



2023 STRATEGIC FIRE PLAN



Last update: May 1, 2023

UNIT STRATEGIC FIRE PLAN AMENDMENTS

<u>Date</u>	<u>Section Updated</u>	<u>Page Numbers Updated</u>	<u>Description of Update</u>	<u>Updated By</u>
06/01/2012	Cover	Title Page	Conform to template	S. Oaks
06/01/2012	Preface	1	Insert Amendments page	S. Oaks
06/01/2012	Table of Contents	2	Conform to template, Page #'s	S. Oaks
06/01/2012	Signature Page	3	Personnel change	S. Oaks
06/01/2012	Executive Summary	4, 5	Conform to template, Terminology	S. Oaks
06/01/2012	Executive Summary	6	Resource change	S. Oaks
06/01/2012	Unit Overview	7	Chart modification	S. Oaks
06/01/2012	Unit Overview	8, 14, 16	Resource change, Map update	S. Oaks
06/01/2012	Collaboration	18	Addition to representatives	S. Oaks
06/01/2012	Values	19	Conform to template	S. Oaks
06/01/2012	Pre-Fire Management Strategies	22	Wildland Ignitions Map updated	S. Oaks
06/01/2012	Pre-Fire Management Strategies	23	Ignitions by Cause data updated	S. Oaks
06/01/2012	Pre-Fire Management Strategies	29	Status change, Terminology	S. Oaks
06/01/2012	Pre-Fire Management Strategies	32	Map update	S. Oaks
06/01/2012	Pre-Fire Management Strategies	34	Resource change	S. Oaks
06/01/2012	Appendix A	35	Project additions, Code changes	S. Oaks
06/01/2012	Appendix B	36	Conform to template	S. Oaks
06/01/2012	Exhibits	42	Maps updated, Page #'s	S. Oaks
04/25/2013	Pre-Fire Management Strategies	22	Wildland Ignitions Map updated	S. Alderete
04/25/2013	Appendix A	36	Project additions	S. Alderete
04/25/2013	Appendix B	36, 37	Units Goals and Objectives updated	S. Alderete
04/25/2013	Pre-Fire Management Strategies	23	Wildland Ignitions Table updated	S. Alderete
04/25/2013	Supplement	51	Update Unit Goals	S. Alderete
06/06/2014	Table of Contents	2	Page #'s	R. Hazard
06/06/2014	Signature Page	3	Personnel change	R. Hazard
06/06/2014	Appendix A	36	Update form, Project additions	R. Hazard
06/06/2014	Appendix B	38	Update Unit Goals	R. Hazard
06/06/2014	Appendix C	39, 40	New 2013 Ignitions Analysis	R. Hazard
06/06/2014	Supplement	53, 54	Conform to template	R. Hazard
05/10/2015	Table of Contents	iii	Page numbers and format	R. Hazard
05/10/2015	Signature Page	iv	Personnel change	R. Hazard
05/10/2015	Executive Summary	1	Terminology	R. Hazard
05/10/2015	Unit Overview	4	Org Chart modification	R. Hazard
05/10/2015	All	5, 6, 8, 11, 13, 18, 19, 23, 29, 30	Maps updated	R. Hazard
05/10/2015	Exhibit Maps	39-49	Maps updated	R. Hazard
05/10/2015	Unit Overview	11	Updated Table 2	R. Hazard

<u>Date</u>	<u>Section Updated</u>	<u>Page Numbers Updated</u>	<u>Description of Update</u>	<u>Updated By</u>
05/10/2015	Collaboration	15	Updated Dev Team Chart	R. Hazard
05/10/2015	Values	18	Community added	R. Hazard
05/10/2015	Pre-Fire Management Strategies	20	Updated Table 3	R. Hazard
05/10/2015	Pre-Fire Management Strategies	21	Added content	R. Hazard
05/10/2015	Pre-Fire Management Tactics	30	Added content	R. Hazard
05/10/2015	Pre-Fire Management Tactics	32	Added content	R. Hazard
05/10/2015	Appendix A	33	Updated Pre-Fire Projects	R. Hazard
05/10/2015	Appendix B	34, 35	Updated Goals and Objectives	R. Hazard
05/10/2015	Appendix C	36, 37	Updated Ignitions Chart	R. Hazard
05/10/2015	Annual Accomplishments	50, 51	Updated for 2014	R. Hazard
04/01/2016	All	All	Added footnote	R. Hazard
04/10/2016	Executive Summary	3	Objective three updated	R. Hazard
04/10/2016	All	5, 6, 8, 11, 13, 18, 19, 23, 29, 30	Maps updated	R. Hazard
05/01/2016	Pre-Fire Management Strategies	19, 22, 23, 28	Terminology	R. Hazard
05/01/2016	Pre-Fire Management Strategies	20	Table 3 updated	R. Hazard
05/01/2016	Pre-Fire Management Strategies	26	Added content	R. Hazard
05/10/2016	Pre-Fire Management Tactics	28	Added website URL	R. Hazard
05/10/2015	Pre-Fire Management Tactics	29, 32, 33,	Added content	R. Hazard
05/10/2016	Table of Contents	iii	Page numbers	R. Hazard
05/12/2016	Appendix A	34	Updated Pre-Fire Projects	R. Hazard
05/12/2016	Appendix B	35, 36	Updated Goals and Objectives	R. Hazard
05/12/2016	Appendix C	37	New Ignition Analysis	R. Hazard
05/14/2016	Annual Accomplishments Reporting	54, 55	Updated	R. Hazard
5/1/2017	Amendments Section	iii	Added iii to Amendments Section	F. Tan
5/1/2017	Table of Contents	iv	Moved Table of Contents from iii to iv	F. Tan
5/1/2017	Signature Page	v	Moved from iv to v and personnel change	F. Tan
5/1/2017	All	All	Updated footer date	F. Tan
5/1/2017	Executive Summary	2	Updated content	F. Tan
5/1/2017	All	5, 6, 8, 11, 13, 18, 19, 23, 29, 30, 33, 31, 37, 40, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54	Maps updated	F. Tan
5/1/2017	Unit Overview	5	Updated content and footnote	F. Tan
5/2/2017	Unit Overview	7, 8, 10	Updated content	F. Tan
5/2/2017	Unit Overview	11	Updated chart	F. Tan
5/2/2017	Unit Preparedness and Firefighting Capabilities	13	Updated content	F. Tan
5/3/2017	Pre-Fire Management Strategies	21, 22, 23, 26	Updated content	F. Tan
5/3/2017	Pre-Fire Management Tactics	29, 32	Updated content	F. Tan
5/3/2017	Appendix A	34	Updated content	F. Tan

<u>Date</u>	<u>Section Updated</u>	<u>Page Numbers Updated</u>	<u>Description of Update</u>	<u>Updated By</u>
05/4/2017	Pre-Fire Management Strategies	20	Updated graph and chart	F. Tan
05/4/2017	Appendix B	35, 36	Updated graph and chart	F. Tan
5/4/2017	Appendix C	38, 39, 40, 41	Updated content	F. Tan
5/4/2017	Annual Accomplishments	55, 56	Updated content	F. Tan
4/28/2018	All	5, 8, 11, 13, 18, 19, 23, 29, 30, 31, 42, 45, 52, 53, 55, 56, 57, 58, 59, 60, 61, 62, 63	Maps updated	F. Tan
5/4/2018	Unit Overview	6, 7, 8, 10	Updated content	F. Tan
5/4/2018	Unit Overview	11	Updated chart	F. Tan
5/4/2018	Unit Preparedness and Firefighting Capabilities	13	Updated content	F. Tan
5/6/2018	Pre-Fire Management Strategies	19, 21	Updated content	F. Tan
5/6/2018	Pre-Fire Management Strategies	20	Updated graph and chart	F. Tan
5/6/2018	Pre-Fire Management Tactics	28, 29, 30, 32	Updated content	F. Tan
5/10/2018	Appendix A	34	Updated and added content	F. Tan
5/8/2018	Appendix B	35-39	New appendix item, added new content	F. Tan
5/8/2018	Appendix C	40-41	Updated goals and objectives	F. Tan
5/8/2018	Appendix D	42-47	Updated ignition analysis	F. Tan
5/8/2018	Appendix E	48-50	New appendix item, added new content	F. Tan
5/10/2018	Annual Accomplishments	64-65	Updated content	F. Tan
5/11/2018	Exhibits: Maps	51	Updated page locations of maps	F. Tan
5/11/2018	Table of Contents	iv	Updated for new content and pages	F. Tan
5/28/2019	Cover	Title Page	General update	F. Tan
5/28/2019	Executive Summary	1	Updated content	F. Tan
5/28/2019	Strategic Unit Fire Plan	2, 3	Updated content	F. Tan
8/22/2019	All	5, 11, 13, 14, 20, 21, 25, 31, 32, 35, 62, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74	Maps added or updated	F. Tan
8/22/2019	Unit Overview	5, 7, 10, 12, 13, 14, 15	Updated, Shifted or added content	F. Tan
8/22/2019	Various	14 – 28	Shifted two pages down – Moved content	F. Tan
9/2/2019	Unit Overview	11	Updated chart	F. Tan
9/2/2019	Collaboration	17	Updated and added content	F. Tan
9/2/2019	Values	18 and 20	Updated content	F. Tan
9/2/2019	Pre-Fire Management Strategies	22	Updated charts	F. Tan
9/2/2019	Pre-Fire Management Strategies	23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33,	Updated content	F. Tan
9/7/2019	Appendix A	34	Updated and added content	F. Tan
9/8/2019	Appendix B	35 – 44	Added new appendix item	F. Tan
9/8/2019	Appendix C	45 – 49	Changed Appendix B to Appendix C	F. Tan
9/8/2019	Appendix D	50 - 51	Changed Appendix C to Appendix D updated content	F. Tan
9/21/2019	Appendix E	52 - 57	Changed Appendix D to Appendix E updated content	F. Tan

<u>Date</u>	<u>Section Updated</u>	<u>Page Numbers Updated</u>	<u>Description of Update</u>	<u>Updated By</u>
9/21/2019	Appendix F	58 - 60	Changed Appendix E to Appendix F updated content	F. Tan
9/21/2019	Exhibits: Maps	61	Updated content	F. Tan
9/21/2019	Annual Accomplishments Reporting	75 - 76	Updated content	F. Tan
9/21/2019	Table of Contents	V	Updated for new and updated content and pages	F. Tan
4/27/2020	All	1-81	Update general grammar, punctuation, dates, links	J. Sweet
4/27/2020	Cover	Title	Update pictures/graphic	J. Sweet
4/27/2020	Table of Contents	V	Update format and numbers	J. Sweet
4/27/2020	Unit Overview	4	Update Org Chart	J. Sweet
4/27/2020	Unit Preparedness and Fire-Fighting capabilities	13-15	Addition of 3 rd Battalion information and map	J. Sweet
4/27/2020	Collaboration	17	Update Names/Contacts	J. Sweet
4/27/2020	All	5, 6, 8, 11, 13, 20, 21, 25, 32, 63-75	Map updates	J. Sweet
4/27/2020	Pre-Fire Management	21-23	Ignitions update	J. Sweet
4/27/2020	Appendix A	35	Update Pre-Fire Projects	J. Sweet
4/27/2020	Appendix B	36-45	Update Pre-Fire Project Summaries	J. Sweet
4/27/2020	Appendix E	53-58	Ignition Analysis	J. Sweet
4/27/2020	Appendix D	51-52	Update Goals and Objectives	J. Sweet
4/27/2020	Appendix F	59-61	2019 Statistical Summary	J. Sweet
5/5/2020	Appendix C	45-49	Updated content	R. Hazard
5/1/2021	All	1-81	Update general grammar, punctuation, dates, links	J. Sweet
5/1/2021	Cover	Title	Update pictures/graphic	J. Sweet
5/1/2021	Table of Contents	v-vi	Update format and numbers	J. Sweet
5/1/2021	Unit Overview	5	Update Org Chart	J. Sweet
5/1/2021	Collaboration	21	Update Names/nontacts	J. Sweet
5/1/2021	All	6,7,9,11,14,17,18,24,25,29,36,39,69-83	Map updates	J. Sweet
5/1/2021	Pre-Fire Management	25-26	Ignitions Update	J. Sweet
5/1/2021	Appendix A	38	Update Pre-Fire Projects	J. Sweet
5/1/2021	Appendix B	39-49	Update Pre-Fire Project Summaries	J. Sweet
5/1/2021	Appendix E	59-64	Ignition Analysis	J. Sweet
5/1/2021	Appendix D	57-58	Update Goals and Objectives	J. Sweet
5/1/2021	Appendix F	65-67	2020 Statistical Summary	J. Sweet
5/1/2021	Annual Accomplishments	84	2020 Annual Accomplishment update	J. Sweet
5/1/2022	All	1-81	Update general grammar, punctuation, dates, links	J. Sweet
5/1/2022	Cover	Title	Update pictures/graphic	J. Sweet
5/1/2022	Table of Contents	v-vi	Update format and numbers	J. Sweet
5/1/2022	Collaboration	21	Update names/contacts	J. Sweet
5/1/2022	Annual Accomplishments	84	2021 Annual Accomplishment update	J. Sweet

<u>Date</u>	<u>Section Updated</u>	<u>Page Numbers Updated</u>	<u>Description of Update</u>	<u>Updated By</u>
5/1/2022	All	6,7,9,11,14,17,18,24,25,29,36,39,69-83	Map updates	J. Sweet
5/1/2022	Pre-Fire Management	25-26	Ignitions Update	J. Sweet
5/1/2022	Appendix A	38	Update Pre-Fire Projects	J. Sweet
5/1/2022	Appendix B	39-49	Update Pre-Fire Project Summaries	J. Sweet
5/1/2022	Appendix E	59-64	Ignition Analysis	J. Sweet
5/1/2022	Appendix D	57-58	Update Goals and Objectives	J. Sweet
5/1/2022	Appendix F	65-67	2021 Statistical Summary	J. Sweet
5/1/2023	All	1-85	Update general grammar, punctuation, dates, links	D. McKibben
5/1/2023	Fire District	5	Update Square Miles Served	D. McKibben
5/1/2023	All	All	Update Format and Numbers	D. McKibben
5/1/2023	All	All	Update Names/Contacts	D. McKibben
5/1/2023	Executive Summary	1	2022 Cal Fire Strategic Plan	D. McKibben
5/1/2023	Annual Accomplishments	85	2022 Annual Accomplishment update	D. McKibben
5/1/2023	Cover	Title	Update pictures and graphic	D. McKibben
5/1/2023	All	All	Update Maps	D. McKibben
5/1/2023	Pre-Fire Management	26	Ignitions Update	D. McKibben
5/1/2023	Appendix A	39	Update Pre-Fire Projects	D. McKibben
5/1/2023	Appendix B	40	Update Pre-Fire Project Summaries	D. McKibben
5/1/2023	Appendix C	50	Pre-Fire Management Tactics	D. McKibben
5/1/2023	Appendix D	57	Update Goals and Objectives	D. McKibben
5/1/2023	Appendix F	59	2022 Wildland ignition analysis	D. McKibben
5/1/2023	Maps	84	Added SDI Image	D. McKibben
5/1/2023	All	All	Updated Statistics	D. McKibben
5/1/2023	Unit Overview	10,12	Updated Rainfall Data	D. McKibben

TABLE OF CONTENTS

I.	UNIT STRATEGIC FIRE PLAN AMENDMENTS.....	I
II.	SIGNATURE PAGE	VIII
III.	EXECUTIVE SUMMARY	1
IV.	SANTA BARBARA COUNTY UNIT STRATEGIC FIRE PLAN	3
V.	SECTION I: UNIT OVERVIEW	5
	Unit Description	5
	• Contract County	6
	• Physical Description	8
	• Vegetation/Fuels	9
	• Climate	11
	• Sundowner Winds	13
	• Fire History	15
	• Unit Priority Landscapes.....	17
	• Unit Priorities.....	17
	UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES.....	18
	• Santa Barbara County Fire.....	18
	• Battalions.....	19
VI.	SECTION II:COLLABORATION	22
	Community/Agencies/Fire Safe Councils	22
	• Plan Development Team:.....	22
VII.	SECTION III:VALUES	23
	Values	23
	Communities At Risk.....	23
VIII.	SECTION IV: PRE FIRE MANAGEMENT STRATEGIES	26
	Fire Prevention Services Division (Fire Marshal)	26
	• Wildland Ignition	26
	PLANNING AND ENGINEERING SECTION	29
	• Development in the SRA and Very High Fire Hazard LRA	29
	• Fire Development Standards.....	29
	INVESTIGATION SECTION.....	30
	INSPECTION SERVICES SECTION	31
	• Defensible Space Program.....	31
	INFORMATION AND EDUCATION	32
	VEGETATION MANAGEMENT PROGRAM	32
	• GIS and Mapping	32
	• Pre-Fire Planning	32
	• Vegetation Management Projects	32
IX.	SECTION V:PRE FIRE MANAGEMENT TACTICS.....	33
	DEPARTMENT PROGRAMS.....	33
	• Education and Outreach.....	33
	• Fire Prevention	34
	• Operations.....	37
X.	APPENDIX A:PRE FIRE PROJECTS	39
XI.	APPENDIX B: PRE FIRE PROJECT SUMMARIES.....	40

	• Active Grant Funded Projects.....	41
	• Early Action Funded Projects	42
	• Active Fire Plan Projects	44
	• Direct Award Funded Projects.....	45
	• Coastal Conservancy Grant Funded	48
	• Projects in Planning.....	49
	• Completed Projects In Maintenance.....	50
XII.	APPENDIX C:PRE FIRE MANAGEMENT TACTICS	51
	• FUEL OBJECTIVES.....	51
	• FUEL TREATMENT TYPES.....	52
	• FUEL TREATMENT ACTIVITIES.....	55
XIII.	APPENDIX D:UNIT GOALS AND OBJECTIVES FOR 2023	58
	• 2018 CALIFORNIA FIRE PLAN GOALS	58
	• 2023 SANTA BARBARA COUNTY FIRE DEPARTMENT OBJECTIVES ...	59
XIV.	APPENDIX E: SANTA BARBARA COUNTY FIRE DEPARTMENT 2022 WILDLAND IGNITION ANALYSIS	60
XV.	60
	FIRE LOCATION.....	60
	• 2022 FIRE SIZE CLASS CODES AND LOCATIONS BY RESPONSIBILITY AREA.....	61
	• 2022 SBC DPA Wildland Fires by Size Class*	61
	• 2022 FIRE CAUSE ANALYSIS	62
	FIVE YEAR FIRE ACTIVITY 2018-2022	63
	FIVE YEAR FIRE LOCATION	63
	• 2018-2022 FIRE SIZE CLASS CODES AND LOCATIONS BY RESPONSIBILITY AREA	64
	• SBC DPA Wildland Fires by Size Class	64
	• 2018 - 2022 FIRE CAUSE ANALYSIS	65
XVI.	APPENDIX F: STATISTICAL SUMMARY	66
XVII.	EXHIBITS: MAPS.....	69
XVIII.	ANNUAL ACCOMPLISHMENTS REPORTING (2022).....	86

SIGNATURE PAGE

Unit Strategic Fire Plan developed for Santa Barbara County:

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.

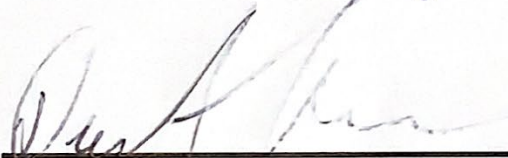


Unit Chief

Mark A. Hartwig, Fire Chief/Fire Warden

5/1/2023

Date



Pre-Fire Engineer

Dustin McKibben, PFE

5/1/2023

Date

EXECUTIVE SUMMARY

The 2023 Santa Barbara County Unit Strategic Fire Plan is developed with the Santa Barbara County Fire Department's *Mission Statement* in mind and intended to serve as a collaborative local planning document. The Santa Barbara County Strategic Fire Plan tiers under the [2018 Strategic Fire Plan For California](#) and the [2022 Cal Fire Strategic Plan](#) to identify goals and objectives to minimize wildland fire risk to county watersheds, communities, firefighters, the public and various other local assets. In combination, the three plans recognize wildland fires occur and works to answer the question of "how do we utilize and live with that risk of wildfire?"

In 2010, the development of California Fire Plan led to collaborative efforts between the Board of Forestry, CAL FIRE, its 21 administrative units and 6 contract counties in regards to pre-fire management. The 2018 Strategic Fire Plan for California and 2022 CAL FIRE Strategic Plan build upon that original concept. Although Santa Barbara County has experienced significant wildland fires throughout its recorded history, subsequent iterations of California Fire Plans acknowledge increased fire activity, larger and more destructive fires, and more severe fire behavior across the state. The 2018 California Fire Plan also recognizes that a prolonged drought and observed climate change have dramatically increased recent fire activity and fire behavior.

The 2010 California Fire Plan established seven goals with the focus of enhancing the protection of lives, property, and natural resources from wildland fire; as well as, improving environmental resilience to wildland fire. The 2018 Strategic Fire Plan for California added an additional goal, with each goal meaning to build upon the previous one. The 2023 Santa Barbara County Unit Strategic Fire Plan utilizes the eight goals listed below:

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.

SANTA BARBARA COUNTY UNIT STRATEGIC FIRE PLAN

Santa Barbara County is one of six “contract counties” (Santa Barbara, Ventura, Los Angeles, Orange, Kern, and Marin), which has executed a contract with the State of California to provide wildland fire protection on State Responsibility Areas (SRA). The Santa Barbara County Fire Department functionally operates as a Unit of the California Department of Forestry and Fire Protection (CAL FIRE) and is responsible for all Strategic Fire Plan activities within the County.

Mission Statement

The Santa Barbara County Fire Department serves and safeguards the community from the impacts of fires, medical emergencies, environmental emergencies, and natural disasters through leadership, planning, education, prevention, code enforcement, and all-hazard emergency response.

Our *Mission Statement* is a written description of the purpose of the Department.

Vision Statement

The Santa Barbara County Fire Department will be a model public safety agency, widely recognized for our effectiveness, regional strength, and community attentiveness.

Our *Vision Statement* is a compelling description of how the organization will or should operate at some point in the future and of how our stakeholders will benefit from our Department’s services.

Core Values

Commitment – Courage - Integrity - Innovation - Teamwork – Service

Our *Core Values* list the key behaviors and beliefs that determine how the Department operates.

The Department’s *Mission Statement*, *Vision Statement*, and *Core Values* are the shared attributes and behaviors that inform and guide our actions in delivering services; one of these services is producing and implementing the Unit Strategic Fire Plan. As an “all-risk” department it is our duty to protect life, property, and the environment. In order to accomplish this, a frame work is required to guide our efforts. This Unit Strategic Fire Plan will provide this frame work and will identify goals and objectives pertaining to reducing and preventing the impacts of wildland fire. The Unit Strategic Fire Plan is intended to convey management direction from the County Fire Chief, involve and educate stakeholders on the wildfire environment, establish strategic priorities for wildfire prevention and suppression projects and programs into a single unified plan, and be a living document that will adapt to changing conditions and be updated on a regular basis. The Unit Strategic Fire Plan was developed and will be maintained by the Vegetation Management Section at the direction of the County Fire Chief. The Vegetation Management Section operates under the direction of the Fire Marshal within the Prevention Services Division of the Santa Barbara County Fire Department.

The Santa Barbara County Unit Strategic Fire Plan incorporates elements of other important planning documents that include the Santa Barbara County Fire Department Strategic Plan, Santa Barbara County Seismic Safety and Safety Element of the Santa Barbara County Comprehensive Plan¹, and the County's Multi-Jurisdictional Hazard Mitigation Plan². The Santa Barbara County Fire Department Strategic Plan clarifies what our organization must do as a result of assessing and planning for major issues and opportunities facing us. The Seismic Safety and Safety Element is a guide for land use planning which provides pertinent data regarding geologic, soil, seismic, fire and flood hazards. The Seismic Safety and Safety Element also provides recommendations and criteria to aid in land use planning in order to ensure that future development will be compatible with the environment. The Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan coordinates risk assessment, mitigation planning, and implementation efforts in both incorporated and unincorporated areas of the County.

Key objectives identified by Santa Barbara County Fire based on the eight goals of the 2018 Strategic Fire Plan for California include:

- Maintain an up-to-date GIS database used for operations, planning, and analysis.
- Develop tools to facilitate collection, analysis and presentation of various data sets
- Collaborate with local governmental agencies in the creation and adoption of land use plans, building codes, fire codes, and development standards in High Fire Hazard Areas.
- Provide communities with technical support and guidance in the preparation of CWPPs using the Santa Barbara County approved Community Wildfire Protection Plan (CWPP) template.
- Provide ongoing public education and outreach.
- Enforce defensible space laws and ordinances, and provide defensible space education.
- Conduct collaborative vegetation management projects.
- Maintain suppression forces: engine companies, hand crew, construction section, air operations unit (helicopter program).
- Engage and participate with local stakeholder groups (e.g., fire safe councils and others) to validate and prioritize the assets at risk.

¹ The electronic version of the Santa Barbara County Comprehensive Plan can be found at: <http://css.countyofsb.org/plndev/policy/comprehensiveplan/comprehensiveplan.sbc>

²The electronic version of the Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan can be found at: [https://content.civicplus.com/api/assets/621b6b3f-5c9e-4231-9755-
ea921484ce17](https://content.civicplus.com/api/assets/621b6b3f-5c9e-4231-9755-
ea921484ce17)

SECTION I: UNIT OVERVIEW

UNIT DESCRIPTION

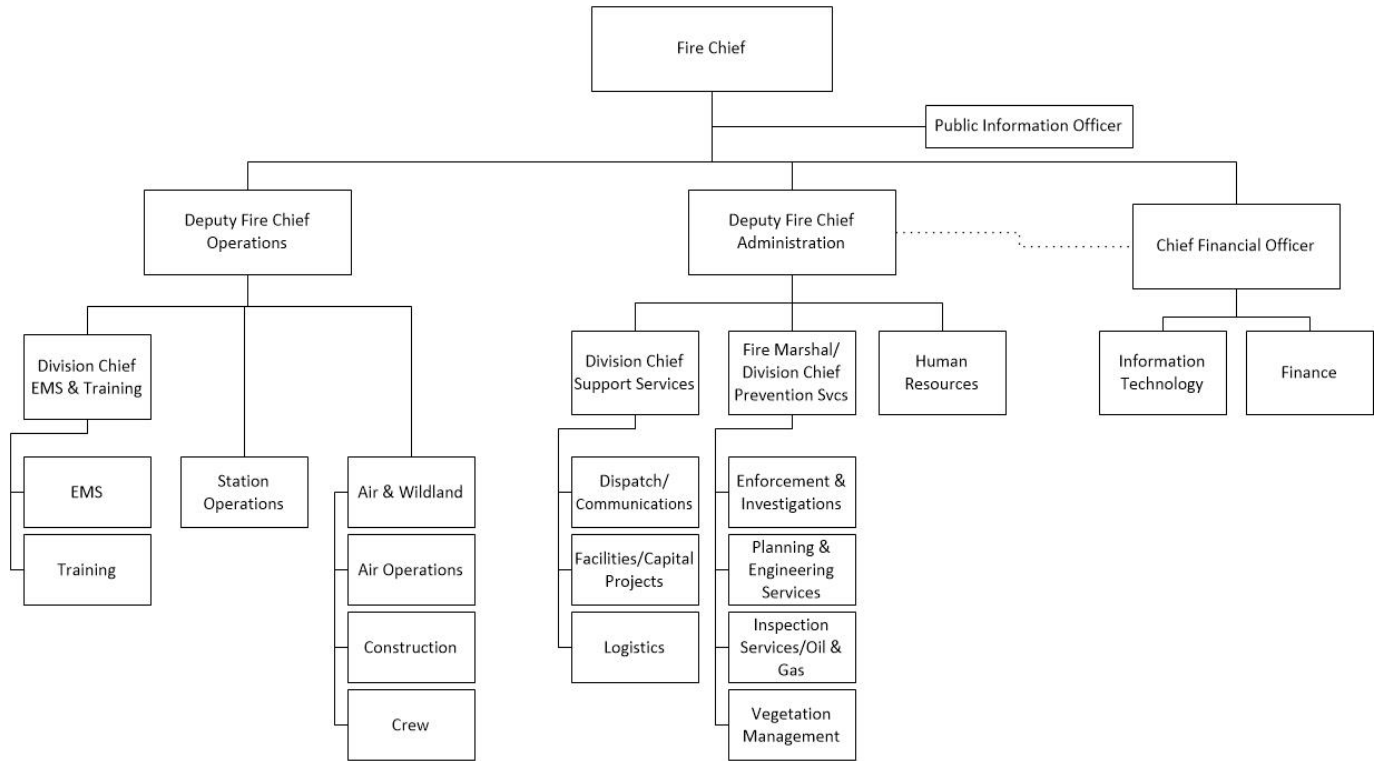


Table 1 Organizational Chart

Fire District

The Santa Barbara County Fire Department serves a population of approximately 184,000 residents encompassing 3,568 square miles. The fire department consists of sixteen fire stations, a crew program, a construction section, an air support unit, a Fire Prevention Division and support and administrative staff. Santa Barbara County Fire Department provides fire protection services to the Santa Barbara County Fire Protection District which encompasses 1,757,092 acres (see Figure 1) and includes unincorporated portions of the County as well as the Cities of Buellton, Solvang, and Goleta. The Fire District includes 797,382 acres of State Responsibility Area (SRA), 820,154 acres of Federal Responsibility Area (FRA), and 139,556 acres of Local Responsibility Area (LRA). The Department is a true “all-risk” organization providing services that include structure and wildland firefighting, emergency medical care and transportation, rescue, fire prevention and inspection, hazardous material and oil spill response and containment.

The Santa Barbara County Fire Department Chief also serves as the County Fire Warden, responsible for enforcing all laws, ordinances and any rules or regulations adopted by the State Board of Forestry and Fire Protection and State Fire Marshal relating to fires or to fire prevention and protection.

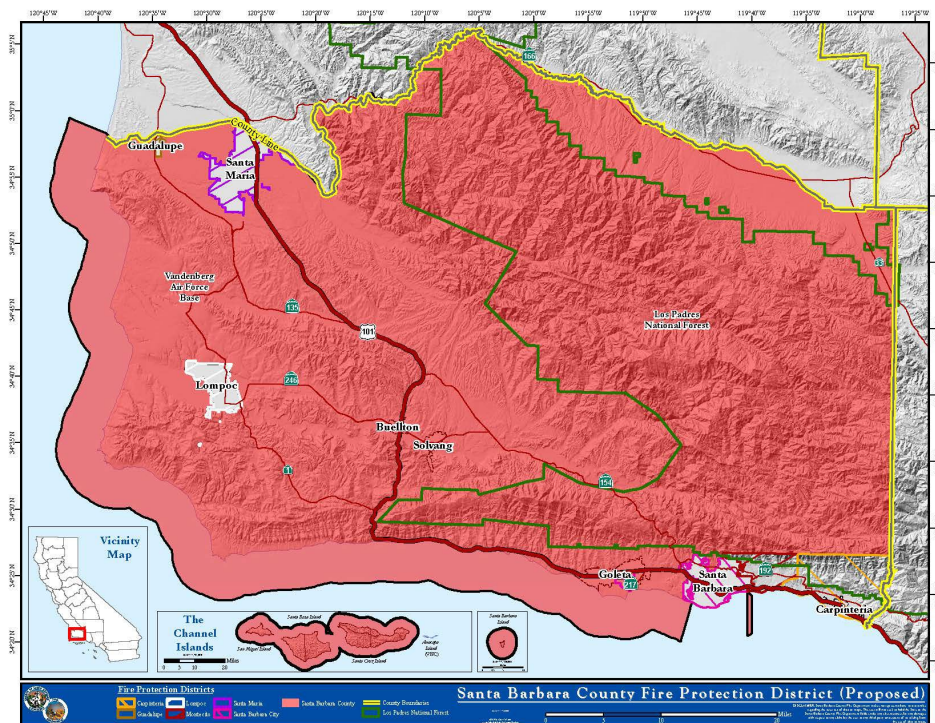


Figure 1: Santa Barbara County Fire District

Contract County

The responsibility for wildland fire protection is determined by a Direct Protection Area (DPA) agreement (see Figure 2) which is between state and federal agencies. The current agreement has 663,114 acres of State DPA, 696,179 acres of federal DPA, and 105,997 local DPA within the Santa Barbara County Fire District. There is also 3,074 acres of State DPA land within Montecito Fire Protection District and 4,436 acres of State DPA within the Carpinteria-Summerland Fire Protection District.

Santa Barbara County Fire Department is one of six Contract Counties in the State of California. In most cases SRA is protected directly by the California Department of Forestry and Fire Protection (CAL FIRE), however, in Kern, Los Angeles, Marin, Orange, Ventura, Santa Barbara counties, SRA fire protection is provided by the counties under contract with CAL FIRE. Known as "Contract Counties", they protect 3.4 million acres of SRA. Santa Barbara County Fire is contracted to provide wildland fire protection to 797,382 acres of SRA within Santa Barbara County (see Figure 3). This includes the State DPA acres located within both the Montecito Fire Protection District and the Carpinteria-Summerland Fire Protection District.

CAL FIRE provides funding to the six Contract Counties for fire protection services including wages of suppression crews, lookouts, maintenance of firefighting facilities, fire prevention assistants, pre-fire management positions, dispatch, special repairs, and administrative services. CAL FIRE’s budget also provides for infrastructure improvements, and expanded firefighting needs when fires grow beyond initial attack. This funding is based on the State objective of suppressing 95% of SRA wildland fires at 10 acres or less.

Contract Counties are responsible for providing initial response to fires on SRA land within the State DPA. When a wildland fire escapes this initial attack, CAL FIRE responds with firefighting resources to assist the county. In addition, the Contract Counties provide assistance to CAL FIRE Ranger Units across California when needed.

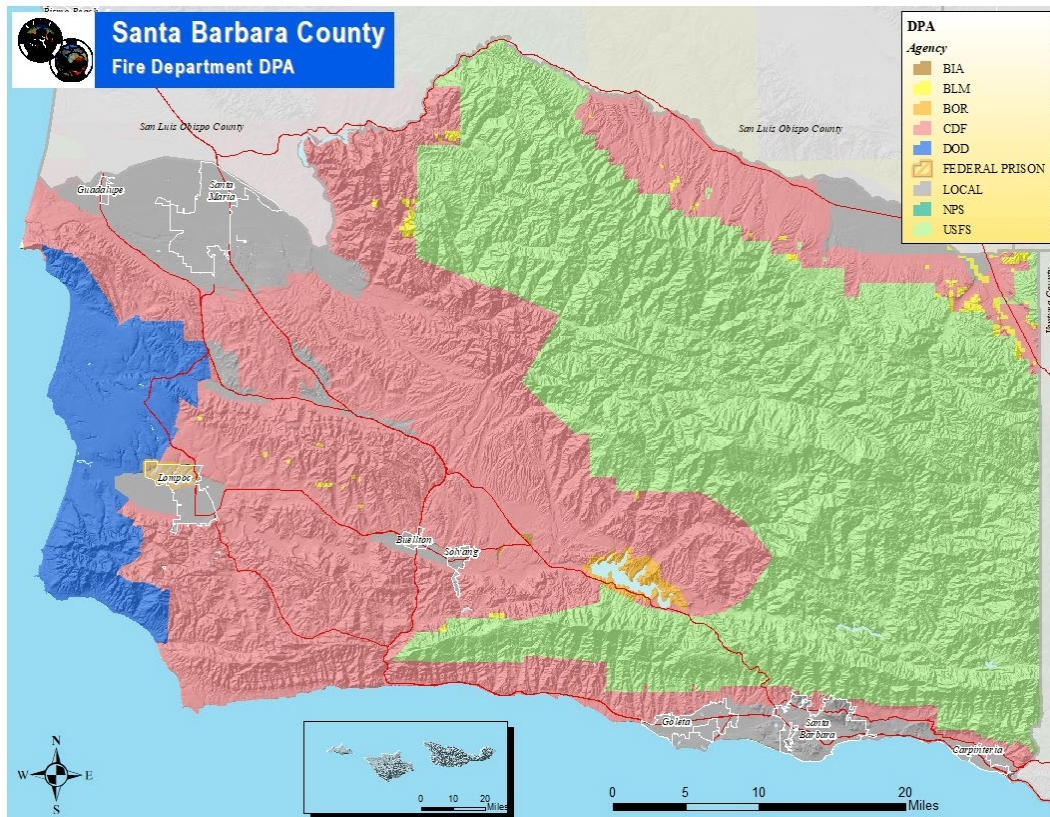


Figure 2: Santa Barbara County DPA

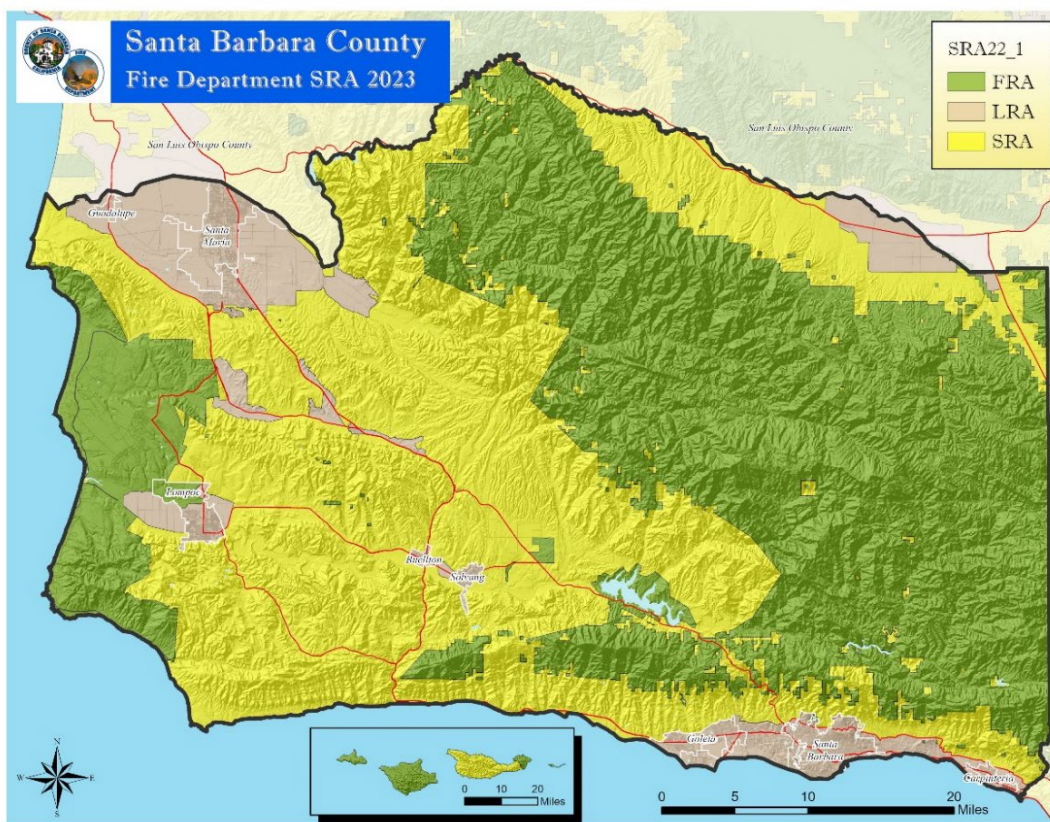


Figure 3: Santa Barbara County SRA

Physical Description

Santa Barbara County is located on the Central Coast of California, approximately 100 miles northwest of Los Angeles and 300 miles south of San Francisco. The County includes four of the five Channel Islands that make up the Channel Islands National Park: San Miguel, Santa Cruz, Santa Rosa, and Santa Barbara Islands. The County occupies approximately 2,748 square miles, one-third of which is located in the Los Padres National Forest. Bordered on the West and South by the Pacific Ocean, the County has 110 miles of coastline. The Counties of Ventura to the east, San Luis Obispo to the north, and Kern to the northeast border the County.

As of July 2022, the US Census Bureau estimated County population was 443,837³. This includes the unincorporated communities of Burton Mesa, Castalia, Cuyama, Eastern Goleta Valley, Gaviota, Isla Vista, Los Alamos, Los Olivos, Montecito, Orcutt, Santa Ynez, and Vandenberg Village as well as the incorporated cities of Buellton, Carpinteria, Goleta, Guadalupe, Lompoc, Santa Barbara, Santa Maria, and Solvang. The cities of Santa Barbara and Santa Maria are the largest populated cities in the county.

The County is situated among a series of transverse mountain ranges. These mountain ranges bisect the County east to west, dividing it into its northern, central, and southern portions. The South Coast area is a narrow coastal terrace between the Pacific Ocean and the Santa Ynez Range, extending from Rincon Point on the east to Point Conception on the west. The Santa Ynez Range rises from 1,500 to 4,200 feet and is characterized by sharp transverse ridges separated by steep-walled canyons.

The central area of the County is characterized by lower rolling hills and broad, flat valleys. The east-west trending Santa Ynez River forms the Lompoc and Santa Ynez Valleys. These valleys, together with the Santa Rita Valley and Santa Rita Hills comprise the southern portion of the central coast lowlands. The Santa Ynez River lies between the Santa Ynez Range on the south and the Purisima Hills on the north. The northern portion of the central coast lowlands is defined by the Purisima Hills on the south and the Casmalia and Solomon hills on the north. These hills range from 1,340 to 1,840 feet and define the San Antonio Valley and the Los Alamos lowland. The Santa Maria Valley lies just north of the Casmalia and Solomon hills and extends northward into San Luis Obispo County, eastward toward the town of Sisquoc, and westward to the Pacific Ocean.

The northeastern area of the County is a diverse region lying almost entirely within the Los Padres National Forest. The Sierra Madre Range binds the Cuyama Valley in the extreme northeast corner on the south with elevations up to 5,485 feet. South of the Sierra Madre Range lies the Sisquoc River Valley and south of this lies the San Rafael Mountains. The County includes two wilderness areas located in the National Forest: San Rafael Wilderness and the Dick Smith Wilderness. Big Pine Mountain (6,828 feet), the highest point in the County, is in the San Rafael Range.

³<https://www.census.gov/quickfacts/santabarbaracountycalifornia>

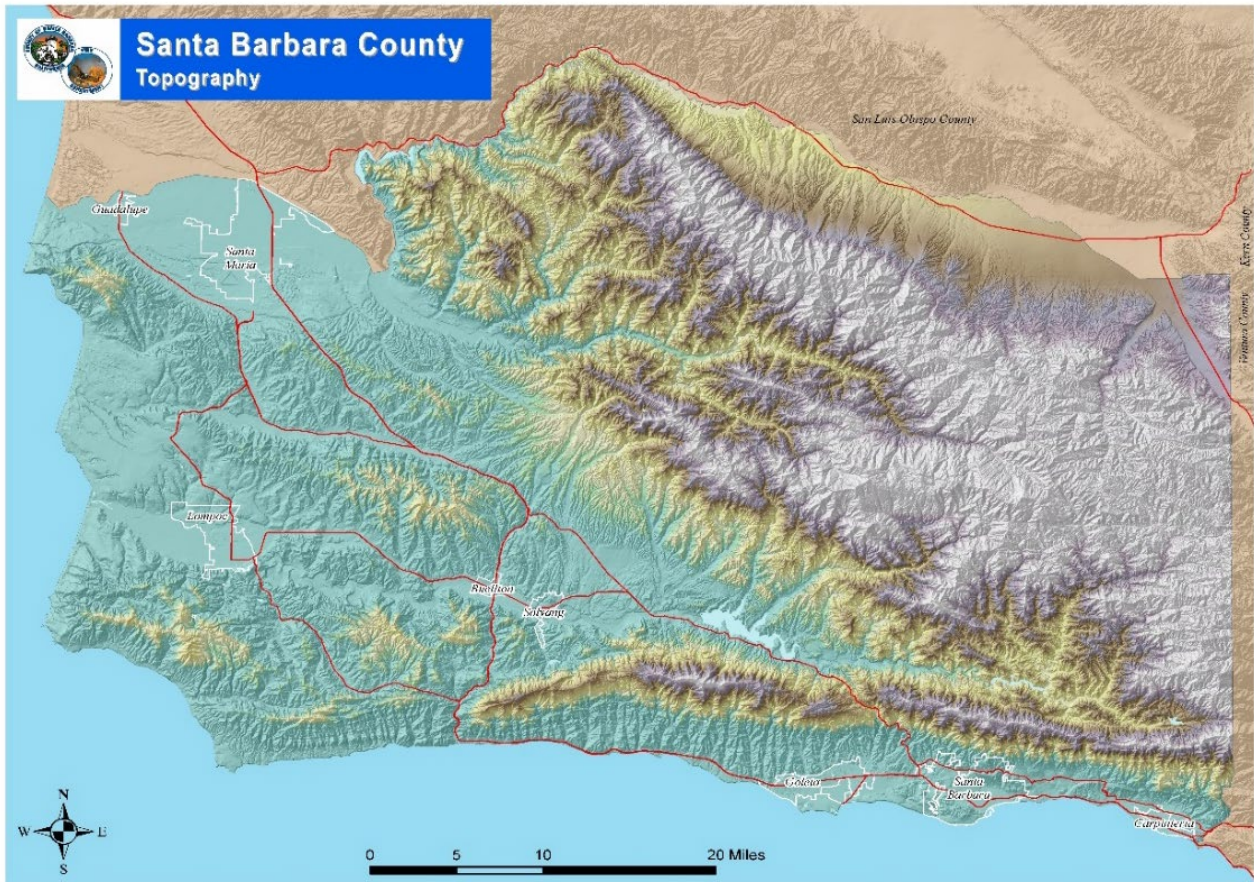


Figure 4: Topography

The County of Santa Barbara has land use regulatory jurisdiction in all unincorporated lands not within the jurisdiction of the Federal or State governments. Major Federal land holdings within the County include 156 square miles (99,604 acres) of Vandenberg Space Force Base and approximately 1,211 square miles of (775,040 acres) of Los Padres National Forest. Other Federal Agencies that have land holdings within Santa Barbara County include the Bureau of Land Management, Bureau of Reclamation, Bureau of Indian Affairs, and the National Park Service. State lands within the County include 4.76 square miles (3,047 acres) of State beaches, 8.1 square miles (5,200 acres) of the Burton Mesa Ecological Reserve, and 1.5 square miles (966 acres) at La Purisima Mission in the Lompoc area.

Vegetation/Fuels

Santa Barbara County has approximately 797,382 acres of State Responsibility Area (SRA), the bulk of which is covered with fire-prone vegetation. Additionally, there are 820,124 acres of Federal Responsibility Area (FRA) and 139,556 acres of Local Responsibility Area (LRA) within the County. These large areas of vegetation are commonly referred to as “fuel beds” and are often large in size due to steep topography and lack of roads or natural barriers. The average slope in the wildland areas is 40%.

Chaparral provides the most widespread wildland fuel threat in Santa Barbara County. It can be found on the slopes of the Santa Ynez Mountains, throughout the Sierra Madre, and

San Rafael mountains, and locally in northern Santa Barbara County in the Casmalia, Solomon, Purisima and Santa Rosa Hills, and in the Lompoc and Tranquillion Peak areas of Vandenberg Space Force Base. These vegetation communities are characterized by woody brush and shrubs of chamise, ceanothus and manzanita, which dominate dry rocky slopes and provide erosion control and watershed protection. A unique chaparral community, the Burton Mesa Chaparral, occurs on the sandy terraces north of Lompoc in the Santa Ynez River watershed. This chaparral community includes plants of special concern such as two manzanita species, two ceanothus species, an unusual form of coast live oak and other species of botanic value. Numerous grasslands and fields are found in the County and present the potential for fast moving wildland fires that can transition into heavier fuel beds and tree canopies.

The system used to categorize fuels is documented in the National Wildfire Coordinating Group (NWCG) document NFES 1574 "Aids to Determining Fuel Models for Estimating Fire Behavior" by Hal E. Anderson. These fuel models are commonly referred to as the Fire Behavior Prediction System (FBPS) fuel models. The assessment process further creates four additional custom models to represent non-wildland fuels: (28) Urban Fuels, (97) Agricultural Lands, (98) Water and (99) Barren/Rock/Other. This method produces a fine-grained portrayal of surface fuel conditions. The Fuel Models for Santa Barbara can be seen in Figure 5.

Rainfall plays a big role in vegetation health with drought stressed vegetation more susceptible to large fires. From 2012 to 2016, extreme drought conditions gripped California with rainfall below 70% for 5 consecutive years. In 2017 and 2019, Santa Barbara County had wetter than average years with 136% and 128% respectively however both 2018 and 2021 were below 55%. The 2022 season averaged 64% county wide. The prolonged period of extreme drought during 2012-2016 resulted in significant tree mortality across Santa Barbara County and still affects the vegetation today. In the lower elevations large numbers of oak trees have been affected and while in the higher elevation within the Los Padres National Forest, there has been widespread conifer mortality. Drought has always been a recurring and cyclical reality in the region, and the natural biomes are well adapted to historical drought patterns. The 2012-2016 drought exceeded historic norms and caused significant stress to native and introduced/cultivated vegetation. At time of writing, Santa Barbara County was 205% of normal rainfall to date (Water year 22/23 Sept 1st - August 31st), with 3 of our 4 reservoirs now at 100%. Thus, taken us out of this historic decade long drought.

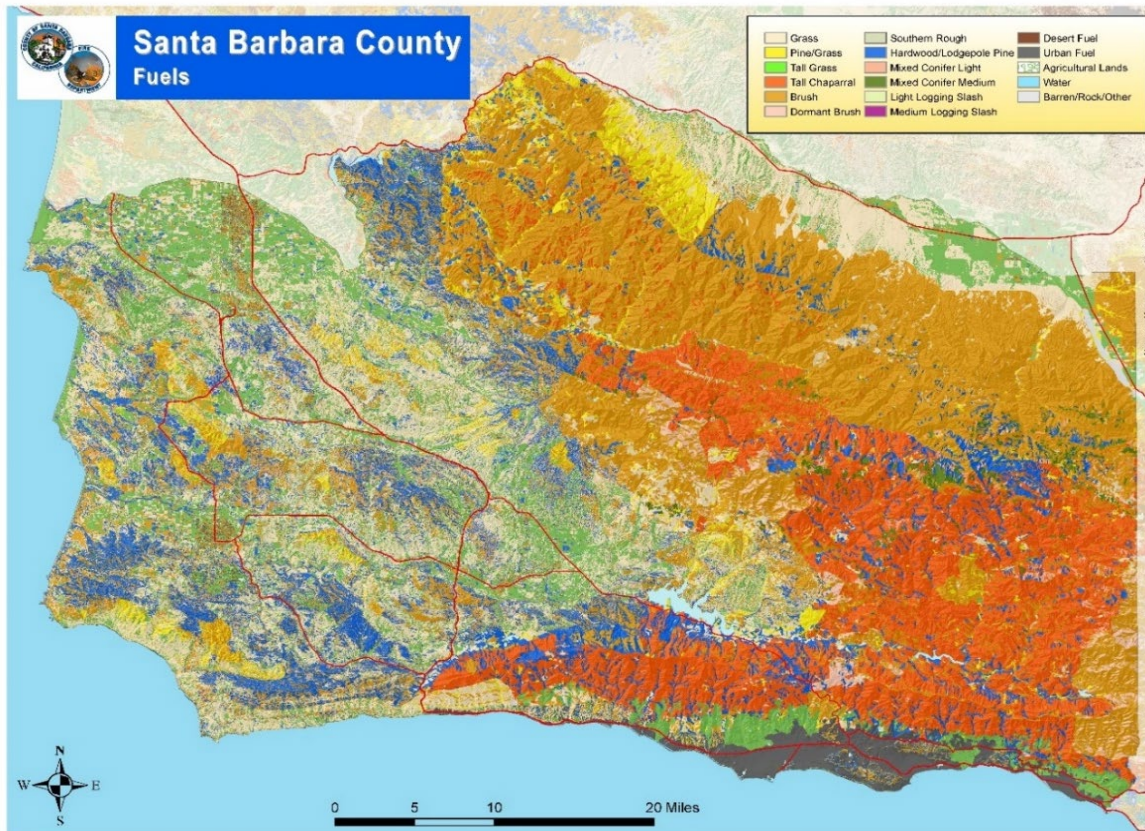


Figure 5: Fuels

It is a commonly accepted concept that fire is a necessary part of the natural life cycle of the chaparral ecosystems in Santa Barbara County. Without fire, the chaparral-covered terrain of Santa Barbara County reaches an unhealthy state where the ratio of dead material to live plant structure becomes unbalanced. As the chaparral ages, more and more decadent growth adds to the fuel load (expressed in tons per acre), which contributes to the large, high intensity and costly wildfires. Since 2000, there have been multiple large fires that have burned 566,928 acres of the county. Some notable fires since 2000 are the Zaca, Gap, Sherpa, Alamo, Whittier, and Alisal Fires. The 2017 Thomas Fire was the largest California wildfire at the time but is now 7th largest in the State's history. The 1990 Paint Fire, the 2008 Gap Fire, and 2009's Jesusita and Tea Fires serve as enduring reminders of extreme fire behavior and the devastating results that can occur when fire, chaparral and Sundowner winds are combined. Historically, fires occurred naturally as a result of lightning or were introduced by native inhabitants. The Chumash Indians, during the late 18th century, were said to have purposefully burned the native vegetation to promote the growth of certain plant resources. The occurrence of fire on a regular basis, whether natural or introduced, tended to promote ecosystem health and reduced the number of large, high intensity fires.

Climate

Santa Barbara County has a semi-arid Mediterranean climate, characterized by warm dry summers and mild winters. Sunny skies are common throughout most of the area, although

seasonal low clouds and fog occur with some frequency over the Pacific Ocean and in the immediate coastline. Mild temperatures occur throughout the year, particularly near the coastline. There is considerably more temperature variations occurring in the inland valleys and mountainous areas. Maximum readings in summer average about 80°F near the coast to 105°F in the interior. In winter, minimum temperatures can range from the 40's along the coast to the 30's inland.

Precipitation is confined primarily to the winter months. Annual averages range from about 6 inches in some inland areas to over 30 inches in higher mountain areas. Occasionally, tropical air masses bring rainfall in summer months. In general, the mountains of the southeastern part of the County receive 20 to 25 inches of rainfall in the course of the year, with less than 20 inches being characteristic of the immediate southern coastline. Most of the western half of the County, receives from 11 to 15 inches of precipitation, up to 20 inches or more falling at some high elevation points in the Santa Ynez Mountains and in parts of the San Rafael Mountains.

Seasonal totals vary considerably from year to year. Low elevations in the western part of the County, for example, during a 20-year period can receive as little as 5 inches in the driest year and 25 inches in the wettest year. In the mountainous areas of the eastern part of the County, annual totals range from a low of 15 inches to a high of 78 inches within a 20-year period. Western stations receive from 10 to 18 inches of moisture in half of the years, while in the mountains to the east; these figures are 25 to 40 inches.

Wind speeds are usually light to moderate and tend to be highest in association with winter storms. A diurnal wind pattern (land and sea breeze) characterizes most of the area, with westerly (on-shore) winds common in daytime and light easterly (offshore) winds predominant at night. The many deep canyons running out of the coastal mountains towards the coast therefore tend to catch and concentrate these winds, enhancing the fire threat in warm, dry weather.

Santa Barbara County lies in a transitional area between several characteristic air masses. To the west, marine air over the Pacific Ocean exerts a major influence. This area is dominated by a large high-pressure cell, which is present throughout the year but is strongest and most persistent during spring, summer and autumn. This high-pressure cell tends to block storm systems approaching the area from the west, causing them to move well to the north. In addition, clockwise wind flow patterns around the high-pressure cell cause relatively cool marine air to flow eastward toward the California coast, producing the characteristic "sea breeze" conditions. A persistent inversion layer (warm air above cold air) accompanies the high-pressure cell.

A second major air mass region lies over the desert areas of the southwestern United States. The generally warm conditions over the desert cause the near-surface air to rise due to the intense heating near the ground. This produces low atmospheric pressure, which tends to draw in surrounding air, including eastern-moving marine air (the sea breeze) near the Pacific High. Occasionally, however, strong high pressure over the desert causes a reversal of this flow pattern. During such periods, strong gusty east winds

(commonly known as Santa Ana Winds) carry inland air toward the coastline and out over the Pacific, leading to clean, clear atmospheric conditions in many areas.

Sundowner Winds

Santa Ana winds which occasionally affect the counties of Ventura, Los Angeles, and Orange to the south leave Santa Barbara County virtually untouched. The only disturbance to this idyllic picture comes when downslope winds pour across passes in the Santa Ynez Range, descending onto the Santa Barbara front country.

These winds are “sundowners,” Santa Barbara’s special version of the Santa Ana regime. Sundowners frequently occur in the late afternoon or evening hours – hence the name. Light sundowners create irregular rises in temperature with moderate offshore breezes. Stronger sundowners, occurring two or three times a year, can create sharp temperature rises, extremely low relative humidity, local gale force winds, and significant weather-related problems. In rare events (around 6 or 7 times in the last century) an “explosive” sundowner has occurred causing extremely strong and hot winds that present a very dangerous weather situation. In these events, super-heated air from the Santa Ynez Valley bursts across the Santa Ynez Mountains and onto the coastal plain reaching gale force or higher speeds within the City of Santa Barbara. Dust storms occur, fires can race down the mountain slopes, and great stress is felt by the human population, by animals, and by plants.

During the Painted Cave Fire sundowner event, the official Federal Aviation Administration (FAA) observing station at Santa Barbara airport reported a maximum temperature of 109°F (42.7°C), remarkable for a location on the coastal plain within 2 km of the ocean itself [where the sea surface temperature was approximately 65°F (18.3°C)]. As noted by [Ryan and Burch \(1992\)](#) and [Ryan \(1994\)](#), even this wind event pales in comparison to the June 17, 1859 Sundowner. A rather dramatic and colorful description of this event is provided by the following passage taken from the *Coast Pilot of California* ([Davidson 1869](#)).

- ❖ “The only incident of the “*poison wind*” on this coast, mentioned either in its history or traditions, was that occurring at Santa Barbara, on Friday, the 17th of June 1859. The temperature during the morning was between 75° and 80°, and gradually and regularly increased until about one o’clock p.m., when a blast of hot air from the northwest swept suddenly over the town and struck the inhabitants with terror. It was quickly followed by others. At two o’clock the thermometer exposed to the air rose to 133°F, and continued at or near that point for nearly three hours, whilst the burning wind raised dense clouds of impalpable dust. No human being could withstand the heat. All betook themselves to their dwellings and carefully closed every door and window. The thick adobe walls would have required days to have become warmed, and were consequently an admirable protection. Calves, rabbits, birds, etc., were killed; trees were blighted; fruit was blasted and fell to the ground, burned only on one side; and gardens were ruined. At five o’clock the thermometer fell to 122°, and at seven it stood at 77°. A fisherman, in the channel in an open boat, came back with his arms badly blistered.”

There is currently an experiment being conducted by Sundowner Winds Experiment in partnership with National Weather Service and Santa Barbara County Fire to try and get a better understanding of these Sundowner Winds.

Fire History

Since 2008, Santa Barbara County experienced 14 major fires in which 6 of these fires (Gap, Tea, Jesusita Sherpa, Whittier, Thomas, and Holiday Fires) directly threatened the County's front country. Three of these fires: The Tea, Jesusita and Holiday Fires destroyed over three hundred structures and scorched 17 square miles. One of the consequences of fires is flooding and extreme debris flow. The debris flows after the 1964 Coyote, 1971 Romero, and 2017 Thomas Fires were well documented and examples of the flood damage after fires have devastated local watersheds. As a result of the Thomas Fire in 2017, a massive debris flow in January 2018 devastated the Montecito community causing flooding through the watersheds which destroyed and damaged hundreds of homes, claimed the lives of 23 people and injured many others.

The White, Rey, La Brea, Alamo and Zaca Fires combined burned a total of 619 square miles predominately in backcountry areas of the County. Although the La Brea Fire only came within a mile of the community of Tepusquet Canyon, the Alamo Fire destroyed or damaged several homes. And even though these fires did not directly threaten urban areas, the smoke and ash produced created air quality issues for over one hundred miles.

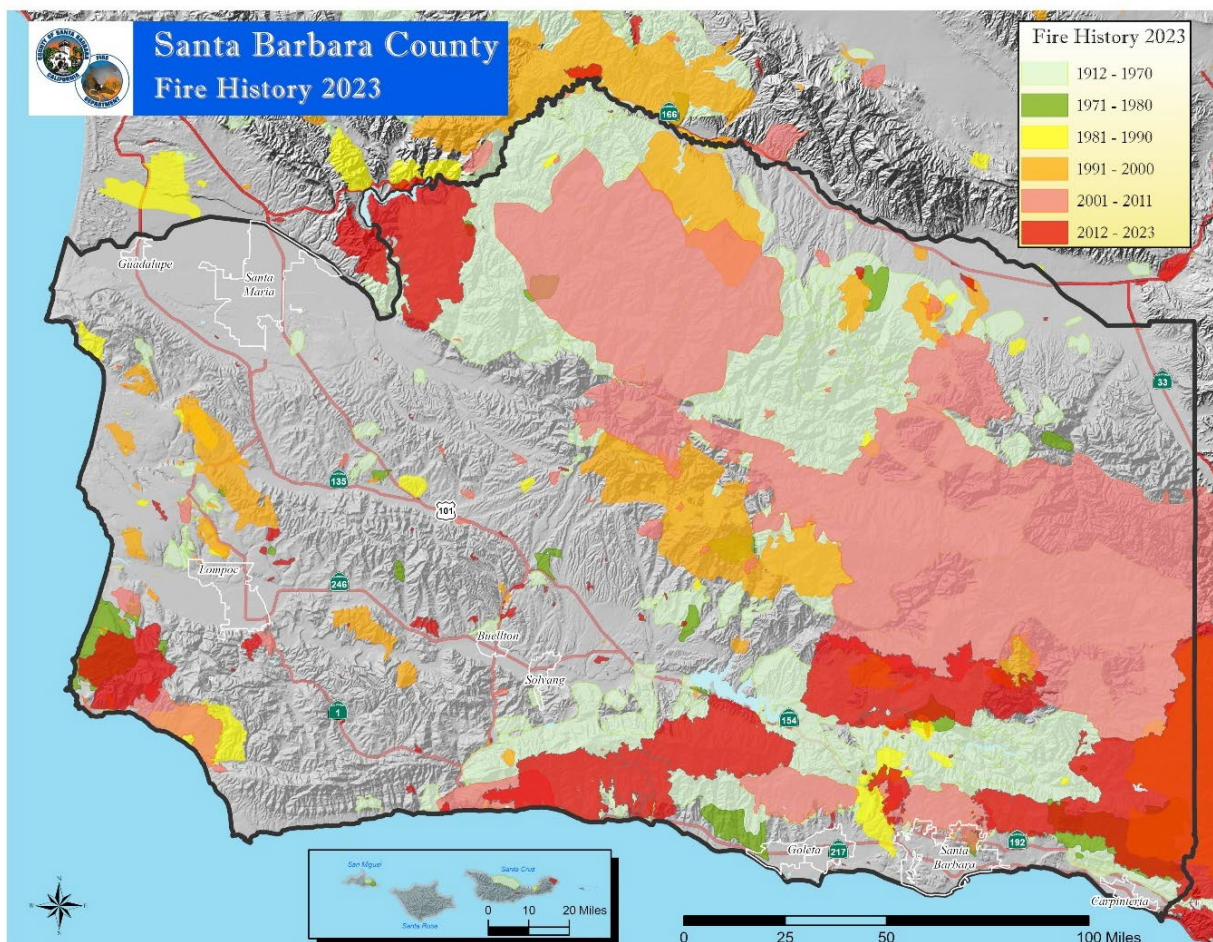


Figure 6: Fire History

Major Wildfires in Santa Barbara County 1955-2023					
Fire	Date	Cause	Acres Burned	Structures Damaged or Destroyed	Deaths
Alisal	October - 2021	Under Investigation	16,953	12	0
Cave	November-2019	Arson	3126	0	0
Holiday	July – 2018	Powerlines	113	28	0
Thomas*	December-2017	Powerlines	281,893	1063	2**
Whittier	July-2017	Vehicle	18,430	53	0
Alamo	July-2017	Under Investigation	28,687	15	0
Canyon	August-2016	Under Investigation	12,518	1	1
Rey	September-2016	Powerlines	33,606	0	0
Sherpa	June-2016	Miscellaneous	7,474	1	0
White	May-2013	Miscellaneous	1,984	0	0
La Brea	August-2009	Miscellaneous	91,622	1	0
Jesusita	May-2009	Equipment Use	8,733	80	0
Tea	November-2009	Campfire	1,940	210	0
Gap	July-2008	Miscellaneous	9,443	4	0
Zaca	July-2007	Equipment Use	240,207	1	0
Perkins	July-2006	Lightning	14,988	0	0
Gaviota	July-2004	Lightning	7,440	1	0
Marre	September-1993	Smoking	43,822	0	0
Paint	June-1990	Arson	4,270	673	1
Wheeler	July-1985	Miscellaneous	119,361	26 (on border with Ventura County)	0
Honda	December-1977	Powerlines	10,000	0	4
Sycamore	July-1977	Kite into Powerlines	806	234	0
Romero	October-1971	Arson	14,538	4	4
Coyote	September-1964	Undetermined	65,338	94	1
Refugio	September-1955	Structure Fire	79,428	20	0

*Started in Ventura County with majority of acres and structure loss in Ventura County

**20 civilian deaths and 2 missing persons from resulting debris flow that followed

Table 2 Major Fires Last 68 Years

Unit Priority Landscapes

The *California's Forests and Rangelands: 2017 Assessment*⁵ prepared by the California Department of Forestry and Fire Protection Fire and Resource Assessment Program (FRAP) presents an analysis of trends, conditions, and the development of priority landscapes in California. The assessment showed that in addition to communities in the wildland urban interface being a high priority from the threat of wildfire, rangelands and protected habitats in the County are high priority areas as well.

Unit Priorities

General Unit priorities:

- ✓ Maintain suppression and emergency response resources.
- ✓ Update and implement Fire Department Development Standards.
- ✓ Implement Title XIV - Fire Safe Regulations
- ✓ Enforce adopted California Fire Codes.
- ✓ Enforce Defensible Space laws and ordinances.
- ✓ Educate and inform the public.
- ✓ As a contract county for CalFire help achieve goals of California's Wildfire and Forest Resilience Action Plan.

Implement and maintain the Red Flag Warning Plan.

- ✓ Maintain roadside vegetation clearance along key roads throughout County.
- ✓ Work collaboratively with the public and other agencies on mutually beneficial prescribed (control) burns and vegetation management projects.
- ✓ Investigate all wildland fires.

⁵ <https://frap.fire.ca.gov/media/4babn5pw/assessment2017.pdf>

UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES

Santa Barbara County Fire

The Santa Barbara County Fire Department responds to emergencies from sixteen fire stations throughout the County, air operations located at the Santa Ynez Airport, a construction section located in Los Alamos and Crews 10, 11 and 12 by Lake Cachuma. The Department operates 16 Type I Engines, 14 Type III Engines, 2 Truck Companies, 3 Type II Bulldozers, 2 Type II Helicopters with water dropping and rescue capabilities, 1 Type I helicopter, 4 Water Tenders, 3 Ambulances, 1 Hazardous Materials Unit, 1 Urban Search and Rescue (USAR) Unit, 2 Water Rescue Units (includes 4 Personal Watercrafts “PWCs” and 2 Inflatable Rescue Boats “IRB”) and 1 Breathing Support Unit.

Santa Barbara County Fire has a contractual agreement with CAL FIRE to provide wildland fire protection on State Responsibility Areas (SRA). The Gray Book is an Exhibit of the “Contract County Agreement” which identifies resource allocations, which CAL FIRE considers necessary for the protection of SRA and provides funding accordingly. In Santa Barbara County, the Gray Book provides for nine stations, two bulldozers, two vegetation management positions, and fire prevention staffing.

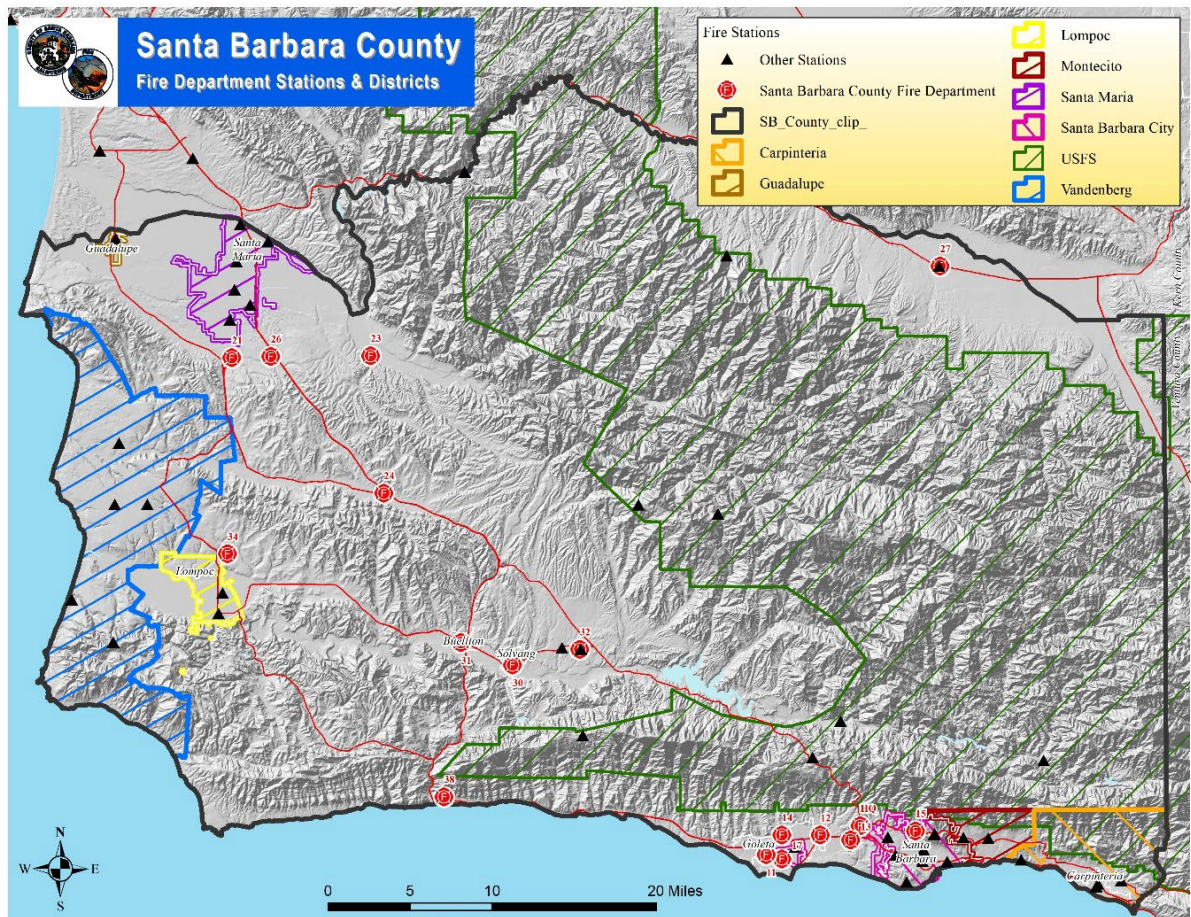


Figure 7: Fire Station and Districts

Battalions

Santa Barbara County is divided into 3 geographical Battalions. Figure 8 represents the current direct protection areas for the County, battalion division breaks, and county fire station locations.

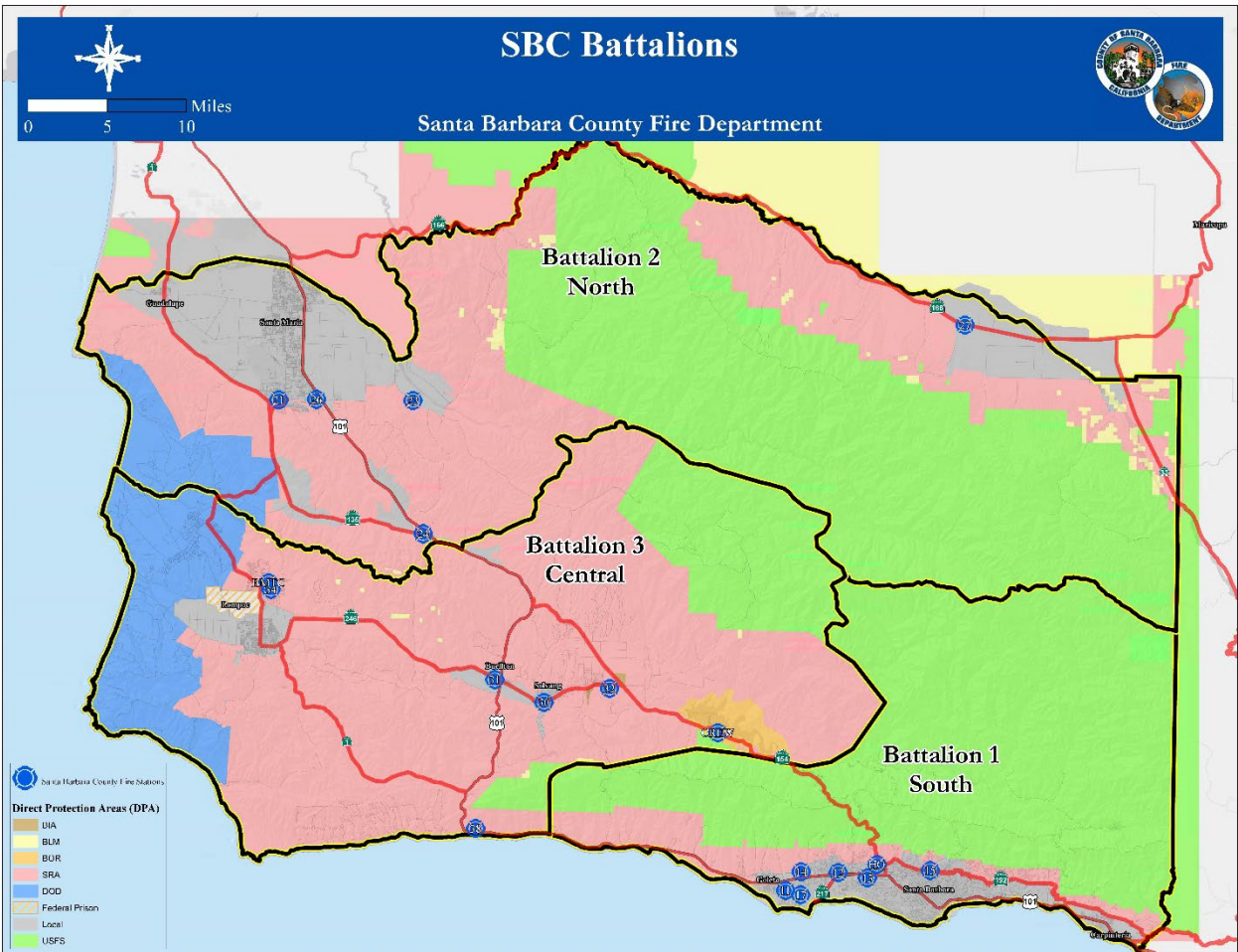


Figure 8: Battalion Locations

Battalion 1

Battalion 1 is characterized by cities located along the coast and communities sprawling into the southern slopes of the Santa Ynez Mountain Range. Battalion 1 is served by six County fire stations distributed throughout the unincorporated areas on the South Coast of the County including UCSB and the City of Goleta.

The predominant vegetation type in the wildland areas is chaparral and coastal sage scrub.

Weather in Battalion 1 is typical to other coastal communities of central and southern California. The many deep canyons running out of the coastal mountains towards the coast tend to catch and concentrate winds, enhancing the fire threat in warm, dry weather. As mentioned earlier, the area is subject to “sundowner” winds that have contributed to the severity of wildland fires in Battalion 1. From 2016 to 2021, with drought stressed chaparral and fuels in their path, the major fires of Sherpa, Whittier, Thomas, Holiday, and Alisal

burned 90,215 acres within Santa Barbara County and threatened the front country communities.

In previous years, the Paint Fire in 1990 resulted in one death and the loss of 673 homes, the Gap Fire in 2008 burned 9,433 acres above the city of Goleta, the Tea Fire in 2009 destroyed 210 homes, the Jesusita Fire in 2009 destroyed 80 homes, and the Holiday fire destroyed 28 homes.

Battalion 2

Unlike the other battalions, Battalion 2 is spread out over a very large geographical area and consists of five County Fire stations covering some of smaller rural communities like Los Alamos, Sisquoc, and Cuyama but also covering the larger community of Orcutt.

Vegetation in Battalion 2 varies from agricultural fields and grass covered range in the valleys with chaparral covering the slopes of the surrounding mountains. Weather in Battalion 2 is a typically semi-arid Mediterranean climate with large variation in weather conditions from the Santa Maria Valley, which is in close proximity to the coast, to the Cuyama Valley which is in the far northeast corner of the County. Maximum temperatures can reach 105°F in the interior valleys and minimum temperatures can drop to the low 30's. The mountainous terrain also lends itself to strong winds that follow diurnal patterns. When the valleys and slopes are preheated during hot summer days it results in strong up valley and upslope winds that typically peak in the afternoon creating hazardous fire weather conditions.

Battalion 3

Battalion 3 consists of 5 County Fire stations and is central to the county including The Hollister Ranch, Santa Ynez Valley, and surrounding Lompoc area. The vegetation in Battalion 3 varies from vineyards with open grass/rangeland mixed with native oak tree in the Santa Ynez and Lompoc Valleys to chaparral and brush on the slopes of Santa Ynez and San Rafael Mountains. The Hollister Ranch community is located between Highway 101 to the east and the Pacific Ocean to the west has no reported major fire history (fires over 200 acres). The fuel beds are continuous and contain a high percentage of dead and down fuel. The wildland areas are dominated by chaparral, which poses the most widespread wildland fuel threat. The Rey Fire in 2016, the White Fire in 2013, the La Brea Fire in 2009 and the Zaca Fire (consisted of both Battalion 2 and 3) in 2007 combined burned in excess of 366,949 acres in the backcountry of the County. Along the central coast, the Canyon Fire grew to 12,518 acres in 2016 in an area typically characterized by a persistent marine layer and cool temperatures

Additional Fire Agencies in Santa Barbara County

- Santa Barbara City Fire Department
- Santa Maria Fire Department
- Lompoc Fire Department
- Guadalupe Fire Department
- Carpinteria-Summerland Fire Protection District
- Montecito Fire Protection District
- USDA Forest Service-Los Padres National Forest
- Department of Defense- Vandenberg Space Force Base Fire Department

Cooperative Fire Services

A cornerstone of the fire protection system in Santa Barbara County is the *Santa Barbara Operational Area Mutual Aid Plan* which is updated on a regular basis. In Santa Barbara County, no single local fire agency can muster the resources necessary to mitigate large scale emergencies on an on-going basis, such as large wildfires, hazardous materials responses, and urban search and rescue responses. The California Fire Master Mutual Aid Agreement requires each county to have a mutual aid plan. Because several cities and unincorporated areas of the County provide their own fire protection services, the *Santa Barbara Operational Area Mutual Aid Plan* becomes an essential mechanism for coordinating fire protection resources.

Mutual Aid takes on several different forms. For initial attack purposes, mutual aid and automatic aid facilitates the day-to-day responses where the closest resources are dispatched regardless of jurisdictional boundaries. Because several of the agencies maintain their own dispatch centers, any aid request must be relayed between dispatch centers. However, a regional dispatch center has been approved by the board and construction has begun at time of writing. Within Santa Barbara County agreements have been made between all agencies with regard to dispatch protocols and dispatch procedures (automatic aid and mutual aid). In addition, Santa Barbara County also has agreements with Kern County, San Luis Obispo County, and Ventura County. If an incident requires reinforcement resources that cannot be met through local mutual aid agreements, the California Fire Service and Rescue Emergency Mutual Aid Plan is followed. All fire service entities in California are signatory to the California Fire Service and Rescue Emergency Mutual Aid System, Mutual Aid Plan⁶.



Santa Barbara Operational Area

⁶ <https://www.caloes.ca.gov/FireRescueSite/Documents/CalOES - Fire and Rescue - Mutual Aid Plan.pdf>

SECTION II:COLLABORATION

COMMUNITY/AGENCIES/FIRE SAFE COUNCILS

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

In future updates the planning team will grow as interested parties provide input. The goal is to involve as many organizations as possible and meet the intent of the California Strategic Fire Plan.

Included in italics are organizations Santa Barbara County collaborates with on a regular basis.

Plan Development Team:

Organization	Representative (title)
<i>Santa Barbara County Fire Safe Council</i>	Paul Van Leer, President
<i>Los Padres National Forest</i>	Chris Stubbs, Forest Supervisor
<i>Santa Barbara City Fire</i>	Mark VonTillow, Wildfire Specialist
<i>City of Goleta</i>	Anne Wells, Advance Planning Manager
<i>Mission Canyon Association</i>	Ray Smith, Board Member
<i>Vandenberg Fire</i>	Mark Smith, Assistant Chief
<i>CA Department of Fish and Wildlife</i>	Ed Pert, Regional Manager
<i>Fire Associates for the Community of Tepusquet</i>	Renee Oneil, Board Member
<i>Carpinteria-Summerland Fire Protection District</i>	Greg Fish, Fire Chief
<i>City of Buellton</i>	Scott Wolfe, City Manager
<i>Hollister Ranch Owners Association</i>	Scott Coffman, Board member
<i>Montecito Fire Protection District</i>	Aaron Briner, Fire Marshal
<i>Santa Barbara Range Improvement Association</i>	Paul Righetti, President
<i>City of Solvang</i>	Brad Vidro, City Manager
<i>Santa Barbara County Ag Advisory Committee</i>	Paul Van Leer, Chairperson
<i>Santa Barbara County Planning Department</i>	Elise Dale, Assistant Director

SECTION III: VALUES

VALUES

Knowledge of the types and magnitudes of assets at risk to wildfire, as well as their locations, are critical to fire protection planning. Given the limits on fire protection resources, they should be allocated, in part, based on the magnitude of the assets being protected. Knowledge of assets at risk is necessary to choose those pre-fire management projects that will provide the greatest benefit for a given amount of investment. Santa Barbara County Fire Department's primary concern is reducing the fire risk and potential loss of the various assets described here in an effort to provide for the safety and protection of life, property, and the environment while reducing suppression costs.

The primary purpose of wildfire protection in Santa Barbara County is to protect this wide range of assets. Santa Barbara County's priority Values/Assets at Risk include:

- public and firefighter safety
- structures
- vital infrastructure (power lines, gas lines, highways, roads, etc.)
- range
- recreation
- water and watershed
- air quality
- soil erosion
- cultural and historic resources
- unique scenic areas
- wildlife and habitat (including rare and endangered species)

Public and firefighter safety is paramount. As development continues and expands into the wildland urban interface, it becomes more and more difficult to provide protection against the threat of wildfire.

The *California's Forests and Rangelands: 2017 Assessment*⁷ produced a variety of GIS data layers identifying assets, threats, and priority landscapes (combinations of assets and threats into priorities). The data from the 2017 Assessment will help the County assess these values at risk and aid in the design of mitigation activities to address these risks.

COMMUNITIES AT RISK

To help protect people and their property from potential catastrophic wildfire, the National Fire Plan directs funding to be provided for projects designed to reduce the fire risks to communities. A fundamental step in achieving this goal was the identification of communities that are at high risk of damage from wildfire. These high-risk communities

⁷ <https://frap.fire.ca.gov/media/4babn5pw/assessment2017.pdf>

identified within the wildland-urban interface, were published in the Federal Register in 2001. At the request of Congress, the Federal Register notice only listed those communities neighboring federal lands. The list represents the collaborative work of the 50 states and five federal agencies using a standardized process, whereby states were asked to submit all communities within their borders that met the criteria of a structure at high risk from wildfire. The following list contains the federally regulated (communities which adjoin federal lands) communities at risk within Santa Barbara County:

Orcutt	Carpinteria
Santa Barbara	Cuyama
Tajiguas	Casmalia
Vandenberg Air Force Base	Gaviota
Vandenberg Village	Goleta
Mission Hills	Lompoc

With California's extensive urban Wildland-Urban Interface situation, the list of communities extends beyond just those adjacent to Federal lands. After the 2000 fire season the California Department of Forestry and Fire Protection (CAL FIRE), working with the California Fire Alliance, developed a list of communities at risk from wildfire using 1990 Census and USGS Geographic Names Information System data to identify populated places, and CAL FIRE's Fire and Resource Assessment Program (FRAP) fuel hazard data. In addition to the already-mentioned communities, they designated the following as WUI Communities at Risk:

Buellton	Los Olivos
Santa Maria	Garey
Santa Ynez	Guadalupe
Sisquoc	Isla Vista
Solvang	Los Alamos
Summerland	Ventucopa
Montecito	

Combining both lists, there are currently 25 communities on the Communities at Risk List in Santa Barbara County. The California State Forester (CAL FIRE Director) has the role of managing the list. The list can be found on the Cal Fire Office of the State Fire Marshal website:

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

In addition to the 25 State and Federal recognized communities, there are other communities within the county that are also at risk of wildfire and need to be identified. Communities that were not captured in any state or federally recognized list, but have been identified by County Fire and other jurisdictions to be at risk include:

- | | |
|-----------------------------|--------------|
| Cebada Canyon | Toro Canyon |
| El Capitan | Woodstock |
| Jonata Ranch/Bobcat Springs | Hope Ranch |
| Miguelito Canyon | Trout Club |
| Mission Canyon | Rosario Park |
| Painted Cave | Jalama |
| Refugio Canyon | Paradise |
| Tepusquet Canyon | Gobernador |

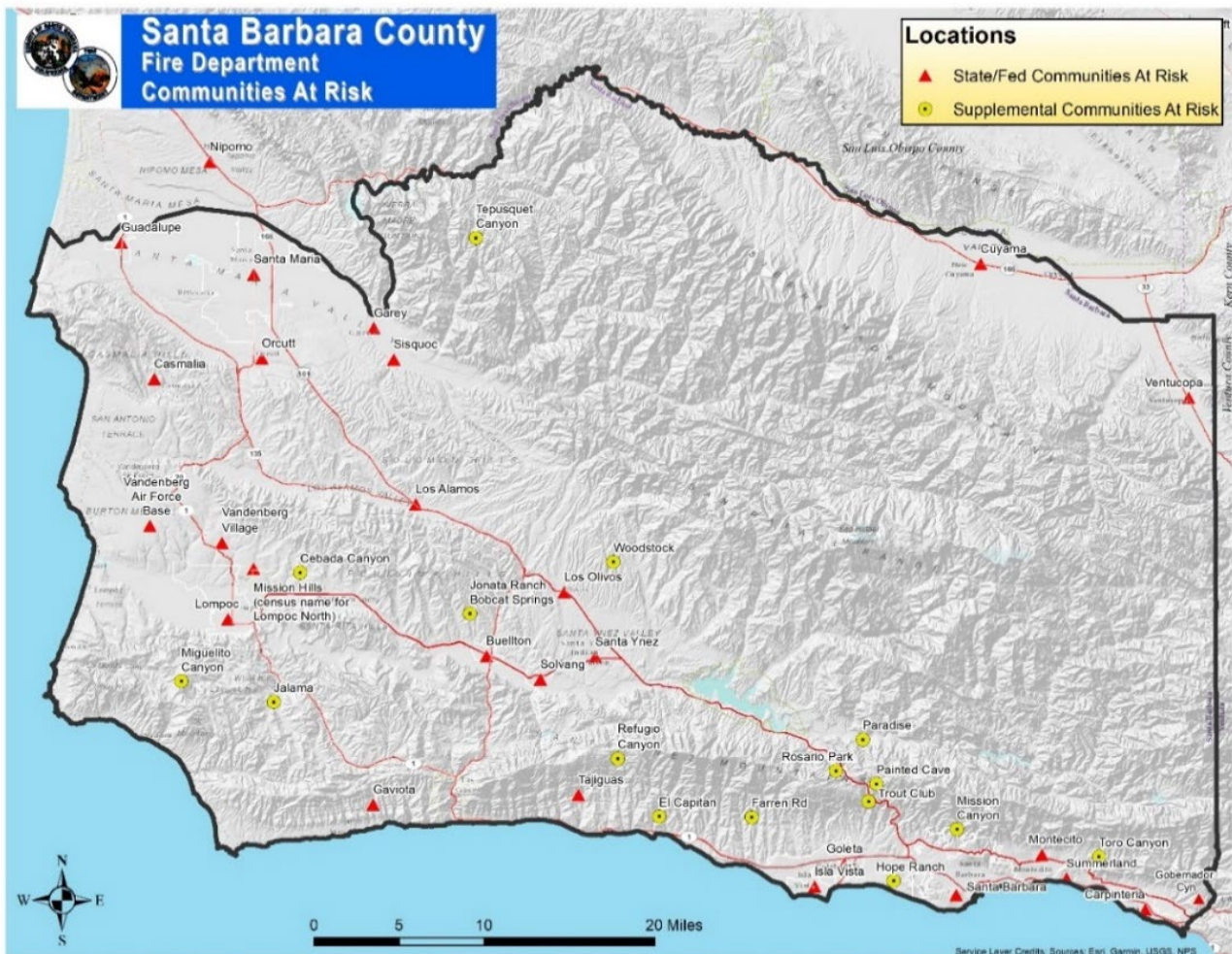


Figure 9: Communities at Risk

SECTION IV: PRE FIRE MANAGEMENT STRATEGIES

FIRE PREVENTION SERVICES DIVISION (FIRE MARSHAL)

The Fire Prevention Services Division is broken into four main sections: Planning and Engineering, Investigation and Enforcement, Inspection Services, and Vegetation Management. The Fire Prevention Services Division is under the supervision of the Fire Marshal and the Deputy Fire Marshal. The ultimate goal of the Fire Prevention Services Division is to provide for public safety by reducing the number and severity of fires countywide through education, development standards and plan review, defensible space requirements and enforcement, permitting, investigations, and code enforcement.

Wildland Ignition

Understanding the root causes of wildland fires as well as the County's local fire history is a critical first step in developing the necessary policies and actions which can mitigate this threat. The causes of wildland fires are linked to two elements: 1) the ignition source which starts the fire, and 2) the fuel which the fire feeds on in order to further propagate itself. It is the County's policy to investigate all wildland ignitions. This is completed by either the engine company Captain in command or one of the unit's fire investigators.

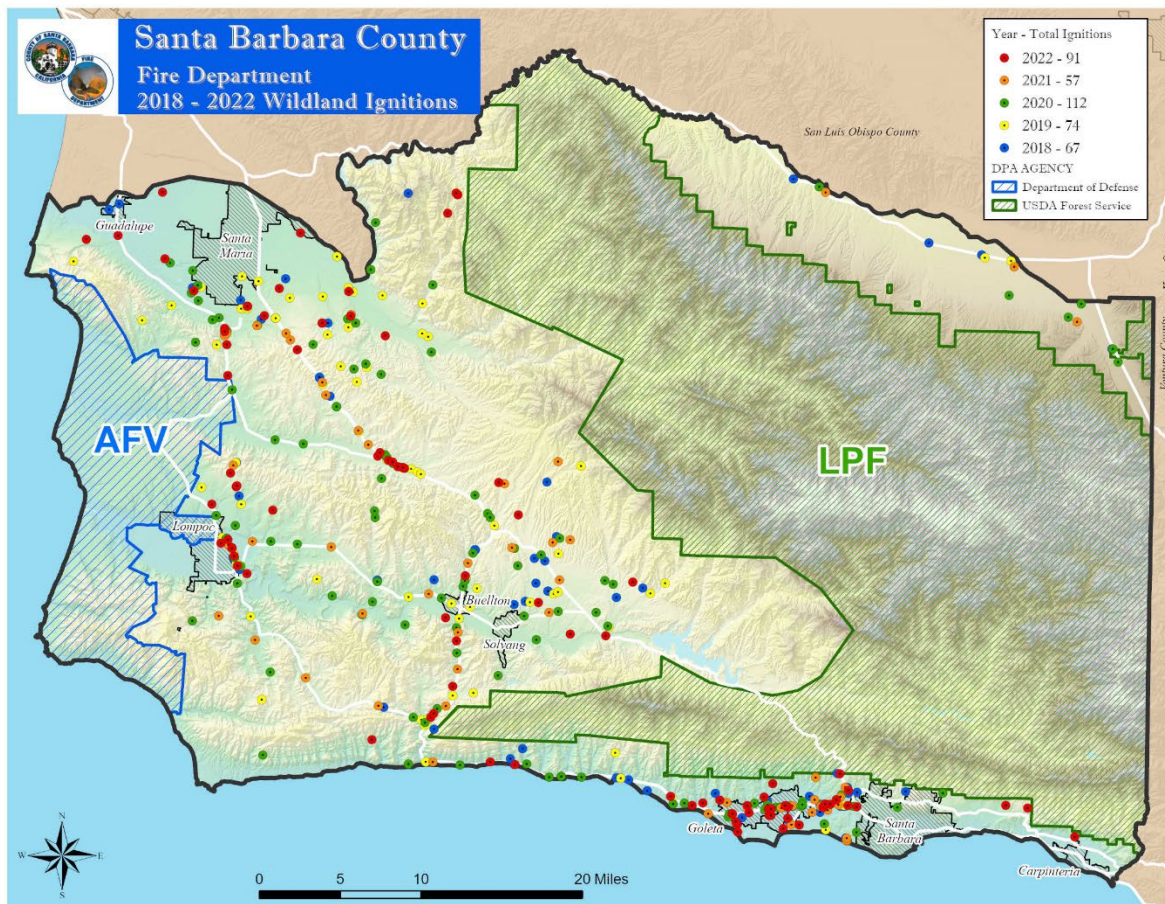


Figure 10: 5 Year Ignition Locations

The map on the previous page (figure 10) is a visual representation of where wildland ignitions occurred over the last five years on SRA and LRA lands. The chart below (table 3) represents the break down by cause of fires occurring over the last five years.

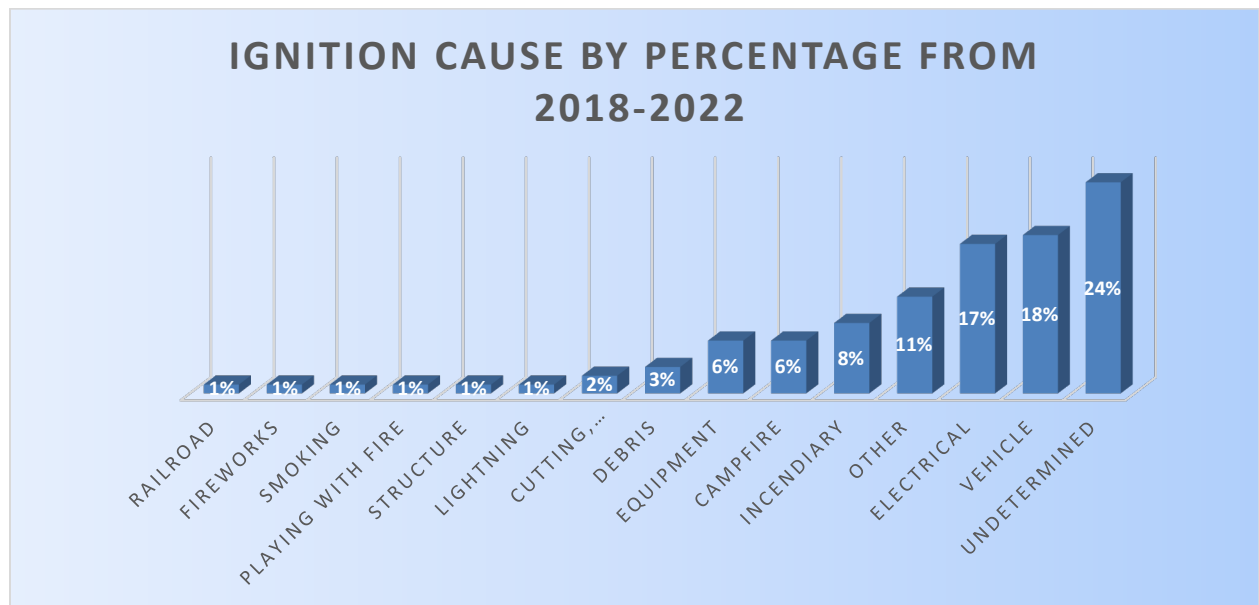
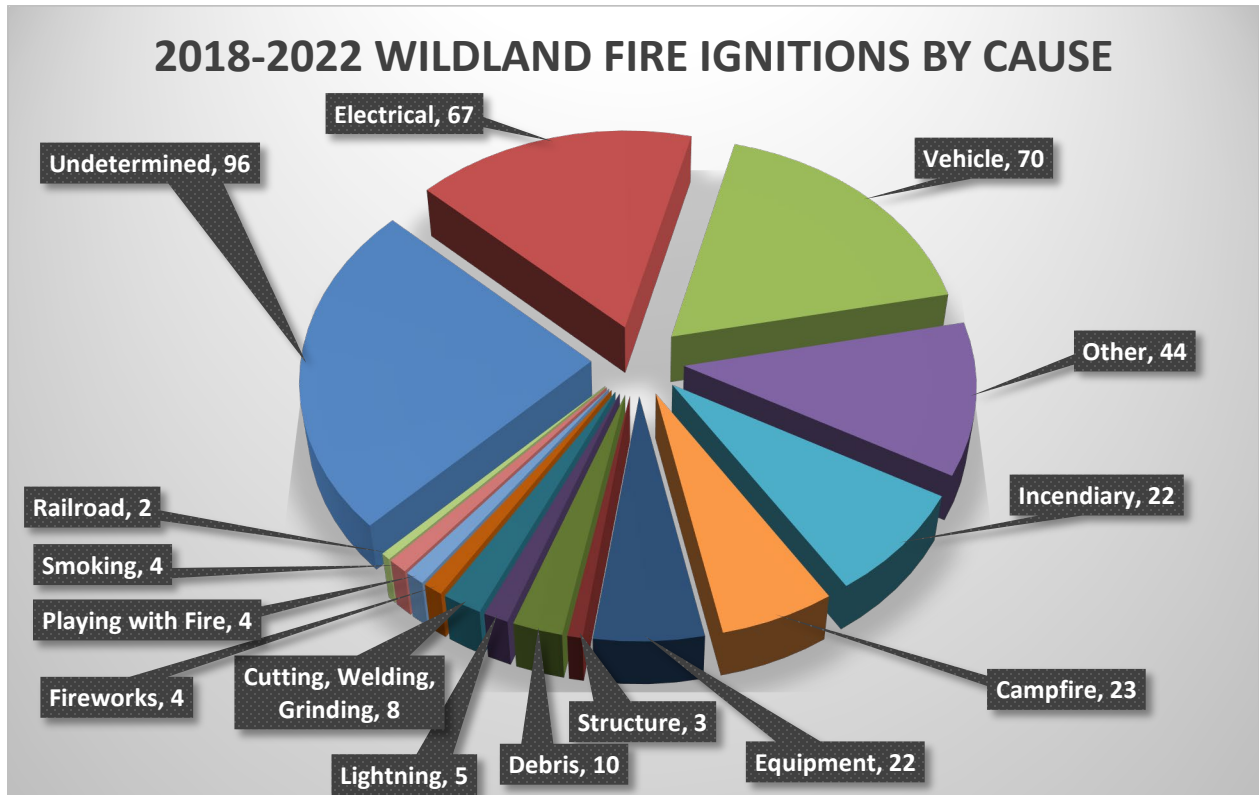


Table 3 Ignitions by Cause

The ignitions data is used to prioritize education programs and identify the need for additional laws and ordinances. Additionally, in 2017, unit ignitions data were utilized in the development of the Santa Barbara County Fire Danger Operating Plan (FDOP). Ignition data from 2007 to 2016 as well as daily weather data from the same period was verified for accuracy, location and fire cause for data entry into FireFamilyPlus software. The FDOP was updated in 2022, reducing the amount of Fire Danger Rating Areas and implementing the overall process by including the Duty Officers with the daily Burning Index forecasting.

The placement of most starts along the map indicates that roadside causes represent a large portion of reported fires. There is an active program in the county administered both by Cal-Trans and Santa Barbara County Public Works to mow along the major highways and roads in order to prevent the escalation of the ignitions along these corridors. Additionally, the Vegetation Management Section manages fuel reduction projects on numerous minor roads identified as target hazards due to location and fuel type. The Santa Barbara County Fire Department Hand Crew, Fuels Crew and Construction Section (dozers, heavy equipment) are the primary resources used to complete these projects. As a result of these actions, most fires are extinguished prior to moving from a small smoldering fire to an actively burning fire.

As a result of the above analysis and the need for accurate ignition information for the FDOP, the unit has recognized the need to educate its personnel on the importance of cause determination follow up and documentation. It is the policy of the unit to determine cause on all wildland ignitions and we pursue an aggressive policy of responding investigators to most ignitions. Some of the undetermined causes from actual fires, are from a lack of follow up to update the report system upon the final determination of the cause.

In order to correct these issues, the unit will be implementing new reporting policies for our personnel to address the issues regarding undetermined causes. This will be accomplished through a department-wide training program specifically addressing the correct coding. In conjunction with the policies and training, the unit Pre Fire Engineer has been tasked with verifying the unit's wildland fire NFIRS reports to verify the validity of the data; including, ignition location, size of the fire and appropriate fire cause.

PLANNING AND ENGINEERING SECTION

Development in the SRA and Very High Fire Hazard LRA

Development in the wildland urban interface provides for a myriad of issues that must be and are addressed through development standards and land use planning. Through collaborative efforts, the Santa Barbara County Fire Prevention staff works with the State Land Use Planning Section, Santa Barbara County Planning and Development, City of Goleta Planning and Development, City of Solvang Planning and Development and City of Buellton Planning Department to ensure that current building codes, fire codes, State and County policies, statutes, and regulations are followed in new development in the wildland urban interface. Land use planning must recognize the hazards and treat them as constraints in the planning process. Under the California Environmental Quality Act, local County action is directed to achieve a balance between natural processes and urban uses in order to create and maintain conditions of productive harmony. Consequently, the County has ample legal authority to regulate land use and development in order to reduce fire hazard.

The Santa Barbara County Building Official adopted the Santa Barbara County Very High Fire Hazard Severity Zones Map and a local High Fire Hazard Area Map to reference during the planning phase of a project or development. Projects or developments in these areas must meet California Building Code to Chapter 7A and Title XIV requirements. These standards include the requirement for fire resistive construction materials, development of adequate emergency access routes, access to fire suppression water supplies (fire hydrants or water tanks), and defensible space around structures (whether inhabited or not). The implementation of these standards helps minimize, but not entirely eliminate, the hazards from wildland fires.

In Santa Barbara County, the Planning and Development staffs of the County and local municipalities work together with County Fire staff to insure development standards are adequate to protect people and structures from the threat of wildfire.

Fire Development Standards

The Santa Barbara County Fire Department Planning and Engineering Section utilizes and updates the local Development Standards for projects within County Fire's jurisdiction. These Development Standards are requirements for development in the LRA. Where applicable, in the SRA and Very High Fire Hazard LRA, the Santa Barbara County Fire Department's Planning and Engineering Section requires following Title XIV (the State of California's Fire Safe Regulations) for development in these areas. Planning & Development Department staff refers to the most current and adopted County of Santa Barbara Fire Hazard SRA and LRA Severity Zone maps to identify the Fire Hazard Severity Zones and Wildland-Urban Interface Fire Areas for the unincorporated County (see figure 11).

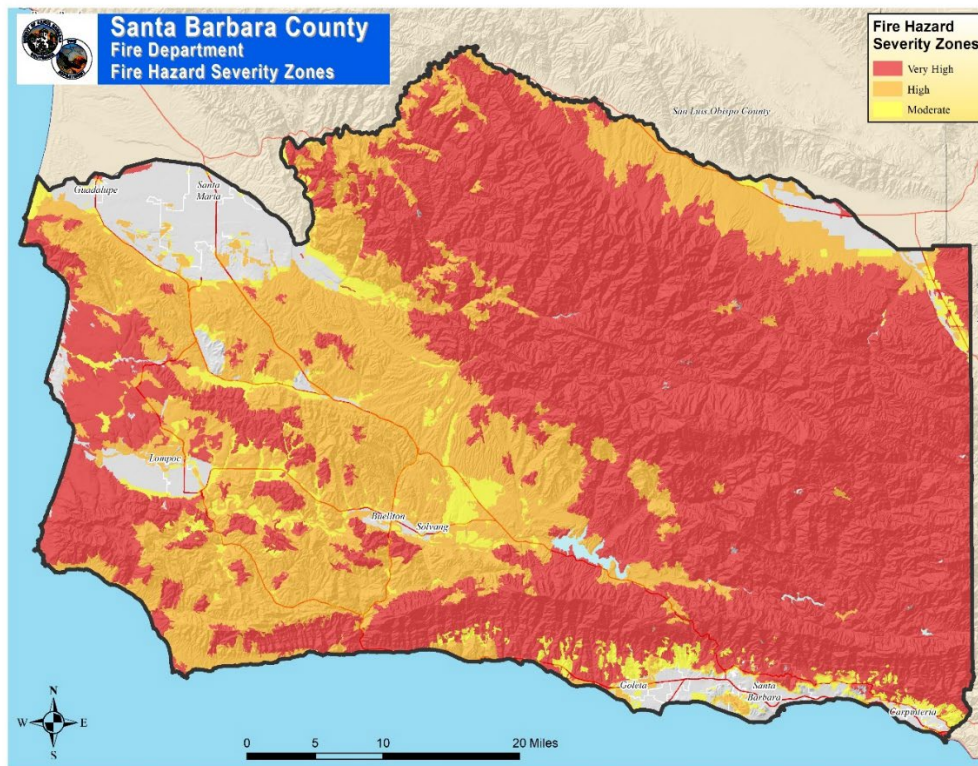


Figure 11: Fire Hazard Severity Zones

These Development Standards serve as control measures which are designed to promote fire protection and comply with State law⁹. The adoption of the California Fire Code and Fire Department Development Standards, codified in County Code Chapter 15-Fire Prevention, cover a range of development topics required for new construction.

INVESTIGATION SECTION

The Santa Barbara County Fire Investigation Unit is staffed with Fire Investigation Supervisor and two Investigators. Fire Investigators are peace officers per California Penal Code Section 830.37 and are responsible for conducting fire and arson investigations; enforcement of state forest and fire laws; and enforcement of laws relating to fire prevention. Each Investigator is a member of the Santa Barbara County Arson Task Force, the International Association of Arson Investigators, and the California Conference of Arson Investigators.

The Fire Investigation Unit also conducts inspections of cannabis facilities and issues permits for pyrotechnic and special effect displays (Fireworks); fire performances; filming; explosives; bonfires; model rocketry; welding, cutting, grinding, and other hot-work operations.

⁹ Requirement of Title 24 of the California Code of Regulations, Part 9 California Fire Code. Additionally, Section 13108.5(c) of the Health and Safety Code allows local agencies to revise development standards contained in the California Fire Code in order to meet unique local conditions.

Strategies for investigation section:

- fire cause determination
- identify needed regulations
- identify need for targeted education programs (i.e. juvenile fire starters, proper equipment use, etc.)
- code enforcement

cost recovery

INSPECTION SERVICES SECTION

The Inspection Services staff is responsible for conducting inspections on complex occupancies, schools, churches, hospitals and all inspections requiring California Fire Code permit issuance. This section is responsible for inspecting County oil facilities, and coordinating oil industry drills. This section will act as Local On-Scene Coordinator with the California Department of Fish and Wildlife during oil spills and gas releases. This section is also responsible for supporting engine companies with inspections. Santa Barbara County Fire engine companies are responsible for performing certain building inspections, defensible space inspections and maintaining inspection records for their district. Lastly, the Inspection Services Section with the engine company support, conducted 14,208 defensible space inspections in 2022.

Defensible Space Program

Establishing defensible space around structures is one of the most powerful tools for preventing fire hazards and is therefore required by both County regulations and State law. The California Fire Code Chapter 49 as amended by the County of Santa Barbara through Chapter 15 of the County Code defines defensible space as:

“[The] area surrounding a structure or building where basic wildfire protection practices are implemented, providing the key point of defense from an approaching wildfire or escaping structure fire. The area is characterized by the establishment and maintenance of fuel modification measures.”

In 2005, the State Board of Forestry adopted provisions now identified in Public Resource Code 4291 that requires all structures on State Responsibility Area (SRA) lands to maintain 100 feet of defensible space clearance. Within the County of Santa Barbara, 100 feet defensible space is also enforced on structures within Very High Fire Hazard Local Responsibility Area (LRA) and the locally adopted High Fire Hazard Area. The 100-foot defensible space clearance is a minimum, and in some instances this distance may need to be increased due to the location of a structure on a slope or because of the vegetative fuel loading surrounding a structure.

Inspections are completed by engine companies and part time inspection staff and submitted to CAL FIRE. If the property fails to meet the defensible space requirements in the established time frame the property is abated at the direction of Vegetation Management.

Strategies for Inspection Services Section:

- identify needed regulations
- identify need for targeted education programs (i.e. juvenile fire starters, proper equipment use, etc.)
- reduce hazards through permit process
- reduce hazards through building inspections
- cost recovery
- engine company resource
- reduce fire hazard to structures through defensible space

INFORMATION AND EDUCATION

The Public Information Officer develops specific programs, educational materials, and public statements.

Ultimately public education is the responsibility of all members of the Fire Department. Each section interacts with the public and is responsible for increasing the public's awareness of wildfire safety and preparedness. Through public involvement and collaboration, positive relationships are fostered throughout the County.

VEGETATION MANAGEMENT PROGRAM

The Vegetation Management section is responsible for the GIS and mapping services, pre-fire planning, and vegetation management programs.

GIS and Mapping

The Vegetation Management section collects and maintains the Department's GIS database. The data is used in pre-fire planning, Department map book creation and updating, incident mapping, and individual mapping projects. The GIS data is used extensively in the CALMapper Program to map, document, and track all the Departments' vegetation management projects.

Pre-Fire Planning

The Pre-Fire Engineer works with community groups, individuals, cooperative agencies, and land use regulatory agencies (local, state, and federal) to create and maintain wildfire plans. The Pre-Fire Engineer is also tasked with the annual Unit Strategic Plan and updating the Fire Danger Operating Plan.

Vegetation Management Projects

The Vegetation Management section provides a mechanism for conducting projects of varying scales to reduce hazardous wildland fuels and maintain forest and range health. These projects include the use of prescribed fire, manual, and mechanical treatments. All projects are entered into the CALMapper Program for reporting to Cal Fire.

SECTION V:PRE FIRE MANAGEMENT TACTICS

DEPARTMENT PROGRAMS

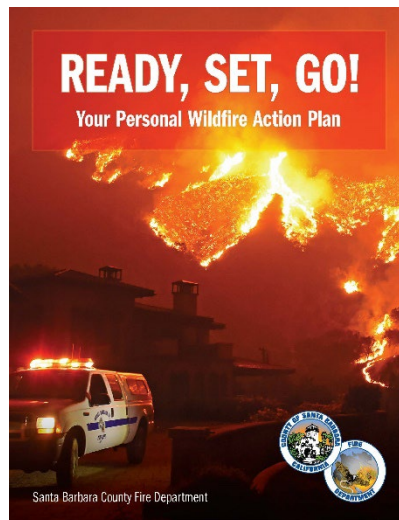
Education and Outreach

➤ Red Flag Warning Plan

- ✓ Plan for agency cooperation, enhanced staffing levels, and public notification in the event of an issued “red flag warning” by the National Weather Service or as declared by the Fire Chief



- County Adopted and Approved CWPP (Community Wildfire Protection Plan) Template
 - ✓ Collaboration with County CEO’s Office and County Planning and Development
 - ✓ Adopted a CWPP template through the County Board of Supervisors
 - ✓ Establish a core list of stakeholders
- Public Information and Education Programs:
 - ✓ Ready! Set! Go!



- ✓ Community Meetings/Fire Safe Council
 - <http://sbfiresafecouncil.org/>
 - Vegetation Management Captain sits on the Fire Safe Council Board
 - Community education and outreach
 - Grant funding



- ✓ Santa Barbara County Fire Department Informational Website
 - <https://www.sbcfire.com/>
 - Provide safety information
 - Hazard and incident updates
 - Defensible space information
 - Tips on hardening structures from the threat of wildfire
- ✓ PSA (public service announcements)
- ✓ Social Media
 - Provide real time updates on incidents
 - Announce Department events and training programs



Fire Prevention

- Planning and Engineering
 - ✓ Maintain and apply Fire Department Development Standards to new development
 - ✓ California Fire Code adoption
 - ✓ Title XIV – Fire Safe Regulations
 - ✓ Santa Barbara County Code of Ordinances
 - ✓ Assign parcel addressing
 - ✓ Work collaboratively with County Planning and Development
- Investigation
 - ✓ Goal to investigate wildland ignitions
 - ✓ Code enforcement

- Inspection Services
 - ✓ Building and business inspections
 - ✓ Issuance fire code permits
 - ✓ Defensible Space Program
 - Enforcement of PRC 4291
- Vegetation Management
 - ✓ Fuel Reduction Projects
 - Roadside Maintenance
 - Community Defensible Space Maintenance / Fuel Breaks
 - Prescribed Fire
 - Grant Funding
 - ✓ GIS
 - Maintain County Fire spatial database
 - Work collaboratively with other County Departments to share spatial data
 - Support CALMapper Program
 - Support CAL FIRE Defensible Space Program
 - Support Geodatabase uploads to Fire and Resource Assessment Program
 - ✓ Live Fuel Moisture Sampling Program
 - Live Fuel Moisture (LFM) sampled from five wildland target hazard sites in the SRA
 - ✓ Fire Weather Program
 - Remote Automated Weather Stations (RAWS) maintained at nine locations
 - Portable RAWS maintained for prescribed fire projects and incident support
 - Figure 12 on next page shows the locations of LFM sampling sites, SBC RAWS locations, as well as co-operating agency RAWS located in Santa Barbara County
 - Log daily observations for daily BI calculations and FDOP updates

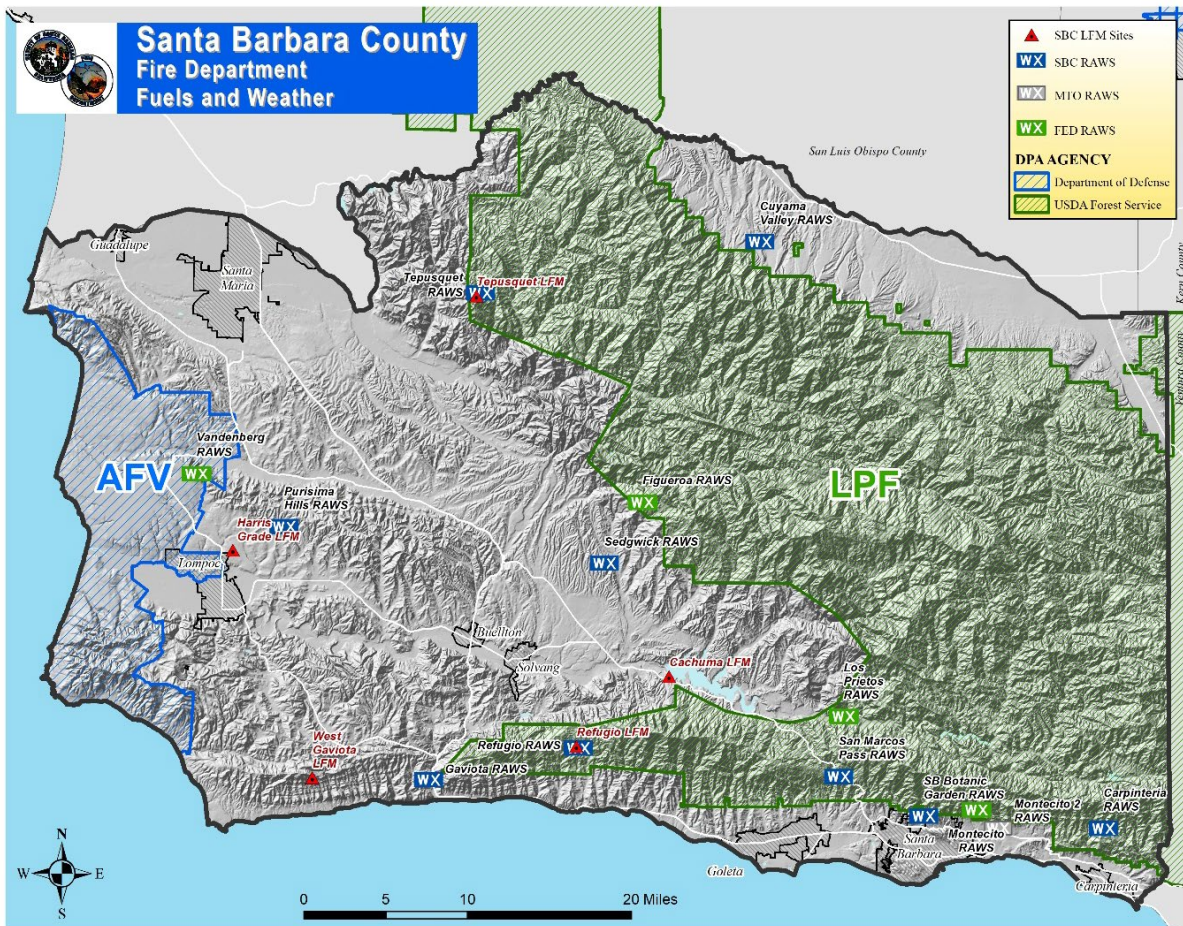


Figure 12: Weather Station Locations

- ✓ Hazard Reduction Burn Permit Program
 - Permit process so homeowners living in or adjacent to SRA lands can burn piles of hazardous fuels
 - Collaborate with Air Pollution Control District
- ✓ Collaboration with Range Improvement Association
 - Mutually beneficial projects
- ✓ Fire Planning
 - Annual update of Unit Strategic Fire Plan
 - Assist communities with the development of CWPPs and/or fire management plans
 - Creation and update of County plans (Multijurisdictional Hazard Mitigation Plan and the Santa Barbara County Seismic Safety and Safety Element of the Santa Barbara County Comprehensive Plan)
 - Assist Santa Barbara County Planning Division with Community Plan development and updates

- ✓ Wildland Preplan Mapping Project
 - Creation of large format aerial maps of the County accompanied by preplan documentation for identified at risk communities
 - Figure 13 represents the preplan project area and the associated grids

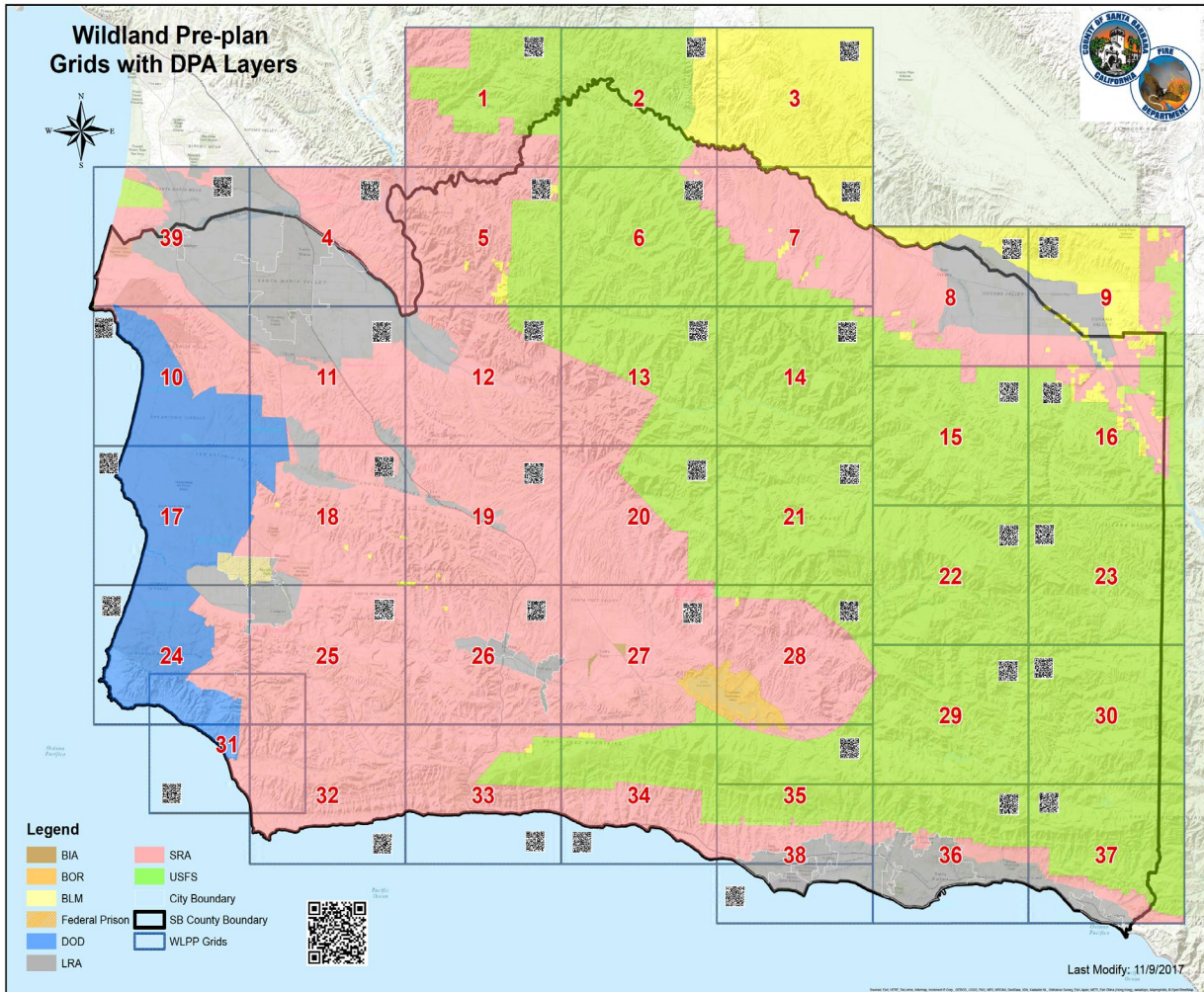


Figure 13: Wildland Preplan Grids with DPA

Operations

➤ *Engine Companies*

- ✓ Respond to emergencies
- ✓ Assist with keeping vegetation fires under 10 acres
- ✓ Perform building inspections
- ✓ Perform defensible space inspections
- ✓ Perform defensible space consultations at the request of residents
- ✓ Conduct Public Education Programs

- *Air Operations*
 - ✓ Fire suppression
 - ✓ Assist with keeping vegetation fires under 10 acres
 - ✓ Rescue operations
 - ✓ Provide aerial reconnaissance
- *Construction Section*
 - ✓ Fire suppression
 - ✓ Assist with keeping vegetation fires under 10 acres
 - ✓ Fire Access Road Program
 - Work collaboratively with land owners to ensure key unimproved roads throughout the County are accessible to firefighting forces
 - ✓ Work with Vegetation Management Section on vegetation management projects
- *Hand Crew*
 - ✓ Fire suppression
 - ✓ Assist with keeping vegetation fires under 10 acres
 - ✓ Work with Vegetation Management Section on vegetation management projects
 - ✓ Work collaboratively with other County agencies for hazardous fuels reduction on County owned properties
 - Parks, trails, communication facilities, open space parcels
 - Defensible space around County buildings
 - Hazard tree removal
 - ✓ Work with Construction Section to maintain accessibility of unimproved roads throughout the County to firefighting resources
 - ✓ Assist with preparing and implementing prescribed fire projects

APPENDIX A: PRE FIRE PROJECTS



5/1/2023



Santa Barbara County Fire (SBC)

Batt	Project Number	Project Name	Status	Project Type	Activity Acres	Activity Miles
3	3012-2018-FPL-006	Lompoc Valley Fuel Reduction Project	Active	Fire Plan	2406.4	
3	3012-2015-VMP-002	Barham VMP	Active	VMP	1536.6	
3	3012-2020-VMP-001	Spaulding - Midland	Active	VMP	1500	
2	3012-2018-FPL-001	Orcutt Community Fuel Reduction Project	Active	Fire Plan	108	
3	3012-2018-FPL-004	Figuroa Mountain Road	Active	Fire Plan	58	
1	3012-2014-FPL-001	San Antonio Creek	Active	Fire Plan	67	
1	3012-2014-FPL-002	Refugio	Active	Fire Plan	92.8	
3	3012-2016-FPL-003	Alisal Road Project	Active	Fire Plan	100.9	120
1	3012-2015-FPL-006	Paradise	Active	Fire Plan	40.4	
1	3012-2019-FPL-005	Painted Cave Community Defensible Space–N-05-19	Active	Fire Plan	61.3	
1	3012-2021-FPL-008	Regional Wildfire Mitigation Plan	Active	Fire Plan	N/A	
1	3012-2015-FPL-002	Trout Club Community Defensible Space	Active	Fire Plan	42.9	
1	3012-2015-FPL-003	Painted Cave Community Defensible Space	Active	Fire Plan	38.2	
3	3012-2015-FPL-007	Live Oak	Active	Fire Plan	45.4	
1	3012-2015-FPL-001	San Marcos Pass	Active	Fire Plan	44	
2	3012-2021-VMP-001	Tepusquet VMP	Active	VMP	3841	
1	3012-2019-FPL-006	San Marcos Pass Fuel Reduction – N-05-19	Active	Fire Plan	81.8	
2	3012-2015-VMP-001	Santa Maria Canyon VMP	Completed in Maintenance	VMP	853.7	
1,2,3	3012-2018-FPL-003	Fire Access Roads (Construction)	Completed in Maintenance	Fire Plan	n/a	
3	3012-2015-FPL-008	Cachuma	Completed in Maintenance	Fire Plan	171.3	
2	3012-2008-FPL-003	Tepusquet Community Defensible Space	Completed in Maintenance	Fire Plan	57.6	
1	3012-2015-FPL-004	Santa Barbara Foothill CDS	Completed in Maintenance	Fire Plan	71.4	
2	3012-2008-FPL-003	Tepusquet Peak Repeater Site	Completed in Maintenance	Fire Plan	1	
3	3012-2015-FPL-011	Harris Peak Repeater Site	Completed in Maintenance	Fire Plan	1.1	
1	3012-2015-FPL-010	Santa Ynez Peak Repeater Site	Completed in Maintenance	Fire Plan	1.2	
1	3012-2015-FPL-009	La Cumbre Repeater Site	Completed in Maintenance	Fire Plan	2.4	
1	3012-2021-FPL-003	Gaviota Coast CWPP	Completed	Fire Plan	N/A	
1	3012-2019-FPL-001	EGV/San Marcos Pass CWPP	Completed	Fire Plan	N/A	
1	3012-2019-FPL-004	SB Foothill Community Fuel Reduction – N-05-19	Completed	Fire Plan	70.1	
1	3012-2018-FPL-007	SBC Western Front Country Fuel Break	Planned	Fire Plan	390	
3	3012-2023-VMP-000	Sedgwick Preserve	Planned	VMP	1200	

APPENDIX B: PRE-FIRE PROJECT SUMMARIES

The Santa Barbara County Fire Department and local fire agencies within the County engage in fuel reduction and maintenance projects each year. The following is a summary of Santa Barbara County Fire Plan and VMP projects in various stages of planning, activity or maintenance. The Santa Barbara County Fire Department typically utilizes the department's two Fire Crew modules, Fuels Crews and Construction section to conduct the majority of the work within the County, but has contracted with contractors and CCC Crews to complete fuel treatment projects.

A majority of local wildland fire ignitions occur along a road or highway so the Fire Department has historically focused on roadside maintenance projects to mitigate ignition risks. The Fire Department also engages in fuel reduction projects to enhance defensible space for various communities throughout the County and provide a safe separation distances between firefighters and potential oncoming fires.

Environmental review to satisfy CEQA is conducted for each project and kept on file with the State, County and Fire Department.

The projects the Santa Barbara County Fire Department engages in are funded through various avenues. District, State and various grant funding are the chief sources of funding for the following projects.

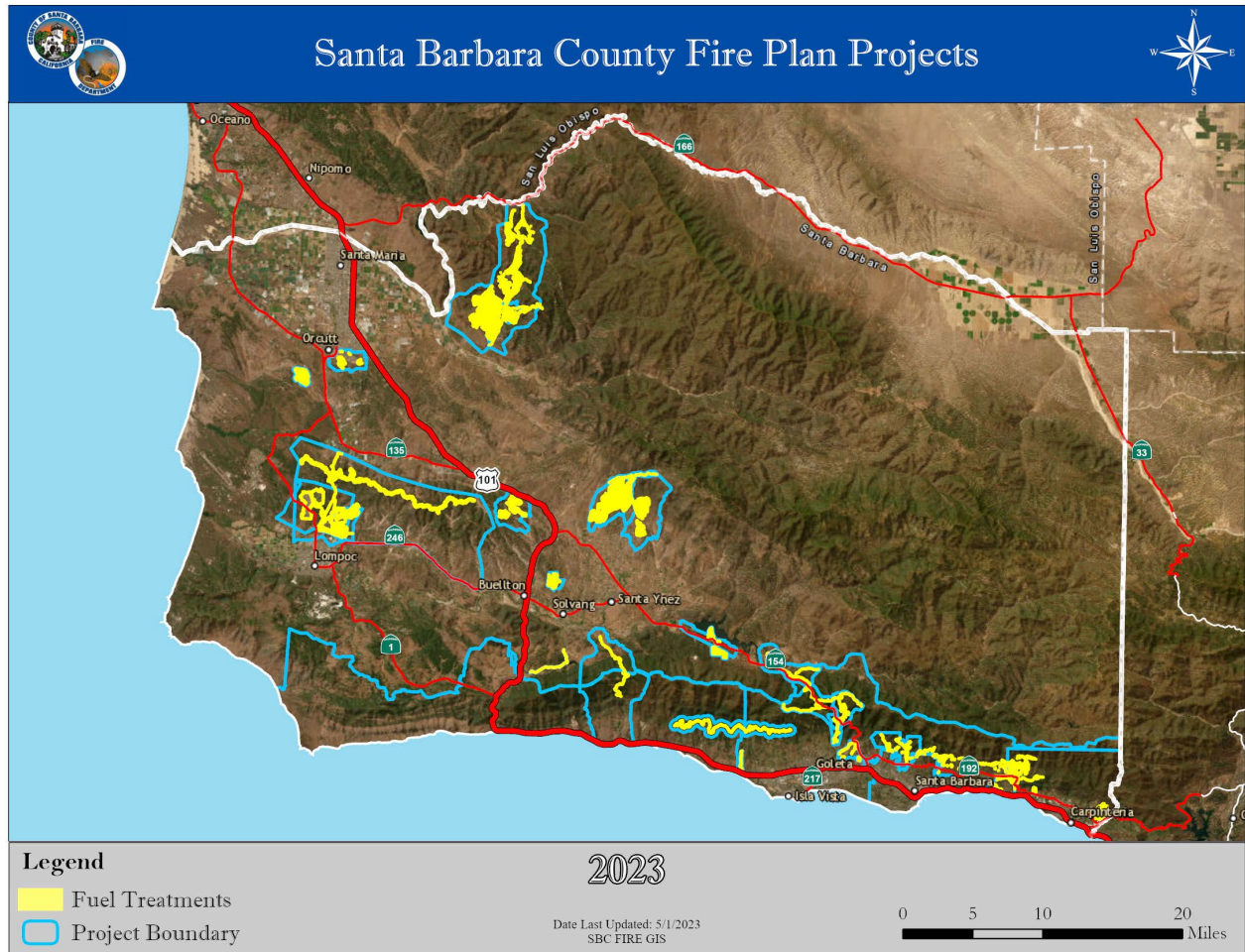


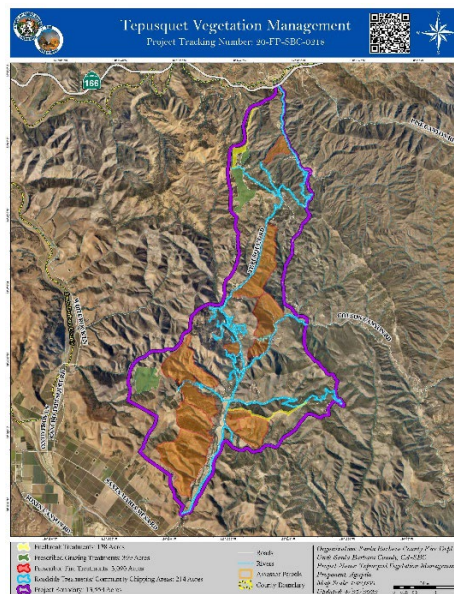
Figure 14: Countywide Fire Plan Projects

Active Grant Funded Projects



Lompoc Valley Fuel Reduction

This project has multiple vegetation treatment areas using shaded fuel breaks north of Lompoc City. There are defensible space treatments around the communities of Vandenberg Village and Burton Mesa, roadside maintenance vegetation maintenance along Burton Mesa Rd and Harris Grade Rd, and a shaded fuel break along La Purisma Ridge. This project is funded through the Fire Prevention grants program.



Tepusquet Vegetation Management

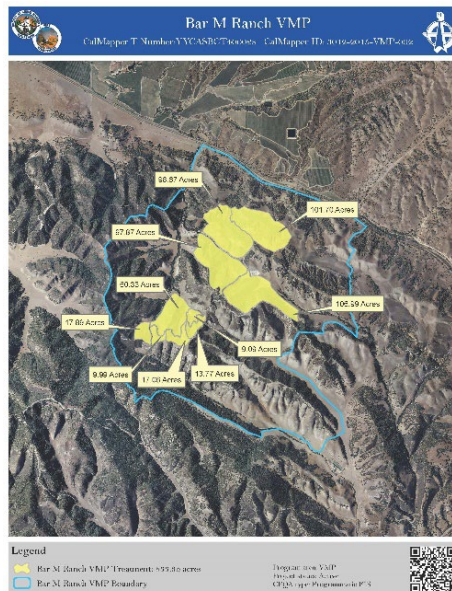
The Tepusquet VMP is a 4-year project where the SBCFD will conduct multiple fuel treatment actions. The overall project boundary is 42,130 acres in an area of SBC with a history of large wildfires. The planned treatments include 32.5 miles of roadside fuel reduction, 2,064 acres of prescribed fire burn plots as well as a TBD amount of community DSP. The fuel reduction treatments are intended to protect communities, reduce the number of ignitions, and limit the size and intensity of fire occurrence in older age class fuels in Tepusquet Canyon and nearby areas of Sisquoc and Cuyama valleys. Long-term reduction in GHG is accomplished through reduction in acres burned over time.



Regional Wildfire Mitigation Program

A Regional Wildfire Mitigation Program (RWMP) is to be developed for the southern coastal portion of Santa Barbara County, California for years 2020 - 2023, as supported by funding from the National Fish and Wildlife Foundation (NFWF). Spatial Informatics Group - Natural Assets Laboratory (SIG-NAL) will lead this effort as program coordinator and project manager, implementing a robust strategic plan for wildfire resilience within three focal domains of Landscape, Built Environment and Community Resilience. Cohesive strategic resilience planning and implementation also requires coordination within and across domains as they are interdependent. The Santa Barbara Fire Safe Council will receive funding to lead the Community Resilience domain, as described below.

Early Action Funded Projects



Bar M Ranch VMP

The Bar M Ranch (aka Barham Ranch VMP) is a fuel reduction utilizing prescribed fire to reduce the age class of the heavy vegetation. The project will assist initial attack efforts

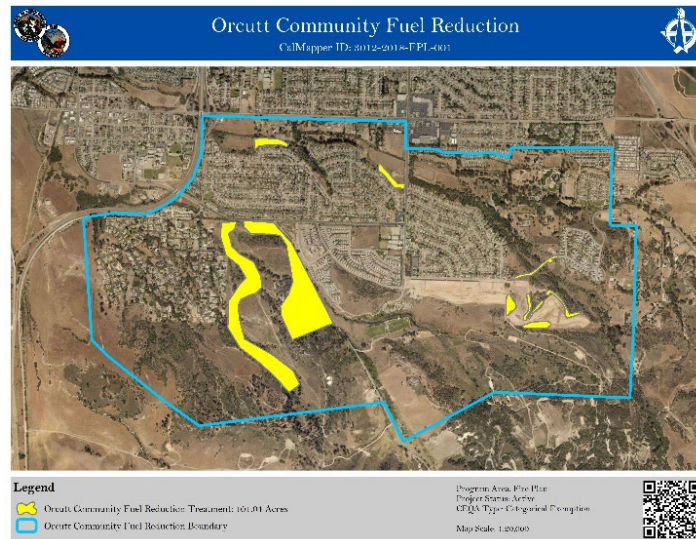
on fires that start along 101 by creating stopping points or anchor points. The treatment will also use the ecological benefits of fire to improve rangeland in the area.



Spaulding/Midland VMP

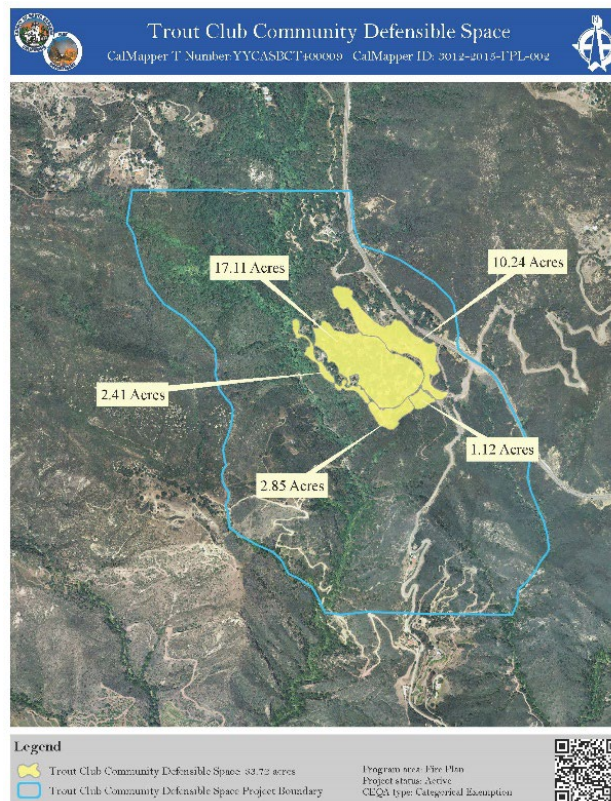
The Spaulding/Midland project will utilize prescribed fire to reduce the age class of the vegetation and remove heavy ground fuel associated with drought stressed Oak Woodland. This project site is in the foothills below the Figueroa Mountain Recreation Area will help to reduce the threat of catastrophic wildfire that would affect Midland School, the Los Padres National Forest and the residential community of Woodstock Estates. The treatment will also use the ecological benefits of fire to improve rangeland in the area.

Active Fire Plan Projects



Orcutt Community Fuel Reduction Project

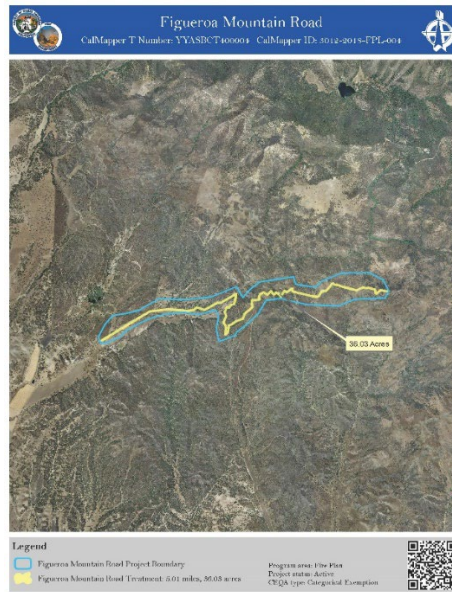
Multiple treatment areas to thin vegetation around public the parcels that are close to new developments. The creation of community defensible space will enhance survivability of structures and residents during wildfire.



Trout Club Community Defensible Space

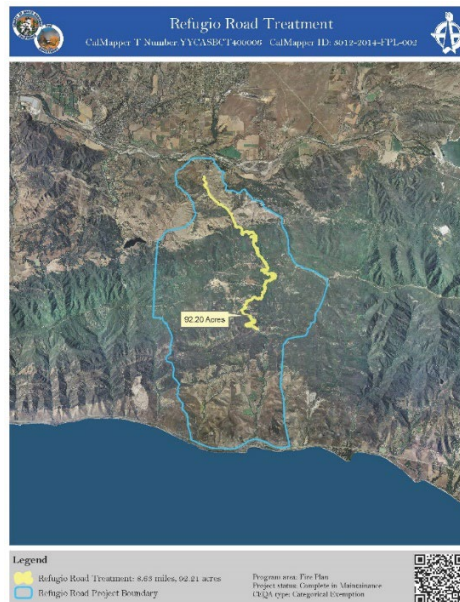
This project consists of fuel reduction in and around the Trout Club community. The project utilizes hand crews to thin vegetation and create community defensible space buffer.

Direct Award Funded Projects



Figueroa Mountain Road

Fuel reduction along Figueroa Mountain road to create safe access/egress, potential fuel break, and increase public safety. When fuels are reduced near roadways, it assists with slowing fire spread and will allow for people to leave the area in case of an emergency.



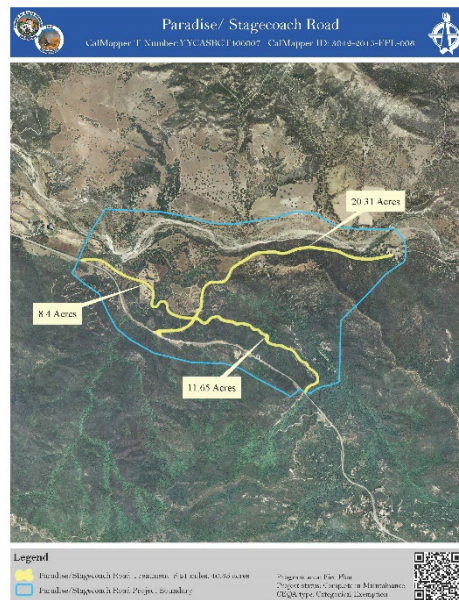
Refugio Road Treatment

The project consists of vegetation clearance up to 10 feet on each side of Refugio Road for approximately 4 miles. In areas where it is geographically possible, and with each property owner's permission, clearance extends up to 20 feet from the side of the roadway. This project uses hand crews with hand tools and chain saws. Cut material is chipped and scattered on site.



Alisal Road Project

The project consists of 4.1 miles of roadside hazard reduction along Alisal Rd. Vegetation is selectively hand cut and chipped up to 20 feet on both sides of the road. Flammable chaparral is removed, flashy fuels is weed whacked, and trees are limbed up and ladder fuels are removed. Overhanging branches are removed with pole saws to increase access for tall vehicles. Dead trees are removed that are close to roadway. Work is performed by hand crews using chainsaws, weed whackers, and chippers.



Paradise/Stagecoach Road Project

The project consists of 2.4 miles of roadside hazard reduction along Paradise Rd. Vegetation is selectively hand cut and chipped up to 20 feet on both sides of the road. Flammable chaparral is removed, flashy fuels are weed whacked, and trees are limbed up and ladder fuels are removed. Overhanging branches are removed with pole saws to increase access for tall vehicles. Dead trees are removed that are close to roadway.



Painted Cave Community Defensible Space

Painted Cave Community Defensible Space project includes not only roadside fuel reduction along Painted Cave Road and East Camino Cielo Rd but also fuel reduction below the community of Painted Cave. The project uses hand crews to manually remove vegetation to create fuel breaks and improve access and egress by fuel reduction along roadways.



San Marcos Pass Fuel Reduction

The San Marcos Pass Fuel Reduction project is involved with removing vegetation along roadways to improve egress for residents in the area along with improving access for fire department response. The shaded fuel breaks will also assist with slowing the rate of spread of a wildfire that starts near San Marcos Pass road.

Coastal Conservancy Grant Funded



San Antonio Creek Fuel Reduction

The project consists of multiple shaded fuel reduction treatments totaling approximately 67 acres located in the San Antonio Creek area in the foothills of Santa Barbara. The project will utilize hand crews to reduce flammable fuel volume by removing dead material, reducing ladder fuels, and selectively thinning standing vegetation. The existing fuel is predominately mature oak woodland with scattered chaparral and stands of Eucalyptus. Mature trees will be limbed and pruned of dead branches. The cut material will be chipped and spread uniformly on site. The shrub dominated areas will be treated with a residual mosaic approach, leaving scattered shrubs and islands of intact formation comprising approximately 50% of the original cover. No mature trees will be removed. The project will greatly increase the defensible space around the community and also protect the open space wildland from a fire starting from the surrounding residential developments.

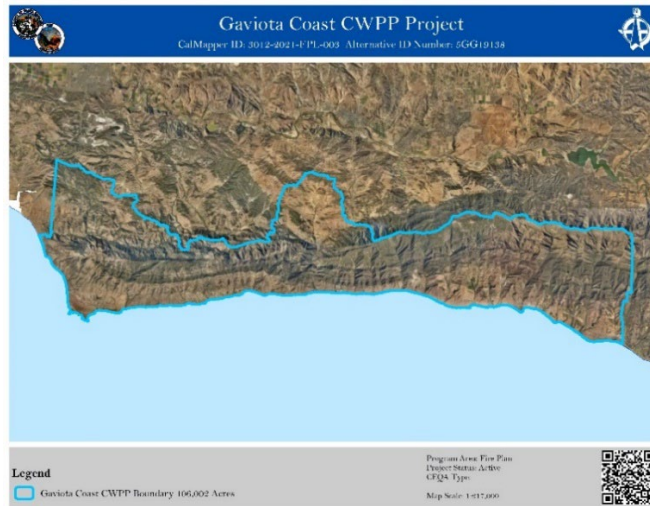
Projects in Planning



SBC Western Front Country Fuel Break

This project is in the planning phase of trying to create a fuel break along the front country of Santa Barbara above western Goleta. The attempt is to create a break in vegetation that will either allow access for fire suppression or to slow the rate of spread during a fire. This project is still in development.

Completed Projects In Maintenance



Gaviota Coast CWPP

A Gaviota Coast Community Wildfire Protection Plan (CWPP) will incorporate individual community plans, environmental guidelines, and a Highway 101/roads program. The CWPP will meet, at minimum, the requirements described in the Healthy Forest Restoration Act of 2003. The purpose of the CWPP is to identify fire hazard reduction strategies for communities in the Gaviota Coast that are in balance with sustainable ecological management and fiscal resources, and to provide educational resources for residents to enhance fire preparedness.



Live Oak Fuel Reduction

Live Oak Fuel Reduction Project consists of tree thinning and dead tree removal in Live Oak Camp area near Highway 154..



Cachuma Fuel Reduction Treatment

Cachuma fuel reduction treatment consist of fuel reduction around Cachuma lake recreation area near highway 154.

APPENDIX C:PRE FIRE MANAGEMENT TACTICS

FUEL OBJECTIVES

Protecting lives and property in the wildland and wildland urban interface involves a multi-strategy approach. A key approach to preventing structure ignitions in these areas is structure hardening. Although structure hardening is an effective approach; and an element of our public education programs when discussing defensible space, public safety and structure survivability, property owners in high fire hazard areas cannot be mandated to upgrade building materials until they propose modifications to their homes that require a building permit. In these scenarios, individual property defensible space and community defensible space play an important role.

Fuel modification efforts can generally be divided into six categories or types: individual defensible space; community defensible space; evacuation route and roadside treatments; strategic fuel breaks; staging and temporary refuge areas; and ecological restoration. The following summarizes the basic characteristics of each fuel treatment category.

Although it should go without saying, fuel modification projects designed and conducted in the FRA and SRA follow NEPA, CEQA and local guidelines; with appropriate public notice, prior to implementation.

FUEL TREATMENT TYPES

Individual Defensible Space

Individual defensible space refers to the area around a structure where the flammable vegetation has been modified to reduce the potential for the structure to ignite in the event of a wildfire. Defensible space provides firefighters a safer working environment that allows them to protect buildings and structures from encroaching wildfires. Additionally, defensible space can help minimize the chance that a structure fire will escape to the surrounding wildland. This space is wide enough to prevent direct flame impingement and reduce the amount of radiant and convective heat impacting a structure. The defensible space for each structure varies and depends on the vegetation and topography. California Public Resource Code (PRC) 4291 requires that all structures in the State Responsibility Area maintain a minimum of 100 feet of defensible space, or to the property line if property line is less than 100 feet.

Defensible Space is a core component of the “Ready! Set! Go!” Program, which has been adopted Statewide by most fire agencies including Santa Barbara County (SBC) Fire. The Fire Department provides guidance for private property owners in the State Responsibility Area required in PRC 4291. The following is a summary of actions based on direction provided by SBC Fire:

- Defensible space hazard mitigation actions, as defined in PRC 4291, are authorized up to 100 feet or to the property line where less than 100 feet is available.
- In Santa Barbara County, with site-specific inspection and authorization from the Fire Department, up to 300 feet of vegetation management may be undertaken using PRC 4291 vegetation management guidelines. Crossing property lines to achieve defensible space is not authorized in any circumstance. Actions must avoid known locations of Environmental Sensitive Habitat and archeological (cultural) resources.
- Vegetation management may occur up to 10 feet each side of a property owner’s driveway, regardless of the length of the driveway.
- In some cases, a separate 5,000 square foot vegetation management exception for areas away from a structure is authorized.

Community Defensible Space/ Wildland Urban Interface

Community defensible space is intended to provide fire protection at strategic locations around or near vulnerable communities or clusters of homes. A community defensible space should allow firefighters to safely operate near or along the edges of the threatened community. The goal is to prevent a fire from entering the community and significantly reducing direct impacts from radiant and convective heat.

Properly designed community defensible space also reduces ember spread and spot fires within a threatened community, but will not eliminate these risks. Although beneficial,

community defensible space should not be viewed as a substitute for proper maintenance of individual defensible space and structure hardening within the community. Community defensible space becomes especially important in communities with clustered small parcel sizes that preclude the ability to achieve adequate individual defensible space. Where these dense communities abut larger open space parcels the guidelines for individual defensible space can be applied to a larger community-wide treatment. This can be applied to dense suburban neighborhoods adjacent to wildland areas as well.

Community defensible space may incorporate individual residential defensible space but will also generally include larger areas located on private lands with the permission of landowners, or on County or federal lands through agreements with the County or United States Forest Service (Forest Service). Responsibility for construction and maintenance of community defensible space is generally assumed by the Santa Barbara County Fire Department, the local volunteer fire departments, local community associations, Forest Service (on federal lands), or some combination of these.

Community defensible space fuel treatment prescriptions and design guidelines follow those of individual defensible space. Roads, existing natural barriers, and agricultural green belts can complement and enhance the effectiveness of community defensible space zones.

Roadside and Access/Egress Treatments

Fuel modification along roadways is a major element of a community protection. Roadside fuel modification is intended to accomplish three main purposes: (1) reduce threat of fire ignition and spread from roadways; (2) improve safety of evacuation routes for residents and ingress/egress for firefighters; and (3) improve potential for containment of fires along roadways.

Since roadways are a primary source of fire ignitions from such things as discarded cigarettes, overheated vehicles and vehicle accidents, fuel reduction on roadways is an important means of reducing the chances of fires starting and of minimizing the spread of roadside ignitions that do occur. Since roadside clearing may also promote the growth of highly flammable lighter fuels (i.e. grasses), regular maintenance is essential for maintaining the effectiveness of roadside clearing.

Reducing the threat of direct exposure to flames and smoke along routes is important during emergency situations for safe evacuations of public and to allow firefighter access. Attempting to escape through active flames has resulted in a significant number of fatalities in past wildland urban interface fires. Even the threat of getting caught in flames may cause panic and effectively close evacuation routes. In rural areas of the county, both public and private roadways can be extremely narrow so removal of brush and foliage along these roadways will significantly reduce the risk of collisions between evacuating vehicles and incoming fire equipment. Removing the foliage vastly improves sight distances and potentially increasing passing widths allowing for safe travel in and out.

Roadways in rural areas are generally not sufficient to stop an intense slope-driven or wind-driven wildfire even with major roadside clearing; however, roads can provide a usable barrier and relatively safe space for firefighters to work under more moderate fire conditions. Roadside fuel modification also serves the purpose of increasing firefighter safety in these situations and substantially increases the chances of containing fires along roadways.

Road clearances will normally be 10 to 20 feet wide on both sides of roads, but in some cases terrain features, steep slopes, or environmental considerations may restrict roadside clearing to shorter widths. Clearance up to 50 feet on each side could be considered along some sections of the potential access and egress points.

Strategic Fuel Breaks

Fuel breaks are wide strips of land where trees and vegetation have been reduced or removed to create areas that can slow or, in many cases stop, the spread of a wildland fire due to the reduction in continuous fuels. In 2017, the East Camino Fuel Break assisted firefighters in their efforts to contain the second largest fire in California history. Along with the benefits of the reduced fuel zones, fuel breaks also provide firefighters with safe zones to take a stand against a wildfire, or retreat from fire if the need arises. Typically, fuel breaks are located in strategic locations based upon terrain, existing roads, community areas, and other key access points. Fuel breaks can be divided into two categories, shaded and non-shaded.

Non-Shaded Fuel Break - A fuel break without shade normally comprises a change in vegetation type, such as from forest or shrub land into grassland.

Shaded Fuel Break - A shaded fuel break is constructed in a forest setting. Typically, the tree canopy is thinned to reduce the potential for a crown fire to move through the canopy. The woody understory vegetation is likewise thinned out. The shade of the retained canopy helps reduce the potential for rapid re-growth of shrubs and sprouting hardwoods and can reduce erosion.

In the Santa Barbara County front country, a significant amount of land is managed by the Los Padres Forest. Although fuel management activities within these lands are governed by the Forest Service and are not subject to control by state or county governments, the existence of relationships and collaboration between Los Padres Forest, Santa Barbara County and other local agencies that border the Forest Service is of high importance to the overall fire prevention and suppression efforts in the County.

The Los Padres Forest has historically constructed and maintained a number of strategic fuel breaks in the front country including the Windy Gap, East and West Camino Cielo, Arroyo Burro, Snyder, Fremont and Brush Peak (Rosario Park) fuel breaks. The Camino Cielo Fuel Breaks, which crosses through the front country was ranked as the highest priority fuel break on the Los Padres National Forest. Strategically placed fuel breaks are designed to reduce the rate of spread, residence time, and intensity of the

wildfire. There are many instances of wildland fires stopping at maintained fuel breaks, however they are typically not expected to operate in isolation but intended to be used in conjunction with firefighting resources. Maintained fuel breaks increase the safety, efficiency, and effectiveness of the fire response by providing firefighters better access and safe locations to establish anchor points to engage in wildfire suppression. Many of these strategic fuel breaks were first completed in the 1950's, 1960's and 1970's. The maintenance status of these strategic fuel breaks varies, but remains a priority to all fire agencies in the County.

The Los Padres Forest also maintains an extensive range of recreational facilities, an array of administrative and maintenance facilities, firefighting installations, employee housing, several critical fire access roads, as well as public trails. The Forest Service generally maintains fuel treatments around all such facilities to both protect the facilities in the event of a fire and (particularly in the case of recreational areas, trails, and roads) to prevent accidental fires from spreading to adjoining wildlands. The 2013 White and 2016 Rey Fires serve as examples of the real wildfire threat fires starting in the FRA that present threats to the SRA and LRA. Forest Service treatments are largely within grass and light shrub fuel types with a Coast Live Oak overstory.

Staging and Temporary Refuge Areas

An element of a pre fire management that could be considered are staging and temporary refuge areas. These are areas where residents or firefighters might occupy in lieu of evacuating while a wildfire passes through an area. Under certain circumstances, it may be impractical due to access issues and the speed of an approaching fire to escape via personal vehicles or large transports in a safe manner and these areas may be the only option in wildland and rural areas. Although the option of staging areas and TRAs may have value, decisions on the size, design, advisability and use of these potential shelter in place zones will require extensive evaluation prior to their identification.

Ecological Restoration

Generally, outside of the WUI in areas that have departed from the natural fire regime as a result of fire exclusion, ecological restoration focuses on restoring ecosystem processes, conditions, and resiliency by moderating uncharacteristic wildland fuel conditions to reflect historic vegetative composition, structure, and habitat values. This involves vegetation treatments that seek to return the landscape closer to native conditions where natural fire processes can be reestablished and habitat quality is improved, including habitat remediation where non-native, invasive plants have spread, and excess fire fuel buildup has occurred. It is also the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed by destructively intense wildfire.

FUEL TREATMENT ACTIVITIES

The fuel treatment types are implemented using various treatment “activities” that may be applied singularly or in combination. The treatment activity or activities selected are those that are most likely to achieve the desired treatment objectives for the specific site, protect

natural resource values, and meet the overall program objectives. Fuel treatment activities take on many forms, but can generally be divided into five treatment categories: mechanical, manual, prescribed burning, prescribed herbivory, and herbicide application. The fuel treatment strategy for projects in Santa Barbara County may involve all of these treatment activities. The following are brief descriptions of these common fuel treatment methods:

Mechanical

Mechanical treatments, such as mowing and mastication, do not reduce hazardous fuels, but rearranges it into a less flammable configuration. Mechanical treatment takes vertically oriented fuels and rearrangement them into horizontally oriented fuels through the process of mowing, cutting, shredding and chipping the standing vegetation. This type of treatment compacts the combustible fuel particles into a less flammable arrangement, exposes the fuel to less wind, and allows it to absorb moisture from the soil. These processes reduce the potential fire behavior associated with the post- treatment fuels.

Mechanical treatment is generally associated with larger fuel treatment areas where the cost associated with the use of industrial mowers or masticators can be deferred by the ability to rapidly treat larger portions of the landscape. Mechanical treatments are also effective for linear treatments such as roadsides.

Mechanical treatment can also include mowing on a smaller scale. For instance, mowing of grasses, weeds, and low shrubs is a familiar treatment activity to those that care for lawns and yards. Typically, larger commercial size mowers has the operator rides atop the equipment can mow large areas to create treatment areas.

Manual

Manual fuel treatment utilizes human labor to manually cut and remove or rearrange fuel. Thinning, pruning, and clearing of fuel are the most common treatments. Manual fuel treatment includes cutting and chipping into a less flammable state (similar to mastication), removing the material from the site, or piling for burning at a date when weather conditions preclude fire from spreading across the landscape.

Manual fuel treatments are more precise than mechanical treatments and can address hazardous fuel conditions without fewer impacts on visual, cultural or biological resources.

Prescribed Burning

Prescribed burning is the intentional application of fire to vegetation under specified conditions of fuels, weather, and other variables. Prescribed burning is divided into two basic categories, broadcast burning and pile burning. Broadcast burning utilizes fire on a large open area on predominately standing vegetation. The intent is for the fire to stay within a predetermined area to achieve site-specific resource management objectives. Prescribed low intensity surface fires may be used to control vegetation by enhancing the growth, reproduction, or vigor of certain species, in addition to managing fuel loads and/or

maintaining a targeted vegetation community. Pile burning under appropriate weather conditions can rapidly eliminate fuel that has accumulated during manual fuel treatment activities. Pile burning is a very cost effective way to address the elimination of hazardous fuel, but requires permitting from air regulators due to possible negative impacts to air quality

Prescribed Herbivory

Prescribed herbivory (also known as “targeted grazing” is the use of domestic livestock to accomplish specific and measurable vegetation management objectives. Those would include things like removing biomass (fine fuel loads), reducing populations of specific plant species, slowing the re-establishment of shrubs on burned or mechanically thinned sites, and improving plant community structure for wildlife habitat values. Cattle, sheep, and goats are the animals most commonly used for this purpose because they are relatively common and easy to manage. Grazing/browsing by these animals is best used for green herbaceous plants that produce fine fuels and smaller diameter woody species that produce highly flammable fire fuels. Animals are best selected according to the types of vegetation that need to be managed. Goats are typically best suited to shrubs, and cattle are better suited to herbaceous plants, especially grasses. Sheep graze selectively but may consume both herbaceous and woody vegetation. These animals are normally confined with fencing within a treatment unit in order to assure that they eat only the target vegetation.

Herbicide Application

Herbicides are chemicals that damage or kill plants and can be classified by their mode of action. They include growth regulators, amino acid inhibitors, grass meristem destroyers, cell membrane destroyers, root and shoot inhibitors, and amino acid derivatives, all of which interfere with plant metabolism in different ways.

Limitations in the use of herbicides are addressed by requirements for application methodology, regulatory requirements (e.g., requirement to have a licensed PCA involved in the project), label restrictions, and project-specific guidelines. The limitations intended to be addressed by these requirements include the potential to damage or kill non-target plants; development of a resistance to a particular herbicide over time; or toxicity in humans, animals, birds, amphibians, reptiles, insects, and fish.

SUMMARY

The fuel treatment types and activities identified in this section are utilized in various degrees across the state and nation in the wildland and wildland urban interface. In Santa Barbara County, federal and local agencies follow NEPA, CEQA and local environmental guidelines and use a variety of these categories and methods to reduce fuel in the wildland and wildland urban interface. This fuel reduction creates safe separation distances for firefighters and defensible space for communities. The projects listed in this document have, or will, utilize these methods within CEQA guidelines to achieve the Fire Department’s Pre Fire goals.

APPENDIX D:UNIT GOALS AND OBJECTIVES FOR 2023

The Santa Barbara County Fire Department's objectives are developed within the Strategic Unit Fire Plan to align with the 2018 California Fire Plan and the 2018 CAL FIRE Strategic Plan. They meet the goals listed below, the Santa Barbara County Fire Department has created objectives to build upon the accomplishments of previous fire plans.

2018 CALIFORNIA FIRE PLAN GOALS

- 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.
- 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.
- Support and participate in the collaborative development and implementation of local, county and regional plans that address fire protection and landowner objectives.
- 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.
- Integrate fire and fuels management practices with landowner/land manager priorities across jurisdictions.
- Determine the level of resources necessary to effectively identify, plan and implement fire prevention using adaptive management strategies.
- Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.
- Determine the level of resources necessary to effectively identify, plan and implement fire prevention using adaptive management strategies.

2023 SANTA BARBARA COUNTY FIRE DEPARTMENT OBJECTIVES

- Continue the new Santa Barbara County Fuels Crew to augment the current Fire Crews to assist with implementing new projects and maintaining current projects.
- Continue to work on the Lompoc Valley Fuel Reduction Project and Tepusquet project to create defensible space for the public and their homes, and create safe separation distances for firefighters.
- Complete final phase of creating the Santa Barbara County Regional Fire Dispatch Center
- Complete RAWs network buildout in order to provide predictive services and up to date information in the event of an incident.
- Utilize the new Type I Fire Hawk to increase water dropping capabilities during wildland fire incidents and improve rescue services to the citizens of the county.
- Complete defensible space inspections within our jurisdiction.
- Complete CAL FIRE Structural Data Collection on parcels within our jurisdiction.
- Build upon relationships with landowners and other county agencies to increase the amount of prescribed fire acreage within the county each year.
- Assist the Santa Barbara County Fire Safe Council (SBCFSC) with the implementation of FIREWISE neighborhoods county wide
- Assist local communities with the development of Community Wildfire Protection Plans
- Continue maintenance of Santa Barbara County's Fire Plan Projects through fuel reduction and planning
- Collaborate with SBCFSC on implementation of the Santa Barbara County Regional Wildfire Mitigation Program (RWMP)
- Collaborate with SBCFSC with the implementation of actions recommended in the Gaviota Coast CWPP
- Collaborate with community members to develop the Santa Barbara Foothill CWPP
- Collaborate with community members to develop the Lompoc Valley CWPP

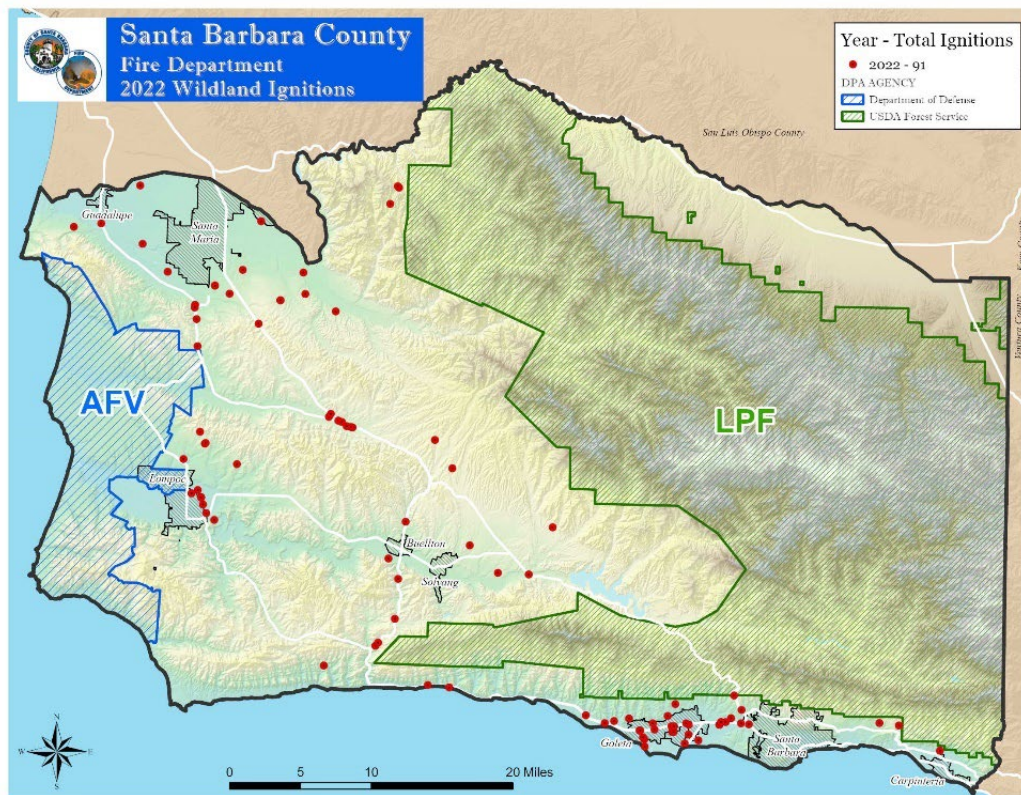


APPENDIX E: SANTA BARBARA COUNTY FIRE DEPARTMENT 2022 WILDLAND IGNITION ANALYSIS

FIRE LOCATION

The Santa Barbara County (SBC) Fire Department reported 85 wildland fires within the SBC DPA¹¹, 2 fires in Carpinteria-Summerland DPA, and 2 fires in Montecito DPA. In 2022, there were with 48 fires occurring in the SRA¹² and 41 fires within the SBC LRA¹³. Of those fires, 47 or 53% occurred within 50 feet of a road or highway. Out of the 89 fires in SBC DPA, 88 or 99%, were held to ten acres or less. The only fire that exceeded the 10 acres was named the Hollister Incident with 120 acres burned in the SRA. In 2021 there were 57 ignitions making 2022 a busier year with 89 ignitions. Out of the 89 ignitions, 17 (or 19%) were homeless/transient related.

There were no major fires on local FRA¹⁴ (Forest or Department of Defense) that impacted the local SRA. Across the State of California, the 2022 fire season was a slower year than 2021 with 363,969 acres burned in 2022 compared to 2,568,948 acres burned in 2021.



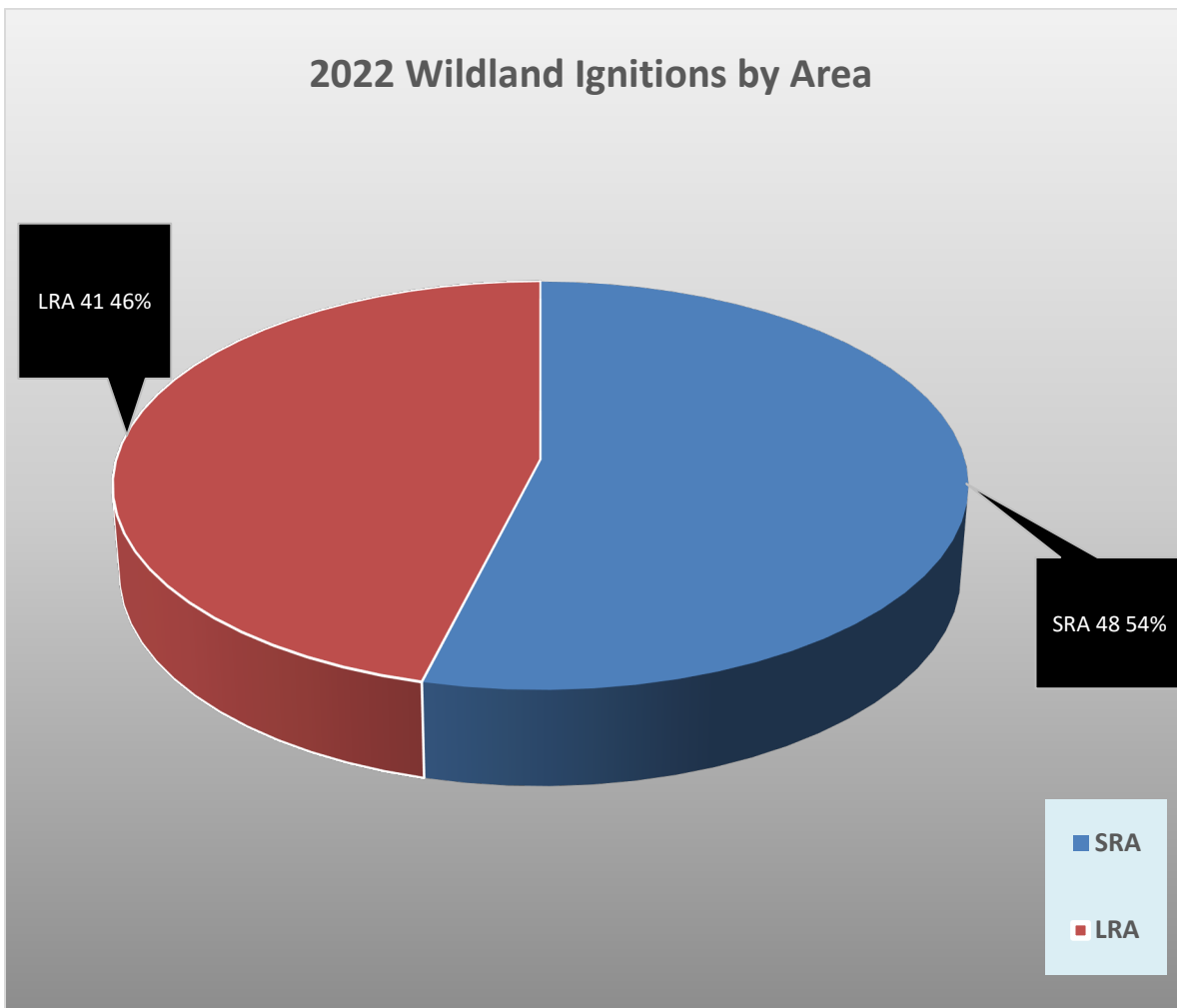
¹¹ DPA - Direct Protection Area and is a boundary line drawn by agreements with State and Federal agencies. The DPA boundaries are lines of convenience and are drawn to more clearly define which agency is responsible for initial response and management of a wildland fire

¹² SRA - State Responsibility Area – State- or privately-owned land

¹³ LRA - Local Responsibility Area – Local- or privately-owned land

¹⁴ FRA - Federal Responsibility Area – Federally owned land

2022 FIRE SIZE CLASS CODES AND LOCATIONS BY RESPONSIBILITY AREA

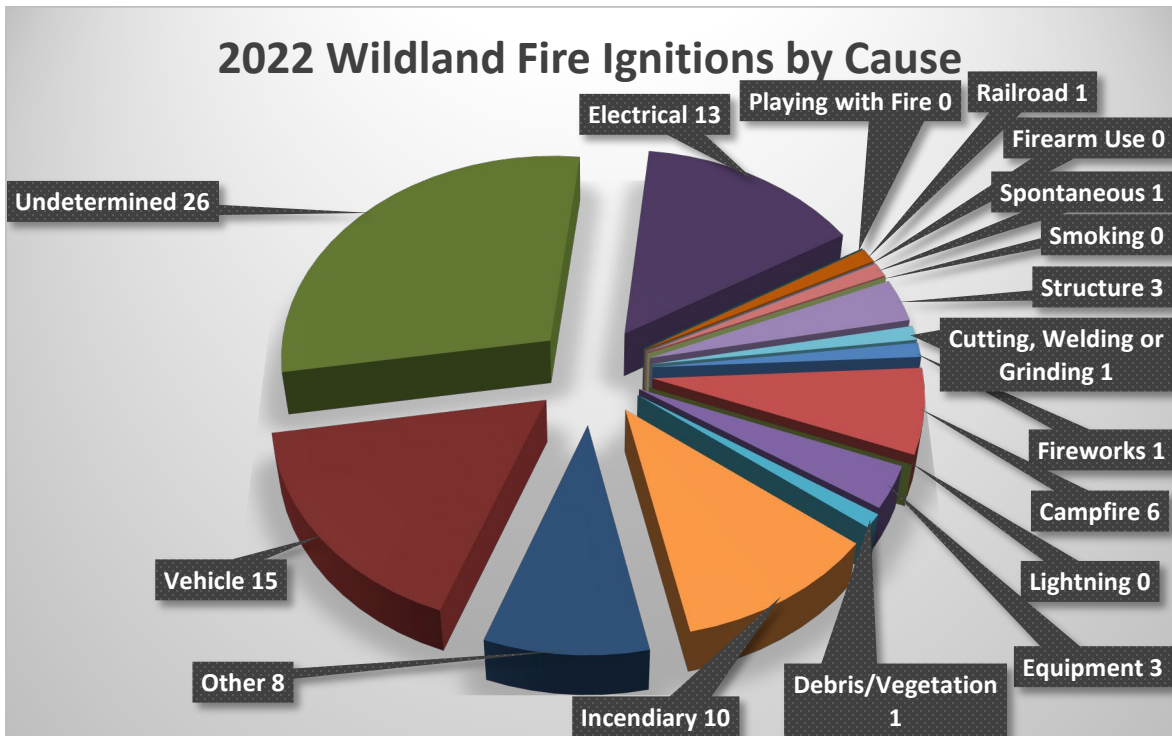


2022 SBC DPA Wildland Fires by Size Class*

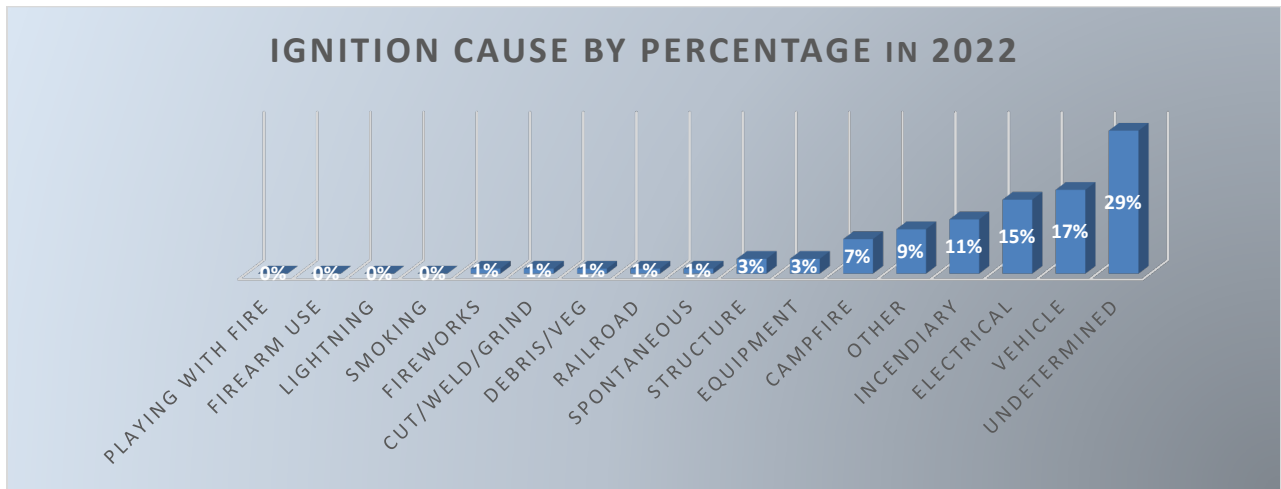
Size Class Code	Fire Size	2021
A	0.001 to 0.25 acres	60
B	0.26 to 9.9 acres	28
C	10 to 99.9 acres	0
D	100 to 299 acres	1
E	300 to 999 acres	0
F	1000 to 4999 acres	0
G	>= 5000 acres	0

*Data does not include fires in the Federal Direct Protection Area

2022 FIRE CAUSE ANALYSIS



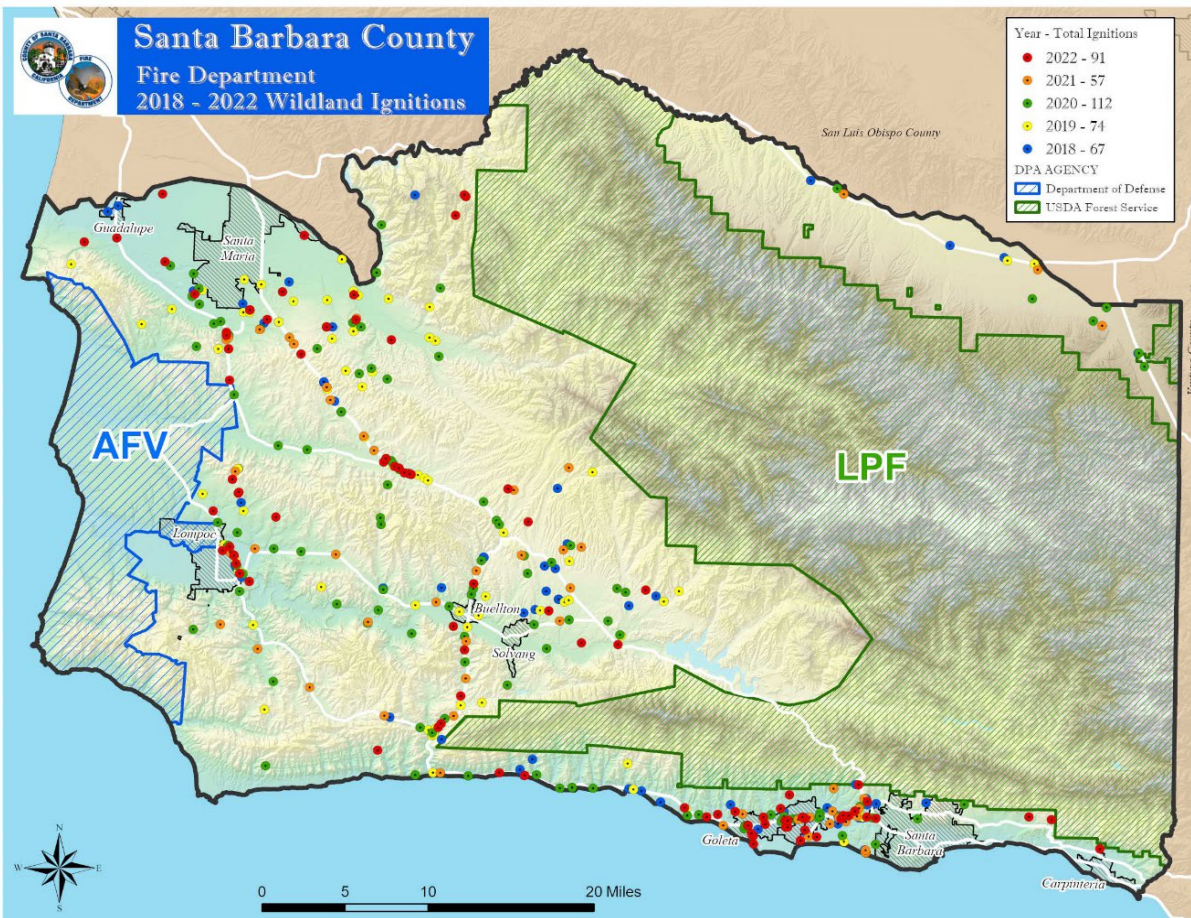
With “undetermined” excluded from analysis; vehicles and power lines or electrical equipment were the major contributors of wildland fire ignitions in Santa Barbara County in 2022. Fires in 2022 that were caused by power lines or electrical equipment increased from 2021 in number with 13 and also increased in percentage from 12% in 2021 to 13% in 2022. Vehicle ignitions increased from 14 in 2021 to 15 in 2022 but ratio decreased from 25% in 2021 to 17% in 2022. Cause was undetermined for 26 fires which was an increase from 12 fires in 2021. 14 of the 26 undetermined cause ignitions (54% of the undetermined cause) occurred within 50 feet of a public road or highway suggesting the most likely cause for a majority of these “undetermined” roadside ignitions are vehicles.



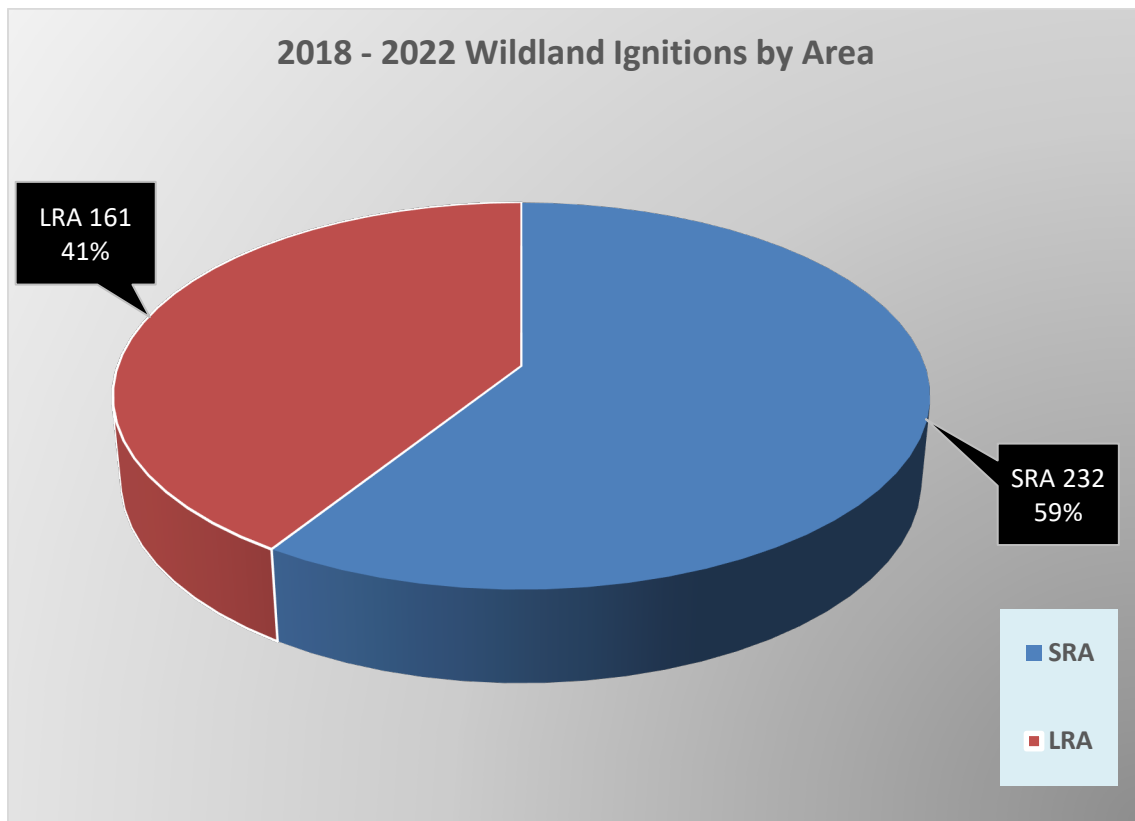
FIVE YEAR FIRE ACTIVITY 2018-2022

FIVE YEAR FIRE LOCATION Santa Barbara County Fire Department reported 393 wildland fires within the SBC DPA from 2018 to 2022. 232 fires occurred in the SRA and 161 were within the SBC LRA. The majority of fires occurred within 50 feet of a road or highway. 372 fires (95%) were held to under 10 acres. 22 fires exceeded 10 acres during the five-year period. The total acres burned for fires that started and were contained in SBC DPA was 2,540 acres from 2018 to 2022.

Santa Barbara County, with its proximity to federal lands along the south coast and the central coast, is periodically impacted by fires that start within the Federal DPA. In the 5-year activity, the largest fires to impact Santa Barbara County were the Cave fire (2,596 acres) in 2019 and Alisal Fire (16,953 acres) in 2021 that both started on Federal DPA but impacted SRA. For 2018, 2021, and 2022 water years (rainfall from August to next August following year), Santa Barbara County averaged 55% of average rainfall which impacts fire growth and potential. At the time of writing, the current 2023 water year to date is at 202% showing signs on improving drought conditions.



2018-2022 FIRE SIZE CLASS CODES AND LOCATIONS BY RESPONSIBILITY AREA



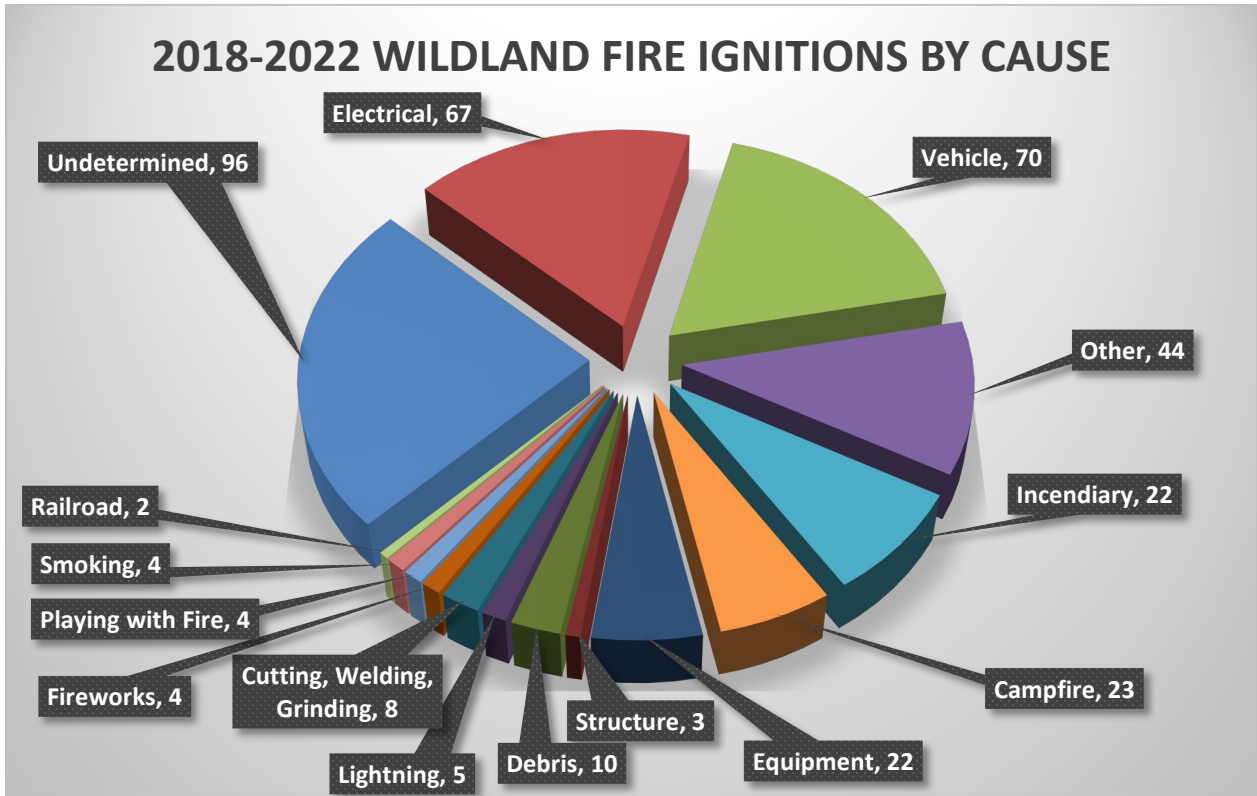
SBC DPA Wildland Fires by Size Class¹⁹

Size Class Code	Fire Size	2018	2019	2020	2021	2022	5 yr. Total	5 yr. Percent
A	0.10 to 0.25 acres	45	37	58	43	60	243	62%
B	0.26 to 9.9 acres	19	33	37	11	28	129	33%
C	10 to 99.9 acres	2	2	9	3	0	16	4%
D	100 to 299 acres	1	1	1	0	1	4	1%
E	300 to 999 acres	0	1	1	0	0	2	0.5%
F	1000 to 4999 acres	0	0	0	0	0	0	0%
G	>= 5000 acres	0	0	0	0	0	0	0%
Total	All	67	74	106	57	89	416	
Percent Class A and B combined		96%	95%	90%	95%	99%	95%	

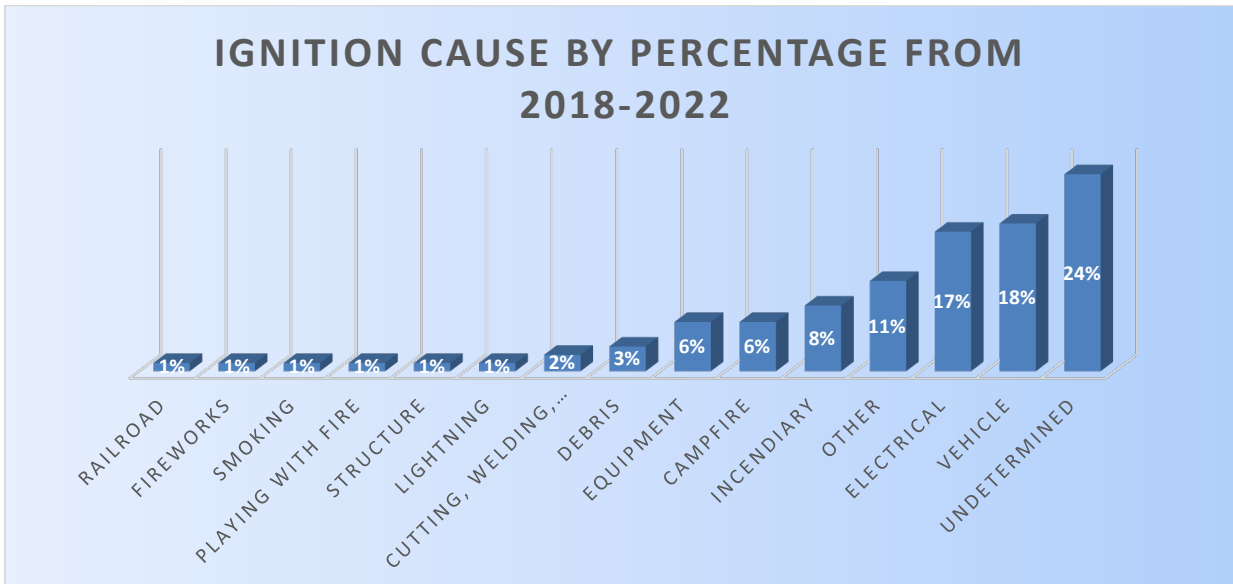
For the period between 2018 and 2022, the Santa Barbara County Fire Department did meet the State fire control objective of keeping 95% of all initial attack wildland fires at 10 acres or less. The actual percentage of fires held 10 acres or less for this five-year period was 95%.

¹⁹ Data does not include fires in the Federal Direct Protection Area

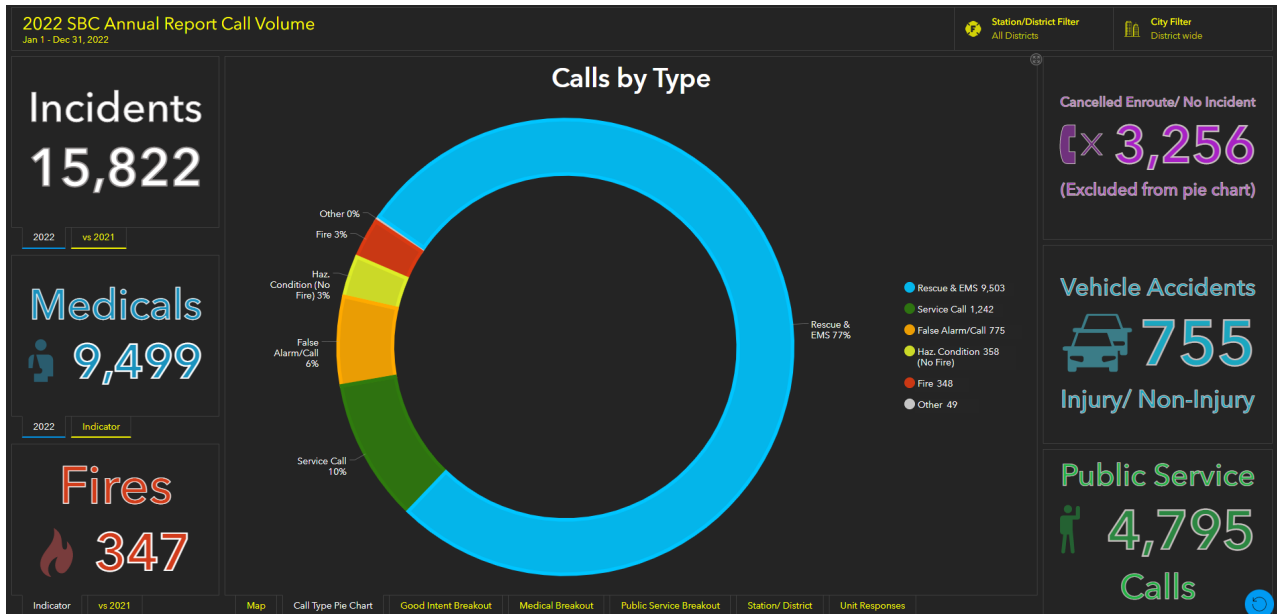
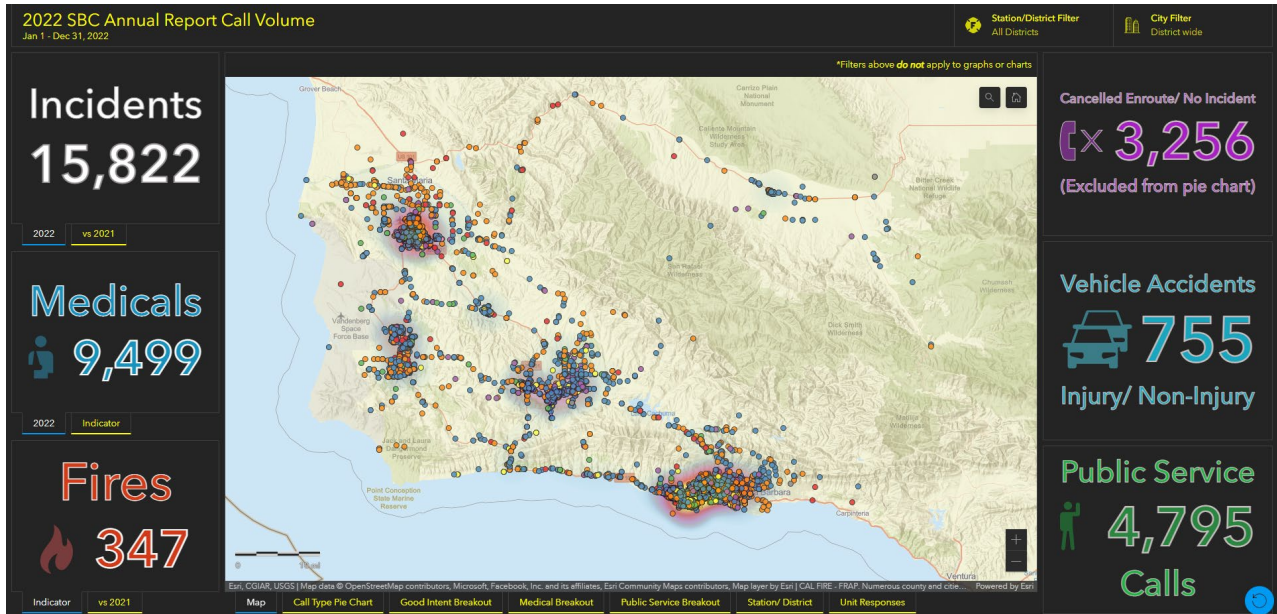
2018 - 2022 FIRE CAUSE ANALYSIS



Analysis of fire cause finds that when undetermined fires are excluded, vehicle and electrical ignitions comprised the bulk of fires during the 2018 to 2022 period. Cause was undetermined for 96 fires but the majority of the “undetermined” and “other” cause ignitions occurred within 50 feet of a public road or highway signifying that the most likely cause of these roadside ignitions are actually vehicles.



APPENDIX F: STATISTICAL SUMMARY



CURRENT PERSONNEL

Chief Officers	18
Captains	66
Engineer/Inspectors	57
Firefighters	73
Heavy Equipment Operators	4
Operator Assistant	1
Hand Crew Members	35
Fuels Crew Members	13
Administrative Support	28

SPECIALTY POSITION BREAKDOWN

Paramedic Captains	19
Paramedic Engineer/Inspectors	19
Paramedic Firefighters	49
Water Rescue Personnel	34
Haz-Mat Specialists	45
US&R Personnel	64
Helicopter Crew Chief Captains	2
Helicopter Pilots	2
Helicopter Mechanic	1



Alisal Fire, started 10/11/2021 at 2:30 pm. Fire burned 16,970 acres.



SBC Firefighters on scene of a multi-vehicle accident on Highway 101 north of Goleta.

EMERGENCY OPERATIONS

<u>Battalions</u>	<u>3</u>
<u>Fire Stations</u>	<u>16</u>
<u>Engine Companies</u>	
Type 1	16
Type 3	14
<u>Reserve Engines</u>	<u>8</u>
<u>Truck Companies</u>	<u>2</u>
<u>Rescue Ambulances (RA)</u>	<u>3</u>
<u>Reserve RA</u>	<u>3</u>
<u>Paramedic Engine Co.</u>	<u>13</u>
<u>Medium USAR Unit</u>	<u>1</u>
<u>Haz-Mat Response Unit</u>	<u>1</u>
<u>Water Rescue Unit</u>	<u>2</u>
PWC	4
<u>Foam Tender</u>	<u>1</u>
<u>Water Tenders (WT)</u>	<u>4</u>
Tactical WT	2
Support WT	2
<u>Fuel Tender</u>	<u>1</u>
<u>Air/Light Unit</u>	<u>1</u>
<u>Logistics Support Trailer</u>	<u>1</u>
<u>SxS (UTV)</u>	<u>6</u>

CONSTRUCTION DIVISION

<u>Heavy Equipment Operators</u>	<u>4</u>
<u>Operator Assistant</u>	<u>1</u>
<u>Dozers</u>	<u>4</u>
<u>Transports</u>	<u>4</u>
<u>Excavator</u>	<u>1</u>
<u>Front End Loader</u>	<u>2</u>
<u>Graders</u>	<u>2</u>
<u>Mowers</u>	<u>2</u>

CREW EQUIPMENT

<u>Crew Buggies</u>	<u>3</u>
<u>Chipper</u>	<u>3</u>
<u>Dump Truck</u>	<u>2</u>
<u>Patrol</u>	<u>2</u>

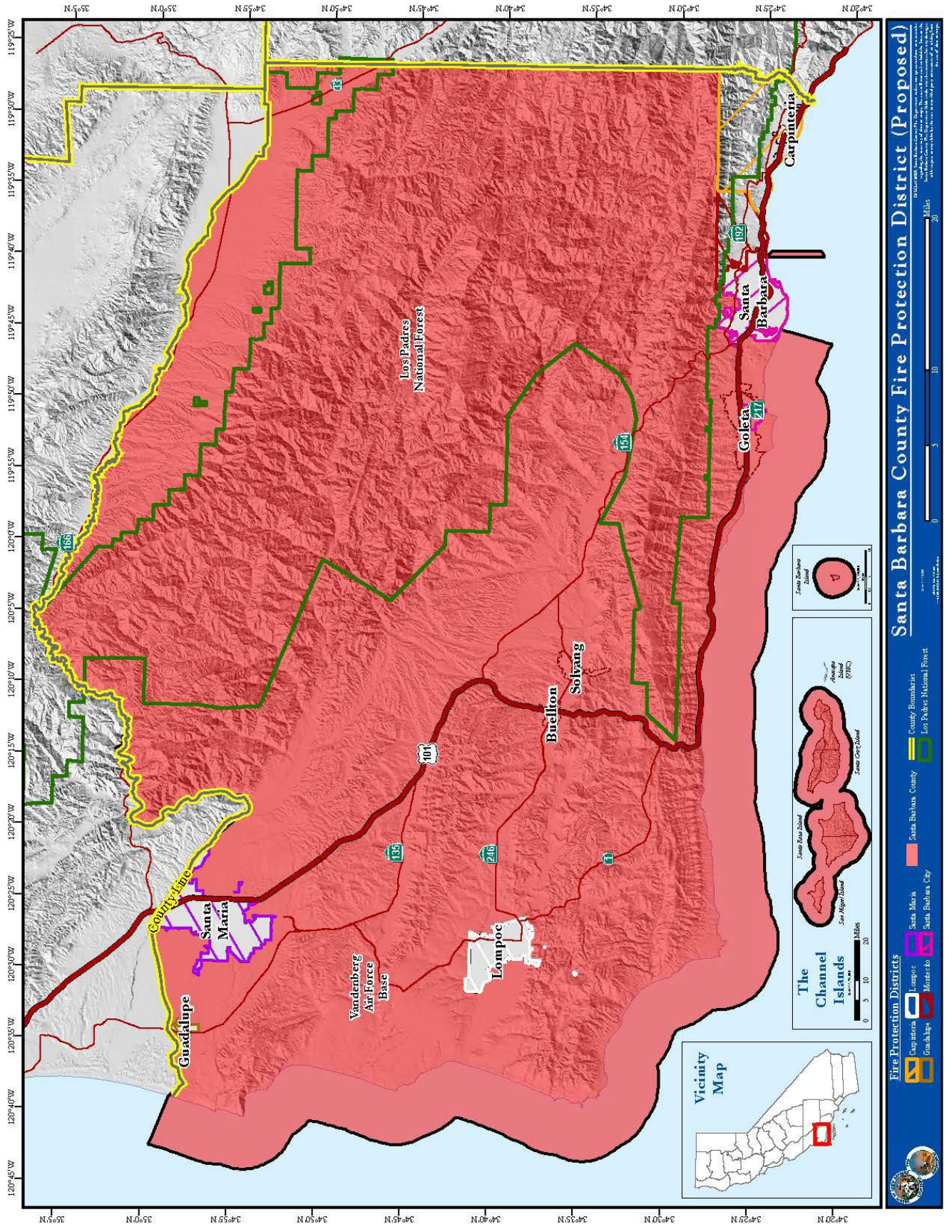
HELICOPTER OPERATIONS

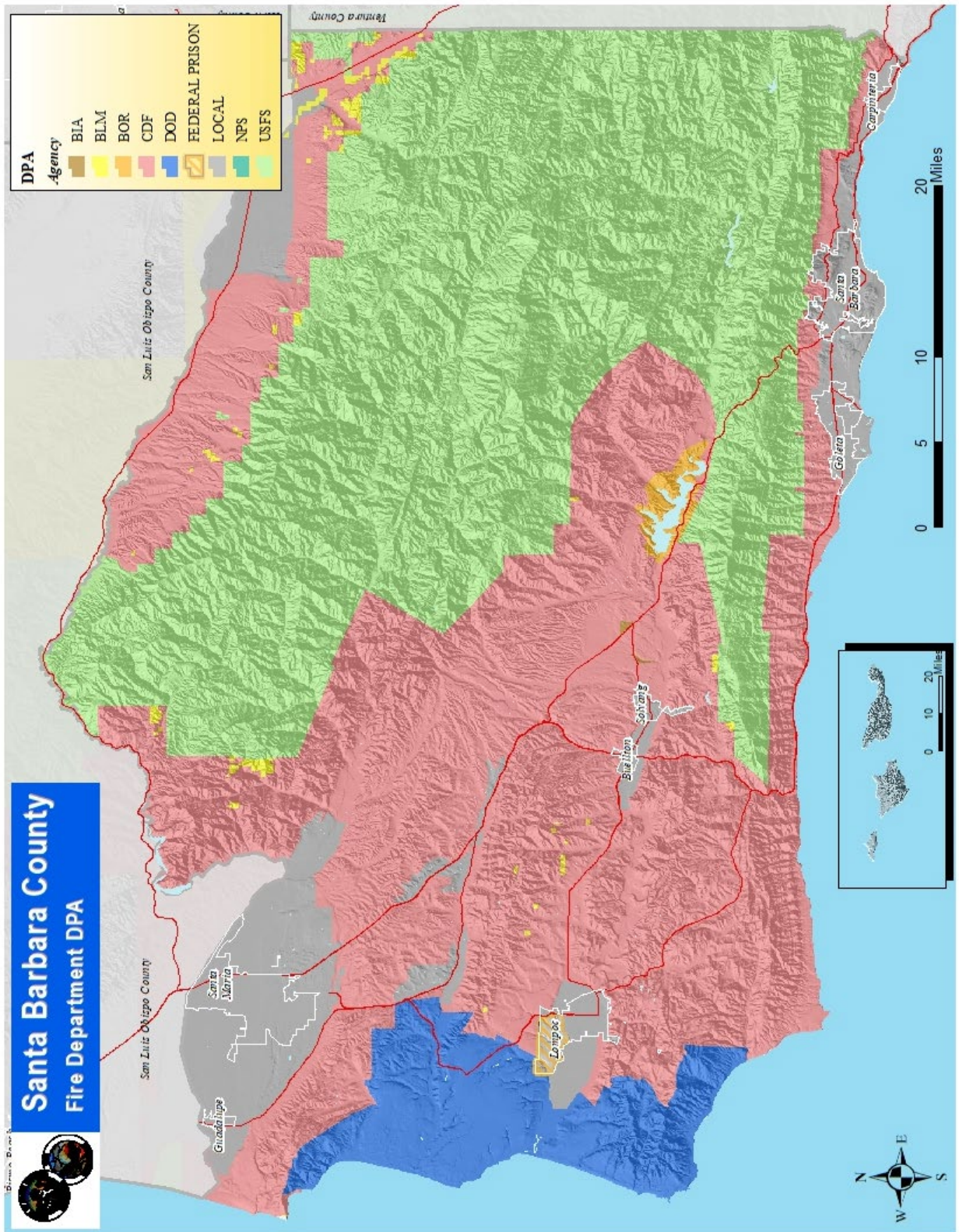
<u>Fire Missions</u>	<u>42</u>
<u>Medical Evacuations</u>	<u>81</u>
<u>Hoist Operations</u>	<u>41</u>
<u>Water Drops</u>	<u>600</u>
<u>Total Water Drops (gallons)</u>	<u>61,000</u>

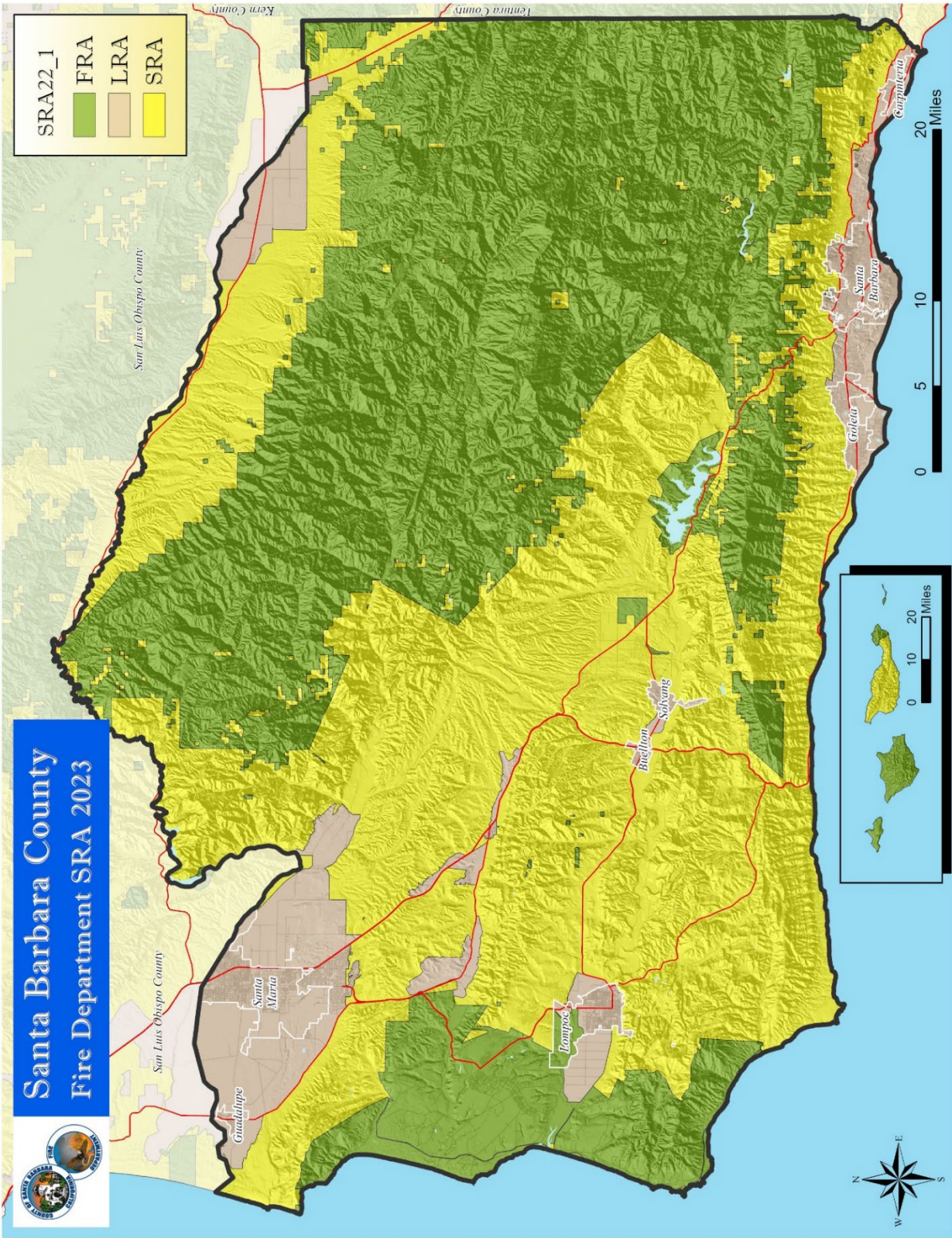
EXHIBITS: MAPS

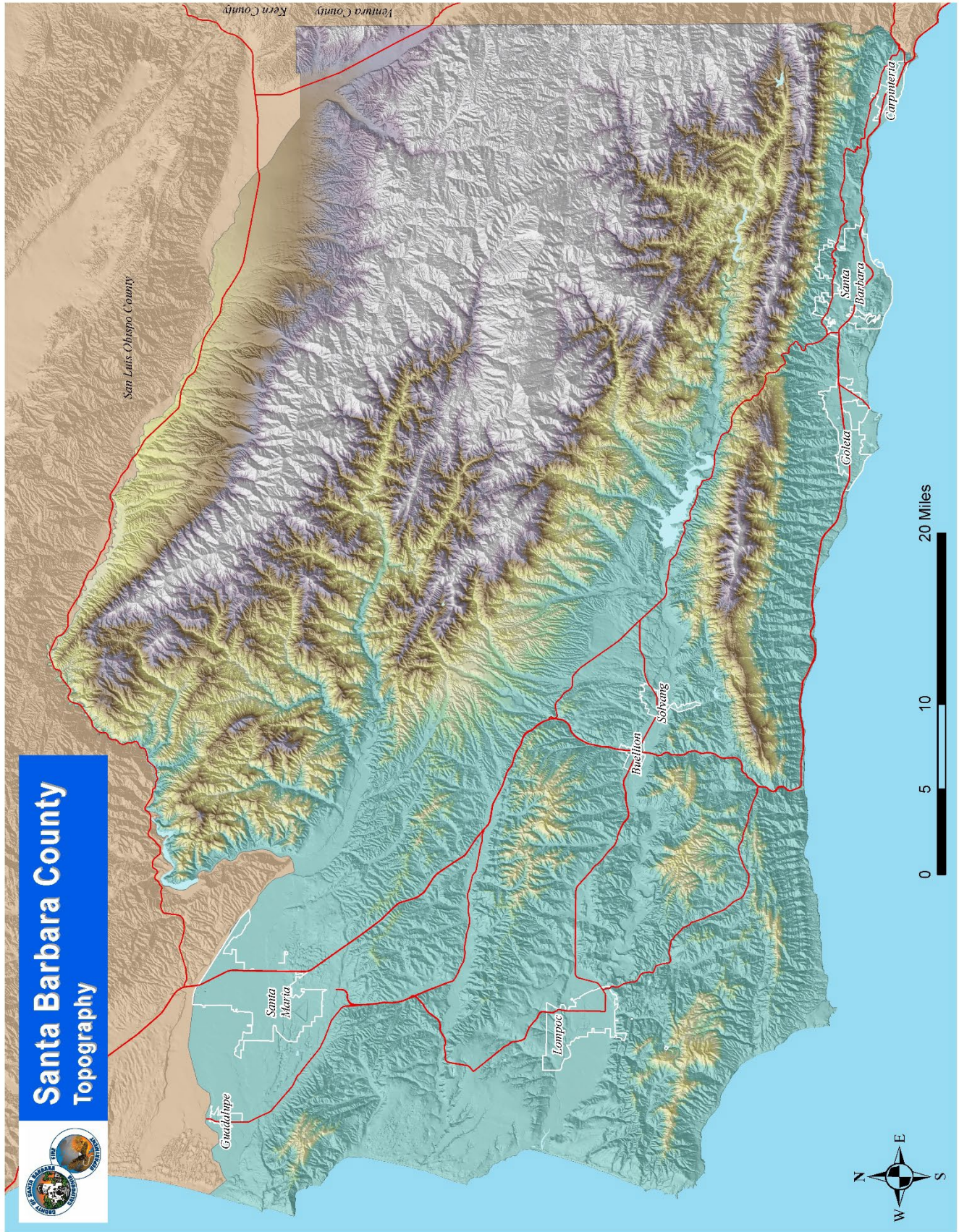
The following maps are the full-size version of the maps included in the Unit Strategic Fire Plan. Also included is a map depicting the Santa Barbara County Communications Sites.

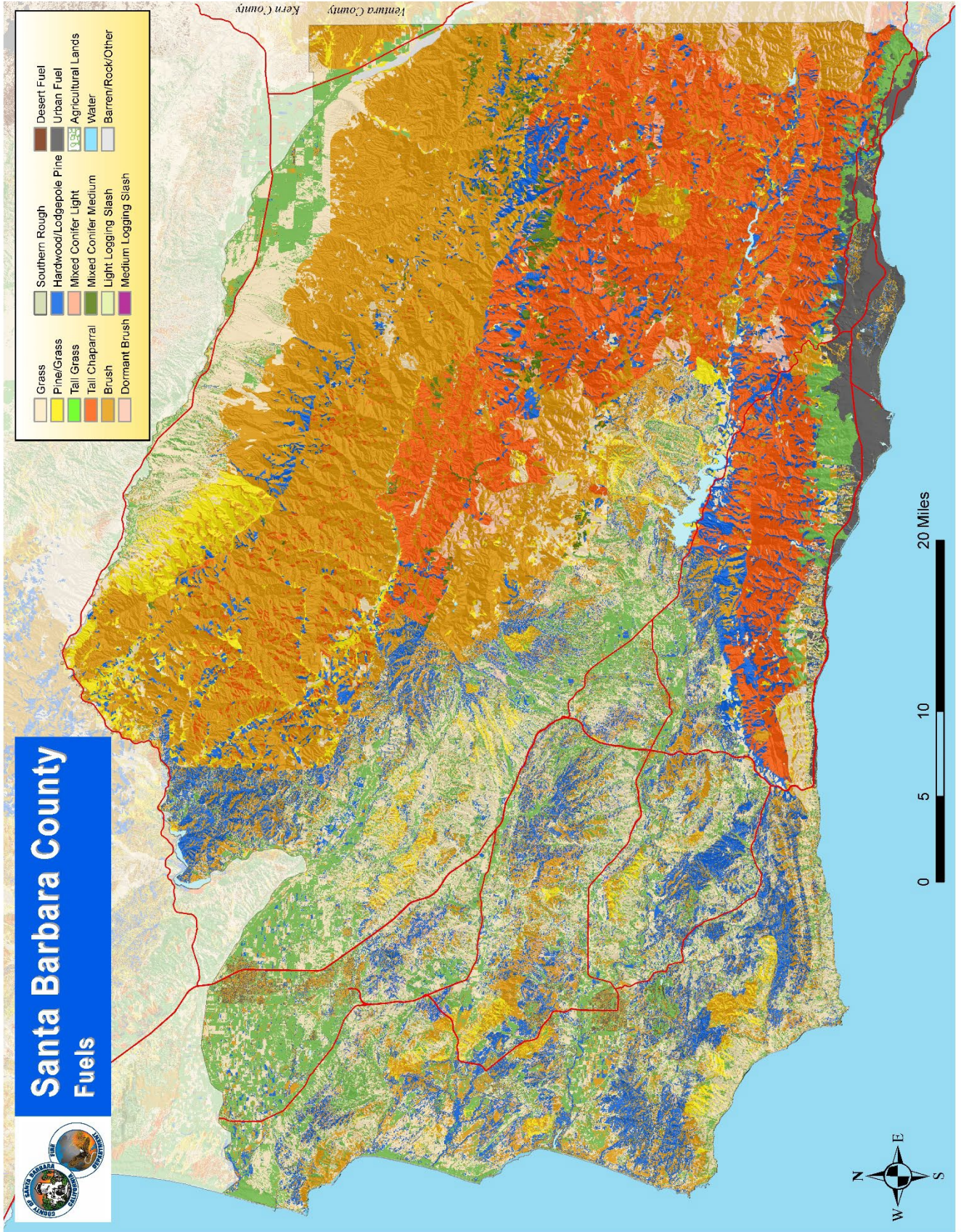
<i>Figure</i>	<i>Title</i>	<i>Pages</i>
Figure 1	Santa Barbara County Fire District	6 and 70
Figure 2	Santa Barbara County DPA	7 and 71
Figure 3	Santa Barbara County SRA	7 and 72
Figure 4	Santa Barbara County Topography	9 and 73
Figure 5	Santa Barbara County Fuel Models	11 and 74
Figure 6	Santa Barbara County Fire History 2022	15 and 75
Figure 7	Santa Barbara County Fire Stations & Districts	18 and 76
Figure 8	Santa Barbara County DPA and Battalions	19 and 77
Figure 9	Santa Barbara County Communities at Risk	25 and 78
Figure 10	Santa Barbara County 5 Year Wildland Ignitions	26 and 79
Figure 11	Santa Barbara County Fire Hazard Severity Zones	30 and 80
Figure 12	Santa Barbara County LFM and RAWS sites	36 and 81
Figure 13	Santa Barbara County Fire Department Preplan Blocks	37 and 82
Figure 14	Santa Barbara County Fire Plan Projects	40 and 83
Figure 15	Santa Barbara County Communication Sites	84
Figure 16	Santa Barbara County Wildfire Suppression Difficulty (SDI)	85

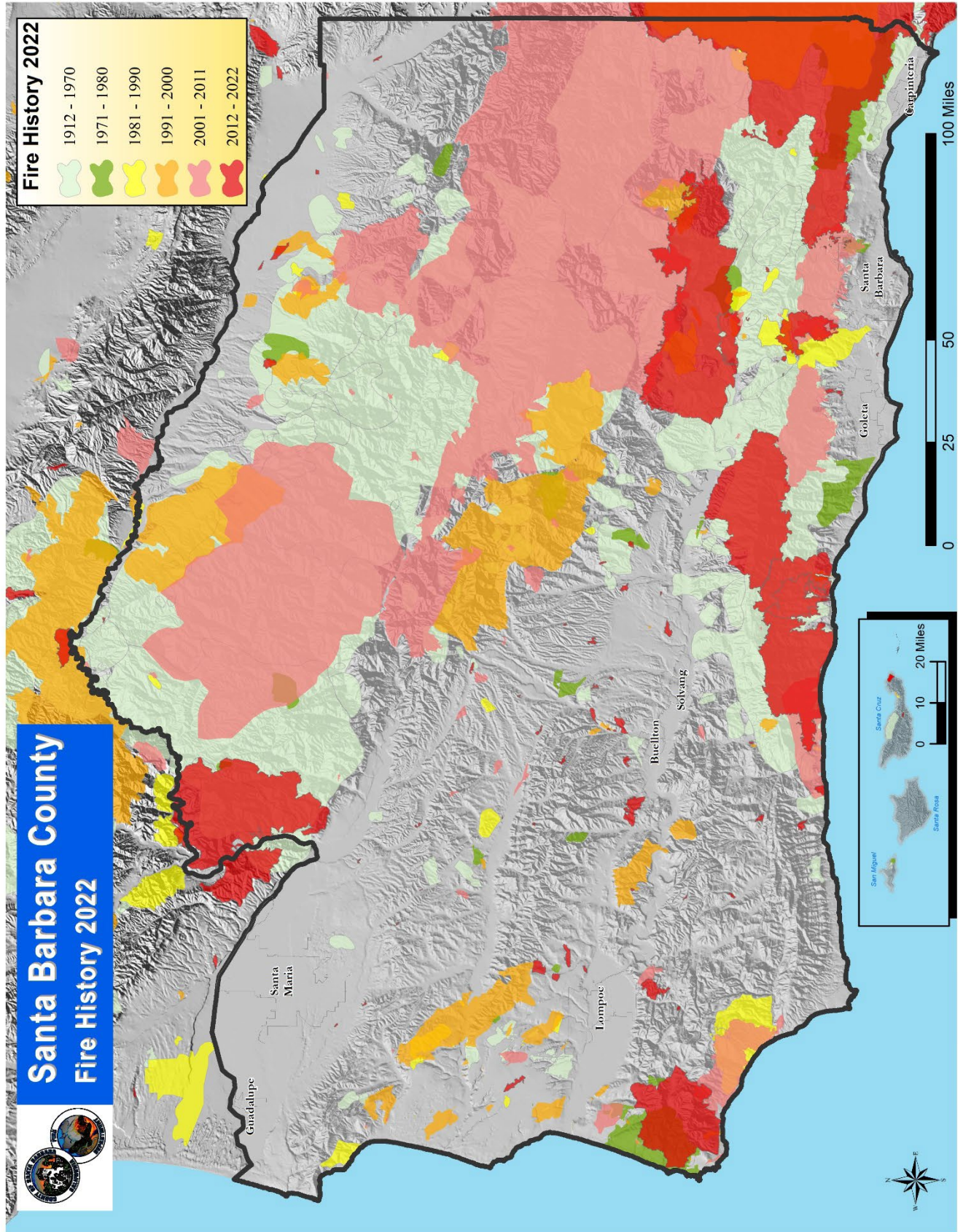


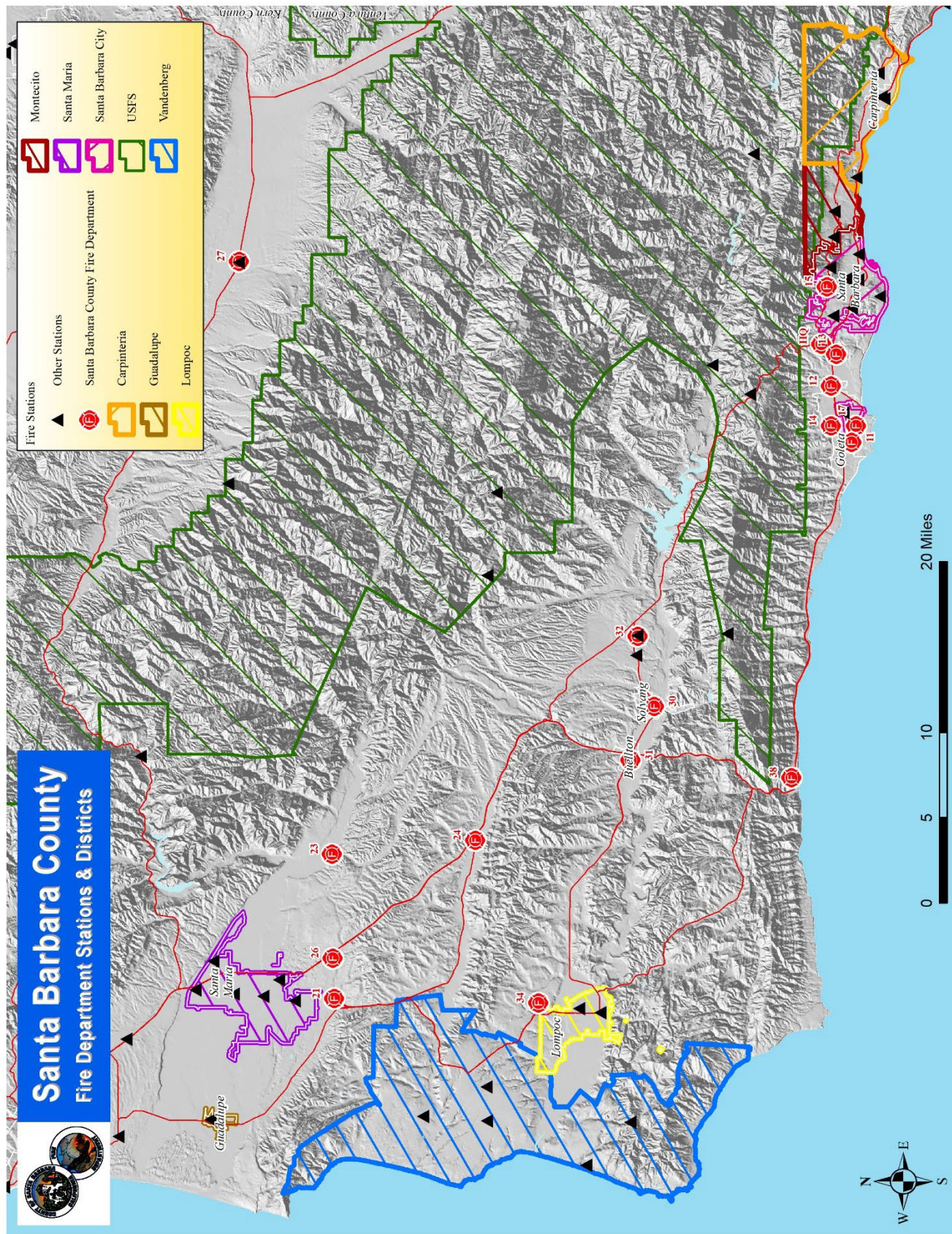


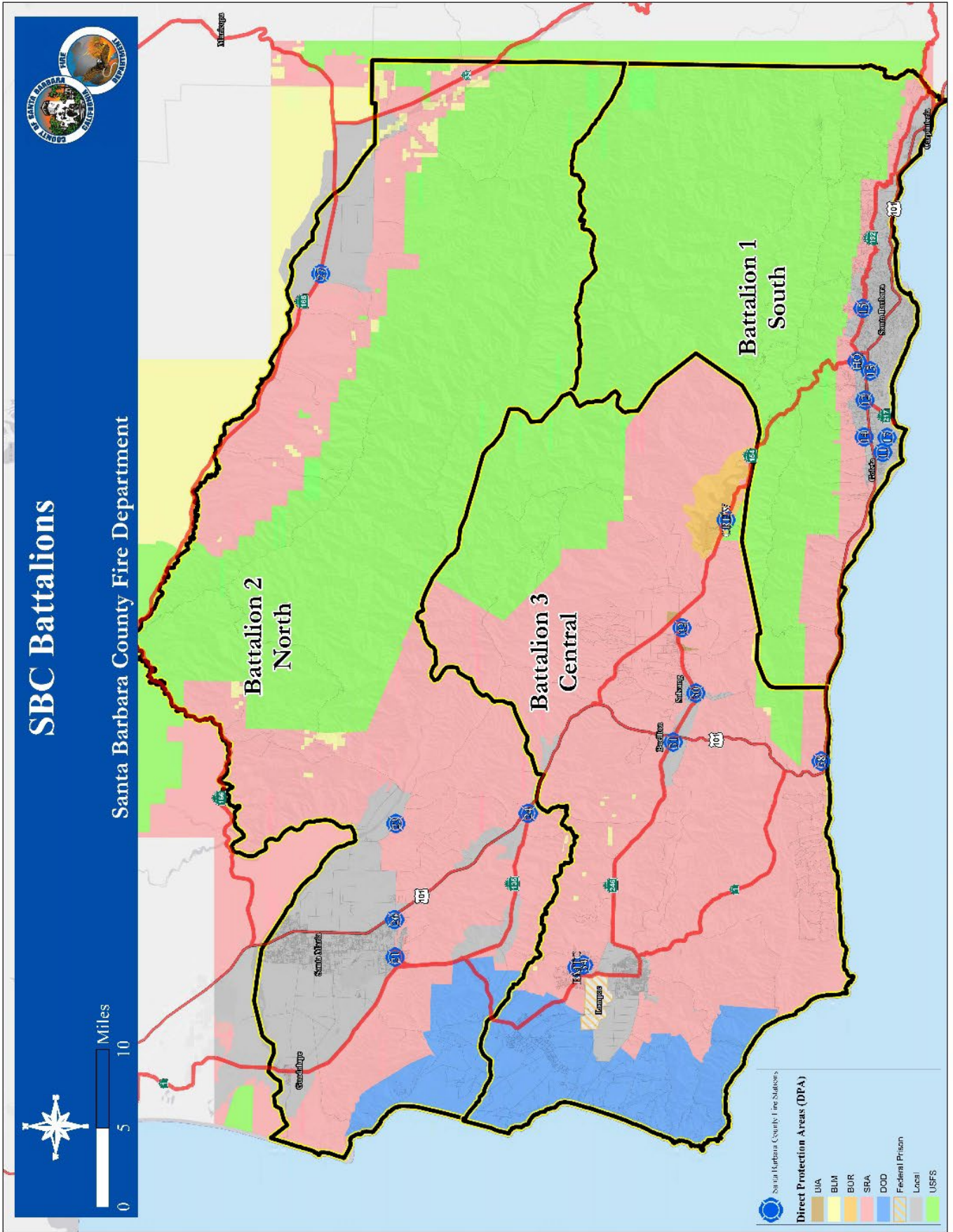




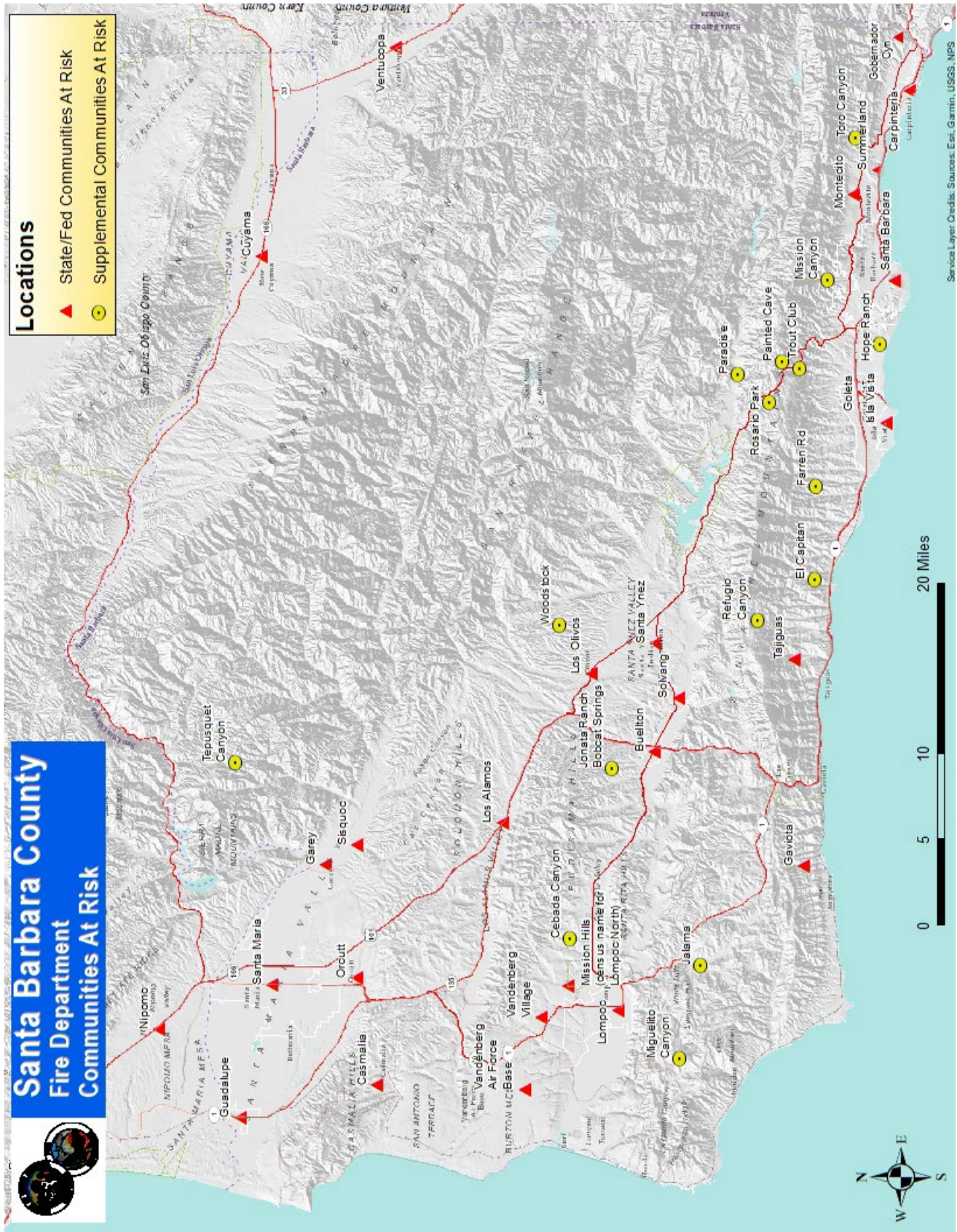


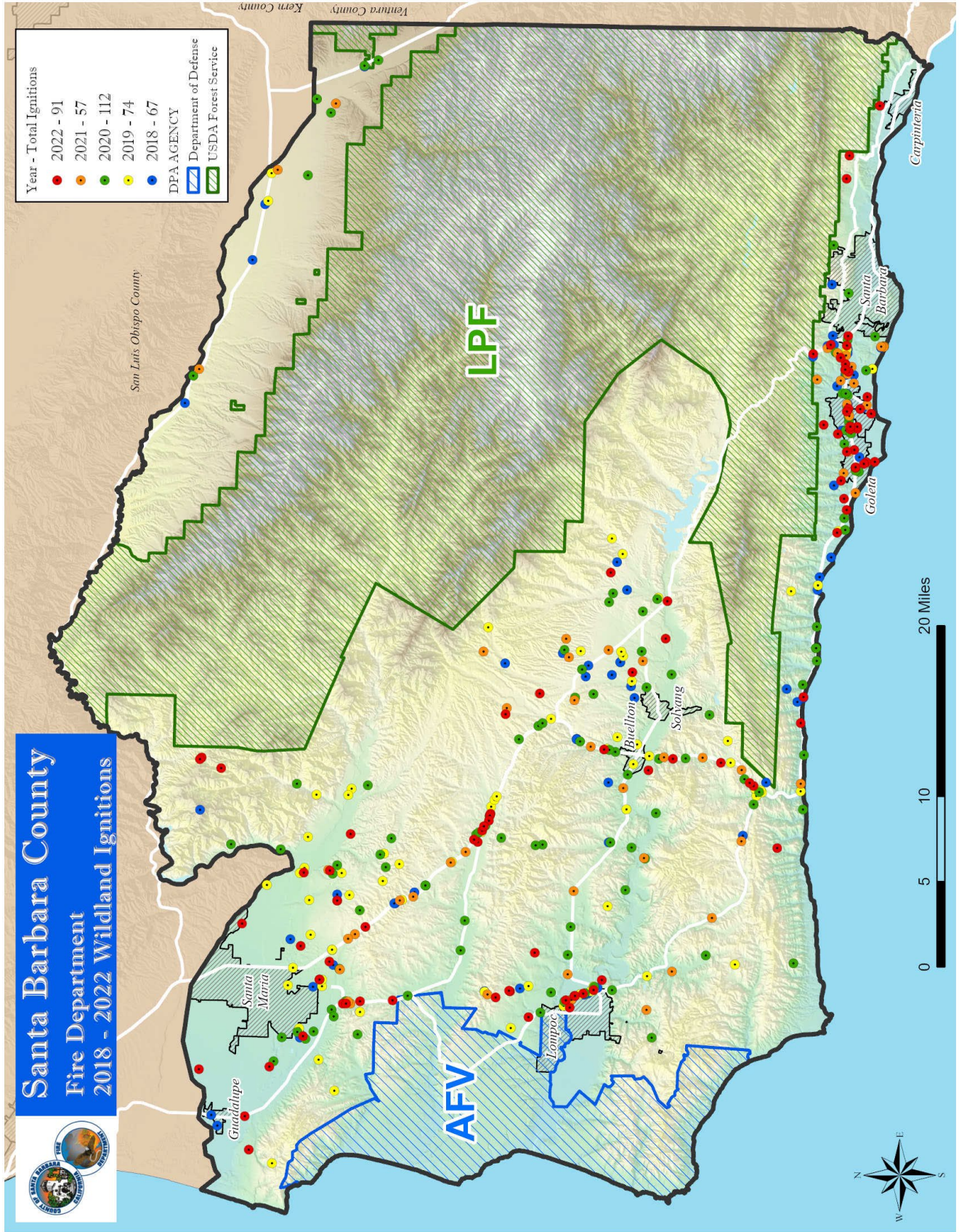


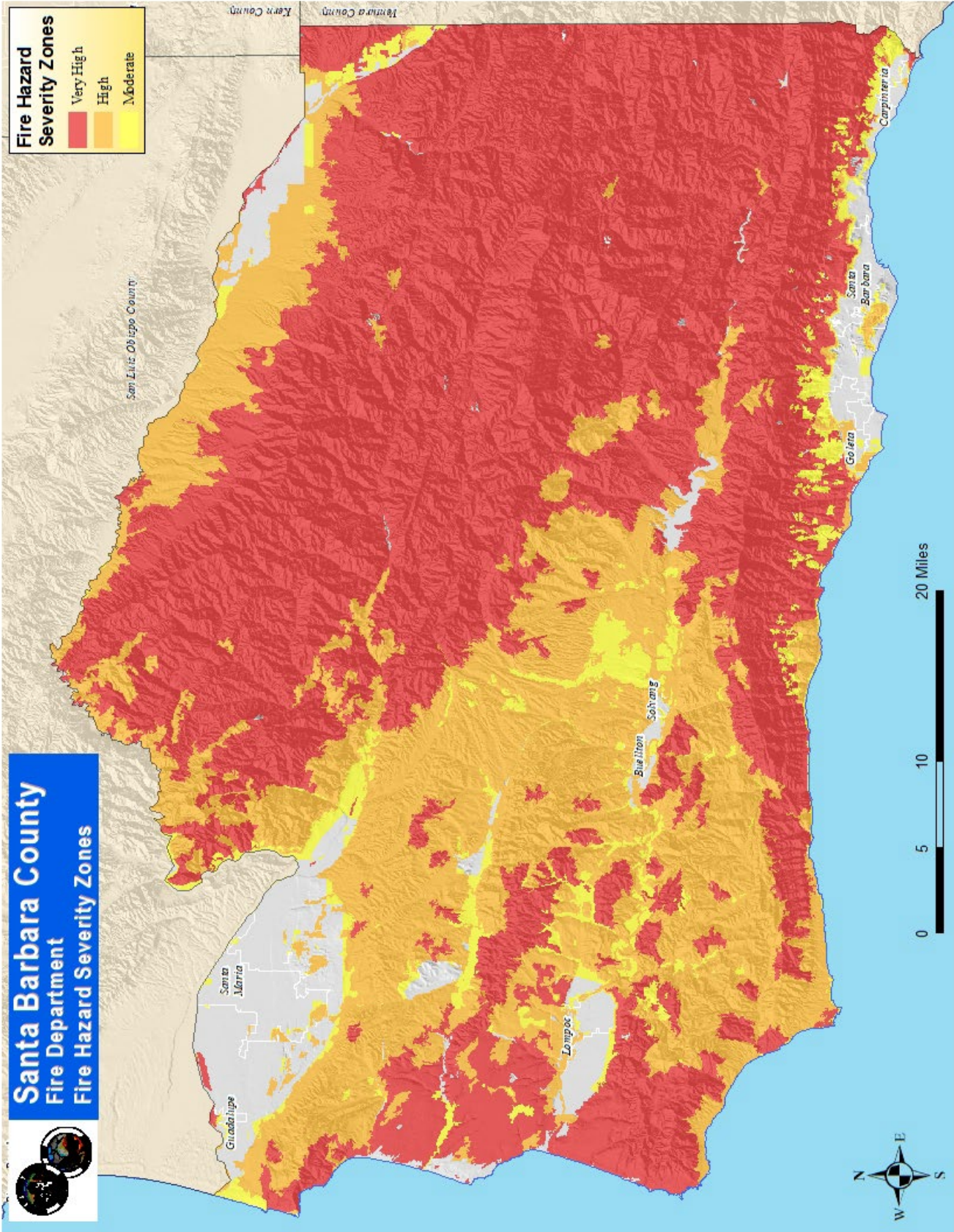


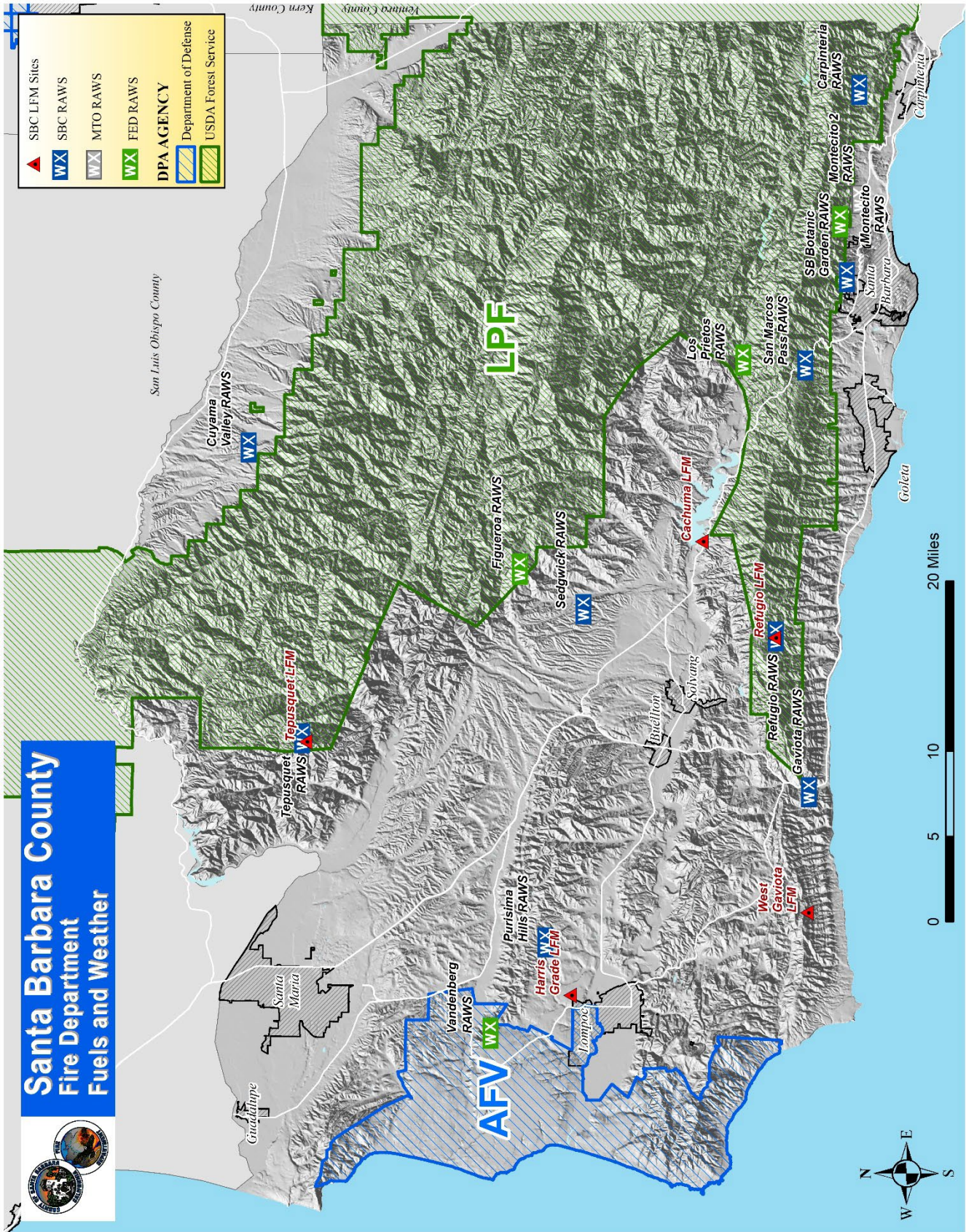


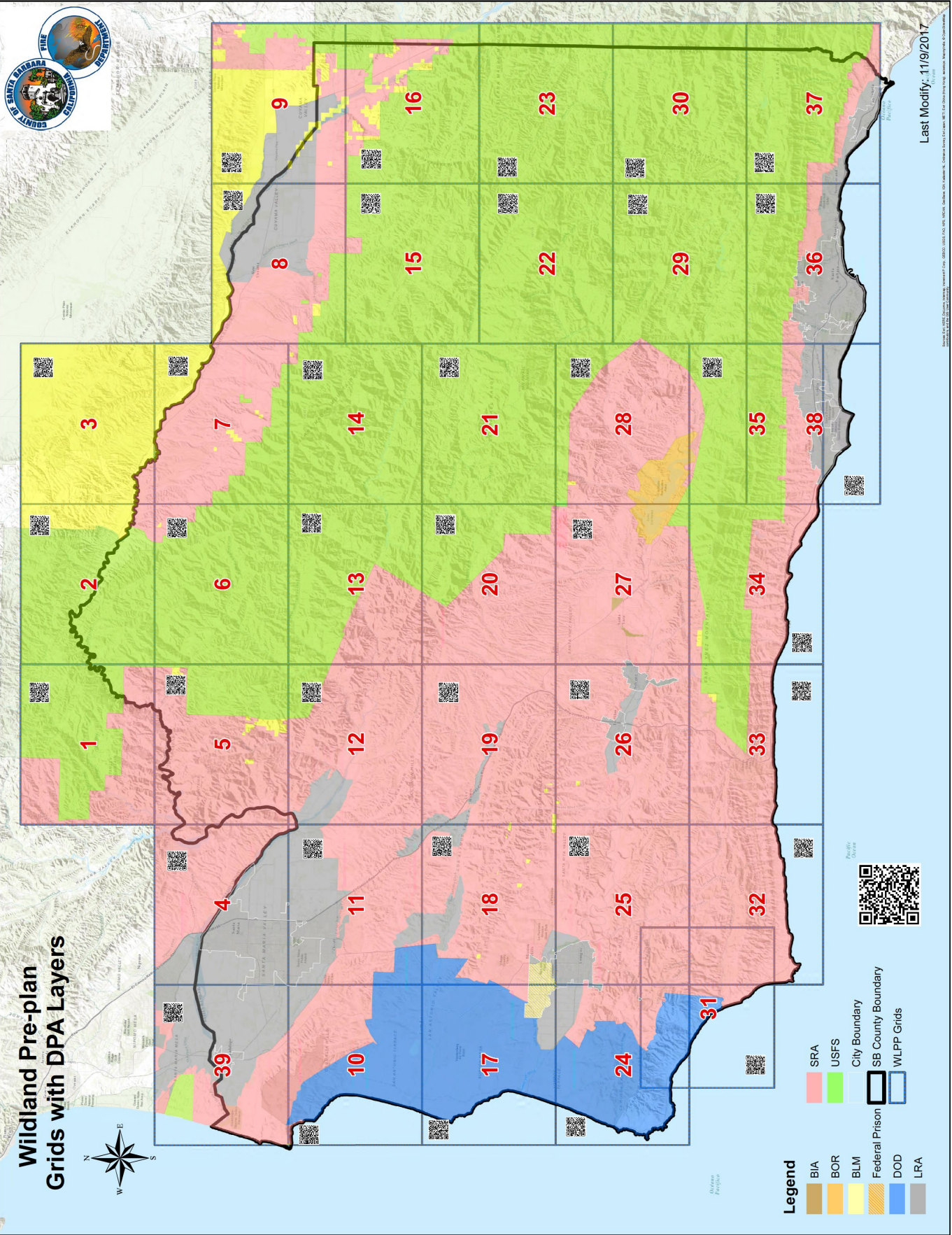
Santa Barbara County Fire Department Communities At Risk





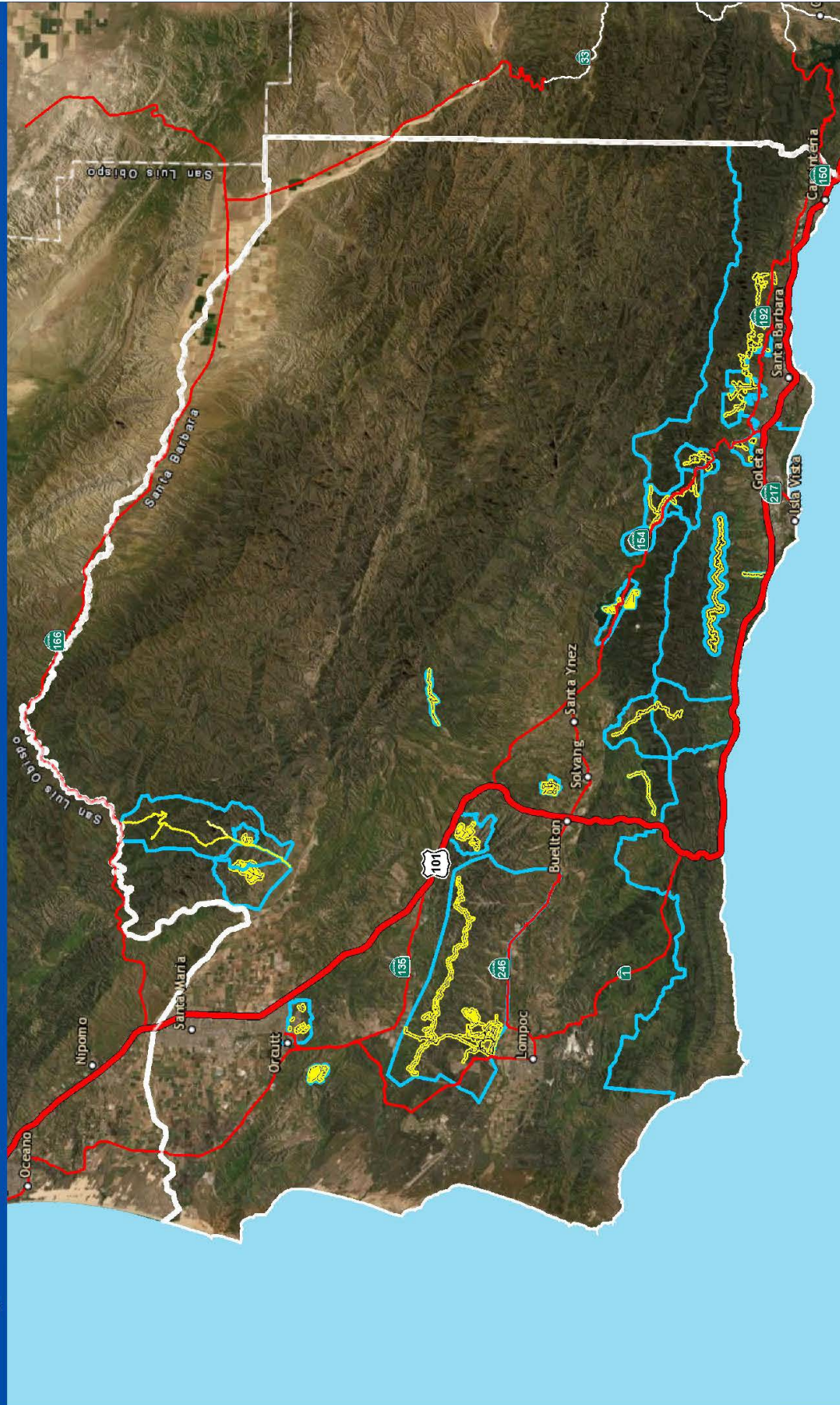








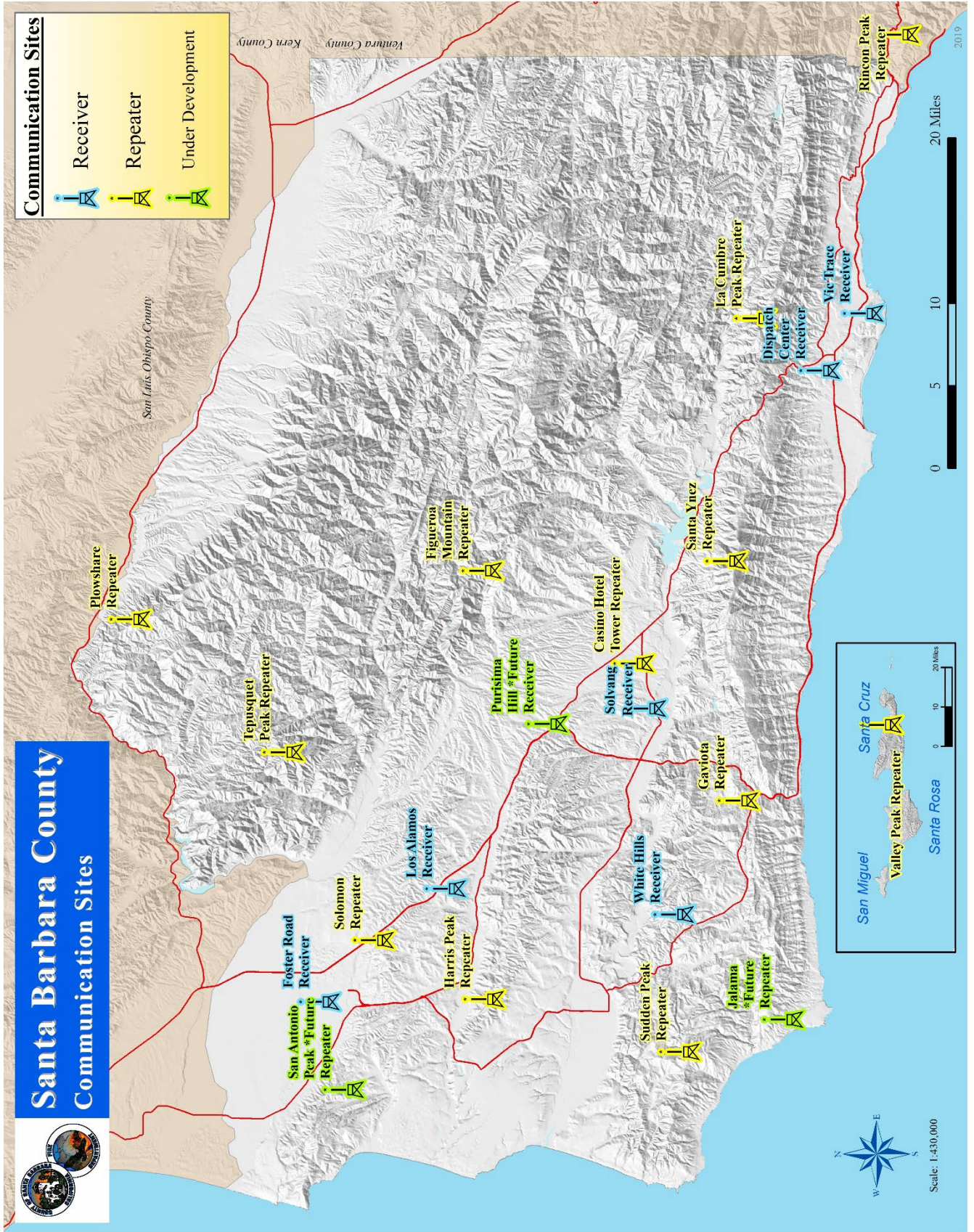
Santa Barbara County Fire Plan Projects

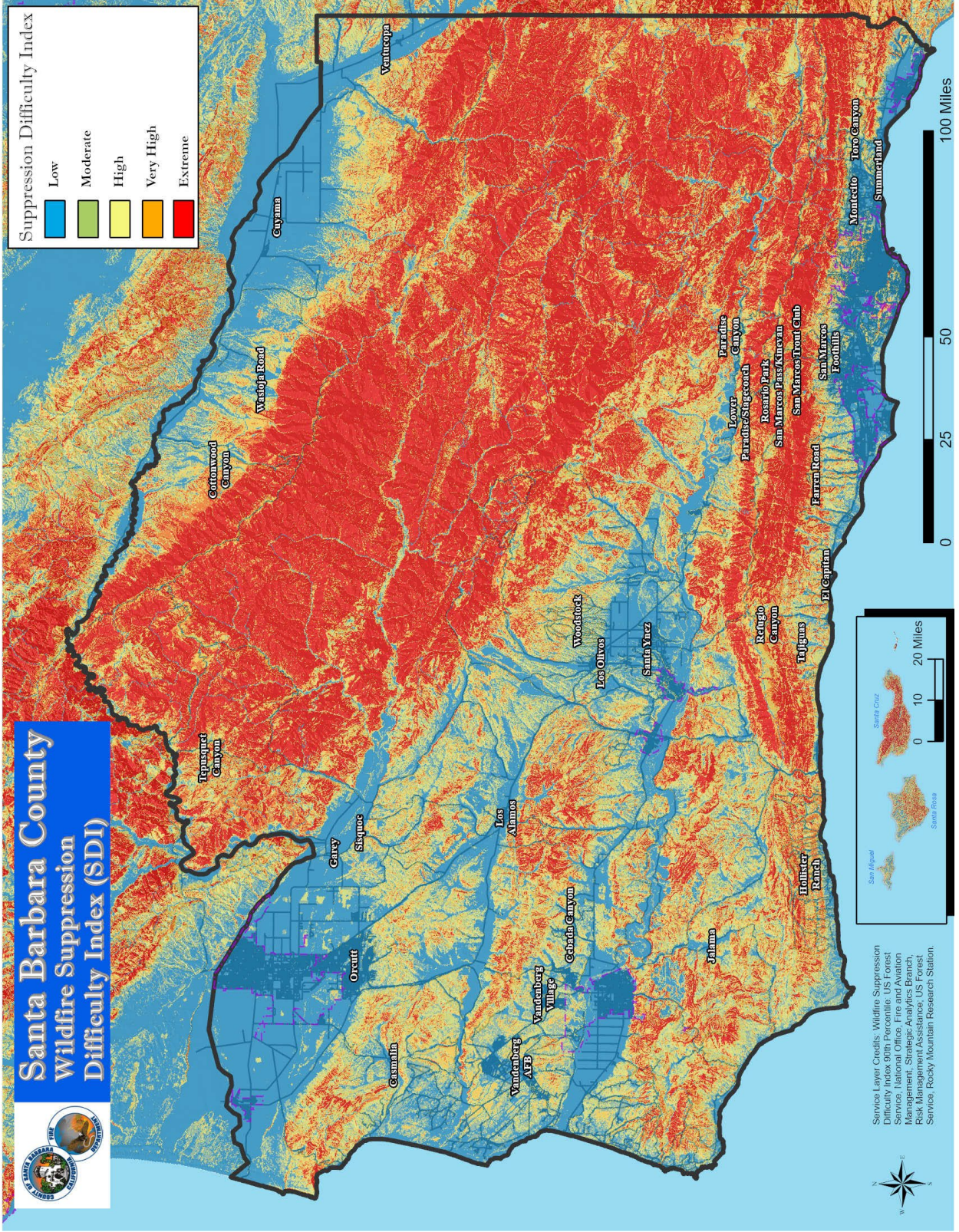


2022

SEC FIRE GIS

- Legend**
- Fuel Treatments
 - Project Boundary





ANNUAL ACCOMPLISHMENTS REPORTING (2022)

Fire Planning:

The Fire Department has continued to enhance its weather RAWS unit into the County's network and is using the data for predictive services, FDOP development and daily Burn Index broadcasts. We continue to maintain the 9 RAWS stations and 5 LFM stations across the County.

The Fire Department also added depth to its staff by adding a part time wildland fire specialist with over 25 years of experience in pre fire planning and field work.

The Vegetation Management Section coordinated with Engine Companies and civilian inspectors to complete over 14,000 Defensible Space inspections within our jurisdiction.

Investigations and Enforcement:

The Unit investigated vegetation fires in the SBC DPA for the year 2022 and assisted neighboring agencies with fire investigations. Within the county, Santa Barbara County investigators assisted with investigations in Santa Maria, Lompoc, Santa Barbara City, and the Los Padres National Forest.

Wildland Fire Prevention Engineering:

SBC assisted the Fire Safe Council and residents of the Gaviota Coast in applying for (and receiving) CalFire grant money for development of a CWPP for the Gaviota Coast area of southern Santa Barbara County. The Draft Gaviota Coast CWPP was completed in December of 2022 and approved by the Santa Barbara County Board of Supervisors on February 7, 2023.

Work on the Lompoc Valley Fuel Reduction Project began in 2019 and will benefit approximately 14,300 homes in the nearly 48,500 acres of project area. The work is to be completed by Santa Barbara County's fuels crew, fire crew, and construction division. The project has multiple treatment areas with most areas 100% complete. SBC assisted the community with a proposal for the Lompoc Valley CWPP.

Santa Barbara County Fire Department assisted with Santa Barbara County Planning & Development with updating the General Plan Safety Element.

Vegetation Management:

SBC Crew 10, Crew 11, Crew 12, Fuels Crews and the Construction Section completed treatments, multiple roadside maintenance projects and maintained seasonal fire access roads.

The Vegetation Management Section also coordinated with County Fire Crews, Fuels Crews and the Construction Section to complete multiple prescribed fires.

Volunteerism:

We continue to maintain a position on the board of the local Santa Barbara County Fire Safe Council, meeting monthly, and working with local community groups to identify critical fire protection needs and to educate the public on the risk of wildfires.

The Fire Department and Local 2046 were active in the community collaboratively and independently. On duty personnel assisted and conducted public education programs with

schools and the community, while Local 2046 assisted local charities with staffing support and fundraising.

Geographic Information Systems Section:

Our GIS Section made significant strides in 2022 to update mapping products, applications and software to improve pre-fire planning and information. The Section was instrumental during another year of incidents in providing GIS support and products to the OEM and on incidents within the County. We have added two additional part time employees to expand our depth in our GIS capability.

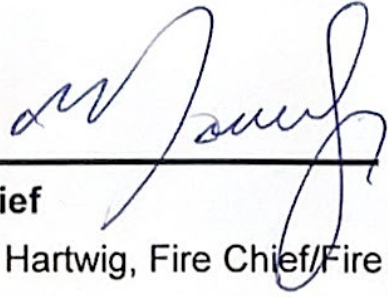
Operations:

The Santa Barbara County Fire Department is proud to announce that the department wide station conversion to ALS was complete on July 1, 2022, at 0800. Every engine company in our department will provide continuous Advanced Life Support (ALS)-level prehospital medical care. The Santa Barbara County Fire Department has been providing ALS service to the community for 49 years. In 1973, we were one of the first fire departments in the State of California to train Firefighter/Paramedics. Seven Firefighters went through the initial paramedic program at Goleta Valley Hospital. In 1974, we placed our first paramedic unit, Rescue 11, into service. Since then, we have methodically expanded our services departmentwide. Today we have over eighty practicing paramedics throughout the ranks of Firefighter, Engineer, and Captain. This is a monumental occasion to have 16 ALS fire stations, three ALS fire department ambulances, and a seasonal ALS helicopter crewmember serving the citizens of the County of Santa Barbara.

The County of Santa Barbara has announced the groundbreaking for the Regional Fire Communications Center and expansion of the Emergency Operations Center in Santa Barbara, CA. The Center will provide dispatch services for seven fire departments in the county: Santa Barbara County Fire Department, Carpinteria-Summerland Fire Protection District, Santa Barbara City Fire Department, Montecito Fire Protection District, Lompoc Fire Department, Guadalupe Fire Department, and Santa Maria Fire Department. Additionally, the Emergency Operations Center will be expanded into the new building with the construction of a new Joint Information Center and Call Center to provide timely information to the Santa Barbara County community during emergency operations.

The County of Santa Barbara Board of Supervisors has made the decision to not extend the current ambulance contract and directed staff to explore a non-exclusive multi-provider permit model. The Board's decision was based on their desire to improve the already existing EMS system through reinvestment in the community by providing more ambulances for 911 response, dedicated inter-facility transport ambulances, community paramedicine, and community and financial oversight at no additional cost to the community.

The Santa Barbara County Fire Department has been providing service for community needs for almost 100 years and ambulance transport for nearly 50 years. 75% of the 911 calls it receives in the County are for medical emergencies. The department currently provides paramedic ambulance transport services for UCSB, Vandenberg Village (Lompoc Valley), New Cuyama, and the HWY 166 corridor. With the new system, the Santa Barbara County Fire Department plans to seamlessly provide services to an already existing EMS program.



Unit Chief

Mark A. Hartwig, Fire Chief/Fire Warden

5/1/2023

Date