Shasta-Trinity Unit

2023 STRATEGIC FIRE PLAN

Last update: May 16, 2023

UNIT STRATEGIC FIRE PLAN AMENDMENTS

Date	Section Updated	Page Numbers Updated	Description of Update	Updated By
12/22/12	Appendix A		Update to Projects	DW
12/22/12	Appendix B		Update Goals and Objectives	DW
12/22/12	Appendix C		Added Communities at risk	DW
12/22/12	Appendix D		Update Maps	DW
4/5/14	Section II		Update Collaborators	DW
4/5/14	Section III		Update Values and Communities	DW
4/5/14	Section V		Added Camp, LaTour	DW
4/5/14	Appendix A		Update Project List	DW
4/5/14	Appendix C		Add Ignition Analysis	DW
4/5/14	2013 Supplemental		Add 2013 Supplement	DW
4/09/15	Appendix C		Updated Ignition Analysis	DB
4/23/15	Appendix A		Updated CalMAPPER Chart	DB
4/09/16	Appendix A	40	Updated CalMAPPER Chart	DB
4/09/16	New Plan Template	1-50	Utilized New Blank template	DB
4/17/16	Appendix C	42	Updated Ignition Analysis	DB
4/17/16	2015 Supplemental	50	Unit Accomplishments Page	DB
2/1/17	Section V		Update Battalion	JWB
2/9/17	Appendix C	42	Updated Ignition Analysis	JWB
2/15/17	Appendix A	39	Updated Project List	JWB
3/2/17	2016 Supplemental	49	Unit Accomplishments Page	JWB
3/28/17	All Sections	1-48	Update Fire Plan Doc	JWB
2/5/18	All Sections		Updated Document Format	NW
2/5/18	Section 2	10	Update Communities at Risk	NW
4/10/18	Section 2	9	Update Collaborators	NW
2/6/18	Appendix B	38	Update Ignition Analysis	NW
3/6/18	Appendix B	37	Update Goals and Objective	NW
4/10/18	Appendix A	36	Updated Unit Project List	NW
4/25/18	Section V	34	Updated LaTour Information	NW
5/1/18	Cover		New Cover Page	NW
5/2/18	2017 Supplemental	48	Update Unit Accomplishments	NW
1/15/19	Section 1		Added new Battalion 7	NW
2/26/19	Executive Summary	1	Updated new Strategic Fire Plan	NW
4/23/19	Document		Update ignitions, stats, maps	NW
3/17/20	Appendix B	41	Refreshed Unit Goals	NW

Date	Section Updated	Page Numbers Updated	Description of Update	Updated By
3/17/20	Cover		New photos	NW
3/18/20	2019 Supplemental	52	Update unit accomplishments	NW
4/28/20	Document	52	Updated ignitions, stats, charts	NW
4/27/20	Section II	9	Updated collaborators	NW
4/27/20	Battalions	18	Updated battalion's activity	NW
4/27/20	Vegetation Mgmt.	16	Added fuels crew information	NW
4/28/20	Appendix A	39	Updated unit-wide fuels projects	NW
5/4/20	Document	All	ADA Compliance	NW
5/4/20	Document	All	Formatting Update	NW
3/30/21	Document	47-48	Update ignitions, stats	BR
4/13/21	Battalions	20-43	Updated Battalion	BR
4/15/21	Appendix A	44-45	Update Unit Project List	BR
4/19/21	2020 Supplemental	57-59	Update Accomplishments Page	BR
4/20/21	Cover		New Photos	BR
4/20/21	Signature Page	2	New PFE Signature	BR
4/20/21	Collaboration	10	Updated Fire Safe Councils	BR
5/2/22	Section I	6-8	Fire updates	AH
5/2/22	Section IV	13	0-5 and AB-38	AH
4/28/22	Section IV	16-17	Building code County Link	AH
5/8/22	Battalions	20-43	Updated Battalion	AH
5/15/23	Appendix A	50-52	Update Project List	AH
5/01/23	Battalions	25-49	Updated Battalion	AH
5/03/23	Collaboration	13	Updated Fire Safe Councils	AH
5/16/23	Document	All	ADA Compliance	AH
5/16/23	Signature Page	2	New Unit Chief	AH

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Unit Strategic Fire Plan developed for the Shasta-Trinity Unit

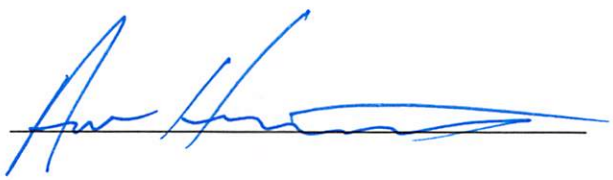
This Plan:

- 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.

5/18/23

Unit Chief **Date**

Sean O'Hara



5/18/23

Pre-Fire Engineer **Date**

Aaron Hathaway

EXECUTIVE SUMMARY

The Shasta-Trinity Unit Strategic Fire Plan is a living document that is to be updated yearly with addendums. These addendums reflect the unit's progress on meeting statewide and unit priority goals and objectives as identified in the 2022 Strategic Fire Plan for California.

This plan recognizes that wildland fires are a natural and necessary occurrence in California. In Shasta and Trinity Counties the question at hand is, how do we utilize and live with the risk of wildfire? Our goal is to create a state that is more resistant and resilient to the damaging effects of catastrophic wildfire while recognizing the beneficial aspects of fire. Our goal is to enhance the protection of lives, property and natural resources from wildland fire, as well as improve environmental resistance to wildland fire. Community protection includes safeguarding and protecting the public, emergency responders, private property, resources, and other improvements.

This plan is divided into battalions, or geographical boundaries, where fuel, weather, topography, and fire history specific to each area are identified. Firefighting strategies and tactics are pre-planned and evaluated for success and actions such as fire prevention education and pre-fire inspections are pursued to educate the public to enhance life safety and fire protection capabilities. Through identifying communities and assets at risk, project areas can be targeted for hazard reduction and mitigation. These projects are completed in collaboration with stakeholders such as private landowners, fire safe councils, fire wise communities, resource conservation districts and other federal, state, and local agencies.

This plan will utilize the following eight goals from the 2022 Strategic Fire Plan for California and incorporates them into the planning and implementation process:

1. Identify and evaluate wildland fire hazards and recognize life, property, and natural resource assets at risk, including watershed, habitat, social and other values of functioning ecosystems. Facilitate the sharing of all analyses and data collection across all ownerships for consistency in type and kind.

2. Promote and support local land use planning processes as they relate to: (a) protection of life, property and natural resources from risks associated with wildland fire, and (b) individual landowner objectives and responsibilities.

3. Support and participate in the collaborative development and implementation of local, county and regional plans that address fire protection and landowner objectives.

4. Increase fire prevention awareness, knowledge and actions implemented by individuals and communities to reduce human loss, property damage and impacts to natural resources from wildland fires.

5. Integrate fire and fuels management practices with landowner/land manager priorities across jurisdictions.

6. Determine the level of resources necessary to effectively identify, plan and implement fire prevention using adaptive management strategies.

7. Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.

8. Implement post-fire assessments and programs for the protection of life, property, and natural resource recovery.

SECTION I: UNIT OVERVIEW

Unit Description

The Shasta-Trinity Unit is located at the northern end of the Sacramento Valley. It encompasses most of Shasta County and portions of eastern Trinity County. Federal lands are administered by the Shasta-Trinity National Forest, Lassen National Forest, Bureau of Land Management, Bureau of Indian Affairs, Bureau of Reclamation and National Park Service, which are all contained within the unit.

Traveling west to east on Highway 299 from Weaverville to the Lassen County line is approximately 150 miles. South to north on Interstate 5 from Cottonwood to the Siskiyou County line is approximately 75 miles. Within this area, there are distinct differences in climate, fuels and topography, all of which affect fire behavior and the fire danger rating.

The unit includes portions of the Great Valley, the Southern Cascade, the North Coast Ranges and the Modoc Plateau. The eastern slopes of Shasta County gently rise across the toe of the Southern Cascade Range toward the Modoc Plateau. To the west and north, the valley abruptly rises to the Klamath Mountains. Southern Trinity County and the southwest corner of Shasta County are partially located in the North Coast Range.

The mountains to the north, west and east, the Sacramento Valley to the south and the Pacific Ocean 150 miles to the west produces unique weather and makes weather forecasting difficult. The CAL FIRE State Responsibility Area (SRA) within the unit is divided into five distinct Fire Danger Rating Areas (FDRA) based on climate, topography and fuels, and modified to match existing Wildland Fire Response Area boundaries. These FDRA's reflect historical average burning conditions and have been used for fire dispatch and planning in the unit since 1994. Areas of the unit not included in the NFDRS areas are in the United States Forest Service (USFS) Direct Protection Area (DPA).

The Redding Interagency Command Center (RICC) uses the FDRA's to determine the fire danger rating and dispatch levels for the Unit based on daily weather observations taken from Remote Automatic Weather Stations (RAWS) in each area. Staffing in the RICC consists of 1 Battalion Chief, 1 Communications Supervisor, 6 Fire Captains and 5 Communications Operators.

Fire Danger Rating Areas

Timber West

This area is the mixed conifer forest of the CAL FIRE DPA in Trinity County. Many areas are managed for timber production and therefore, logging slash is a common fuel component. There are also significant areas of manzanita and ceanothus undergrowth.

The main communities within the Timber West area are Hayfork, Lewiston and Weaverville. Smaller communities exist as well as various small areas of urbanization. Most of the urbanization lies in the lower elevations of Trinity County in valleys or along streams. The terrain is very steep and contains large amounts of heavy fuels.

Trinity County has experienced several catastrophic fires in recent history, including the 2017 Helena Fire which was the most destructive fire in Trinity County's history due to structure loss. These fires damaged not only valuable timberlands but also caused significant structure and private property loss. Significant fires include:

- 1999: Lowden Fire (1,945 acres)
- 2001: Oregon Fire (1,695 acres)
- 2006: Junction Fire (3,130 acres)
- 2009: Coffin Fire (1,098 acres)
- 2014: Oregon Fire (580 acres)
- 2017: Helena Fire (21,846 acres)
- 2021: Monument Fire (223,124 acres)

Brush Area

The mid-elevations (1,000ft. - 2,000ft.) surrounding the Sacramento Valley are merged into the Brush Area. The area is typically chaparral with chamise and manzanita. These elevations include oak woodland fuels with a high mixture of brushy fuels. Communities include the City of Shasta Lake, Mountain Gate, Shasta, Keswick and French Gulch.

Most of the lands to the northwest of Redding were void of vegetation in the early 1900s due to copper mining and smelting operations. This area now consists of mostly brush fields that are 50 years old or older. Recent fire history includes the 2004 French Fire which scorched 12,675 acres, the 2008 Motion Fire which burned 28,330 acres, and the Carr Fire which burned 229,651 acres, burned down 1,604 buildings and killed 3 firemen and 5 civilians. Despite the large fire history in the area, significant fuels remain to sustain large and damaging fires.

The lands to the west of Redding - located at the base or lower levels of the mountains - are covered mostly in brush or oak woodland with a heavy brush

understory. This area is also highly urbanized which creates a high threat to life and property from wildfire. Subdivisions that were developed prior to 1982 often have narrow, one-lane roads and do not have community water systems. Access to structures in this area is difficult due to the predominance of single-access roads. Some subdivisions were developed with "fire emergency access" roads, however, many of these roads are no longer maintained making them impassable. Communities in this area to the west of Redding include Igo, Centerville, Shasta, Keswick, the City of Shasta Lake and portions of the City of Redding.

The Brush Area east of Redding is generally located in rangeland. However, urbanization in the brush area exists in the western edge of the communities of Shingletown, Whitmore, Oak Run, Round Mountain and Montgomery Creek. This area has experienced significant fires in the past and with the current urbanization can expect future fires to be more damaging. Significant fires include:

- 2004: Bear Fire (10,441 acres)
- 2008: Pine 2 Fire (1,193 acres)
- 2014: Bully Fire (13,661 acres)
- 2014: Gulch Fire (1,375 acres)
- 2018: Carr Fire (229,651 acres)
- 2020: Zogg Fire (56,338 acres)
- 2021 Fawn Fire (8,578 acres)

Valley Floor (Grass Area)

This is the south-central part of the unit extending from the Sacramento River outwards to an approximate elevation of 1,000 feet. This is the most populated and developed area of the unit and includes the Cities of Anderson and Redding, and the communities of Bella Vista, Cloverdale, Millville, Cottonwood, Olinda/Happy Valley and Palo Cedro. The area is typically grass oak woodland, with blue oak, valley oak, gray pine and annual grasses. There are also large areas covered by various brush types and some of the woodland areas have a dense brush understory. Significant fires include:

- 1999: Canyon Fire (2,579 acres)
- 1999: Jones Fire (26,202 acres)
- 2004: Bear Fire (10,441 acres)
- 2012: Dale Fire (1,037 acres)
- 2013: Clover Fire (8,077 acres)
- 2018: Creek Fire (1,678 acres)
- 2021 Fawn Fire (8,578 acres)
- 2022 Peter Fire (304 acres)

Fires in these fuels are particularly damaging during north wind events. Since the primary fuel is annual grass, the fire danger remains every year even after a significant fire. The fine fuels react quickly to weather changes, especially wind (NFDRS model C).

Timber East

The Timber East area is the forested area east of Redding. The area extends from the 2,000-foot elevation of the Sacramento Valley to Highway 89. Much of the area is managed for timber production. This is a mixed species conifer forest that varies from the Timber West Zone in topography and weather. Slash and brush are part of the fuel component. Several communities exist within this zone including: Shingletown, Whitmore, Oak Run, Round Mountain, Montgomery Creek and Burney. Significant fires include:

- 1998: Burney Fire (3,264 acres)
- 1992: Fountain Fire (60,290 acres)
- 2012: Ponderosa Fire (27,676 acres)
- 2014: Eiler Fire (32,416 acres)

Northeast Plateau

This is the area east of Highway 89. The area is high elevation sage brush, junipers and ponderosa pine. Sage brush is the predominant problem fuel. The area is represented by the Soldier Mountain RAWS station. Several communities exist within this zone including: Old station, Hat Creek, and Castle. Significant fires include:

- 2014: Day Fire (13,153 acres)
- 2014: Bald Fire (39,736 acres)
- 2018: Hat Fire (1,900 acres)
- 2021 Dixie Fire (963,309 acres * effecting Butte, Lassen, Tehama, Plumas, and Shasta Counties)

Unit Preparedness and Firefighting Capabilities

There are three incorporated cities that lie within the boundaries of the Shasta-Trinity Unit: Anderson, Redding and the City of Shasta Lake. The remaining communities within the unit are not incorporated.

Several independent special districts referred to as County Service Areas (CSA) provide other services including water and sewer. CSA 1 provides fire protection for all of the unincorporated areas within Shasta County that are not in a fire district. Trinity County is served by 17 special districts.

The Shasta-Trinity Unit is operated under one unit headquarters office located in Redding. The State Responsibility Area of the unit is divided into seven field battalions, numbered from east to west. The Shasta-Trinity Unit employs approximately 650 total uniformed and non-uniformed personnel, of which 219 are employed on a seasonal basis. Note: Staffing numbers are adjusted based on extreme weather conditions and may be increased or decreased due to the presence or absence of extreme weather or drought.

Declared Fire Season Staffing:

Engines	Dozers	Hand Crews	Air Tactical Planes	Air Tankers
20	3	12	1	2

*These staffing numbers are adjusted based on weather conditions and can be subject to externally influenced staffing abilities.

The Shasta County Fire Department (which is administered through a cooperative fire agreement with CAL FIRE), the City of Redding Fire Department and 11 fire districts provide local fire protection responsibility for improvements within Shasta County. The Shasta-Trinity Unit also has a dispatch agreement with the Shasta County Fire Department.

Trinity County is made up of five fire districts, four community service districts, three volunteer fire companies and one PUD providing local fire protection responsibility.

SECTION II: COLLABORATION

COMMUNITY / AGENCIES / FIRE SAFE COUNCILS

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

Plan Development Team:

Western Shasta Resource Conservation District		530-365-7332 ext. 209
		http://www.westernshastarcd.org
Shasta County Fire Safe Council	Council Members	
	Francis Berg	mailto:shasta.fsc@gmail.com
Fall River Resource Conservation District	Mike Millington	530-336-6591
		http://www.fallriverrcd.org
Burney Basin Fire Safe Council	Mike Millington	530-336-6591
		http://www.fallriverrcd.org
Day Bench Fire Safe Council	Todd Sloat	530-335-6591
Trinity County Fire Safe Council	Amelia Fleitz	530- 623-6004
		http://www.tcrcd.net
Trinity County Resource Conservation District	Kelly Sheen	530-623-6004
		http://www.tcrcd.net
W.M. Beaty and Associates Inc.	Forester	530-243-2783
		https://www.wmbeaty.com
Sierra Pacific Industries	Forester	530-378-8000
		https://www.spi-ind.com/

SECTION III: VALUES

Values

Assets at Risk in the Shasta-Trinity Unit (SHU) include: watersheds, water, timber, wildlife (including rare and endangered species), habitat, rural communities, unique areas (scenic, cultural, and historic), recreation, range, structures, infrastructure and air quality. Protecting these Assets at Risk (AAR) while ensuring citizen and firefighter safety is of utmost importance. Each of the Assets at Risk have a unique set of stakeholders and public issues.

A tool to help evaluate the AAR is a program called CalMAPPER which contains a database that can be queried to provide initial areas to focus on. The identified Assets at Risk enable the unit and other fire service managers to set priorities for fire management project work. Assets susceptible to fire damage in the unit are identified in the communities at risk table on page 10.

Communities

Fifty-four communities within the Shasta-Trinity Unit have been recognized as communities at risk by CAL FIRE'S Office of the State Fire Marshal. More information regarding communities at risk can be found at:

https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/fire-plan/communities-at-risk/

Communities at Risk:

Fifty-four Communities	Federal Threat	Community	Federal Threat	Community	Federal Threat
Anderson		Fall River Mills	X	O'Brien	X
Beegum	X	Forest Glen	X	Oak Run	
Bella Vista	X	French Gulch	X	Old Station	X
Big Bar	X	Gibson	X	Ono	
Big Bend	X	Glenburn		Palo Cedro	
Burney	X	Hat Creek	X	Pitville	X
Burnt Ranch	X	Hayfork	X	Platina	X
Cassel	X	Hyampom	X	Redding	
Castella	X	Igo	X	Redding Rancheria	X
Centerville	X	Junction City	X	Roaring Creek	X
Central Valley	X	Keswick	X	Round Mountain	X
Coffee	X	Lakehead	X	Shasta	X
Cottonwood	X	Lamoine	X	Shingletown	X

Covington Mill	X	Lewiston	X	Sims	X
Dana	X	McArthur		Trinity Center	X
Del Loma	X	Millville		Weaverville	X
Denny	X	Montgomery	X	Whitmore	
Douglas City	X	Mountain Gate	X	Wildwood	X

The Community Wildfire Protection Plan's (CWPP) have identified and prioritized areas within the county that fuel treatments are needed to limit the negative impacts of wildland fires. Prioritization of areas was based on population, fuel loading, fuel type, terrain, completed fuel treatments and weather patterns. In addition, ingress/egress routes were evaluated for fuel treatment projects to enhance safer travel for residents and response personnel. Prioritization was on a regional scale, tying ridgetop fuel breaks into community defensible zones. Trinity County is in the process of updating their plan.

Trinity County:

https://tcrcd.net/pdf/cwpp/CWPP_2020_UPDATE_2021_03_03.pdf

Shasta County:
http://108.163.221.124/~westerns/projects/shasta-county-cwpp-35-48/

SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES

A: Fire Prevention

CAL FIRE's goal is to contain 95 percent of all wildfires at 10 acres or less. Fire ignition data, such as fire cause and location, can reveal whether the unit has met this goal. Determining causal trends can direct the unit to specific prevention efforts to change The causal trend. Knowing where most fires occur helps determine where prevention and pre-fire engineering efforts might produce the greatest result.

Starting in 2019, CAL FIRE started utilizing a new system, CALFIRS (California Incident Data and Statistics Program), to collect and track all incident data. This system captures emergency incidents for CAL FIRE's 802 fire stations statewide. These stations report about 15,000 fire emergencies but respond to approximately 300,000 total emergencies each year. CAL FIRE's CALFIRS software collects data utilized for the ignition workload assessment. CALFIRS utilizes the National Fire Protection Association (NFPA) Standard 901 coding convention. CAL FIRE has historically classified fire causes into 13 general categories while the NFPA causal data is collected as causal factors. CALFIRS data uses latitude and longitude information that points the ignitions to the actual area of origin.

The Shasta-Trinity Unit collects data for all ignitions including non-vegetation fires such as structure and vehicle fires. Many of these ignitions could have spread to the wildland vegetation but suppression activity contained the fire to the original material ignited.

The goals of the fire prevention bureau are education, information, planning and enforcement. The fire prevention bureau's objective is to reduce ignitions by identifying and addressing all ignitions that threaten public safety and lands within SHU's jurisdiction. Specific fire cause classifications are identified by researching the data collected. The results from the research are then used to educate and inform the public. The unit provides public education in the form of news releases, commercials, fliers and other safety messages. Enforcing the public resource code through warnings and citations is another method used to reduce specific fire causes.

Public Resource Code 4291

The California Public Resource Code (PRC) 4291 (Government Code 51182), amended by Governor Schwarzenegger and signed into law on September 23, 2004, increased the minimum clearance (defensible space) requirement from 30' to 100' around structures. In January of 2023 there will be another change to the defensible space requirement adding a zero to five foot zone to the existing requirements. On July 1 of 2022 Assembly Bill - 38 (AB-38) requires all sellers of real property in high to very

high fire hazard severity

zones have a PRC 4291 inspection performed on their property. PRC 4291 allows for state and local ordinance rules or regulations, to specify requirements of greater than 100' around buildings due to extra hazardous conditions.

The vegetation surrounding a building or structure is fuel for a fire. Even the building or structure itself is considered fuel. Research and observation have shown that fuel reduction around a building or structure increases the probability of it surviving a wildfire. Good defensible space allows firefighters a better opportunity to protect and save buildings or structures.

Terrain, climate conditions and vegetation interact to affect fire behavior. The diversity of California's geography also influences fire behavior and fuel reduction standards as well. While fuel reduction standards will vary throughout the state, there are some common practices that guide fuel modification treatments to ensure creation of adequate defensible space:

- Properties with higher fire hazard will require more clearing. Clearing requirements will be greater for those lands with steeper terrain, larger and denser fuels, fuels that are highly volatile and in locations subject to frequent fires.

- Creation of defensible space through vegetation management usually means reducing the amount of fuel around the building or structure, providing separation between fuels and/or reshaping retained fuels by trimming. Defensible space can be created by removing dead vegetation, separating fuels, and pruning lower limbs.

- In all cases, fuel reduction means altering the trees, shrubs and other fuel sources in a way that makes it difficult for fire to transfer from one fuel source to another. It does not mean cutting down all trees and shrubs or creating a bare ring of earth across the property.

- A homeowner's clearing responsibility is limited to 100 feet away from their building or structure or to the property line, whichever is less. While individual property owners are not required to clear beyond 100 feet, groups of property owners are encouraged to extend clearances beyond the 100-foot requirement to create communitywide defensible spaces.

- Homeowners who do fuel reduction activities that remove or dispose of vegetation are required to comply with all federal, state or local environmental protection laws and obtain permits when necessary. Environmental protection

laws include threatened and endangered species, water and air quality and cultural/archeological resources. For example, trees removed for fuel reduction that are used for commercial purposes require permits from CAL FIRE Resource Management. Also, many counties and towns require tree removal permits when cutting trees over a specific size. Contact your local resource or planning agency officials to ensure compliance.

CAL FIRE is dedicated to public safety and defensible space inspections. CAL FIRE inspects private properties with structures to educate and advise the public in making their structures compliant with the 100' defensible space requirements. These inspections are done, primarily from the late winter and through the summer months, giving homeowners time to mitigate non-compliance issues around homes and structures before the high fire danger summer months.

The unit goal is to staff a proactive defensible space inspection program with educated and helpful defensible space inspectors. The unit employs up to four full time defensible space inspectors each season and, coupled with each fire stations participation, completed over 4,300 defensible space inspections in 2022. The unit continues to pursue the main goals of education and compliance within the program, with an emphasis of quality over quantity of inspections.

Defensible Space Flyer:

https://www.fire.ca.gov/programs/communications/defensible-space-prc-4291/

Engineering and Structure Ignitability

The state Fire Safety Regulations are codified in the Shasta County Development Standards as Chapter 6. The Development Standards are uniformly applied throughout the County. Other agencies may elect to enforce stricter standards; however, the state Fire Safety Regulations are the minimum level of fire protection planning allowed. The regulations incorporate elements of Title 19 and 24, Public Resources Code 4290 and Government Code sections 51175-51189.

In accordance with the Cooperative Fire Agreement, the Unit Chief is appointed as the County Fire Warden. The Board of Supervisors delegates authority to the Fire Warden to enforce the Fire Safety Regulations for all new land divisions within the County. This authority is, in turn, delegated to the Fire Marshal of the Shasta County Fire Department.

The Shasta County Fire Marshal works closely with the Planning Department and is an integral component of the review process. Applicable conditions are applied to each project to ensure conformity with the Fire Safety Regulations. Once projects are approved by the Planning Commission and/or Board of Supervisors, the Fire Marshal inspects work completed to ensure it meets the conditions applied to the project.

Structure Ignitability and WUI

Beginning in January 2008, the new 2007 California Building Code (CBC) went into effect. Certain building products used for new construction in State Responsibility Areas (SRA)and Very High Fire Hazard Severity Zones (VHFHSZ) of Local Response Areas (LRA) now must meet specific fire safety standards.

The State Fire Marshal (SFM) published the "WUI Products Handbook" to provide homeowners, industries, designers, and local fire and building officials with a list of compliant WUI products. All products published in this handbook have been reviewed and verified for compliance with the new 2007 CBC by SFM staff and have been approved by the SFM. Building products are not "listed" unless a SFM listing number is attached. It should be noted that products that are not in the WUI Products Handbook may still comply with the standards even if they have not been verified by the SFM.

The California Building Commission adopted the Wildland-Urban Interface (WUI) codes in late 2005. Most of the new requirements took effect in 2008 and were updated in the 2019 California Building Code. These new codes include provisions for ignition resistant construction standards in the WUI.

The updated Fire Hazard Severity Zones will be used by building officials to determine appropriate construction materials for new buildings in the WUI. During a property sale, the current state recognized fire hazard severity zone must be disclosed to the buyers. It is likely the Fire Hazard Severity Zones will be used by local government as they update the safety element of general plans and maintain compliance with Senate Bill 1241/GC 65302.

The new building standard for the Fire Hazard Severity Zones will be enforced by the building official as projects go through the plan checking process. To best assist them in determining if a product meets the code requirements, the State Fire Marshal's Building Materials Listing program (BML) is accepting applications for materials for listing or for the review of meeting the standards.

The Wildland Hazard and Building Codes can be found at:

https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/

The SFM listing service provides building authorities, architectural and engineering communities, contractors and the fire service with a reliable and readily available source of information.

Since the materials under Wildland Urban Interface Building Codes (except roof wood shakes and shingles) are not required by law to be listed by the SFM, the listings for these products are strictly voluntary. Materials not listed by the SFM may still qualify for use provided they meet all the requirements under Chapter 7A. If not listed on the SFM site, all documentation and testing certificates showing compliance must be submitted to the building official having jurisdiction for final approval.

Code Enforcement

Within Shasta County, each fire protection district, or Authority Having Jurisdiction (AHJ) is responsible for conducting fire safety occupancy inspections and code enforcement. The Shasta County Fire Department conducts inspections of all non-residential occupancies falling within its jurisdiction. The target interval for inspections is every three years. Any complaint regarding alleged violations of the Uniform Fire Code is investigated immediately. The Shasta County Fire Marshal's office coordinates and conducts the fire safety inspections.

Shasta County has adopted the 2019 California Fire Code, Residential Code and Building Code for all new construction and uses these Codes for fire safety inspections within its jurisdiction. The Fire Marshal's office works closely with the County Building Department to ensure applicable fire safety codes are applied. Information regarding codes can be found at:

2022 California Building Standards Code | Shasta County California

Information and Education

The use of information and education programs is key to raising public awareness regarding how fires start and how they can be prevented.

The Shasta-Trinity Unit's information and education efforts are focused primarily into the following three types of programs:

- **School Programs**
  SHU staffs its year-round fire prevention school programs utilizing both paid and volunteer personnel to reach out to nearly 5,000 children and young adults. This demographic includes several programs addressing children with special

needs. Teaching children about the dangers of fire and the consequences of such actions is important in preventing wildland fires caused by children or young adults playing with fire.

- **Youth Fire-setter Prevention & Intervention Program (YFPI**)
  SHU personnel were active in the creation and implementation of the YFPI program. The program utilizes an evidence-based survey tool to assess the fire setting potential of youth. Parents, school officials, fire agencies, law enforcement and other community members can refer youth fire setters into the program. SHU personnel participate in surveying youth referred into the program and participate in the annual fire safety academies aimed at preventing future youth fire setting activity. Youth fire setters are often referred to one of the annual academies featuring educational presentations by law enforcement, fire personnel and other professionals. The goal of the academies and the program in general is to mitigate the recurrence of youth fire setting activity with education.

- **Public and Community Information Events or Programs**
  Using venues such as home and garden shows, earth day festivals, fairs and other community-oriented events, SHU prevention staff can educate residents of all ages regarding fire safety and prevention of fire. The emphasis at these events is educating residents on the need for defensible space, and home hardening. There is also an emphasis on doing the right thing, the right way and at the right time. Many of the tools we use to create defensible space can ignite a fire (i.e., mowers, trimmers, etc.) since they produce heat that can ignite duff or causes sparks. In addition, staff educate the public at these events on other ways fires start including dooryard debris burning and outdoor fire safety when recreating in the wildland.

B. Vegetation Management

Fuel Reduction

The Resource Management Forest Practice Program provides several functions, including enforcement of laws that regulate logging on privately-owned lands in California through the Forest Practice Act to preserve and protect our fish, wildlife, forests and streams. The Forest Practice Act provides several timber harvesting permits which facilitate fuel reduction around homes, property, and communities. These permits include harvesting dead, dying or diseased exemption, 150-foot fire hazard removal exemption (around habitable structures), removal of substantially damaged timber, forest fire prevention exemption, woody debris slash removal exemption, fuel

hazard reduction emergency notice, as well as sanitation salvage and fuel break timber harvest plans.

The Vegetation Management Program (VMP) offers similar fuel reduction plans but focuses on prescribed burning. Through prescribed burning and other fuel reduction methods, the risk of wildfire can be reduced while restoring forest ecology. Prescribed burns remove the thick underbrush in wildland areas in a controlled manner rather than through destruction from a catastrophic wildfire. This keeps wildfires smaller, less destructive, and easier to control. To support this program, the department recently eliminated a required cost share while also lengthening the time an approved plan is valid for. The department continues to explore other opportunities to expand the number of acres entered into the VMP process.

Since 2019 the unit has completed more than 4000 acres of treatment on four different VMP's. With the success of these projects, there are several others in the planning stages and the goal to complete several more by the end of 2023. A full list of projects in the planning and active stages is included in this plan.

Fuel reduction not only improves the growing conditions of native plant and wildlife species but, a treated site can act as a fire break, stopping or slowing a wildfire and providing firefighters with safe areas to make a stand. Specialized CAL FIRE personnel coordinate with landowners to determine sites and create plans for prescribed burns. CAL FIRE works with other cooperators, such as the Air Quality Management District and wildlife agencies, to ensure burning is done with minimal impact on air quality or biological diversity.

In fall of 2019 the Shasta-Trinity Unit began directing a fuels crew, formerly directed at the region level. This fuels crew is composed of a Fire Captain, a Fire Apparatus Engineer, a Forestry Assistant II, an Equipment Operator II and several Forestry Technicians. This crew has been busy supporting the unit in the completion of all three Governor's projects and will continue to support the unit in fuel breaks and implementation of VMP's.

Shasta-Trinity Unit and CAL FIRE are in partnership with the California National Guard to form Task Force Rattlesnake. Task Force Rattlesnake began back in 2019 and consists of thirteen 20-person hand crews assigned up and down the state of California. In Shasta-Trinity Unit we have two Task Force Rattlesnake Crews staffed with six CAL FIRE Fire Captains and six Engineers that have trained the California National Guard soldiers to achieve the status of a Type I fire crew. These two crews have played a critical role in the completion of many fuel reduction projects in the unit and fire suppression activities throughout the state. In 2022 the Shasta-Trinity Task Force Rattlesnake Crews completed over 200 acres of fuels reduction through manual treatments, and both had over 1300 hours assigned to fires statewide.

In Spring of 2020 the Shasta-Trinity Unit joined forces with the Redding California Conservation Corps fuels crew. The CCC crew led by three CAL FIRE Fire Captains and three engineers, trained through the spring and were classified as a Type II IA fire crew. In 2022 they attended the North states Ishi Exercise and achieved classification as a Type I hand crew. We are also excited that as of July 2023 they will be a permanent fire crew.

Suppression Repair

The CAL FIRE 7000 manual outlines the standard protection measures for suppression repair. Section 7013.11.3 states: "The Pattern for mitigation measures rest in large part on the standards in the Forest Practice Regulation. These are the same standards that CAL FIRE foresters enforce on private logging operations." The Forest Practice Program (through the departments Forester I, II and III's) often provide lead on suppression repair activities.

Vegetation Management Program coordinators are also familiar with suppression repair activities, have a strong knowledge base on local concerns and issues and often the preplanning and implementation aspect of a VMP project reduces the need for post-fire suppression repair.

Forest and Range Health

The goal of forest management under the Forest Practice Program in relation to the Forest Practice Act falls into four objectives:

1. Achieve a balance between growth and harvest over time.
2. Maintain functional wildlife habitat with a planning watershed.
3. Retain or recruit late and diverse seral stage habitat components for wildlife.
4. Maintain growing stock, genetic diversity and soil productivity.

Additionally, all VMP projects that qualify will go through the California Environmental Quality Act (CEQA) process.

CAL FIRE foresters and VMP coordinators diversity in education, training and background help strengthen our department's ability to help local landowners, communities and counties manage the health of their forests and rangelands. The Forest Practice Program and the Vegetation Management Program work with other cooperators such as the Department of Fish and Wildlife, Regional Water Quality

Control Boards, US Fish and Wildlife Service and many other agencies to provide solid and balanced perspectives to forest and rangeland health.

State law (Public Resource Code 4789) requires that CAL FIRE periodically assess California's forest and rangeland resources. The Forest Practice Program and the Vegetation Management Program utilize the information provided by Fire and Resource Assessment Program (FRAP), which identifies emerging resource issues on wildlands, analyzes the results of different types of land use and management on wildland conditions, reviews and evaluates policies by federal, state and local agencies as they relate to wildland protection and identifies policy options for the Board of Forestry and Fire Protection. The program has established a statewide geographic information system (GIS) of biological, physiographic, demographic, and other types of data needed to address CAL FIRE's mission, including information on vegetation, wildlife, soils, watersheds, fire behavior and ownership.

DIVISION / BATTALION / PROGRAM PLANS

SHU Battalion 1

Battalion Overview

Battalion 1 is located at the northeast corner of the Shasta-Trinity Unit. The Battalion is comprised of state, federal and local firefighting resources. Battalion 1 borders the USFS Lassen National Forest to the south, the USFS Shasta-Trinity National Forest to the northwest, the Modoc National Forest to the northeast, the CAL FIRE Siskiyou Unit to the north and the CAL FIRE Lassen/Modoc Unit to the east. Within Battalion 1's Direct Protection Area (DPA), there is a mixture of private property, USFS, BLM and state land. There are two BLM Wilderness Study Areas (WSA's) comprising of approximately 30,000 acres. In the Fall River Valley, there are several thousand acres of local responsibility land (LRA) that border the state DPA. They are protected by the Shasta County Fire Department (administered by CAL FIRE SHU), and the Fall River Valley Fire Protection District which is comprised of Fall River Fire station and the McArthur Fire Station.

Battalion Resources

The CAL FIRE and SCFD resources are under the supervision of Battalion Chief 2411. Fire Protection within the battalion is largely made up of volunteer and seasonal staffing within CAL FIRE and Shasta County Fire. There are two fire districts within Battalion

1. Burney Fire Protection District staff's equipment with full time paid staffing, along with volunteers. The Fall River Valley Fire Protection District is staffed with volunteers.

CAL FIRE

Battalion 1 consists of two Schedule B (state funded) stations, and one lookout. Burney Station 14 houses two Type III Schedule B (state funded) engines, a Type II bulldozer, a Forester I and a Battalion Chief. Big Bend Station 19 houses one Type III Schedule B engine and is collocated with a Type III engine from the USFS Shasta-Trinity National Forest. Soldier Mountain lookout is located eight miles north of Fall River Mills and is staffed with career or retired firefighters during times of severe fire danger.

Shasta County Fire Department

Volunteer Fire Companies include the Cassel, Hat Creek, Old Station, Soldier Mountain/Dana and Big Bend. Battalion 1 volunteer companies consists of a Type II engine, a Type III engine, water tender and transport capable rescue vehicle.

Fire Protection Districts and Municipality

There are two fire protection districts within the battalion: Fall River Valley Fire Protection District and Burney. The Fall River Valley Fire Protection District consist largely of LRA, with some portions of their districts in SRA. All the Burney Fire Protection District falls within the SRA.

Wildland and Urban Interface

Battalion 1 is largely comprised of private timberland with Sierra Pacific, Shasta Forests Timberlands LLC (managed by LandVest), and Beatty & Associates and Fruit Growers being the largest land holders. There are several small communities with mostly residential structures spread throughout the SRA. The Town of Burney is the largest town in the battalion with several commercial properties as well a few thousand residential structures within the wildland urban interface.

Fuels

Most of Battalion 1 is comprised of eastside pine and mixed brush. The north end of the battalion through the Pit River drainage and into Big Bend is composed of a mixed conifer fuel type, with some brush on south facing slopes.

Weather

Under a typical summer high pressure weather pattern, the fire activity will lower after dark. The normal wind pattern is west to southwest during the afternoon. There are

many occasions when there will be a significant down canyon wind after midnight down the Pit River canyon and the west slope of Hatchet Mountain. On a normal year, it is not abnormal to have two to three significant lightning events with the potential of starting 50 plus fires within the battalion. Normal lightning storms will begin in the late afternoon and typically last until approximately midnight. Most storms will begin somewhat dry
with increasing moisture into the evening hours. Storms that occur early in the day have a greater potential to produce extended or major attack incidents.

Topography

Battalion 1 is in the Cascade Mountain Range. Most of the battalion has been shaped over millions of years by volcanic events. The battalion lies between Mount Shasta to the north and Mount Lassen to the south. There are several lava flows and cinder cones in the south end of the battalion. The Pit River drainage runs through the center of the battalion with very steep and narrow canyons.

Battalion Fire History

Battalion 1 has a significant fire history with both lightning and human-caused fires. Most of the fires burn out of the southwest under a normal summer high pressure weather pattern in the afternoon. There have been several major fires that have threatened the community of Burney including the 1988 the Burney Fire (3,264 acres), the 1992 Fountain Fire (60,290 acres), the 2014 Eiler Fire (32,416 acres), and the 2014 Bald Fire (39,736 acres). In 2018 the Hat Fire (1,900 acres) threatened the community of Fall River Mills. The battalion has also experienced lightning sieges that have included multiple major fires in 1990, 1999, 2008, 2009, and 2014.

Fuels Reduction/Battalion Projects and Priorities

There are two Fire Safe Councils within Battalion 1. The Burney Basin Fire Safe Council covers the Hat Creek Valley through the community of Cassel and Burney, north to the Burney Falls State Park. The Burney Basin Fire Safe Council operates under the Fall River Resource Conservation District (FRRCD). The Day Road Fire Safe Council covers the Day Road area in both SHU and LMU. The Day Road Fire Safe Council also operates under the Fall River Resource Conservation District (FRRCD). The Burney Basin Fire Safe Council just completed its first Community Wildfire Protection Plan.

CAL FIRE Personnel regularly complete LE-100 inspections for most areas of the battalion. Fuel breaks have been completed to the west of Burney and are being actively maintained, with additional projects currently in progress around Burney and Johnson Park.

Battalion 1 has a proven lightning plan, and is updated regularly due to lightning potential, with an established Incident Command Post held at the CAL FIRE Station in Burney. Other emergency pre-plans, consisting of roads, addresses and assets at risk within Battalion 1, have been established and are monitored for changes annually. Both Hat Creek and Day Bench Fire Safe Councils have exceptional pre-plan maps for public use. As part of the BBFSC CWPP they are also developing an emergency pre-plan and evacuation plan.

SHU Battalion 2

Battalion Overview

Battalion 2 is generally located east of Shasta Lake, north of Whitmore Road, south of the Pit River and west of Hatchet Mountain.

Battalion Resources

The CAL FIRE and SCFD resources are under the supervision of Battalion Chief 2412. Battalion 2 consists of three CAL FIRE Stations, two Shasta County Volunteer Fire Companies and one Conservation Camp. Hillcrest Station 75 and Buckhorn Station 34 both house one Type III Schedule B engine. Diddy Wells Station 74 houses two Type III Schedule B engines. Sugar Pine Conservation Camp can support up to six crews (currently 2 fire crew available).

Shasta County Fire Department

Volunteer Fire Companies include Oak Run, Montgomery Creek. Battalion 2 SCFD consists of a Type II fire engine, a Type III fire engine, water tender and a transport capable rescue vehicle at each station.

Wildland and Urban Interface

Battalion 2 is largely comprised of residential, agricultural and highway uses. Private land includes grazing land to the west to commercial timber land in the east. Some of the landowners that have assets include: Beatty and Associates, Fruit Growers Association, Shasta Forests Timberlands LLC (managed by LandVest) and Sierra Pacific Industries. There are several communities in the battalion. These include Round Mountain, Montgomery Creek and Oak Run. These communities contain a wide range of commercial property such as restaurants, grocery stores, gasoline, propane fueling services and medical facilities. Most of the communities also contain public schools and churches.

There are historical Assets at Risk (AAR) such as the Phillips Mill in Oak Run. Large infrastructure that is considered an AAR is the Pacific Gas and Electric (PG&E) substation and two sets of 500kv transmission lines.

Fuels

Fuels along the southwest area of Battalion 2 include grass and oak woodland up to 1,000ft.-1,500ft. in elevation. There is a predominate brush belt within the 1,000ft.-2,000ft. elevations including Diddy Wells and Oak Run, that transition into mixed conifer and oak in the communities of Hillcrest and Oak Run.

Weather

Weather is generally warm and dry during the day with moderate humidity recovery at night. Peak summer temperatures average 85 to 95 degrees with temperatures reaching more than 110 degrees for two to five day periods. The average relative humidity is 15 to 35%. Gradient winds are generally out of the west, southwest 5 to 12 miles per hour (mph). Occasional light east winds occur in the morning then shifting to more west/southwest flow in the afternoon and can reach speeds of 15 to 20 mph, generally up slope and up canyon. These winds frequently switch to the northeast and strengthen after dark, with occasional stronger winds reaching 50 mph in the Hillcrest/Round Mountain area between 2:00 A.M. to after sunrise.

Topography

The elevation ranges between 890 feet up to Hatchet Mountain at 5,500 ft. Topography varies greatly within Battalion 2. The west side of the battalion consists of mainly of rolling hills with small drainages. As the elevation increases to the northeast the topography gradually becomes more rugged and steep.

Battalion Fire History

Battalion 2 has experienced several catastrophic wildfires. While fires caused by lightning have destroyed several thousand acres within the battalion in the last decade, most fires have been caused by humans and were predominately wind-driven. Many of these fires destroyed several structures and many acres of commercial timber land. Burn patterns indicative of the west-east drainages and local up-canyon winds influenced by the valley heating have scarred the landscape. Historical fires such as the 1992 Fountain Fire (60,290 acres) resulted in significant structure and timber loss.

Fuels Reduction/Battalion Projects and Priorities

Battalion 2 experiences an overwhelming participation with stakeholders to suppress wildfires. Pre-plans to ranches and private industry lands have been collaborated and in place to speed suppression efforts for emergency personnel, ultimately saving life and property. Battalion pre-plans are in place to identify helicopter landing zones for medical emergencies, safety zones for firefighters, evacuation routes and locations for citizens, water sources, staging areas for firefighting equipment and fire resource augmentation plans for extended attack fires. LE-100 inspections have become an integral part of pre-fire season operations intended to educate property owners of the

benefits to preparing their homes against the potential for catastrophic loss due to wildfire.

A lightning plan is maintained and has been utilized several times to organize and deploy firefighters to over 100 fires collectively.

There are many natural and man-made features that may serve as fire breaks including roads, highways, streams and irrigated pastures. Local, state and federal budgetary constraints have led small local community fire safe councils within the battalion to merge their efforts for project work under the umbrella of the Shasta County Fire Safe Council. The Shasta County Fire Safe Council has established a Community Wildfire Protection Plan (CWPP) for areas within Battalion 2. The goal of this CWPP is to reduce the destruction and associated costs from wildfire by creating shaded fuel breaks, increase homeowner and fire department access and egress, watershed restoration and public information and education on developing Firewise Communities. There are several shaded fuel breaks along county roads and Highway 299 East surrounding the communities of Oak Run, Hillcrest, Montgomery Creek, and Round Mountain. One such fuel brake is the Bullskin Ridge Project and includes fuel brakes along Phillips Rd, Buzzard Roost Rd, and along Bullskin Ridge.

Battalion 2 currently has one active VMP project and one active VTP project. The Dash VMP and the RPM Pilot Project VTP. In total these will account for a combined 1,400 treated acres. In 2022 Battalion 2 started a new fuel brake project off Backbone Ridge from Jones Valley to McCandless Gulch.

There have been several years when California experienced an overwhelming influx of lightning-caused fires that taxed firefighters at every level, increasing the recognition and importance of structural defensible space, visible structure addresses and access. The benefit of pre-fire projects that proved to slow and/or stop fires at existing fire breaks has also been recognized.

SHU Battalion 3

Battalion Overview

Battalion 3 (Shingletown-Whitmore Battalion) is comprised of an integrated, multi-agency workforce of state, local and federal firefighting resources, which provide wildland fire protection to southeastern Shasta County under cooperative agreements. Battalion 3 is located at the north end of the Sacramento Valley in southeastern Shasta County. Battalion 3 is bordered on the west by the Sacramento Valley and runs east paralleling the Tehama County border until reaching Lassen National Park which is the

eastern boundary. Battalion 3 includes the communities of Manton, Millville, Shingletown, Whitmore and Viola. There is one independent Fire District within the Battalion, Millville Fire Protection District.

The eastern portion of Battalion 3 consists of Federal Responsibility Area (FRA) and is administered by the Lassen National Forest and the Lassen National Park. While statutory responsibility for all wildland fires within Lassen National Forest is federal Direct Protection Area (DPA), all other types of incidents including medical aids, traffic collisions and structure fires is the responsibility of Shasta County Fire Department (SCFD) administered by CAL FIRE. The Lassen National Park has sole responsibility for all incidents within the park boundaries. Battalion 3 also includes the LaTour Demonstration State Forest, administered by CAL FIRE. This is a demonstration forest consisting of 9,033 acres of mainly mixed conifer commercial timberland.

Battalion Resources

The CAL FIRE and SCFD resources are under the supervision of Battalion Chief 2413. Fire protection within Battalion 3 is made up of career paid staffing from CAL FIRE, Shasta County Fire Department, United States Forest Service and National Park Service. Volunteer firefighters make up a large majority of the firefighting work force in all the unincorporated communities consisting of Millville Fire Protection District and SCFD.

CAL FIRE

Battalion 3 consists of one Schedule B station, one Schedule A/B station, and one lookout. CAL FIRE Shingletown Fire Station 22 is staffed with one Type III Schedule B engines and one Type II Schedule A engine during the peak fire season months, while in the winter months the staffing is reduced to one Schedule A engine. Whitmore Fire Station 35 is staffed with two Type III Schedule B engines during the peak fire season months, while in the winter months Station 35 is reduced to one Type III Schedule B engine. The Whitmore Firefighter Fire Crew is staffed with four Fire Captains, three Engineers, one Battalion Chief, and forty Firefighters for 7-day coverage. The Crew is staffed 9 months a year and when not fighting fire they concentrate on training and fuel reduction projects in the unit. Battalion 3 also administers LaTour Butte Lookout which is staffed with career or retired firefighters during times of severe fire danger.

Shasta County Fire Department

Volunteer Fire Companies include Shingletown and Whitmore. Battalion 3 SCFD consists of three Type II engines, two Type III engines, two Type I water tenders, two Type II water tenders, two rescues and one transport capable rescue.

Fire Protection District

Independent fire protection districts within Battalion 3 include Millville Fire Protection District utilizing two Type II engines, one Type III engine, one Type I water tender and one rescue.

Wildland and Urban Interface

Battalion 3 is largely comprised of residential, rangeland and commercial timberland. The community of Shingletown is the largest residential area within Battalion 3. It's mainly a bedroom community for people who work in the Redding area as well as a retirement and vacation home community. Large subdivisions of 200+ homes in the area include Shasta Forest Village, Starlite Pines and Lake McCumber. The smaller community of Whitmore, along with Shingletown, presents the greatest threat for a catastrophic Wildland Urban Interface (WUI) fire due to population density and fuel loading. Large ranches exist in the lower elevation front country. Several of these ranches exceed 5,000 acres. Private commercial timberlands comprise the eastern third of the battalion and include large landowners such as Sierra Pacific Industries and Shasta Forests Timberlands LLC.

Fuels

Fuels within Battalion 3 transition from grass/oak woodland in the Sacramento Valley and Millville Plains to brush to mixed hardwood/conifer to pure conifer stands. Fuel models 1, 4, 10 and 11 are examples. At lower elevations, open areas of annual grasses are interspersed with 15 to 50-year-old stands of decadent brush (chaparral). The fuel's dead to live ratio averages approximately 20%. Annual chaparral live fuel moistures vary from 120% to less than 75% in late summer. Fuels transition from chaparral to mixed hardwood/conifer stands at approximately 2,500 feet. Above 4,500 feet you will find continuous stands of short needled conifer. Current mixed hardwood/conifer and solid conifer stands have occasional pockets of dead trees due to bug and snow kill.

Weather

The climate is characterized as Mediterranean with hot and dry summers. Temperatures in the summer in the Sacramento Valley average over 100 degrees in the valley and near 90 degrees in the higher elevations. The relative humidity averages from 10-25% in the afternoon and is often followed by poor nighttime humidity recovery

in the mid to upper elevations. Rainfall during the summer is normally less than one inch total. Average winter precipitation in the Sacramento Valley averages around 30 inches and in the higher elevations averages 35-50 inches.

LaTour Demonstration State Forest can see as much as 12-15 ft. of snowpack in a wet winter. Normal gradient winds are from the southwest and average between 6-12 mph in the mid-afternoon. These winds can be enhanced by an onshore or southerly flow which can increase speed to 12-18 mph. The humidity with this type of wind in Battalion 3 tends to only increase a few percent due to the distance from the ocean.

Foehn winds, from the north-northeast in direction, often occur during the late summer and early fall. On the eastern side of Shasta County this wind is normally the strongest toward the end of the wind event and occurs at night when the normal gradient winds enhance the northeast wind flow of the Foehn wind. These winds are also enhanced and funneled by the alignment of the main drainages within the battalion that run from the northeast to the southwest. Peak winds during these wind events can reach over 50 mph. Examples of these foehn wind driven fires include the 1988 Fern Fire (7,558 acres) and 2003 Whitmore Fire (1,004 acres).

Topography

The elevation ranges from 375 ft. at the Sacramento River up into the Cascade Range and Latour Butte Lookout at 6,740 ft. Topography varies greatly within Battalion 3. The west side of the battalion consists of mainly the Sacramento Valley with rolling grass/oak woodland with small drainages. As the elevation increases to the east the topography gradually becomes more rugged. The main drainages within the battalion consist of Cow Creek, Bear Creek and Battle Creek.

Battalion Fire History

Battalion 3 has seen numerous significant fires in the past. Fire history demonstrates moderate to rapid rates of spread, within fuel model 1 and in fuel model 10 and 11 during foehn wind events. These fast-moving fires can occur during north wind weather patterns as well as during a strong onshore flow pushing up the Sacramento Valley, causing south to southwest winds of 12-18 mph. The humidity with these onshore/south winds tends to only increase a few percent due to the distance from the ocean. In fuel model 4, flame lengths in the chaparral can range from 12 to 20 feet once the live fuel moisture reaches a critical level of 80%. Fire history demonstrates the greatest risk for large damaging fires to occur mostly in the hard/conifer fuel belt running through the battalion. This is especially true once the 1,000-hour dead fuel moisture reaches critical level of less than 12%.

Examples: 1958 Blue Mountain Fire (7,731 acres), 1965 Highway 44 Fire (13,708 acres), 1978 Whitmore Fire (7,285 acres), 1988 Fern Fire (7,558 acres), 2003 Whitmore Fire (1,004 acres) and 2012 Ponderosa Fire (27,676 acres).

Fuels Reduction/Battalion Projects and Priorities

Battalion 3 has one of the oldest fire safe councils in California within the community of Shingletown. Over the years this fire safe council has developed, completed and maintained approximately five miles of shaded fuel break around the community of Shingletown. They have also worked on numerous fuels reduction projects and continue to develop and look for new ways to reduce the fuel loading in and around the community of Shingletown. A comprehensive plan has been developed with the assistance of the Shasta County Fire Safe Council. An additional shaded fuel breaks/escape routes are being constructed in two more locations along Shingletown Ridge.

There is one other fire safe council in the community of Manton, which lies in both Shasta and Tehama Counties. This council is also very active but most of their work has been completed within Tehama County. Currently the two fire safe councils are working together and are developing future projects in Shasta County along the Tehama County line. Both councils are also working hard to ensure their communities are designated Firewise Communities in hopes of securing additional grants in the future. With the continued threat of catastrophic wildland fires and the increasing population growth within the wildland urban interface (WUI), the battalion aggressively provides defensible space inspections and information/education presentations on an ongoing basis. Additionally, the Shasta Forest Subdivision, with support from unit staff has become the first NFPA designated Firewise Community in Shasta County. Two other Firewise Communities have been established recently including the inwood and Whispering Woods Estates. Currently staff are working with members of Whitmore and Oak Run to develop additional Firewise communities within the unit.

In 2019, Battalion 3 was the selected for a significant fuels reduction project. Known as the Highway 44 project, this was selected as the highest-ranking project in the state in the governors 45-day report. This project was completed in the spring of 2020, which reduced hazardous fuels along several miles of Highway 44 in the Shingletown and Viola areas of eastern Shasta County.

The Aldridge Ranch VMP has been signed and burning will start once again on the approximately 4,000-acre Aldridge Ranch located on Ponderosa Way between

Shingletown and Whitmore. The Ranch was historically burned utilizing the VMP in the 1980's into the early 1990's. Two other ranches are in the process of becoming VMP's. One is the Blue Mountain Ranch, and one is the Morelli Ranch. Battalion 3 has one VTP in its boundaries. The Washburn VTP is also approved and mastication and burning has been completed.

SHU Battalion 4

Battalion Overview

Battalion 4 (Redding Battalion) is a multi-agency workforce of state, local and federal firefighting resources which provide wildland fire protection to the heart of Shasta County under cooperative agreements. Battalion 4 is located east to west in the valley floor of Shasta County. The northern boundary encompasses the north end of the City of Redding along Interstate 5 to the Tehama County line to the south. Battalion 4 is interspersed with three incorporated cities: The City of Redding, the City of Anderson. There are also Two unincorporated communities within the battalion which are served by independent Fire Districts which include Olinda/Happy Valley and Cottonwood.

Battalion Resources

The CAL FIRE and Shasta County Fire Department are under the supervision of Battalion Chief 2414. Fire Protection within the battalion is largely made up of career paid staffing, specifically within the incorporated cities, while CAL FIRE/Shasta County Fire Department career and volunteer firefighters make up a large majority of the firefighting work force in the unincorporated areas. CAL FIRE Battalion 4 consists of three career fire stations.

Redding Fire Station 43 is served by two Type III Schedule B engines, and one Type II bulldozer during the peak fire season months. While in the winter months the staffing is reduced to one engine under Amador contract.

Palo Cedro Fire Station 32 is a combination career and volunteer staffed Schedule A fire station, which houses one Type II fire engine. Shasta County Fire Department Volunteer Fire Companies include Palo Cedro and West Valley.

South Shasta County Fire Station 47 is new and was built and opened in 2022. It is a career staffed Schedule A fire station that houses one Type II Fire engine, one Type III reserve fire engine and a Type II water tender.

The City of Redding Fire Department serves the City of Redding and the Buckeye Fire Protection District and is comprised of eight career staffed fire stations with 78 uniformed firefighting personnel.

Anderson Fire Protection District is located within the City of Anderson and surrounding areas and is comprised of one career staffed fire station with one career paid chief, one battalion chief and six firefighting personnel.

The Happy Valley Fire Protection District is located on Happy Valley Road, directly west of Highway 273, and is comprised of two fire stations with one career paid chief, two paid firefighters and a volunteer firefighter workforce.

The Cottonwood Fire Protection District located along Interstate 5 at the Shasta-Tehama County line and is comprised of one station with one career paid chief and a volunteer firefighter workforce.

Wildland and Urban Interface

Battalion 4 is largely comprised of commercial, residential, agricultural and highway uses, including Interstate 5 and State Highways 44, 273 and 299 east. Commercial properties include three active lumber mills, three large bulk propane facilities and the Knighton Road Truck Stop. There are numerous public schools, churches, mobile home parks and residential developments located in the battalion. While most of these occupancies exist within the large portion of LRA in Battalion 4, other mixed retail and commercial occupancies exist throughout the Battalion's SRA areas.

Fuels

Fuels within Battalion 4 transition from grass/oak woodland to brush, fuel models 1 and 4. At lower elevations, open areas of annual grasses are interspersed with 15 to 50-year-old stands of decadent brush (chaparral). These fuel's dead to live ratio average approximately 20%. Annual chaparral live fuel moistures vary from 120% to less than 75%. Fuels transition from chaparral to conifer stands above 3,000 feet just outside of the battalion. Currentlive oak stands have occasional pockets of dead trees due to bug and snow kill.

Weather

The weather is generally warm and dry during the day with moderate humidity recovery at night. Peak summer temperatures average 90 to 100 degrees with temperatures reaching more than 110 degrees for two to five day periods.

The average relative humidity is 15 to 35%. Gradient winds are generally out of the south, southwest 5 to 12 mph. Occasional light east winds occur in the morning then shift to more south/southwest flow in the afternoon and can reach speeds of 15 to 20 mph, generally up slope and up canyon. North wind events occur periodically throughout the fire season and can reach in the 10 to 30 mph range with associated higher gusts. These winds frequently switch to the northeast and strengthen after dark, maintaining low relative humidity's, often in the single digits throughout a 24-hour period.

Topography

The elevation ranges between 460 ft. at the Sacramento River up to the Shasta Bear Lookout at 1971 ft. Topography varies greatly within Battalion 4. The battalion consists of mainly the Sacramento Valley with rolling grass/oak woodland with small drainages.

Battalion Fire History

Fire history suggests moderate to rapid rates of spread, specifically within fuel model 1. Spotting can be expected to have a major impact on firefighting resources, creating complexity within the Wildland Urban Interface (WUI), which is a large make-up of Battalion 4's composition. Flame lengths in the chaparral can range from 12 to 20 feet. Normal Burning Indexes (BI's) from July to October average over 40. The 1999 Canyon Fire (2,580 acres) and Jones Fire (26,200 acres) were both driven by powerful north wind events and consumed more than 1,184 homes throughout a large portion of Battalion 4 within a single burning period. Lightning fires are also commonplace in Shasta County, when as recently as 2008, the valley floor was hit with hundreds of lightning caused fires.

Fuels Reduction/Battalion Projects and Priorities

Many defensible space projects have been completed in subdivisions, including small scale or isolated fuel breaks. There are many natural and man-made features that may serve as fire breaks including roads, highways, railroads, and the Sacramento River. Local, state, and federal budgetary constraints have led small local community fire safe councils within the battalion to merge their efforts for project work under the umbrella of the Shasta County Fire Safe Council. The Shasta County Fire Safe Council with its co-operators have established fire plans for areas within Battalion 4 that include the Cottonwood Creek Watershed to the south, the Cow Creek Watershed to the east, the lower Clear Creek Watershed to the west, and the Stillwater/Churn Creek Watershed plan in the heart of the Battalion which includes the communities of the City of Shasta Lake, Buckeye Fire Protection District, the City of Redding and the City of Anderson. The goal of these plans is to reduce the destruction and associated costs from wildfire by creating shaded fuel breaks, increase homeowner and fire department access and

egress, watershed restoration, and public information and education on developing fire wise communities.

Battalion 4 also received approval for a project in the governors 45-day report, which was completed on time and is now in its maintenance phase. This project was designed to protect the Happy Valley Community the area southwest of Redding by creating a fuel break to the south of Clear Creek between highway 273 and Cloverdale Road. The next goal is to create safer ingress and egress routes for residents and fire equipment along Happy Valley and Olinda Roads.

SHU Battalion 5

Battalion Overview

Battalion 5 is located at the northern end of the Sacramento Valley with the City of Redding forming the eastern boundary and Trinity County forming the western border. The battalion includes portions of the coast range with elevations ranging from 500 to 6,919 feet. The unincorporated communities of Centerville, Igo, Ono, Platina, French Gulch, Keswick and (Old) Shasta all lie within the battalion. The Whiskeytown National Recreation Area is a popular local and tourist destination where people enjoy water sports, camping and hiking. The battalion is comprised of a multi-agency workforce of state, local and federal firefighting resources which provide wildland fire protection to the western portions of Shasta County under a cooperative agreement.

Battalion Resources

The CAL FIRE and SCFD are under the supervision of Battalion Chief 2415. Fire Protection within the Battalion is made up of CAL FIRE, SCFD, and the National Park Service. CAL FIRE Battalion 5 consists of two career fire stations. Shasta Station 58 is served by two Type III Schedule B engines and one Type II bulldozer during peak fire season. In the winter months, the staffing at station 58 is reduced to one engine under an Amador cooperative agreement with SCFD. Ono Station 57 is served by one Type III Schedule B engine during the fire season.

Shasta County Fire Department Volunteer Fire Companies include Igo/Ono utilizing one Type II engine, two Type III engines, one water tender and one rescue. Centerville utilizes one Type II engine and one Type III engine. French Gulch utilizes one Type II engine, one Type III engine and one rescue.

Shasta Fire Department

Shasta Fire Department Station 56 is in the community of Old Shasta. Station 56 utilizes one Type I engine, one Type II engine, one Type III engine, one water tender and one rescue.

Whiskeytown National Recreation Area

The National Park Service staffs one Type III engine during the fire season at their Oak Bottom Fire Station in the Whiskeytown NRA.

Wildland and Urban Interface

Battalion 5 is largely comprised of brush and timberland with residential subdivisions located within the wildland. The subdivisions contain mainly single-family residences with a few public schools and commercial businesses located within the communities. All the communities within the battalion have the potential for a catastrophic Wildland Urban Interface (WUI) fire due to population density and fuel loading.

Fuels

Fuels within Battalion 5 transition from grass, grass/oak woodland to brush, fuel models 1 and 4. At lower elevations, open areas of annual grasses are interspersed with 15 to 50-year-old stands of decadent brush (chaparral). These fuel's dead to live ratio average approximately 20%. Annual chaparral live fuel moistures vary from 120% to less than 75%. Fuels transition from chaparral to conifer stands above 2,500 feet on the west side of the battalion. Current live oak stands have occasional pockets of dead trees due to bug and snow kill.

Weather

The climate is characterized by hot, dry summers and cool, wet winters. The summer high temperatures average from 90 to 100 degrees, with average relative humidity ranging between 15%-35%. Most precipitation occurs during the winter with an average of 30-40 inches falling per year. Gradient winds are generally out of the west to southwest with wind speeds of 15-20 mph in the late afternoon during the summer. Foehn wind events occur periodically throughout the summer and fall with wind speeds for these events ranging from 10-30 mph out of the north.

Topography

The east side of battalion 5 captures some of the Sacramento Valley toe slope with gentle hill. Moving west the topography quickly becomes steep and rugged. The eastern coast range is the dominant topographic feature within the battalion with abundant 2,000-4,000 foot peaks. Bully Choop Peak (with Bully Choop lookout) sits on the western boundary of the battalion at 6,919 feet.

Battalion Fire History

The battalion has an extensive fire history. Some of the larger fires in the battalion are the 1946 Muletown Fire (25,993 acres), 1972 Swasey Fire (3,215 acres), 2004 French Fire (12,675 acres), 2008 Motion Fire (28,330 acres), 2008 Moon Fire (35,312 acres), 2013 Clover Fire (8,077 acres), 2014 Bully Fire (12,661 acres), 2018 Carr Fire (229,651 acres) and the 2020 Zogg Fire (56,338 acres).

Fuels Reduction/Battalion Projects and Priorities

The battalion aggressively pursues defensible space inspections as well as fire safety presentations within the community. Information and education presentations are made at the local schools, area churches and at the two CAL FIRE stations within the battalion. The Battalion has many natural and manmade features which could serve as fire breaks including roads, highways, and waterways. State Highway 299 bisects the battalion from Trinity County to the Redding city limits. Highway 299 is a major thoroughfare to the Northern California coast.

Federal, state, and local budgetary constraints have led small local community fire safe councils within the Battalion to merge their efforts for project work under the umbrella of the Shasta County Fire Safe Council. The Shasta County Fire Safe Council with its co-operators have established Community Wildfire Protection Plans (CWPP) for areas within the Battalion. The goal of the plans is to reduce the destruction and associated costs from wildfire by creating shaded fuel breaks, increase homeowner and fire department access and education on developing Firewise Communities.

Battalion 5 has multiple major projects. The first project, known as the West Redding Fuel reduction was identified in the 45 Day Report and has been completed and is now in its maintenance phase. This included roadside treatments along Lower Springs Road and Swasey Road. Another project, known as the Post Carr Fire Hazardous Fuels reduction will include fuel reduction in the communities of West Redding, Shasta and Keswick. Under the Carr Fire Hazardous fuels reduction we have the Record Range project that we completed 49.5 acres of fuel reduction on in 2022. Battalion 5 has three Vegetation Management Projects (VMP). The Williams Ranch, the Graves Ranch, and Lower gas point road. The Lower Gas Point Road project connects to the County Dump and the Northern California Veterans cemetery that will start work in early 2023.

SHU Battalion 6

Battalion Overview

Battalion 6 encompass all SRA of Trinity County. General boundaries are east of South Fork Mountain and Devils Backbone to Shasta County. The northern boundary is the Siskiyou-Trinity County line, and the southern boundary is the Yolla Bolla Wilderness Area. The county is dissected by three state highways. State Route 299 and State Route 36 run east/west, and State Route 3 runs north/south. The county is situated in mountainous, heavily forested land between the Sacramento Valley and the Coastal Mountain Range. A large portion of the land in Trinity County is federally owned. The Trinity County population is just under 14,000 people, with an overall population density of four persons per square mile. The largest community is Weaverville, the county seat, with an estimated population of 3,600 people. The Direct Protection Area (DPA) for the battalion includes the communities of Douglas City, Lewiston, Hayfork, Weaverville and most of Junction City. Federal DPA is to the north, west, and south of the state DPA which includes Lewiston Lake, Trinity Lake and the Trinity Alps. There are no areas in Trinity County that have been identified as a Local Responsibility Area (LRA).

Battalion Resources

CAL FIRE resources are under the supervision of Battalion Chief 2416. Battalion 6 consists of a multi-agency response that includes the United States Forest Service and Volunteer Fire Districts.

CAL FIRE

Battalion 6 consists of three Schedule B stations, one conservation camp and one lookout. Weaverville Station 60 has one Type III Schedule B engine. Hayfork Station 62 has one Type III Schedule B engine. Fawn Lodge Station 61 has two Type III Schedule B engines. Trinity River Conservation Camp can support six crews (currently 2 fire crews available) and is located north of Lewiston. Bully Choop lookout located near the Shasta/Trinity County Line and is staffed with career or retired firefighters during times of severe fire danger.

Districts

There are areas in the battalion DPA that are not covered by local departments and districts (unprotected for improvement fires). All local fire entities are staffed by volunteers, with only a few of paid members in the larger communities. Being volunteer based, response from departments varies between departments, time of day, time of year, etc. The following are the districts and departments within the battalion DPA:

Douglas City Community Services District: one Type I engine, two Type IV engines, one

Type I water tender.

Hayfork Fire Protection District: one Type I engine, one Type II engine, and one water tender.

Junction City Fire Protection District: one Type I engine, one Type II engine, two Type III engines, and one Type I water tender.

Lewiston Fire Protection District: one Type II engine, two Type III engines, one Type I water tender.

Weaverville Fire Department: one Type I engine, one Type II engine, one Type III engine and one water tender.

Wildland and Urban Interface

Developments within Trinity County tend to be guided by the terrain. Structural development includes one working lumber mill, multiple schools, light commercial and residential housing. Population density is generally greater in the flatter areas of the county. Because of the terrain there are multiple areas in the county that do not have a secondary ingress/egress. Multiple roads outside of the communities are either unnamed or unmarked. Large fire apparatus have limited mobility outside of the communities. The county is presently implementing a standardized addressing system, but some communities still have no addresses. Water systems for fire suppression are limited to the larger communities and most do not have generator back-up to support the system during power failures. Fire suppression resources rely on water tenders using the Trinity River and numerous creeks for water supply.

Fuels

Fuels within the battalion are primarily timber and oak woodland with pockets of brush and grass. Timber fuel loading is increasing due to changing logging practices, lack of regular fire occurrence and natural effects (bug, snow, and wind). Fuel model 1 best represents most of Trinity County timber would be: Fuel Model 10, TL3 (moderate load conifer) and TL 6 (heavy load conifer). There are numerous brush pockets in the battalion that are too dense to walk through. The dead component in these brush pockets can exceed 50%. Fuel Model 4 best represents these pockets during peak season.

Unit fire occurrence and history maps show that there are areas in the battalion that have not burned in over 100 years. Fires during peak season in these areas will most likely cause significant damage to the water shed and natural resources. Large areas of annual grasses are limited to the Hayfork Valley, old fire areas with large tree and brush kills, and areas of the county where the tree density still allows for grass growth. Fuel

Model 1 and 2 best represent the grass during the peak season.

The county contains large pockets of dead and down material. These are areas where low fire intensity did not consume the material and there was little or no post fire clean-up. These fuel beds are estimated to have greater than 75 tons of large fuel (above 3" in diameter) accumulations. Fires in these fuels are time consuming to extinguish and pose significant control problems during peak season. Fire modeling is difficult because the models do not account for the large diameter fuel loading.

Weather

Weather is generally warm and dry with occasional thunderstorms throughout the summer. Average daily high temperatures during the summer range between 85 to 93 degrees with highs above 100. Average relatively humidity daily minimums are 19% to 12% with single digit relative humidity a couple of days most summers. Typical gradient winds are west to east. Diurnal winds upslope and up canyon occur during the afternoon hours with down slope winds occurring during the night. Both upslope and downslope winds can be influenced by the Sacramento Valley and the coast causing higher than normal wind speeds. Precipitation during the summer averages less than two inches for the months of June, July, and August combined.

Topography

Trinity County topography is dominated by mountainous terrain, with the Trinity Alps reaching over 9,000' in elevation. The Trinity River dissects the battalion with multiple tributaries. Slopes of 100% are common with only a few small areas of the county considered flat.

Battalion Fire History

Most communities within Trinity County have been under evacuation orders due to wildland fires within the last 15 years. Most fires requiring the evacuation orders were over 1,000 acres in size. Examples are the Oregon fire (2001, 1,695 acres) Junction Fire (2006, 3,150 acres) Oregon fire, (2014, 580 acres), Barker Fire (2015, 36,503 acres), the Helena Fire (2017, 21,846 acres) and the 2021 Monument Fire (223,124 acres). These larger fires are characterized as stand replacement fires creating significant environmental concerns. Fires starting at the bottom of a slope will typically reach the top of that slope. Winds aloft will transport embers into the next drainage creating spot fires in receptive fuel beds. Damage to structures caused by wildland fire is occurring more frequently as structures are built in the wildland urban interface while fuel loading continues to increase.

Fuels Reduction/Battalion Projects and Priorities

The battalion has one fire captain responsible for implementing the Public Resource Code 4290 in the county. Working in conjunction with the County Building Department, Planning Commission, General Plan Committee, and Subdivision Committee, the fire captain provides guidance to prepare and interpret ordinances as subject matter experts. In addition, personnel assist developers in applying Fire Safe Regulations to their projects. The Trinity County Resource Conservation District (TRCD) and Hayfork Water Shed Center, in conjunction with the Trinity County Fire Safe Council, have taken lead roles in implementing fuels reduction projects and pre-fire activities within the battalion. All communities have been identified as a community at risk and are registered NPFA Firewise Communities. TRCD assisted in updating a map book of the county, created pre-fire attack maps with water sources, structures locations, roads, staging areas and gates.

TRCD in partnership with Bureau of Land Management created the Weaverville Community Forest, a stewardship to reduce the fuel loading on the west side of Weaverville. The plan is to expand the Community Forest to include additional areas to the west and north of Weaverville and include Forest Service property. The local volunteer department has received grant funding to assist landowners in defensible space clearances. Defensible space inspections are coordinated with the local projects to enhance the overall project success.

This approach has produced a positive impact in the community by providing residents that otherwise could not complete the clearances, a means to comply with the law with little or no out of pocket cost. This approach is being implemented throughout the county with cooperation between federal, state, and local resources to reduce fuels in and around communities. The Hayfork Water Shed Center is implementing projects that started with fuel breaks and defensible space clearances. The second phase of the projects will include a combination of hand, mechanical and prescribed fire to treat large blocks (over 1,000 acres) of Bureau of Land Management and private lands. Battalion personnel work with school officials to provide education to grade school children. Coordination of resources between federal, state, and local resources occur when the school is within a multi-jurisdictional area.

SHU Battalion 7

Battalion Overview

Battalion 7 generally encompasses the area north of the City of Redding, east of the Sacramento River, south of Shasta Lake and just to the east of Bella Vista. Shasta

Community College resides on the west side of the battalion, and the north side of the battalion is USFS land along Shasta Lake that is protected by state DPA. The community of Lakehead also resides on the north end of the Battalion. Battalion 7 is interspersed with two independent Fire Districts which include Shasta Lake Fire Protection District and Mountain Gate Fire Protection District. Battalion 7 also has a Wildland Fire Protection Agreement with the City of Shasta Lake and Shasta Lake Fire Protection District.

The community of Lakehead is federal Direct Protection Area (DPA) and is administered by the Shasta-Trinity National Forest and the Shasta Lake National Recreation Area. While the statutory responsibility for all wildland fires is federal responsibility, the protection responsibility for medical aids, traffic collisions, boat fires on Lake Shasta and other improvement fires is served by the Shasta County Fire Department (SCFD), administered by CAL FIRE under a cooperative agreement.

Lake Shasta is located within this Federal DPA and is the largest reservoir in California. At full pool, the lake has an elevation of 1,067 feet, a surface area of 30,000 acres with a storage capacity of more than four million-acre feet of water.

The Shasta Lake Fire Protection District serves the City of Shasta Lake and surrounding areas and is comprised of two fire stations with one career paid chief, two career battalion chiefs and six career firefighters.

The Mountain Gate Fire Protection District is located along Interstate 5, directly south of Lake Shasta, and is comprised of one station with one career paid chief and a volunteer firefighting workforce.

Battalion Resources

CAL FIRE resources are under the supervision of Battalion Chief 2417. Battalion 7 consists of a multi-agency response that includes the United States Forest Service, other paid and Volunteer Fire Districts.

CAL FIRE

Battalion 7 consists of one fire station and one lookout. Shasta College Station 73 has one Type III Schedule B engine. Bear Mountain lookout is located near the intersection of Bear Mountain Road and Dry Creek Road in the Jones Valley area and is staffed with career or retired firefighters during times of severe fire danger.

Shasta College Fire District, Shasta County Fire Department

Shasta College Fire District Station 73 provides service for northern Shasta County in the communities of Bella Vista, Jones Valley, Lakehead and the areas in and around the Shasta College Fire District as a year-round cooperative agreement with CAL FIRE. The Station has one engine which is staffed 24 hours a day with a minimum of one CAL FIRE company officer and one CAL FIRE firefighter during Amador months, and staffing of one CAL FIRE Company Officer with a minimum of two CAL FIRE firefighters during declared fire season. Station 73 also maintains and operates a fire/rescue boat moored at Bridge Bay on Shasta Lake. Jones Valley also has a fire/rescue boat located at the Jones Valley Marina on Shasta Lake.

Wildland and Urban Interface

Shasta Community College resides on the west side of the battalion, and the north side of the battalion is USFS land along Shasta Lake that is protected by State DPA. Jones Valley and Bella Vista have significant development and population. The battalion also is adjacent to the northern border of the City of Redding, which poses a threat for ignitions to spread into the battalion.

Fuels

Fuels within Battalion 7 include predominately grass and oak woodland up to 1,000ft.-1,500ft. in elevation. There are also pockets of thick brush as the elevation increases. In the areas south of Shasta Lake, and to the eastern edges of the battalion, the fuels transition into timber.

Weather

Battalion 7 is impacted by strong winds. North wind events occur periodically throughout the fire season and can reach the 10 to 40 mph range with associated higher gusts. Overall, weather is generally warm and dry during the day with moderate humidity recovery at night. Peak summer temperatures average 95 to 105 degrees with temperatures reaching more than 110 degrees for two to five day periods. The average relative humidity is 15 to 35%. Gradient winds are generally out of the south, southwest 5 to 12 miles per hour (mph). Occasional light east winds occur in the morning then shifting to more west/southwest flow in the afternoon and can reach speeds of 15 to 20 mph, generally up slope and up canyon on the eastern side of the battalion.

Topography

The west side of Battalion 7 captures some of the Sacramento Valley toe slope and gentle hills. Moving to the north side and east side the topography becomes steeper and more channelized with peaks rising to around 1,600 feet.

Battalion Fire History

Battalion 7 has a history of wind driven human caused fires that has devastated its communities. The 1999 Jones Fire (26,202 acres 954 structures), 2004 Bear Fire (10,441 acres 110 structures) and 2021 Fawn Fire (8,578 acres 185 structures) were wind driven and human caused. More recent fire activity has been the 2008 SHU Lightning (86,500 acres), the 2014 Gulch Fire (1,375 acres), and the 2018 Delta Fire (63,311 acres, SRA and FRA, FED DPA), 2019 Mountain Fire (600 acres). The Jones, Bear, and Fawn Fires rank as some of Shasta Counties most devastating fires.

Fuels Reduction/Battalion Projects and Priorities

There are several projects planned within Battalion 7. Current fuel reduction projects include areas around the City of Shasta Lake, the Bear Mountain Project located in the community of Jones Valley, and the Backbone Ridge project located in Jones Valley. Other projects have been identified along the major county roads prioritizing the opening of ingress and egress roads. Several communities have been identified as priorities for defensible space inspections and the majority of the battalion has been inspected within the last two years. Staff continue to remain engaged with community events and helping to educate the public about fire safety.

SHU Training

The Shasta-Trinity Unit Training Bureau statement of goals:

The Shasta-Trinity Unit provides our employees with the highest degree of training, incorporating industry recognized standards and certifications, focusing on cost efficiency and fiscal responsibility while assuring operational needs are met. The Shasta-Trinity Unit training goals are based on defined, measurable training objectives, provided in a safe and harassment free environment meeting department policy and state statutes. It is expected that each employee dedicates 15% of their shift to training, whether it's informal at the fire station, or formal multi-agency training. By maintaining this commitment, we can perform at the highest level of service in mitigating all types of emergency incidents, public education, law enforcement and administration for our customers, the people of California and its valuable resources.

The Training Bureau is under the supervision of Battalion 2407. The Training Bureau consists of three fire captains and a part-time office assistant. In the winter the staff is increased by adding up to four training officers from the CAL FIRE ranks to deliver training to SCFD. These training officers are comprised of permanent fire apparatus engineers and fire captains, both bringing a wide range of experience. These training officers are assigned Shasta County vehicles and equipment to conduct training to the individual volunteer companies within Shasta County. Every year the Shasta County

Training Committee (consisting of representatives from CAL FIRE and SCFD training officers) recommends subjects, topics and evolutions which are then incorporated into the training schedule.

The training schedule meets the federal and state mandated requirements for firefighters training. The training sessions are a minimum of three hours each evening, and included the following topics: Structure fire drills, CPR/AED, Defensive Driver, Hazardous Materials Refresher, Fit Testing, L-180, EMS Skills, Command and Control Wildland Fires, Rope Rescue, Wildland Safety Training and RT-130. The Shasta County Training Bureau annually supplies over 3,000 instructor hours with the average SCFD Volunteer attending over 125 hours of focused training.

Camps

Sugar Pine Conservation Camp

Sugar Pine Conservation Camp (SPCC) is a 120-man camp capable of supporting six fire crews. This facility houses one CAL FIRE type 3 fire engine used for fire suppression at the Camp. In recent years, a decline in eligible inmates has resulted in a reduction of available crews. At the time of this publication, Sugar Pine Camp currently has two hand crews available for fuel reduction and fire line assignments. The camp is located approximately fifteen miles outside the town of Bella Vista. SPCC opened in 1988 and is operated by CAL FIRE and the California Department of Corrections and Rehabilitation. The fire crews work on grade projects five days a week year-round. These projects include many fuel reduction projects for fire safe councils, municipalities, schools, county government, state government agencies and federal government agencies. Acres treated vary by project and stakeholder needs and desires. As recognized by the 2010 Strategic Fire Plan, inmate labor for fuel reduction projects provides good training for fire-fighting crews and defensible space around valuable assets and infrastructure at a reasonable cost to the taxpayer. In addition to the fire crews Sugar Pine Camp has an engraving shop, cabinet shop, and automotive repair shop.

Trinity River Conservation Camp

Trinity River Conservation Camp (TRCC) is a 120-man camp capable of supporting six crews. In recent years, a decline in eligible inmates has resulted in a reduction of available crews. At the time of this publication, Trinity River Camp currently has two hand crews available for fuel reduction and fire line assignments. This facility is in Trinity County, approximately 12 miles outside of the town of Lewiston. Opened in 1988, TRCC is operated by CAL FIRE and the California Department of Corrections and Rehabilitation. The fire crews work on grade projects five days a week year-round. The crews are engaged in federal, state, and local community projects which include reforestation, hazard fuel reduction, erosion control, fish habitat, wildlife improvements,

school site cleanup, and other projects supporting the public good. Acres treated vary by project and stakeholder needs and desires. As recognized by the fire plan, inmate labor for fuel reduction projects provides good training for fire-fighting crews and defensible space around valuable assets and infrastructure at a reasonable cost to the taxpayer. In addition to the fire crews, Trinity River Camp has a MKU (Mobile Kitchen Unit) that responds to large scale fires and provides food for those working on the Fireline and basecamps. It also has a wood shop, lumber mill, welding shop, sew shop and automotive repair shop.

LaTour Demonstration State Forest

This property became a state forest in 1946 when the State Lands Commission deeded the property to the then California Division of Forestry. It is in Shasta County, south of Burney and east of Redding at the edge of the Lassen National Forest. The 9,033-acre State Forest contains various geological features and is located in the headwaters of two major tributaries to the Sacramento River, including Old Cow Creek and South Cow Creek.

The forest supports 10 coniferous tree species of commercial value. They include sugar pine, ponderosa pine, Jeffrey pine, western white pine, lodge-pole pine, Douglas-fir, white and red fir, incense cedar and mountain hemlock. The stands contain lesser amounts of hardwood trees, such as California black oak, canyon live oak, big leaf maple and red alder.

Near the southern extent of the Cascade Range, the area is popular with campers and snowmobilers. Other recreational activities include hiking, biking, and horseback riding. Hunting and fishing may be enjoyed in season, and in accordance with the Department of Fish and Wildlife laws and regulations.

The forest is normally, accessible to vehicles from late May until early November. Winter and spring months are often a time of high winds, deep snow, and extreme cold, making the area inaccessible to vehicle traffic except snowmobiles. The four campgrounds found on LaTour include multiple campsites, picnic tables, fire rings and restroom facilities. Potable water is only available at the Old Station Campground and the Forest Headquarters.

LaTour Demonstration State Forest historically utilized crews from Sugar Pine Conservation Camp to work on fuels projects such as thinning along roadways to increase forest health and create shaded fuel breaks. More recently this crew work has been conducted by the Unit's Fuels Crew. In 2017 the Forest started utilizing low

intensity prescribed burns to reduce fuels and mitigate large scale canopy loss from intense summer fires.

Extensive fuels reduction work in the forms of stand density management and mastication work has been conducted on the Northwestern property boundary to mitigate the potential of wildfires origination off the Forest from extending into the Forest. Additionally, a shaded fuel break has been made along the Sunset and McMullin Mountain Roads from the West property line to the intersection with Butcher Tie Road. The continuation of the McMullin Mountain Ridge Shaded Fuel Break across McMullin Mountain is in the implementation phase.

The State Capital Christmas Tree has been harvested annually from LaTour Demonstration State Forest since 2012 and permits for personal Christmas Trees are available from the Redding Headquarters from October thru December. LaTour is also open to the public to cut dead and down trees for firewood with a valid permit.

APPENDIX A: PRE- FIRE PROJECTS

Fire Plan	**2018 Trinity County LG**	Complete	**139.83**
Fire Plan	**5GG17206 Shingletown Council, Inc. Fire Preve**	Complet e	
VMP	**Aldridge VMP**	Active	**342.34**
Fire Plan	**B Faller Class**	Active	**4.62**
Fire Plan	**B Line**	Active	
Fire Plan	**Backbone Ridge**	Active	**73.66**
Fire Plan	**Bear Mountain**	Active	**123.64**
VMP	**Big Creek VMP**	Active	**147.74**
Fire Plan	**BLM Shasta County**	Active	**65.85**
Fire Plan	**BLM Trinity County**	Active	**338.36**
Fire Plan	**Bullskin Ridge**	Active	**73.75**
Forest Heal	**Burney - Hat Creek Forest Health Project**	Active	**11,218.43**
Fire Plan	**Burney Falls State Park**	Active	**61.22**
Forest Heal	**Burney Hat Creek Forest Health Project, Phase**	Active	**9,577.87**
Fire Plan	**CALTRANS Shasta County**	Active	**48.44**
Fire Plan	**Canyon/Gulch Fuel Break**	Active	**144.51**
Fire Plan	**China Gulch Emergency Shaded Fuel Break**	Active	**406.93**
Fire Plan	**City of Redding Fire Risk Reduction**	Active	
Fire Plan	**City of Shasta Lake Hazardous Fuel Reduction**	Complete	**48.82**
Fire Plan	**City of Shasta Lake Hazardous Fuels Reductio**	Active	**53.19**
Fire Plan	**City of Shasta Lake Wildfire Preparedness Gui**	Complete	
VMP	**DASH VMP**	Active	**914.17**
CFIP	**Gordon CFIP 2022**	Active	**97.70**
VMP	**Graves Ranch VMP**	Active	**217.31**
CFIP	**Johnston-Stackhouse CFIP 2020**	Active	**123.57**
CFIP	**Johnston-Stackhouse CFIP 2021**	Active	**48.43**
CFIP	**Karem CFIP**	Complete	**113.40**
CFIP	**Klasson CFIP 2022**	Active	**94.83**
Fire Plan	**LaTour State Forest**	Active	**1,592.26**
CFIP	**Leach CFIP 2021**	Active	

Fire Plan	**Lower Pit River Fire Prevention Project**	Active	**572.47**
Fire Plan	**McFarland Dozer Cleanup**	Active	**34.19**
Forest Heal	**My Sierra Woods - Capturing Carbon on Califor**	Active	**28,840.89**
Forest Heal	**Northern Trinity County Forest Resilience Part**	Active	**4,263.66**
Fire Plan	**Old Bully Choop**	Active	**130.44**
Fire Plan	**Ponderosa Way Fuel Break Phase 2**	Planned	
Fire Plan	**Post Carr Fire Hazardous Fuels Reduction**	Active	**1,191.87**
Fire Plan	**Record Range**	Active	**49.55**
CFIP	**Reenan CFIP**	Active	**61.33**
VMP	**Ross Ranch VMP**	Active	**0.85**
Cal VTP	**RPM Pilot Project**	Active	**45.33**
Forest Heal	**Ruth Lake/Mad River Reforestation Project**	Active	**6,205.40**
Fire Plan	**Shasta County Bureau of Reclamation**	Active	**10.36**
Fire Plan	**Shasta County CALFIRE Facilities**	Active	**10.67**
Fire Plan	**Shasta County LG**	Active	**284.58**
Fire Plan	**Shasta County RX**	Active	**1,631.16**
Fire Plan	**Shasta County Wildfire Hazard Mitigation and F**	Active	
Fire Plan	**Shasta Lake City**	Active	**244.90**
Fire Plan	**Shasta Valley RCD**	Active	
Fire Plan	**Shingletown WUI Fuels Treatments**	Active	**5,010.23**
Forest Heal	**Silviculture for climate change**	Active	**1,730.60**
Fire Plan	**Sugar Pine Camp Road**	Active	**9.05**
Forest Heal	**Trinity Community Protection and Landscape R**	Active	**6,847.03**
Fire Plan	**Trinity Community Resilience Project**	Complete	**308.14**
Fire Plan	**Trinity County CALFIRE Facilities**	Active	**32.57**
Fire Plan	**Trinity County Hazardous Fuels Reduction**	Complete	**197.55**
Fire Plan	**Trinity County Hazardous Fuels Reduction Pha**	Active	**0.97**
Fire Plan	**Trinity County LG**	Complete in Maint	**60.44**
Fire Plan	**West Redding Emerg SFB, China Gulch Emerg**	Active	
Fire Plan	**Western Shasta RCD**	Active	
Forest Heal	**Whitmore Forest and Watershed Restoration P**	Active	**13,832.80**
CFIP	**Wickenheiser Mini-MP**	Complete	**66.45**

VMP	**Williams Ranch**	Active	**1,672.16**
CFIP	**Zitnay CFIP**	Active	**34.58**

APPENDIX B: UNIT GOALS AND OBJECTIVES

Goals and Objectives of the Shasta-Trinity Unit

The overall goal of the Shasta-Trinity Unit is to reduce the costs and losses associated with wildfire through continuing collaborative efforts from the unit, stakeholders, and cooperators with shared objectives to be implemented in this plan, including:

- Conduct fuel reduction projects
    - Complete fuel treatment projects on 1,000 acres per year.
    - Treat 1,250 acres with broadcast prescribed burning per year.

- Collect, analyze, and share data with stakeholders and cooperators.
    - This will be accomplished by working with resource conservation districts, fire safe councils, other federal, state, and local resources.

- Support resource conservation districts, fire safe councils and other local organizations in the development and implementation of community wildfire protection plans
    - Attend local meetings and having representatives offer guidance and support from CAL FIRE.
    - Complete projects utilizing CAL FIRE/CDCR/CCC/National Gaurd hand crews.
    - Support and encourage community's certification as NFPA Firewise Communities.

- Evaluate and identify where wildfire threatens life, property and natural resources within the unit, and work towards establishing wildfire protections plans for those areas
    - Utilize local knowledge from field battalion chiefs.
    - Develop plans collaboratively with local landowners and organizations, and local, state and federal governments.
    - Ensure consistency between different wildfire protection plans

- Inspect 30% of the unit's habitable structures in the SRA per year, while promoting an increased level of education and compliance with defensible space laws and regulations
    - Maintain full-time seasonal staff of four forestry aids/defensible space inspectors to conduct inspections each spring and summer.
    - Increase active participation of station crews to conduct defensible

space inspections throughout year.

- Increased inspections on railway and power supply infrastructure
    - Work with the railroad companies to complete inspections with use to ensure right of way clearance.
    - Work with electric utility providers to educate personnel on equipment and required clearance.
    - Create and utilize latest technology for personnel to identify and record problem locations.
    - Work in conjunction with the department's new utility mitigation program,

- Increase public outreach and awareness
    - Provide timely press releases to educate public on changing seasons and conditions.
    - Increase the public awareness on how to reduce wildfire ignitions through newspapers, radio, television stations and social media.
    - Utilize roadside signs and billboards with public messages promoting wildfire awareness.

C: IGNITION ANALYSIS

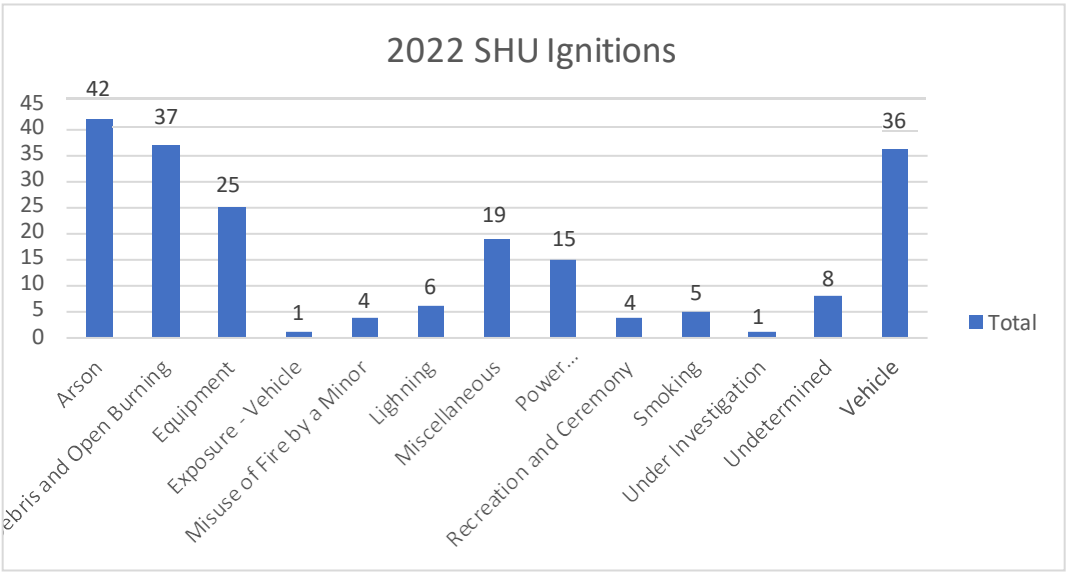
The Shasta-Trinity Unit uses fire ignition cause data to analyze and determine the trend in fire causes. The analysis below is based on data from the 2022 calendar year. For 2022 the Shasta-Trinity Unit recorded the highest number of fire ignitions from Arson, followed by debris burning. Ongoing training of engine company personnel and prevention personnel can reduce the number of undetermined caused fires, though it also points to the challenge of determining fire cause. For 2023 there will be added emphasis for complete and thorough investigations with a goal of reducing the number of undetermined fire causes.

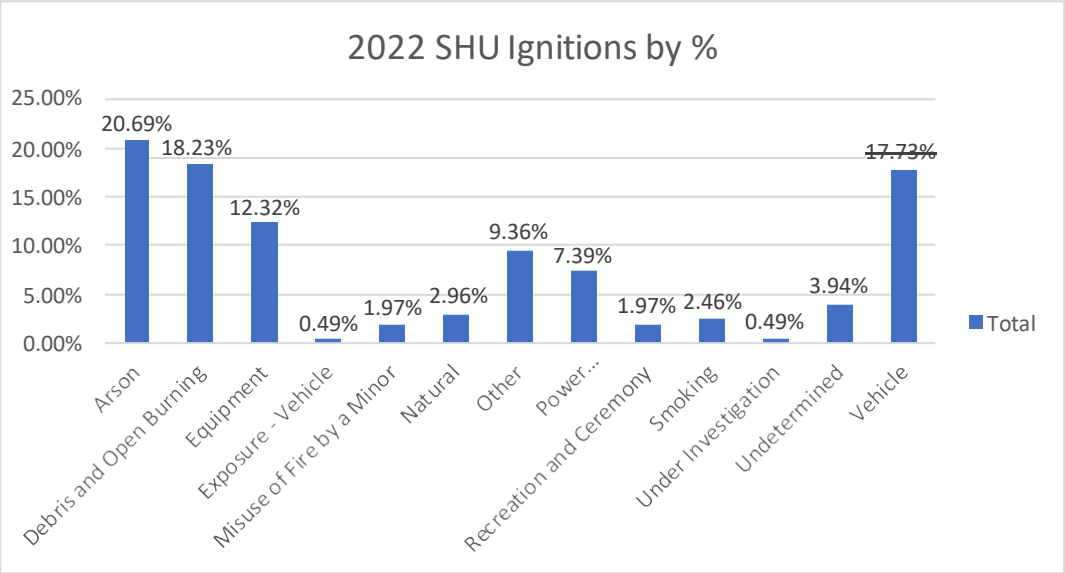
Arson was our leading cause of fires in 2021 and the leading cause with a total of 42 fires in 2022. It is the goal of the Prevention department to reduce ignitions by media releases, education, and enforcement. Another program, the "One less Spark One Less Fire," developed by the United States Forest Service has also helped to bring the attention to the public on the issue of vehicle and equipment caused fires. Our unit prevention bureau also held voluntary vehicle inspections to help educate citizens on ways to reduce fire ignitions from vehicle use. These efforts will continue in 2023.

Arson has historically been a major fire cause for the Shasta-Trinity Unit, consistently responsible for around 15% of unit fires each year. In 2021 and 2022

those numbers have increased. In 2021 arson was a cause of 65 fires or approximately 29% of all fires in the unit. In 2022 arson was the cause of 42 fires for a total of 20.69%. Our active prevention bureau made 35 arson arrests for the year, which likely kept our arson caused fires lower than they could have been. A continued active prevention bureau will be key to controlling arson as a fire cause.

Debris burning was responsible for our second highest ignition source with 37 fires. To reduce the number of debris burn escapes, the prevention bureau has focused extra effort on informing the public of the rules and regulations of debris burning, as well as providing education of how to determine safe practices to complete debris burning. Debris burning has always been an issue during the early part of the spring during the months of April and May. During the past several years there has been an increase of debris fire escapes in the fall. To reduce the amount of fires caused by debris burning public announcements, media releases and enforcement action has been utilized.




2022 SHU Ignitions by %
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
20.69%
18.23%
12.32%
0.49%
1.97%
2.96%
9.36%
7.39%
1.97%
2.46%
0.49%
3.94%
17.73%
Arson
Debris and Open Burning
Equipment
Exposure - Vehicle
Misuse of Fire by a Minor
Natural
Other
Power...
Recreation and Ceremony
Smoking
Under Investigation
Undetermined
Vehicle
Total

EXHIBITS: MAPS

Figure A: Unit Map

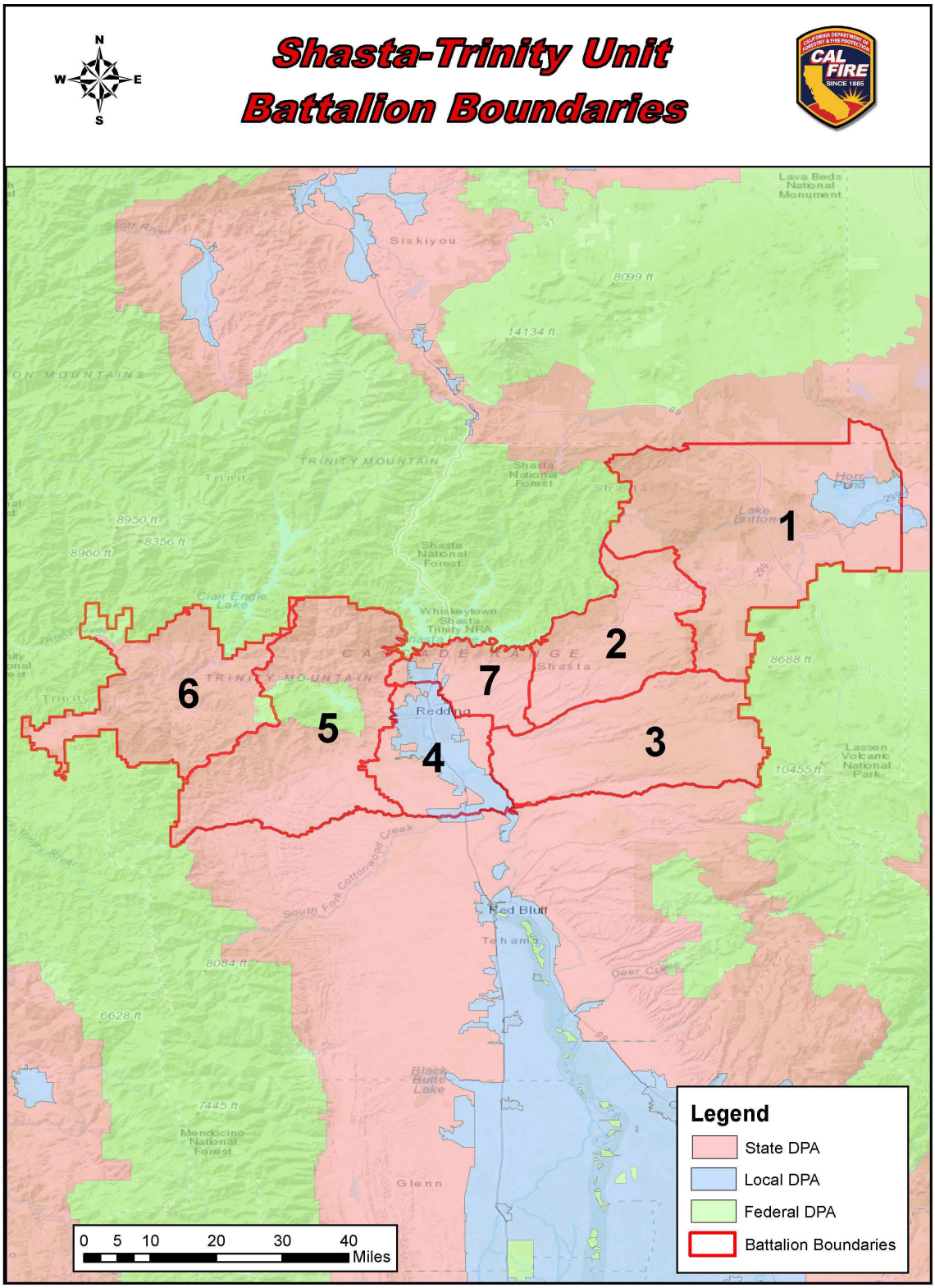
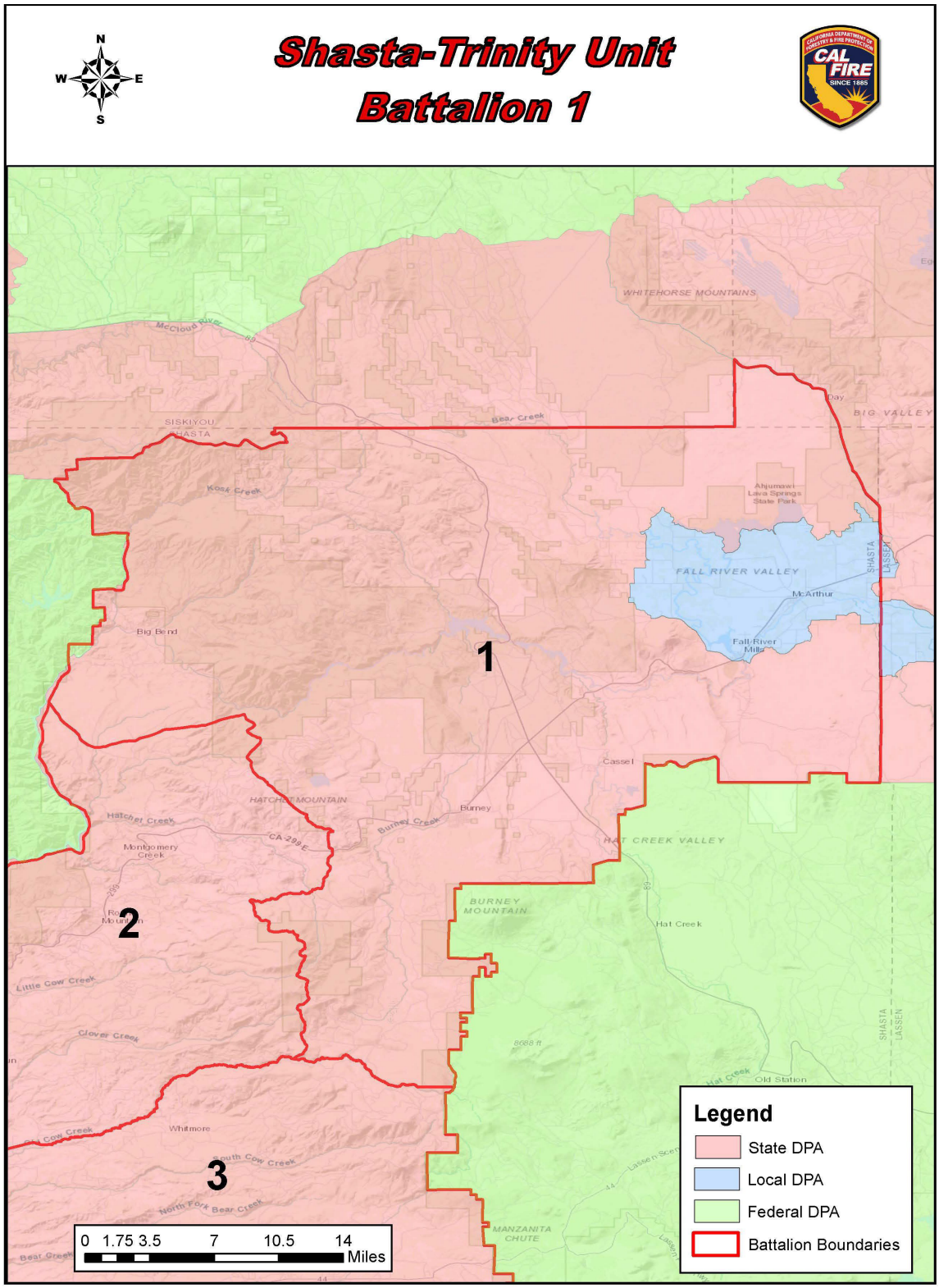
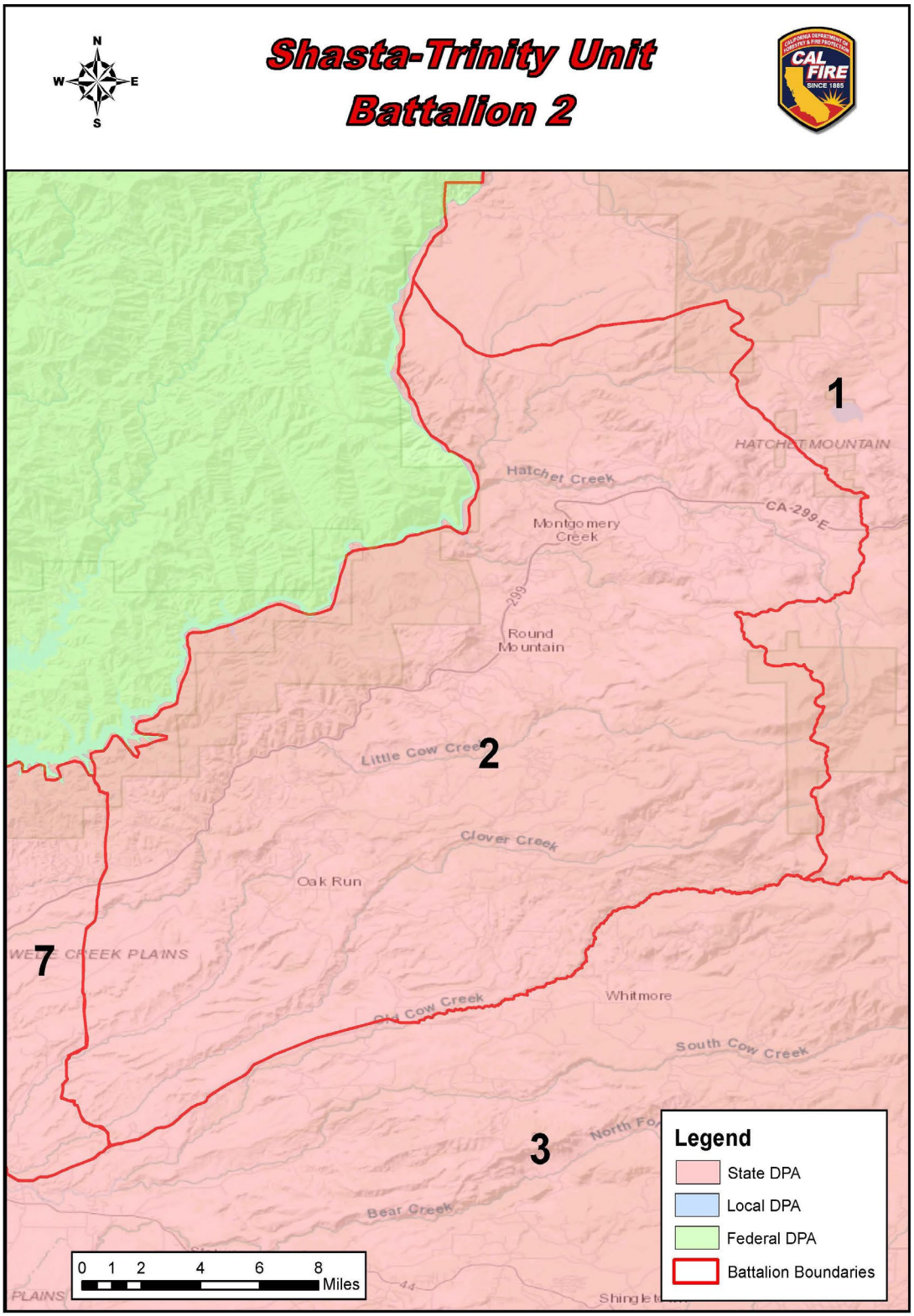


Figure B: Battalion Maps

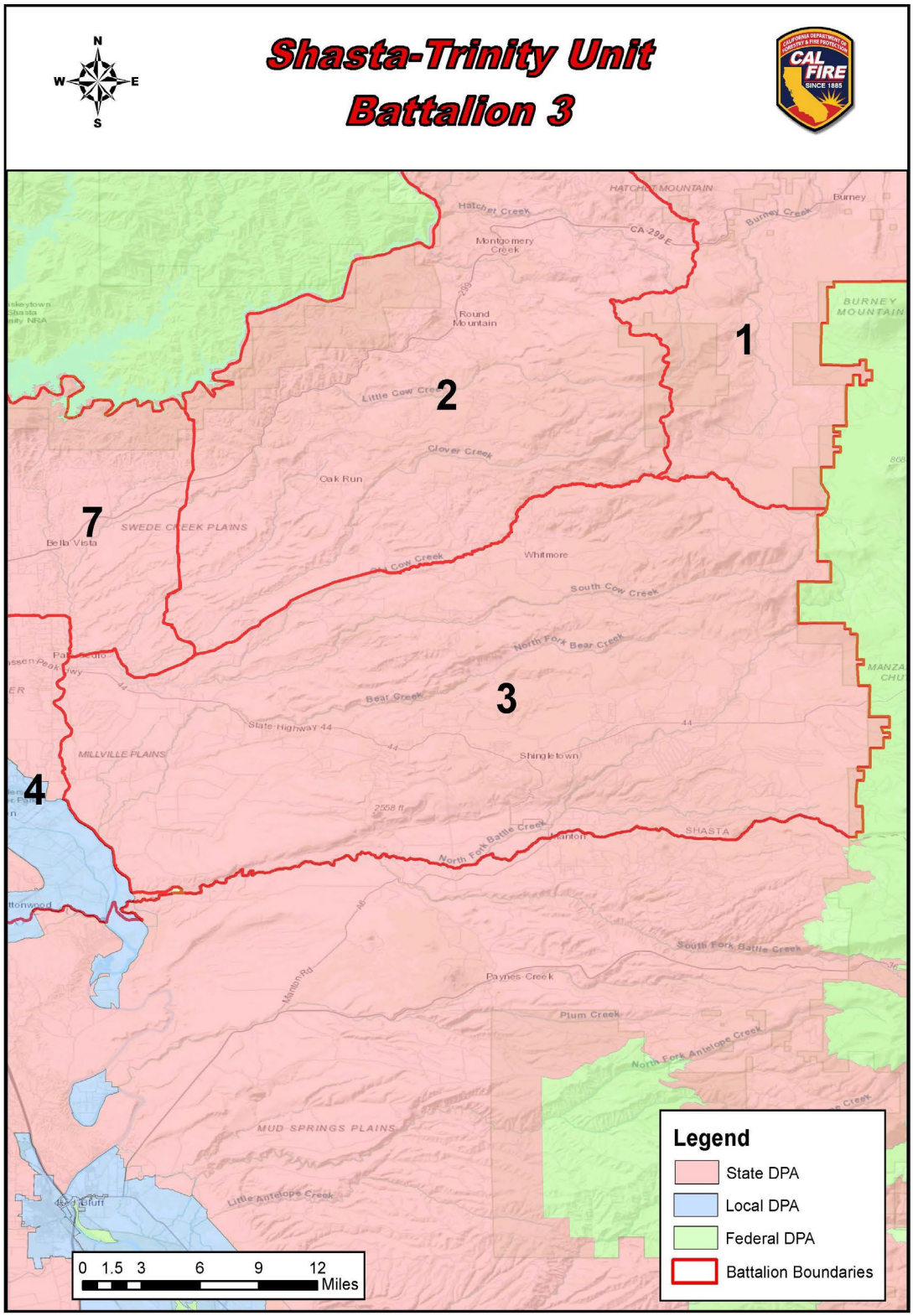
Battalion 1



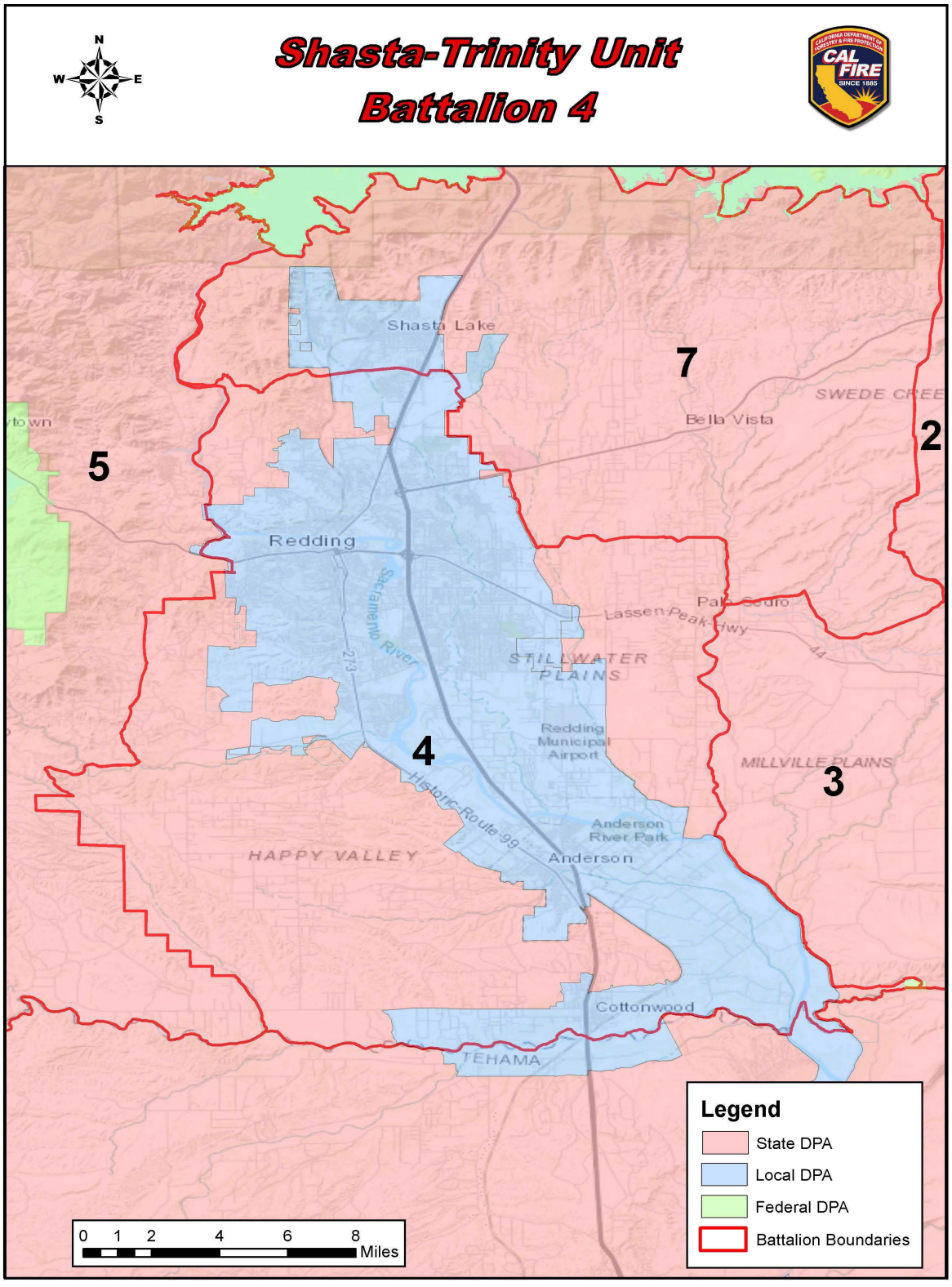
Battalion 2


Shasta-Trinity Unit
Battalion 2
N
W
E
S
CAL FIRE
SINCE 1885
1
2
3
7
HATCHET MOUNTAIN
Hatchet Creek
CA-299 E
Montgomery Creek
299
Round Mountain
Little Cow Creek
Clover Creek
Oak Run
Old Cow Creek
Whitmore
South Cow Creek
Bear Creek
0 1 2 4 6 8
Miles
Legend
State DPA
Local DPA
Federal DPA
Battalion Boundaries

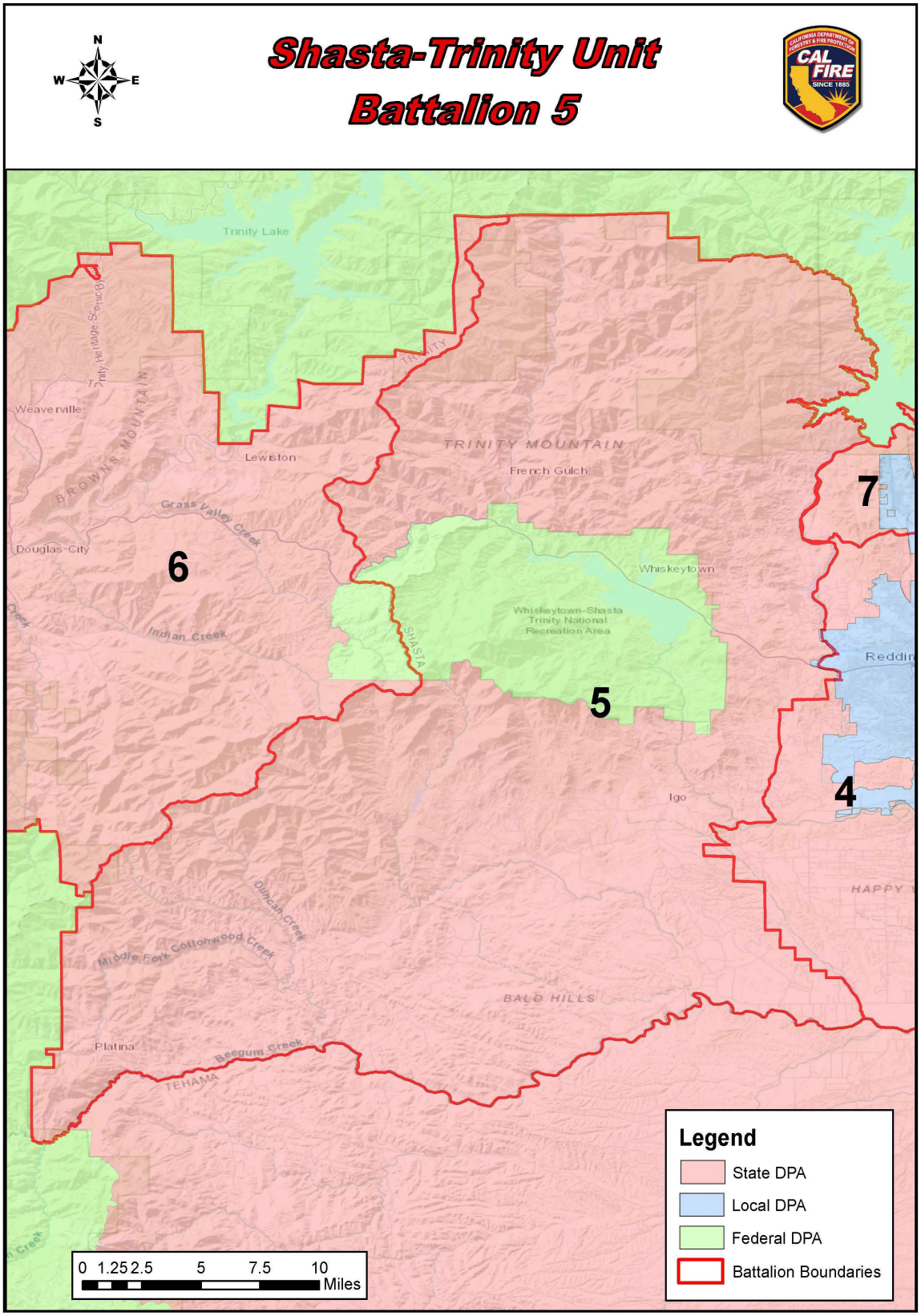
Battalion 3


Shasta-Trinity Unit
Battalion 3
CAL FIRE
SINCE 1885
N
W
E
S
1
2
3
4
7
Hatchet Creek
Montgomery Creek
Round Mountain
Burney
Burney Creek
CA-299 E
HATCHET MOUNTAIN
BURNEY MOUNTAIN
Little Cow Creek
Clover Creek
Oak Run
SWEDE CREEK PLAINS
Bella Vista
Whitmore
South Cow Creek
North Fork Bear Creek
Bear Creek
State Highway 44
MILLVILLE PLAINS
Shingletown
2358 ft
Manton
SHASTA
North Fork Battle Creek
South Fork Battle Creek
Paynes Creek
Plum Creek
North Fork Antelope Creek
MUD SPRINGS PLAINS
Little Antelope Creek
Red Bluff
0 1.5 3 6 9 12
Miles
Legend
State DPA
Local DPA
Federal DPA
Battalion Boundaries

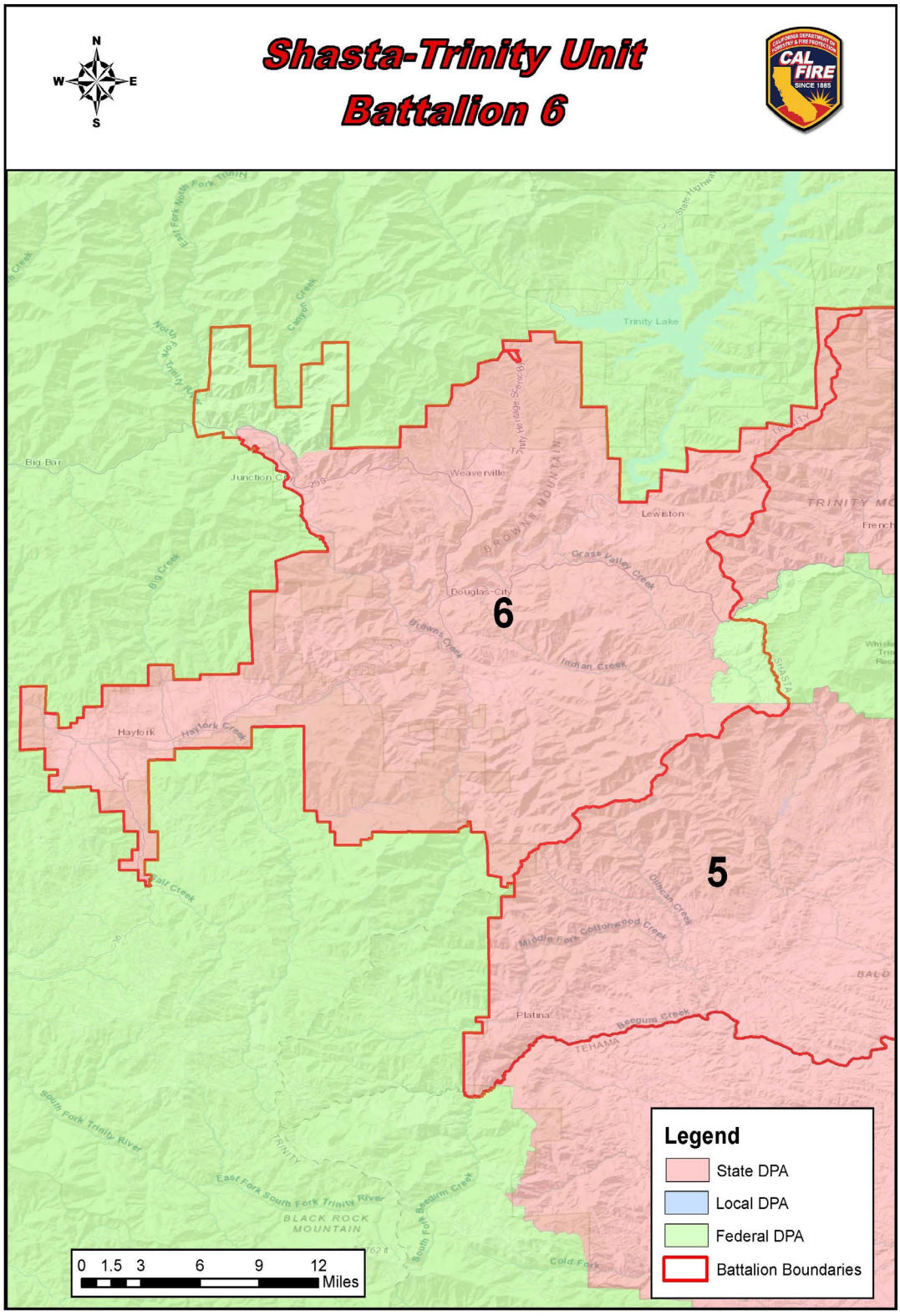
Battalion 4


Shasta-Trinity Unit
Battalion 4
N
W
E
S
CAL FIRE
SINCE 1885
Shasta Lake
7
Bella Vista
SWEDE CREE
2
5
Redding
Sacramento River
273
Lassen Peak Hwy
44
STILLWATER PLAINS
Redding Municipal Airport
4
MILLVILLE PLAINS
3
Historic Route 99
Anderson River Park
Anderson
HAPPY VALLEY
Cottonwood
TEHAMA
0 1 2 4 6 8
Miles
Legend
State DPA
Local DPA
Federal DPA
Battalion Boundaries

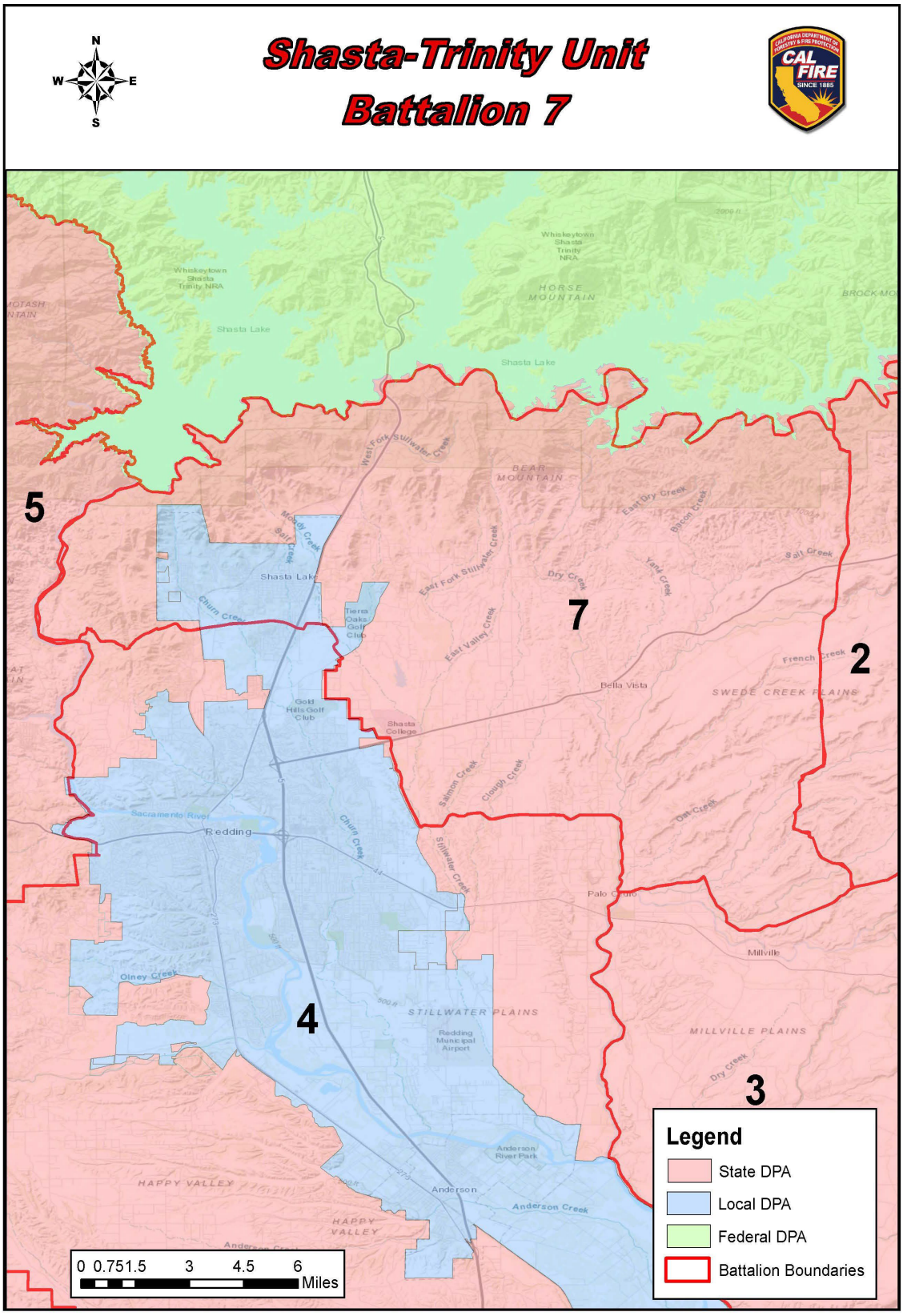
Battalion 5


Shasta-Trinity Unit
Battalion 5
N
W
E
S
CAL FIRE
SINCE 1885
Trinity Lake
Weaverville
Lewiston
TRINITY MOUNTAIN
French Gulch
BROWNS MOUNTAIN
Grass Valley Creek
Douglas City
Whiskeytown
Whiskeytown-Shasta Trinity National Recreation Area
Indian Creek
Igo
HAPPY
Duncan Creek
Middle Fork Cottonwood Creek
BALD HILLS
Platina
Beegum Creek
TEHAMA
6
5
7
4
0 1.25 2.5 5 7.5 10
Miles
Legend
State DPA
Local DPA
Federal DPA
Battalion Boundaries

Battalion 6


Shasta-Trinity Unit
Battalion 6
N
W
E
S
CAL FIRE
SINCE 1885
Trinity Lake
Big Bar
Junction City
Weaverville
Lewiston
Douglas City
Hayfork
6
5
Legend
State DPA
Local DPA
Federal DPA
Battalion Boundaries
0 1.5 3 6 9 12
Miles

Battalion 7


Shasta-Trinity Unit
Battalion 7
N
W
E
S
CAL FIRE
SINCE 1885
5
7
2
4
3
Shasta Lake
Whiskeytown Shasta Trinity NRA
HORSE MOUNTAIN
BEAR MOUNTAIN
Redding
Bella Vista
SWEDE CREEK PLAINS
STILLWATER PLAINS
MILLVILLE PLAINS
HAPPY VALLEY
Anderson
Millville
Palo Cedro
Shasta College
Gold Hills Golf Club
Tierra Oaks Golf Club
Redding Municipal Airport
Anderson River Park
Sacramento River
Churn Creek
Olney Creek
Clough Creek
Salmon Creek
Oak Creek
Dry Creek
Salt Creek
French Creek
Anderson Creek
Legend
State DPA
Local DPA
Federal DPA
Battalion Boundaries
0 0.751.5 3 4.5 6
Miles

2022 ANNUAL ACCOMPLISHMENTS REPORTING

SUPPLEMENT: 2022

Annual Report of Unit Accomplishments

In 2022, the Shasta-Trinity Unit continued to work with cooperators to identify new projects and continued progress on current projects. The Shasta-Trinity Unit continued with Public Resource Code 4291 inspections throughout the year, completing over 4,300 inspections. Sugar Pine, Trinity River, Whitmore Fire Crew, California Conservation Corps, California National Guard, and the Units Fuels Crews continued to support local agencies with crew hours to progress or complete projects within the unit.

Unit staff have been very busy working to support the governor's mission of creating fuel reduction projects with an emphasis on protecting communities most vulnerable to wildfire. To support the work needed to complete these projects, the California National Guard was deployed in the unit. The two 20-person hand crews played a critical role in the completion of many fuel reduction projects in the unit and fire suppression activities throughout the state.

In 2022 the unit continued to support area landowners to begin the process for completing broadcast burning prescribed fire projects. To carry out these projects, implemented under the Vegetation Management Program (VMP), staff hope to leverage the elimination of a required cost share from the landowner. These projects were completed successfully and achieved multiple ecological benefits. Currently, the unit has additional VMP's in the planning process with plans to start many more.

Unit staff continue to work to help support FIREWISE and FIRESAFE communities. One community, the Shasta Forest Village, became the first community in Shasta County to become a certified FIREWISE community. In 2022 8 new Firewise communities were started in Shasta County. Other communities in the county are also considering working towards FIREWISE certification. Whitmore, on top of working towards becoming a FIREWISE community, has become established a FIRESAFE council and has actively pursued grant funding. The unit will continue supporting these efforts in 2023.

LE-100 Defensible Space and AB-38 Program

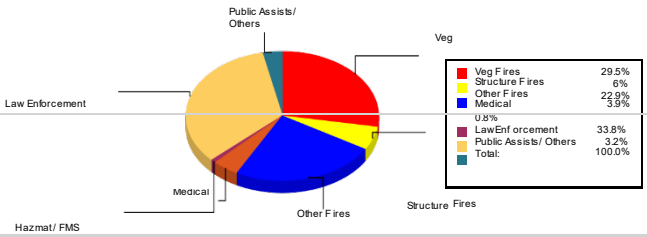
In 2022 the unit completed a total of 4,354 inspections. Most of these inspections were completed by the four full-time unit forestry aids/defensible space inspectors, but there was also involvement from our fire station crews. A significant emphasis was placed on making face-to-face interactions with residents and completing high quality, education focused inspections. With this new emphasis, and a high volume of fire assignments, the total inspection numbers were lower than in previous years.

2021 Fire Prevention Bureau Statistics:

Resource Activity Report
1/1/2022 to 12/31/2022

	Veg Fires	Structure Fires	Other Fires	Medical	Hazmat / FMS	Law Enforcement	Public Assists Others	Total
B2420	81	15	58	7	3	86	11	261
P2421	90	17	75	9	1	124	3	319
P2423	96	22	74	19	3	96	15	325
Total	267	54	207	35	7	306	29	905

Number of Incidents / Incident Type



- Fire prevention bureau officers responded to 905 incidents.
- 36 arrests were made.
- 82 citations were issued.

2022 Cadres/Workgroups:

- FI-210 Cadre
- Youth Fire-setter Prevention and Intervention Program
- Shasta Arson Task Force
- Shasta County Fire Prevention Officers Association
- CAL FIRE Defensible Space Collector App
- CAL FIRE Damage Inspection Specialist cadre

2022 Fire Season Ignition Statistics

Wildland fire ignition statistics were tracked for the entire year of 2022. The unit experienced 203 wildland fires (Down from 224 in 2021) within its Direct Protection Area (DPA). Wildland fire statistics are tracked based on information from each LE-66 fire report submitted to the fire prevention bureau.

2022 Significant Fires in the Unit:

1. Peter Incident: 304 acres, 16 structures destroyed, 6 structure damaged, 0 deaths.

    a. Cause: Under investigation

2. Total Acres Burned in unit 592.65 acres with only 5 fires over 10 acres.

2022 Wildland Fire Causes in the Unit:

203 Total Wildland fires

Causes of fires by frequency in the unit were:

Cause	Total
Arson	42
Debris and Open Burning	37
Equipment	25
Exposure - Vehicle	1
Misuse of Fire by a Minor	4
Lightning	6
Miscellaneous	19
Power Generation/Transmission/Distribution	15
Recreation and Ceremony	4
Smoking	5
Under Investigation	1
Undetermined	8
Vehicle	36
Grand Total	**203**

Cause	Percent
Arson	20.69%
Debris and Open Burning	18.23%
Equipment	12.32%
Exposure - Vehicle	0.49%
Misuse of Fire by a Minor	1.97%
Natural	2.96%
Other	9.36%
Power Generation/Transmission/Distribution	7.39%
Recreation and Ceremony	1.97%
Smoking	2.46%
Under Investigation	0.49%
Undetermined	3.94%
Vehicle	17.73%
Grand Total	**100.00%**