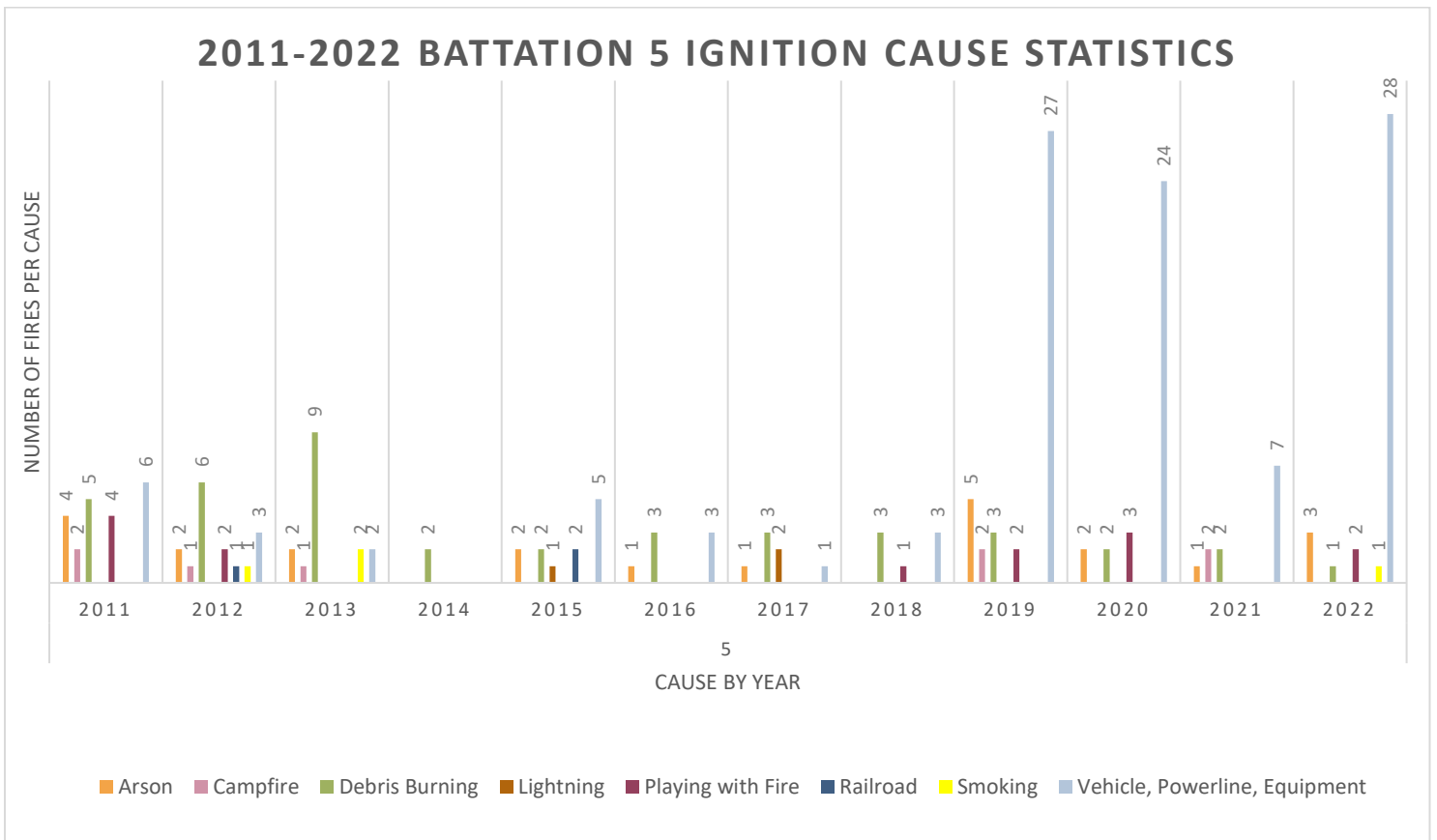
**2011-2022 BATTATION 4 IGNITION CAUSE STATISTICS**





**Battalion 5**

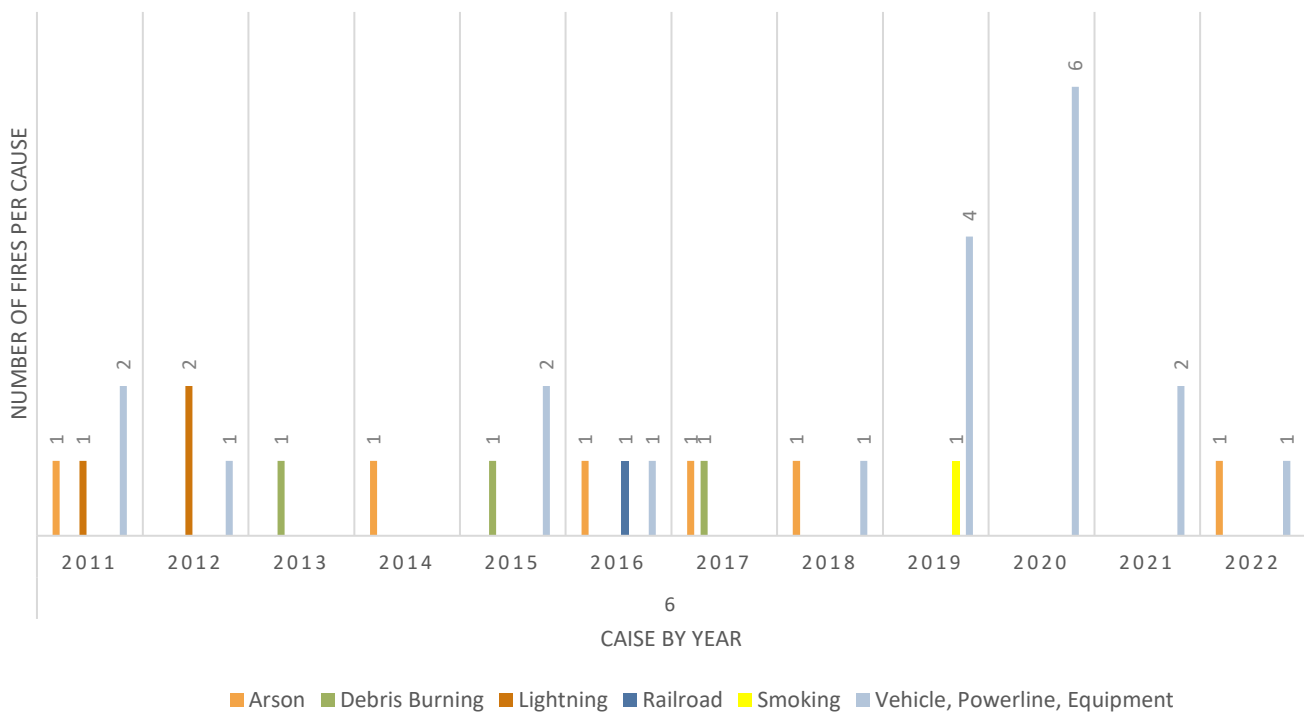
Year	Arson	Campfire	Debris Burning	Lightning	Other, Undetermined, Under Investigation	Playing with Fire	Railroad	Smoking	Vehicle, Powerline, Equipment	Acres By Year
2011	3	2	47		132	7			51	242
2012	15	1	6		13	2	12		9	58
2013	1		4		10.			1	355	371
2014			1		216					217
2015			3	4	701		1		35	744
2016	4		2		50				42	98
2017	1		1		58					60
2018			19		475				4	498
2019	24		2			4			70	100
2020	51		1		1490	11			81	1,634
2021		2	2		0.0				299	303
2022	0.2		0.1		53.5	6.9		0.1	256.7	317.4
<b>Acres By Cause</b>	<b>99.2</b>	<b>5</b>	<b>88.1</b>	<b>4</b>	<b>3,198.5</b>	<b>30.9</b>	<b>13</b>	<b>1.1</b>	<b>1,202.7</b>	<b>4,642.4</b>



**Battalion 6**

Year	Arson	Debris Burning	Lightning	Other, Undetermined, Under Investigation	Railroad	Smoking	Vehicle, Powerline, Equipment	Acres By Year
2011	3		1	6			37	47
2012			1	34			3	38
2013		3		96				99
2014								
2015		9		8			8	25
2016				395	3		3	401
2017		3		70				73
2018	10			2,163			4	2,177
2019						4	204	208
2020							820	820
2021							171	171
2022	0.01						0.1	0.11
<b>Acres By Cause</b>	<b>13.01</b>	<b>15</b>	<b>2</b>	<b>2,772</b>	<b>3</b>	<b>4</b>	<b>1,250.1</b>	<b>4,059.11</b>

**2011-2022 BATTALION 6 IGNITION CAUSE STATISTICS**



# Exhibits

Figure A: Unit Map

## SAN BENITO-MONTEREY UNIT

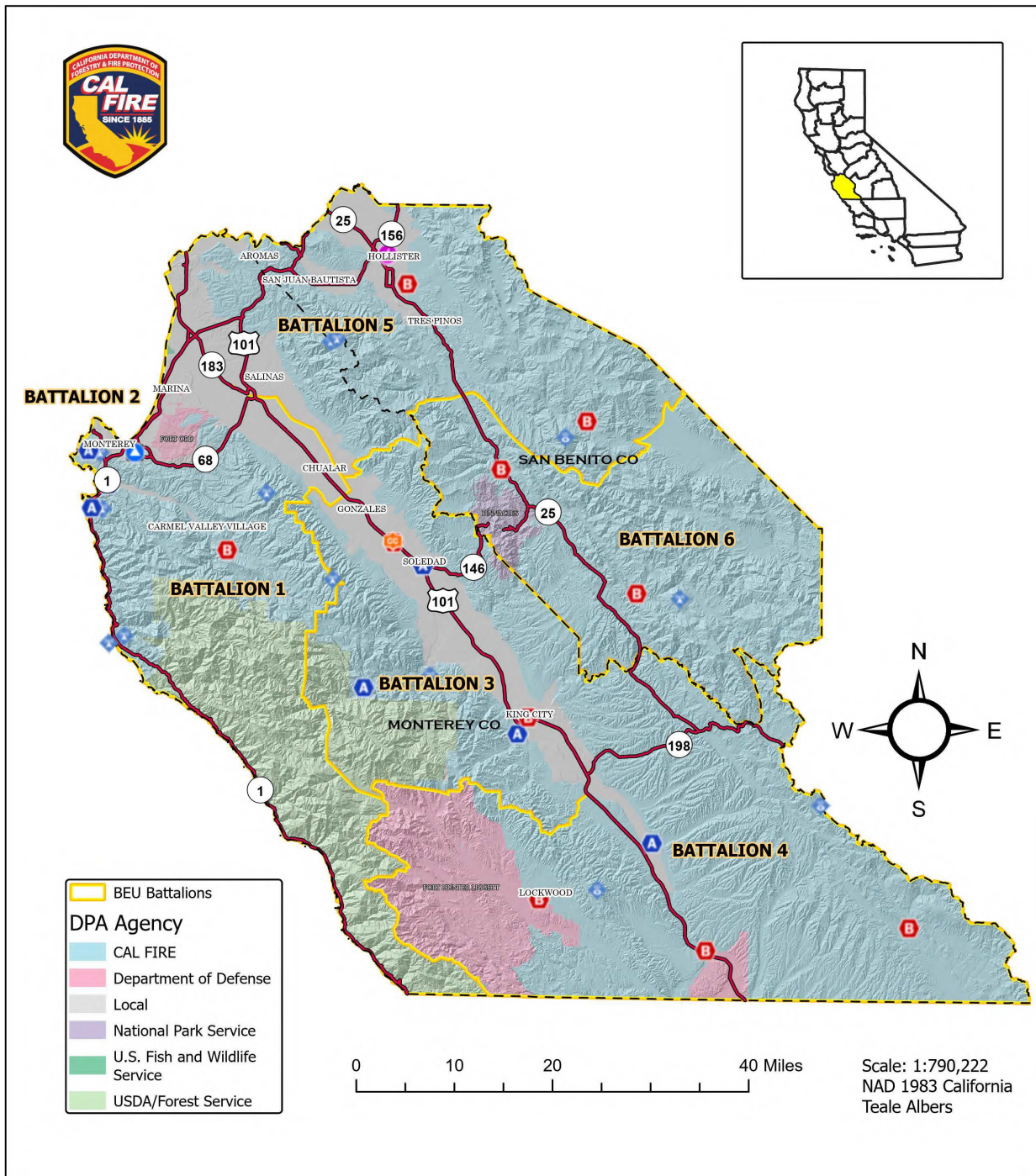


Figure B: Fire Districts

# SAN BENITO-MONTEREY FIRE DISTRICTS

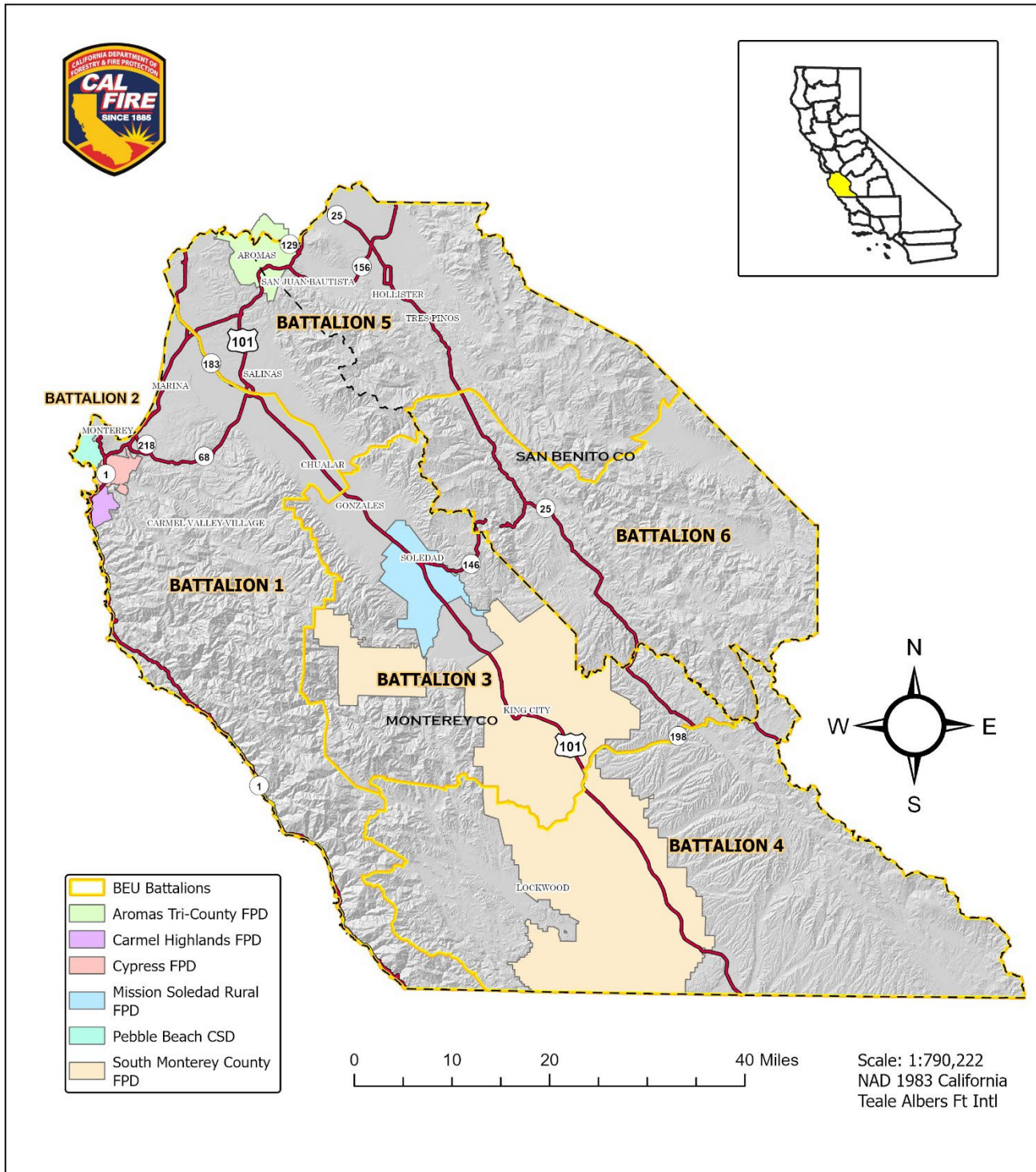


Figure C: Fire History

# FIRE HISTORY 2012-2022

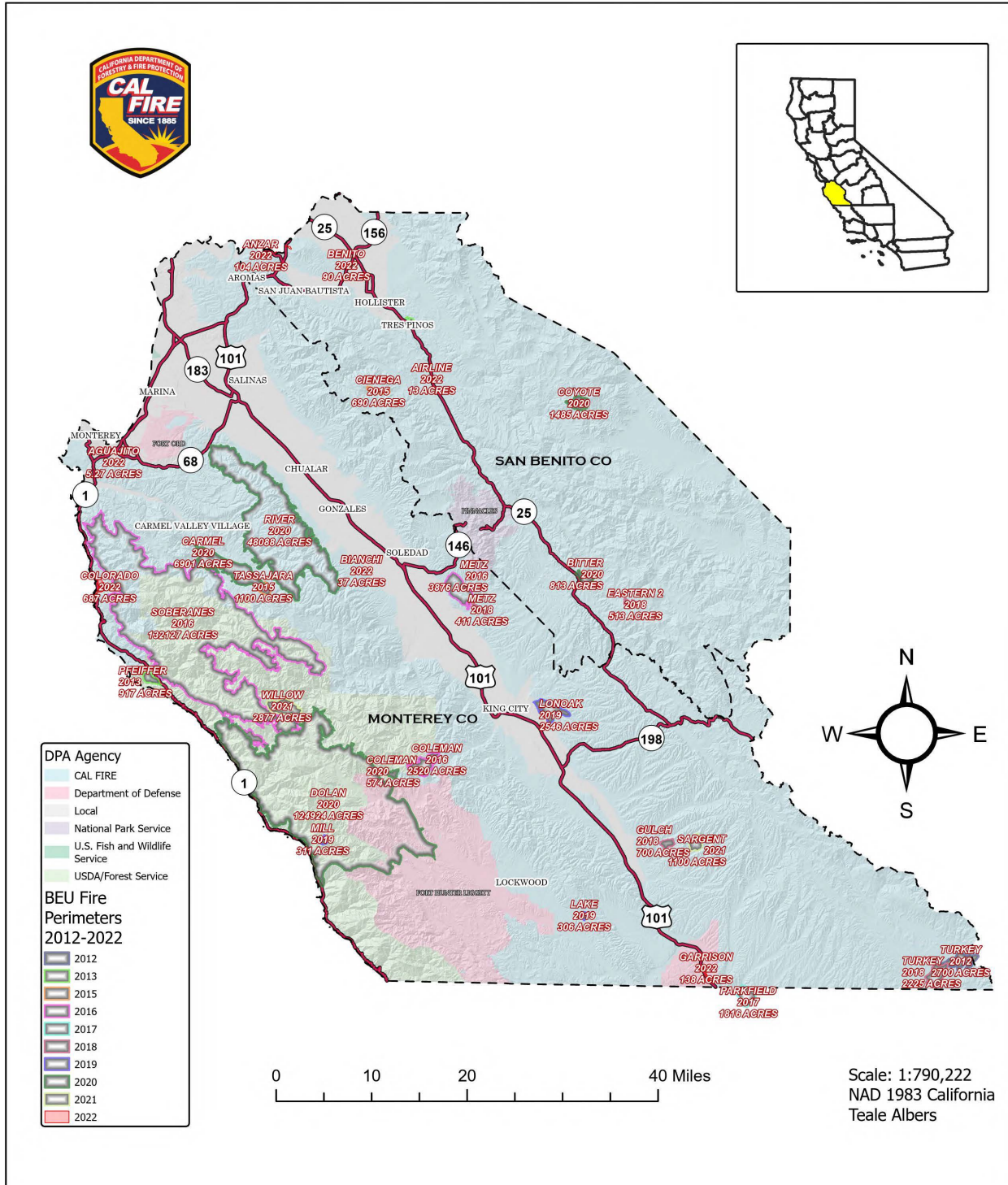


Figure D: Ignitions

# SAN BENITO-MONTEREY 2011-2022 IGNITIONS

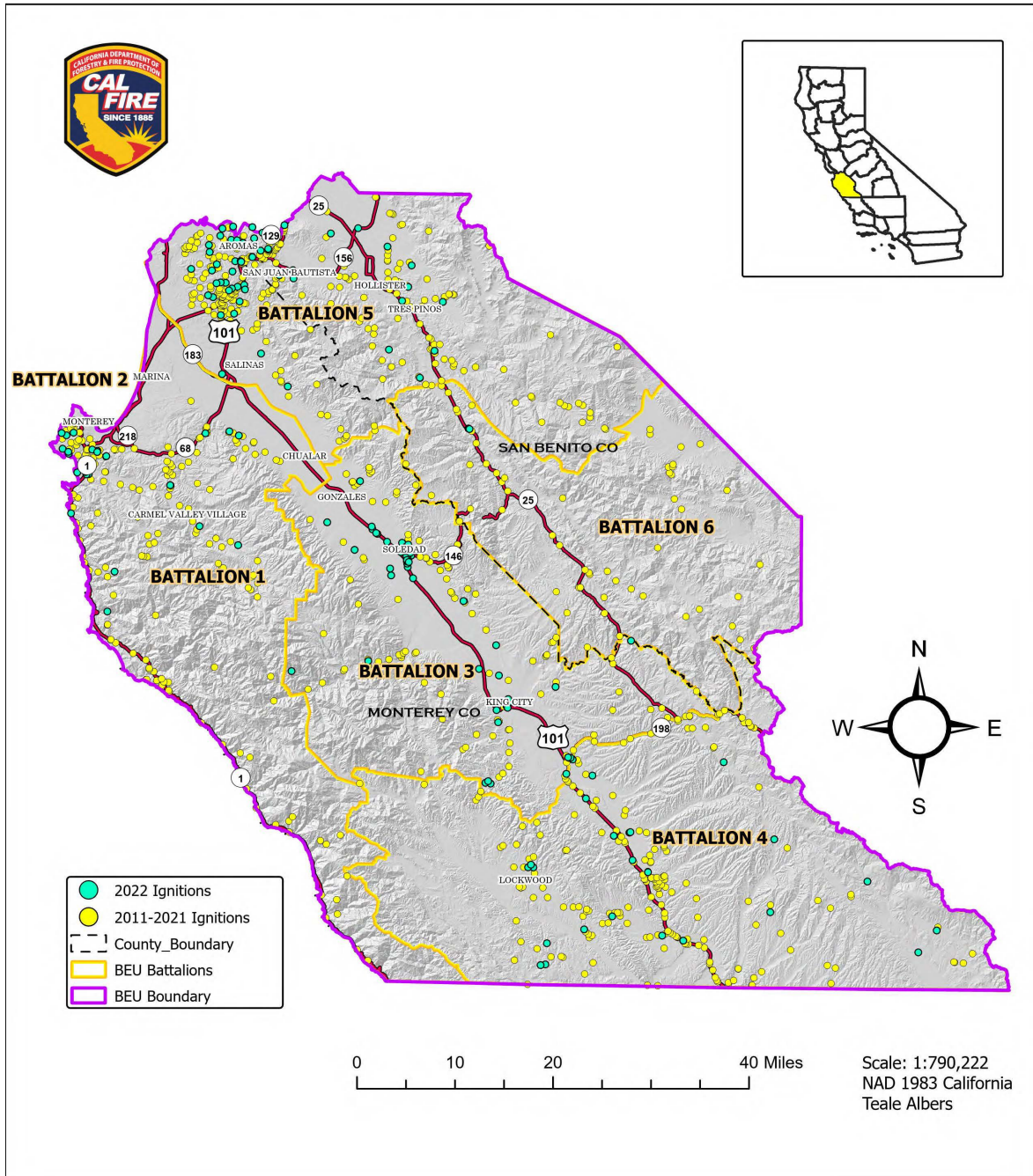
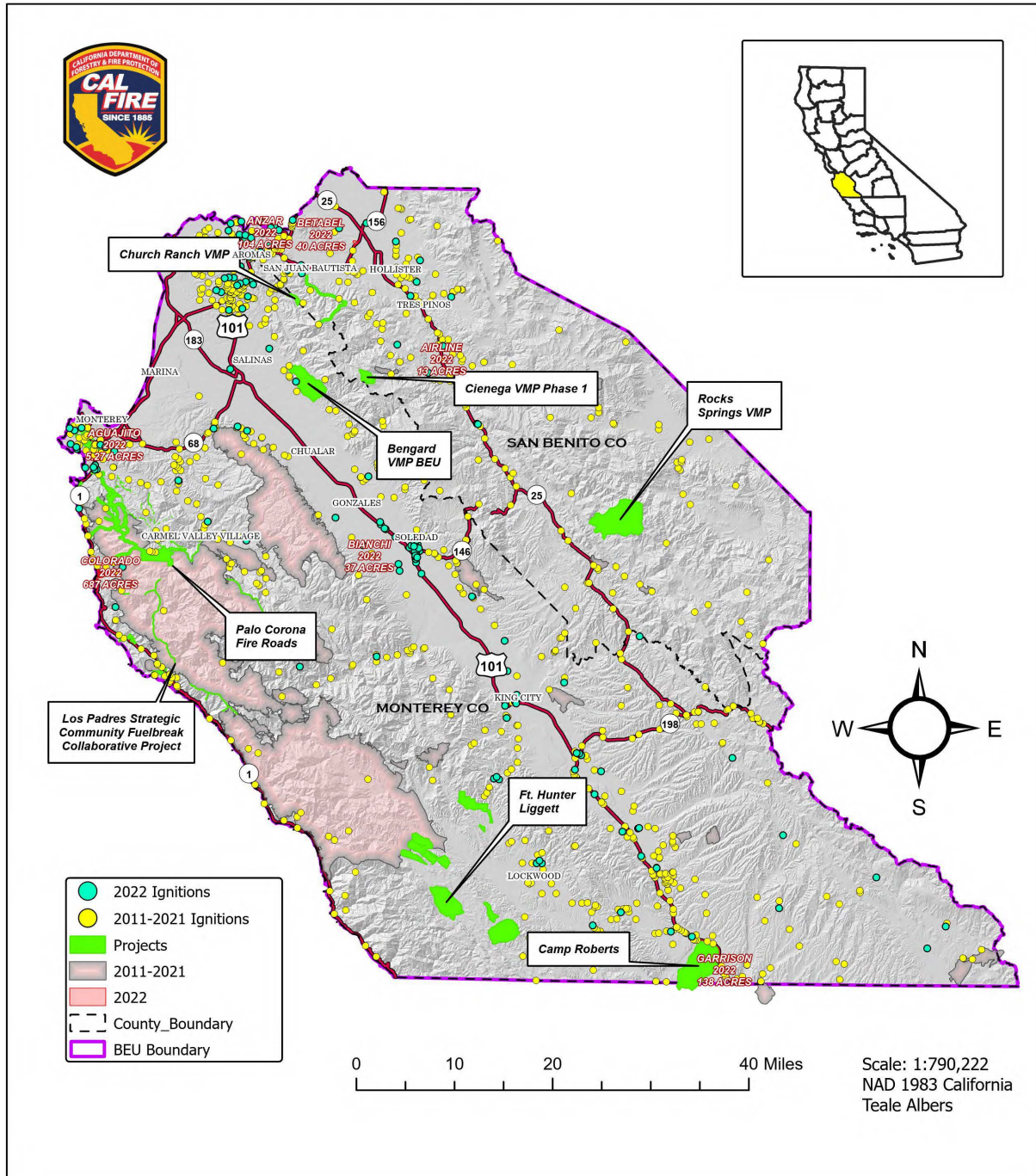


Figure E: Priority Projects and Fire Perimeters

# SAN BENITO-MONTEREY FIRES AND FUEL REDUCTION

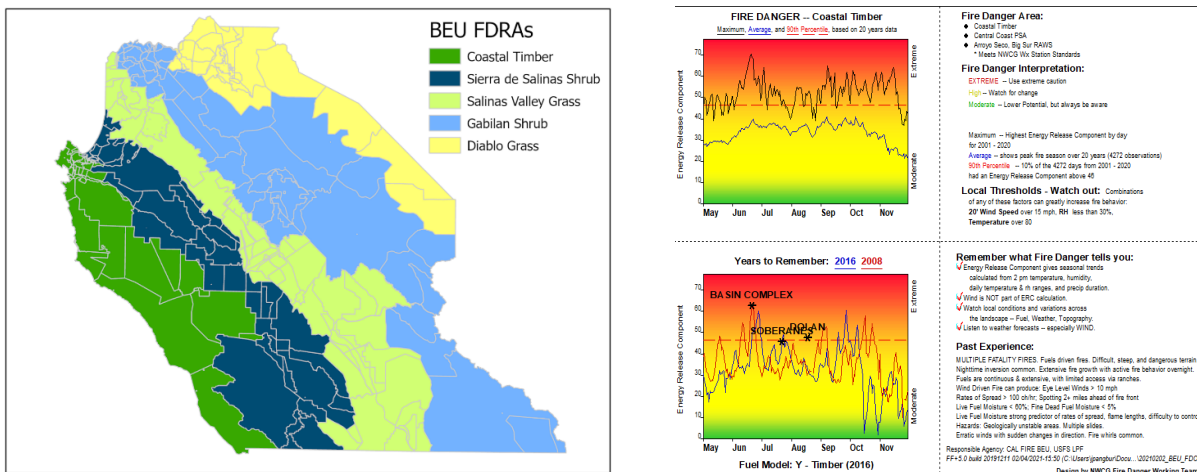


# SUPPLEMENT:

## ANNUAL ACCOMPLISHMENTS REPORTING (2022) Fire Planning:

The Unit continues to assemble and refine Unit-wide fire incident maps. Community members, fire safe councils, and homeowner groups have come together to assist Unit personnel in gathering information, collecting data, and making maps of their respective areas, to compile a resource to educate residents and visitors in the event of an emergency, as well as assist responding emergency personnel. Six Pre-Plan map packages, including Fort Ord, Arroyo Seco, Cachagua, San Juan Canyon, Pine Canyon, and Willow Springs were distributed throughout the Unit, to CALFIRE personnel and to cooperators.

The San Benito-Monterey Unit updated and revitalized the Fire Danger Operating Plan (FDOP) to align with hourly weather data and NFDRS 2016 fuel models in Fire Family Plus.



### Technosylva Wildfire Analyst

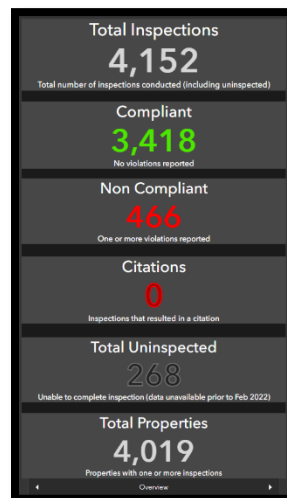
For the 2022 fire season, the San Benito-Monterey Unit began using Technosylva's Wildfire Analyst Enterprise Software (WFA - E). This technology models both wildfire risk and fire behavior for use in CAL FIRE's tactical and strategic operations. The fire behavior module, FireSim, projects a wildfire's path using observed and forecasted weather data (updated daily), periodically updated fuel models, and high-resolution terrain. FireSim will aid first responders with tactical intel and support the ICS-209 and FMAG documentation. The risk forecasting module, FireCast, creates a fire risk forecast by running 8-hour fire spread models every 1000 meters across the state and calculating accumulated buildings and population impacted by simulated fires. This information is then consolidated to produce geographic data showing where the highest risk occurs for the next four days. BEU has filled a Research Data Specialist II position, who will act as the WFA-E subject matter expert, train ECC Staff, division chiefs, battalion chiefs, and any interested personnel in the use of the technology.



The San Benito-Monterey unit has also begun to implement Technosylva's FiResponse; a tactical analytics software. FiResponse is CAL FIRE's new common operational picture application and is integrated with Automated Vehicle Locator (AVL), Automated Flight Following (AFF), ALERTWildfire, FireGuard, and dozens of other services to provide real time situational awareness as an incident evolves. The application offers offline mapping, observed and forecasted weather, and functionality to create Fire Management Assistance Grants (FMAG) requests, Incident Action Plan (IAP) maps, and data for the ICS-209 form, the Incident Status Summary.

### **Wildland Fire Prevention Engineering:**

In 2022, the San Benito-Monterey Unit was successful in providing 4291 Public Resource Code inspections, fire prevention, and fuel reduction education to communities with the Defensible Space Inspectors and engine companies. There was a total of 4152 inspections recorded for 2022, with 3418 compliant, 466 non-compliant, and zero citations. In 2023 San Benito-Monterey has a goal of completing 6,000 inspections.



Programs like CalMAPPER and other ESRI based products such as Survey123 have been instrumental in collecting data, tracking, fiscal reporting, emergency response, planning, and assessment, for fuel reduction projects in the San Benito-Monterey Unit. The Unit hopes to continue to utilize these tools for statistical analysis and operational purposes.

### **Education and Information:**

In conjunction with fire districts and other groups such as fire safe councils, the Unit has completed multiple community fuel reduction projects. CAL FIRE is committed to working with fire safe councils and other local groups to seek new grant funding or other sources to create a more fire safe environment for the citizens. CAL FIRE attended the Monterey County Fair, the San Benito County Fair, and other public events. CAL FIRE also visited numerous schools to illustrate the importance of preparedness and safety.

### **Research:**

Researchers from Wildfire Interdisciplinary Research Center at San Jose State University and the Unit has able to set up research of fire behavior in Canyon. Called the “Canyon Experiment” it was the first time a canyon wildfire study of this magnitude has been undertaken anywhere in the world. They hope to learn is how fires in steep canyons intensify due interactions between fire, local weather conditions and topography. Cooperator involved with this research included PG&E, Hexion and Stella-Jones Corporation, and Technosylva.

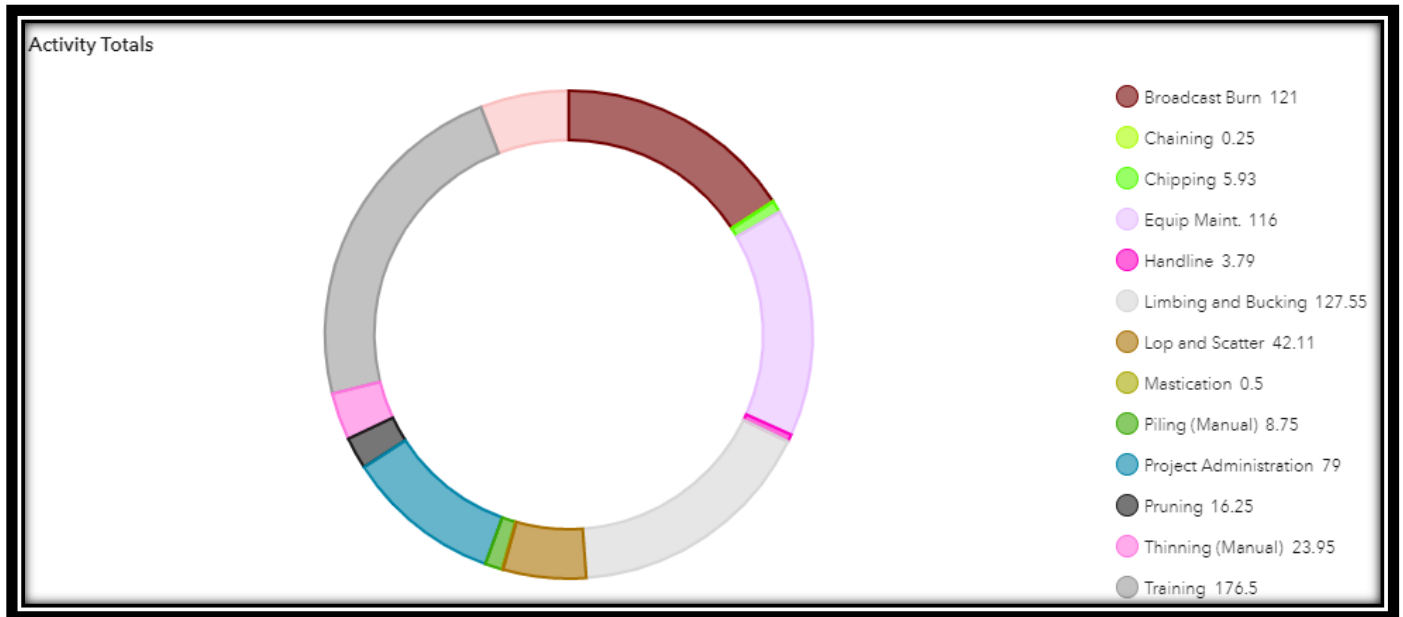


### **Vegetation Management:**

The San Benito-Monterey Unit has an active and successful Vegetation Management Program, with many planned, active, and ongoing projects. In 2022, Phase 1 of Cienega VMP was completed, the project treated 950 acres. Bengard VMP treated 2720 acres in 2022 and another 400 acres planned to be treated in 2023. CEQA was completed for the Westside Fuel Break in the Lockwood area. East Molera Control Burn was completed with California State Parks completing 93 acres. Resource Management added two drones and pilots to the fuels program to better map and survey projects. Exemptions for training burns and fuel breaks are underway for 2023.

Santa Lucia Conservancy received a direct award grant to be used for access to the White Rock Fuel Break. They started the planning process to build a bridge to access and maintain the White Rock Fuel Break. This project is located along a ridgeline, which was fundamental in the Soberanes fire of 2016. Additionally, Palo Corona/White Rock was a Governor Priority Project in 2019; which reduced fuel loading and widened access along the ridge.

These projects will continue to be expanded and maintained in the coming years to protect lives, property, and the environment. Much of the fuels reduction in the unit would not be possible without the countless hours put in by equipment operators, the California National Guard Crews, CAL FIRE Fuels Crews, and CDCR Crews.



The San Benito-Monterey Unit works closely with many organizations within our Unit to achieve our goals in reducing the risk of wildfire. These organizations include the Fire Safe Council for Monterey County, the San Benito Fire Safe Council, the US Forest Service, the Bureau of Land Management, the California Conservation Corps, the Pacific Gas and Electric Company, the Resource Conservation District of Monterey County and the Monterey Bay Air Resources District. In 2023, the Unit hopes to continue these partnerships, including internship and curriculum opportunities for CSUMB students. Our cooperators are an integral part of the overall Vegetation Management Program.

The San Benito-Monterey Unit has proposed broadcast burn projects in the Gabilan Range Stone Canyon, South Pasture and Handley VMP, as well as a portion of the Sierra de Salinas Range (Sierra de Salinas VMP). Implementation of these projects is dependent upon weather and fire activity.

The San Benito-Monterey Unit will begin maintenance program on the Ranchita Truck Trail has proposed a maintenance program for historic fuel breaks and truck trails, Thompson Truck Trail, and the Paloma Truck Trail. Work has begun on these projects to secure property owner access and environmental compliance. In addition, we have begun planning work for the overall Santa Lucia Fire Defense system, including future phases of the Palo Corona-White Rock Fire Roads, Palo Colorado Fuel Break, and Laurel Springs-Hennicksons Ridge Fuel Break.

**Other Fire Prevention Projects in SRA:**

The San Benito-Monterey Unit Strategic Fire Plan sets forth a vision to identify and evaluate wildland fire hazards and recognize life, property and natural resources at risk, including watershed, habitat, social and other values of functioning ecosystems. In 2022, the San Benito-Monterey Unit continued to foster inter-agency relations, collaboration, and abiding by the goals and objectives set forth in the Strategic Fire Plan for California. The Gabilan Conservation Camp crews actively continued collaboration with neighboring agencies. The newly formed Central Coast Prescribed Burn Association contribute to the expansion of education and fuels reduction efforts within SRA. They held numerous workshops on pile burning and home hardening throughout the Unit. Central Coast Prescribed Burn Association was able to complete broadcast control burns in the Unit in 2022.

***The San Benito-Monterey Unit will continue to support the Mission through collaboration, innovation, and operational excellence.***



**Signature Page**

DocuSigned by:  
*George Nunez*  
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5/9/2023

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**Unit Chief**

**Date**

George Nunez Jr.