Unit Strategic Fire Plan
Santa Barbara County

UNIT STRATEGIC FIRE PLAN AMENDMENTS

Date	Section Updated	Page Numbers Updated	Description of Update	Updated By
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

Table of Contents

TABLE OF CONTENTS ii

SIGNATURE PAGE 1

EXECUTIVE SUMMARY 3

SECTION I: UNIT OVERVIEW
UNIT DESCRIPTION 6
UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES 15

SECTION II: COLLABORATION
COMMUNITY / AGENCIES / FIRE SAFE COUNCILS 17

SECTION III: VALUES
A. VALUES 19
B. COMMUNITIES 20

SECTION IV: PRE FIRE MANAGEMENT STRATEGIES
A. FIRE PREVENTION 22
- ENGINEERING & STRUCTURE IGNITABILITY 24
- INFORMATION AND EDUCATION 27

B. VEGETATION MANAGEMENT 28

SECTION V: PRE FIRE MANAGEMENT TACTICS
DIVISION / BATTALION / PROGRAM PLANS 29

APPENDIX A: PRE FIRE PROJECTS 36

APPENDIX B: UNIT GOALS AND OBJECTIVES 37

APPENDIX C: 2013 WILDLAND FIRE IGNITION ANALYSIS 39

EXHIBITS: MAPS 41

SUPPLEMENT: ANNUAL ACCOMPLISHMENTS REPORTING (2013) 53

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.

FOR M.W. DYER

Unit Chief — **6-09-2014** **Date**

Michael W. Dyer, Fire Chief

Pre-Fire Engineer — **6-09-2014** **Date**

Robert Hazard, PFE

Strategic Fire Plan for California

The 2010 Strategic Fire Plan for California is the first statewide fire plan developed through a collaborative effort between the State Board of Forestry and Fire Protection and the California Department of Forestry (Board) and Fire Protection (CAL FIRE). The Plan recognizes that fire will occur in California and works to answer the question of "how do we utilize and live with that risk of wildfire?" The 2010 Plan builds upon the concept first developed in the 1996 California Fire Plan, which led to collaborative efforts in fire prevention. A copy of the 2010 Strategic Fire Plan for California can be found at http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf668.pdf

The vision of the 2010 Strategic Fire Plan: A natural environment that is more resilient and man-made assets which are more resistant to the occurrence and effects of wildland fire through local, state, federal, and private partnerships.

The 2010 Strategic Fire Plan outlines seven goals focused on enhancing the protection of lives, property, and natural resources from wildland fire, as well as improving environmental resilience to wildland fire. Each of the goals is meant to build upon the previous one; the seven goals are 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. Articulate and promote the concept of land use planning as it relates to fire risk and individual landowner objectives and responsibilities.
3. Support and participate in the collaborative development and implementation of wildland fire protection plans and other local, county and regional plans that address fire protection and landowner objectives.
4. Increase awareness, knowledge and actions implemented by individuals and communities to reduce human loss and property damage from wildland fires, such as defensible space and other fuels reduction activities, fire prevention and fire safe building standards.
5. Develop a method to integrate fire and fuels management practices with landowner priorities and multiple jurisdictional efforts within local, state and federal responsibility areas.
6. Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.
7. Address post-fire responsibilities for natural resource recovery, including watershed protection, reforestation and ecosystem restoration.

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). Santa Barbara County has the responsibility as a contract county to implement the 2010 State Strategic Fire Plan for California in Santa Barbara County. As such 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. This plan, the *Santa Barbara County Unit Strategic Fire Plan,* replaces the previous unit fire plan: *Santa Barbara County Unit Fire Plan,* and the *Santa Barbara County Communities Wildfire Protection Plan 2005.*

Santa Barbara County Unit Strategic Fire Plan

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 is located in the Fire Marshal's Office in the Fire 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 Plan[1], and the County's Multi-Jurisdictional Hazard Mitigation Plan[2]. 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

[1] The electronic version of the Santa Barbara County Comprehensive Plan can be found at: http://longrange.sbcountyplanning.org

[2] The electronic version of the Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan can be found at: http://www.countyofsb.org/ceo/oes.aspx?id=376

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 seven goals of the California Strategic Plan include:

- Maintain an up-to-date GIS database used for operations, planning, and analysis.
- 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.
- Create a Santa Barbara County approved Community Wildfire Protection Plan (CWPP) template and provide communities technical support and guidance in the preparation of CWPPs.
- 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, construction section, air operations unit (helicopter program).

SECTION I: UNIT OVERVIEW

A: UNIT DESCRIPTION

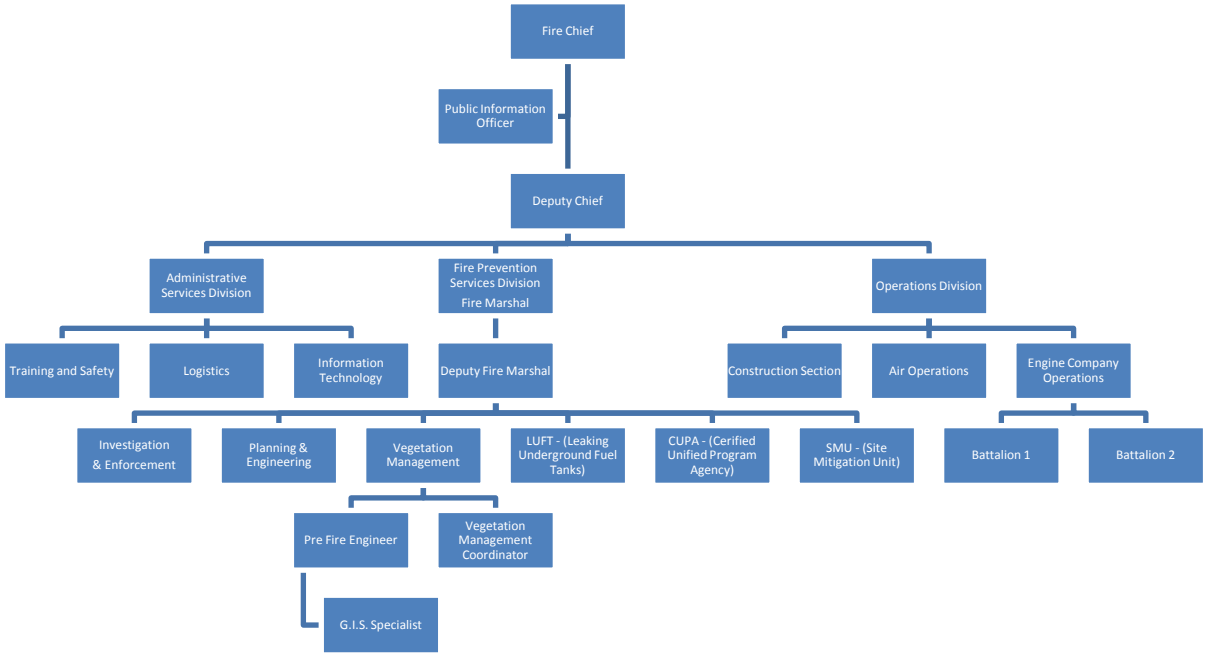


Table 1 ***Organizational Chart***

Contract County

Santa Barbara County Fire Department is one of six contract counties in the State of California. In most cases SRA (State Responsibility Area) is protected directly by 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.

CAL FIRE provides funding to the six counties for fire protection services including wages of suppression crews, lookouts, maintenance of fire fighting 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 fire fighting needs when fires grow beyond initial attack.

Contract Counties are responsible for providing initial response to fires on SRA. When a wildland fire escapes this initial attack, CAL FIRE responds with fire fighting resources to assist the county.

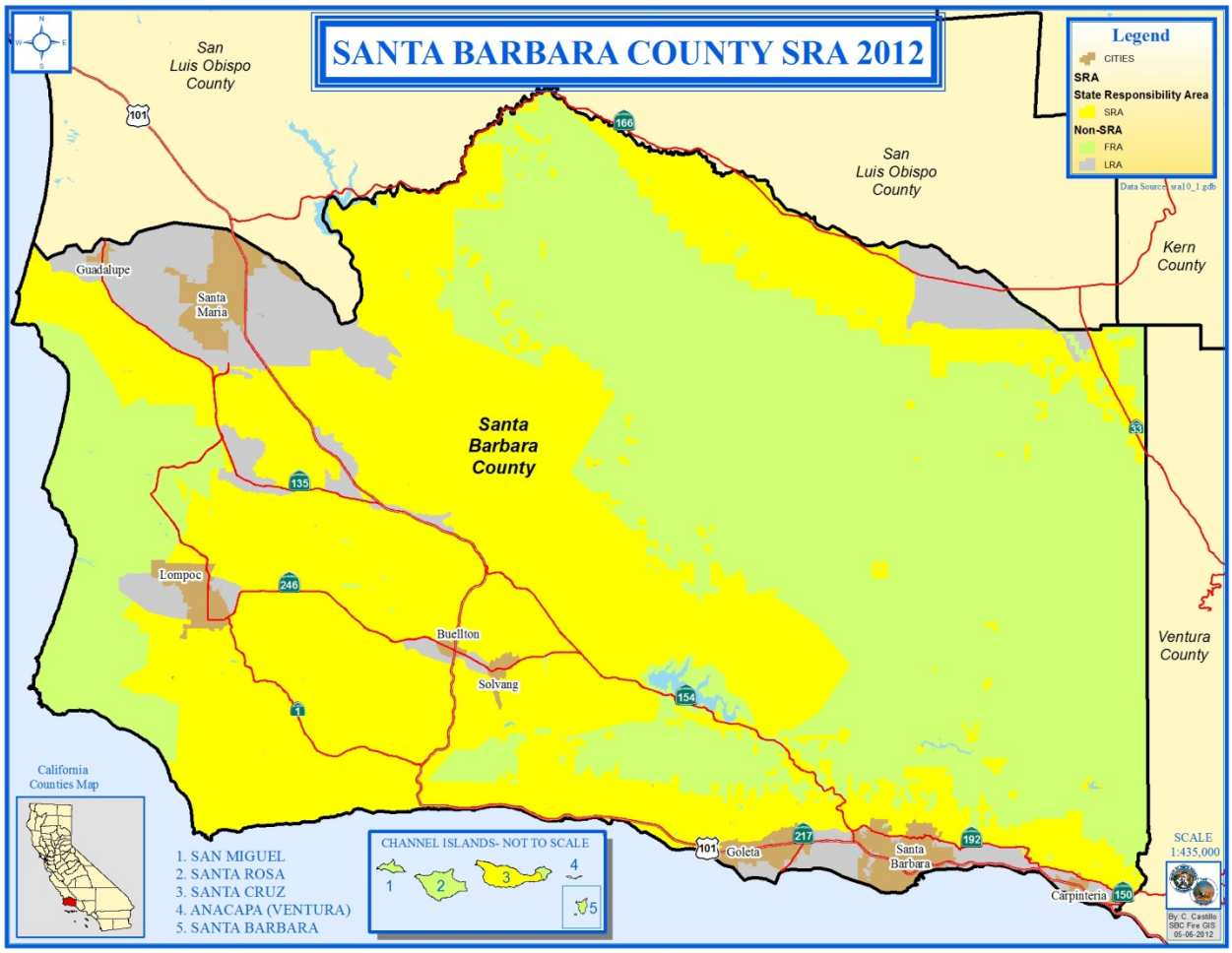


Figure 1

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 2009, the US Census Bureau estimated County population was 407,057[3]. This includes the unincorporated communities of Burton Mesa, Casmalia, 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 have the largest populations.

[3] http://quickfacts.census.gov/qfd/states/06/06083.html

The County is situated among a series of transverse mountain ranges, the only ranges within the continental United States to trend in an east-westerly direction. 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 4,000 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.

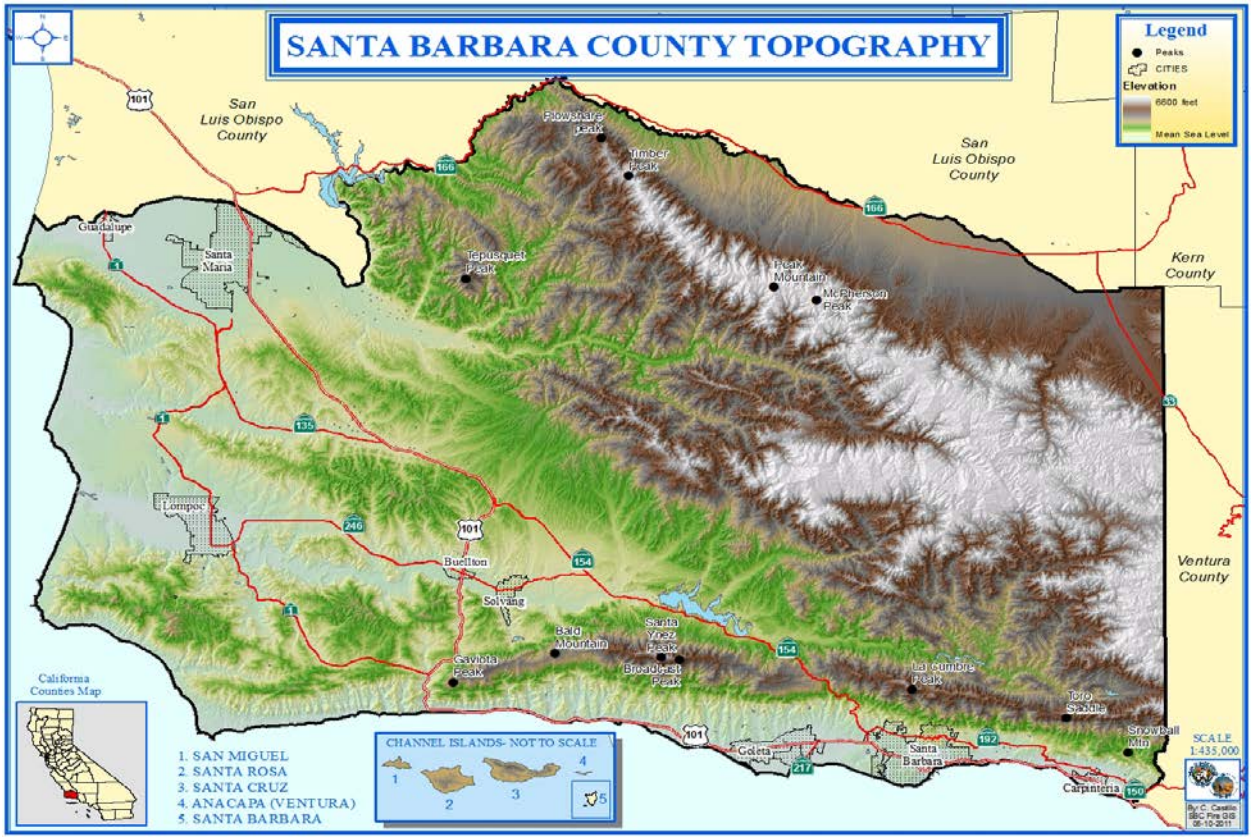


Figure 2

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 154 square miles (98,400 acres) of Vandenberg Air 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 791,934 acres of state responsibility area, the bulk of which is covered with fire-prone vegetation. Additionally, there are 820,438 acres of federal responsibility area (FRA) and 146,229 acres of local responsibility area (LRA) within the County (values determined through GIS analysis of the sra10_1 geodatabase). 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, Soloman, Purisima and Santa Rosa Hills, and in the Lompoc and Tranquillion Peak areas of Vandenberg Air 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 3.

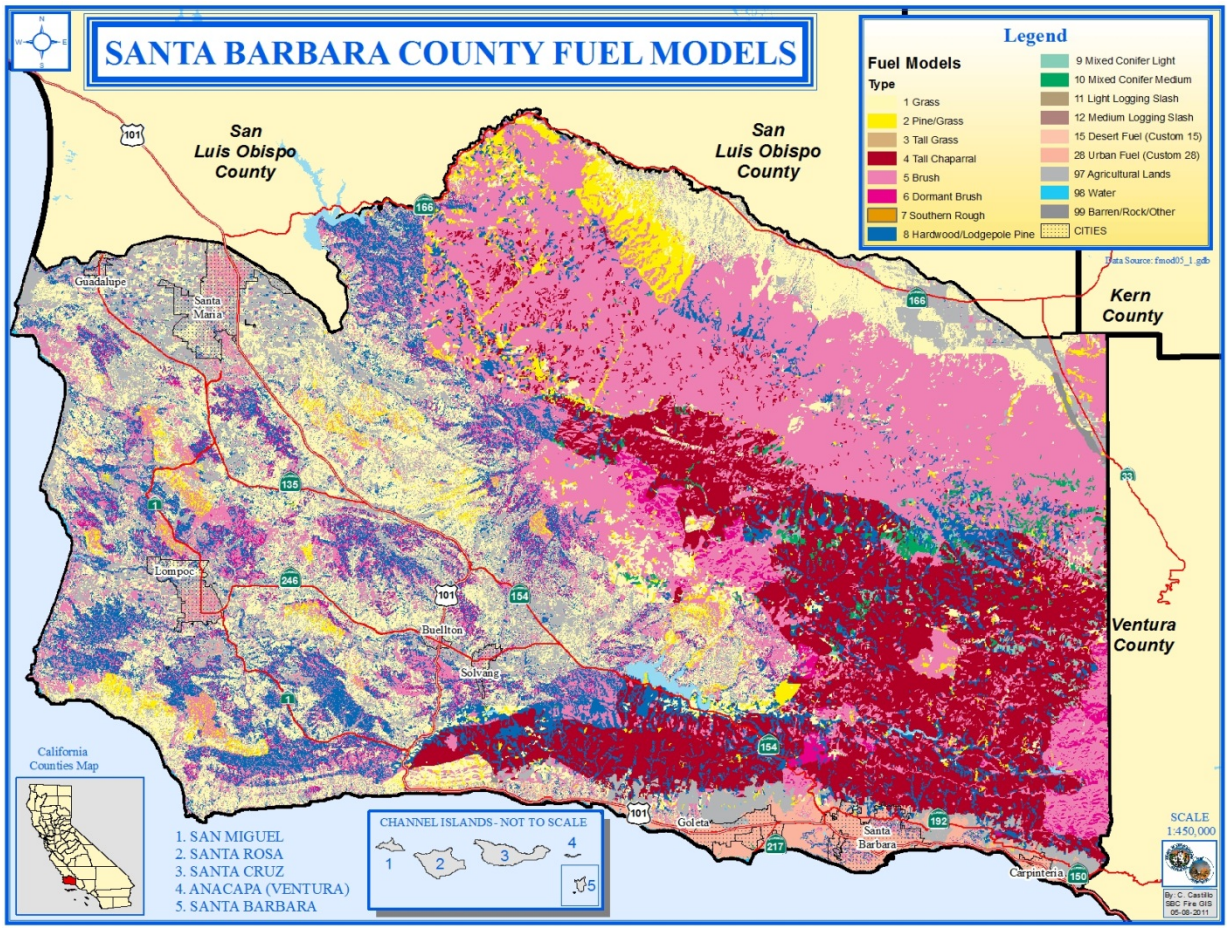


Figure 3

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 high intensity, costly, large loss wildfires as seen in recent years with the Tea Fire in 2008 and the Jesusita Fire in 2009. 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 acreage, 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. Considerably more temperature variation occurs 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 55 inches within a 20-year period. Western stations receive from 10 to 18 inches of moisture in one 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 gentle offshore breezes. Stronger sundowners, occurring two or three times a year, can create sharp temperature rises, local gale force winds, and significant weather-related problems. Rarely, probably about a half dozen times in a century, an “explosive” sundowner occurs. These extremely strong and hot winds present a 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), however, even this wind event pales in comparison to the 17 June 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.”

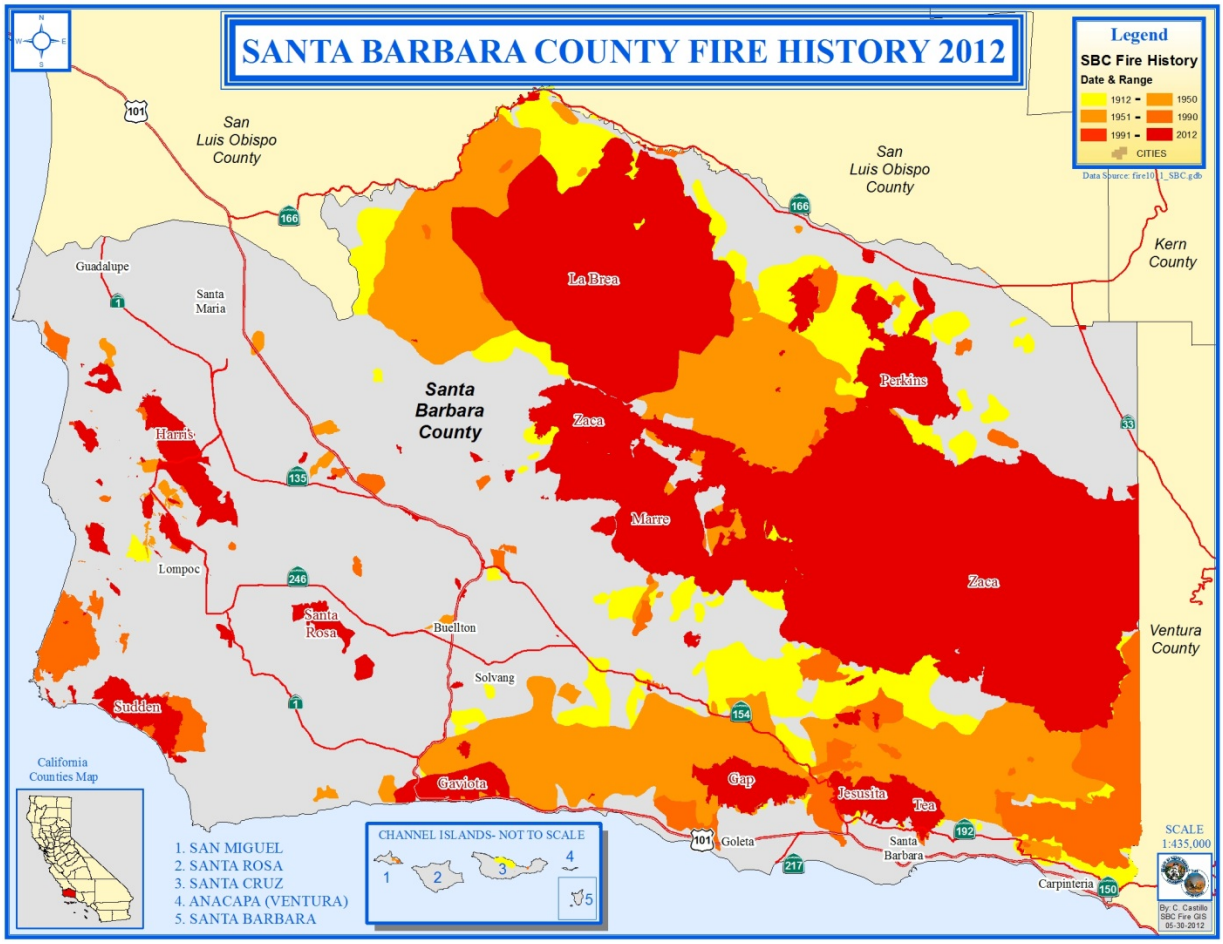


Figure 4

Over the last ten years, Santa Barbara County has experienced seven major fires. Three of these fires (Gap, Tea, and Jesusita) directly threatened the heavily populated Santa Barbara Front Country. Two of these fires: the Tea Fire and the Jesusita Fire destroyed close to three hundred structures and burned a total of 16 ½ square miles. The La Brea Fire and the Zaca Fire combined burned a total of 518 square miles predominately in backcountry areas of the County; though the western edge of the La Brea Fire came within a mile of the community of Tepusquet Canyon. Even though these two fires did not directly threaten urban areas, the smoke and ash produced created air quality issues for over one hundred miles.

Major Wildfires in Santa Barbara County 1955-2012					
Fire	Date	Cause	Acres Burned	Structures Damaged or Destroyed	Deaths
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
Paint	June-1990	Arson	4,270	673	1
Wheeler	July-1985	Miscellaneous	119,361	26 (on border with Ventura County)	0
Sycamore	July-1977	Kite into powerlines	806	234	0
Romero	October-1971	Arson	14,538	n/a	4
Coyote	September-1964	Undetermined	65,338	94	1
Refugio	September-1955	Structure Fire	79,428	20	0

Table 2 ***Major Fires Last 55 Years***

Unit Priority Landscapes

The recent *California's Forests and Rangelands: 2010 Assessment*[4] 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.
- ✓ Enforce adopted California Fire Codes.
- ✓ Enforce Defensible Space laws and ordinances.
- ✓ Educate and inform the public.
- ✓ 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.

[4] http://frap.cdf.ca.gov/assessment2010.html

B: 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, and construction section located in Los Alamos. The Department operates 16 Type I Engines, 13 Type III Engines, 1 Truck Company, 3 Type II Bulldozers, 2 Type II Helicopters with water dropping and rescue capabilities, 4 Water Tenders, 2 Ambulances, 1 Hazardous Materials Unit, 1 Urban Search and Rescue (USAR) Unit, 1 Water Rescue Unit (includes 3 Personal Watercraft "PWCs" and 1 Inflatable Rescue Boat "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.

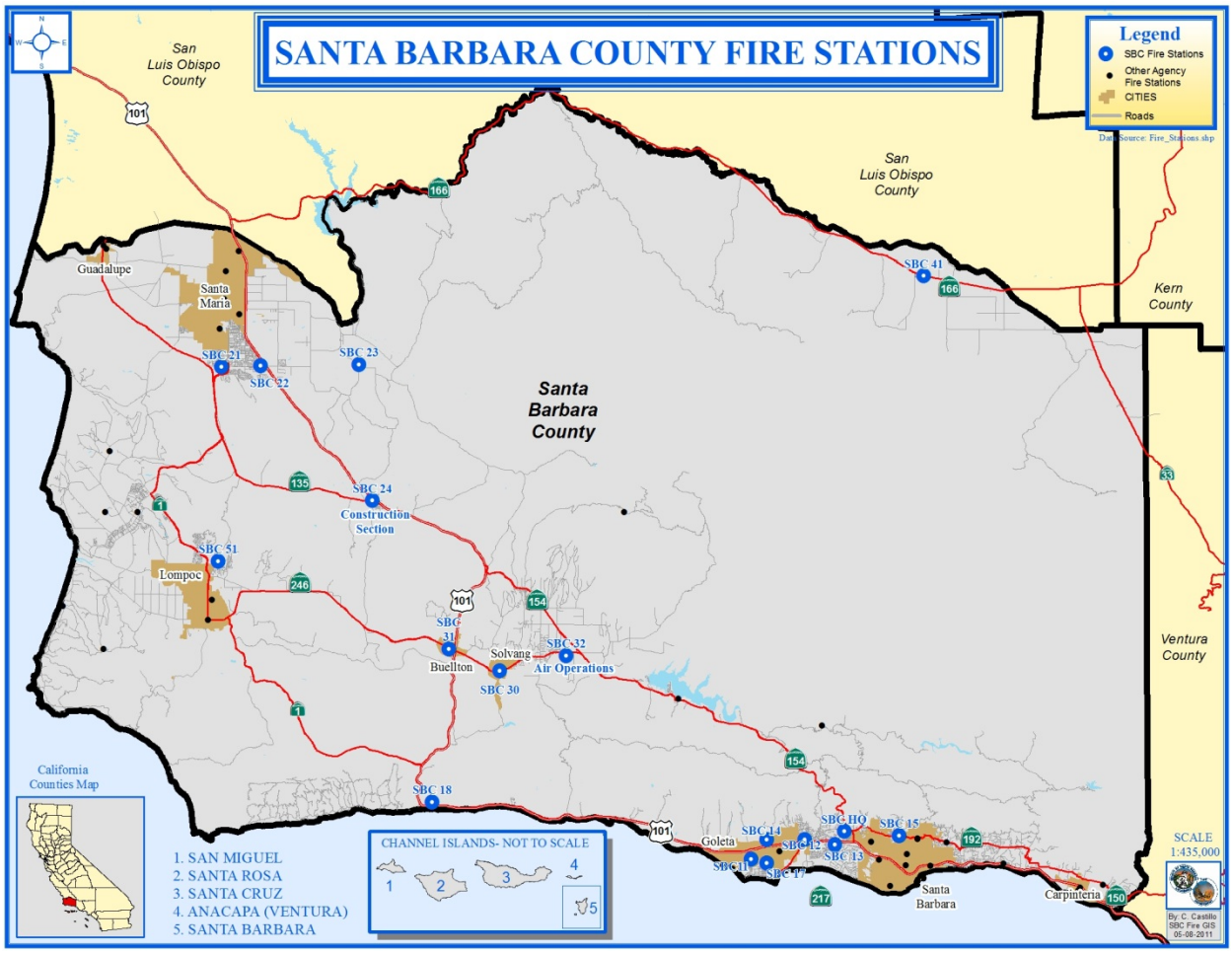


Figure 5

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 Air 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. 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 Plan[5].

Santa Barbara Operational Area

[5] http://www.oes.ca.gov/WebPage/oeswebsite.nsf/ClientOESFileLibrary/Fire%20Documents/$file/Mutual%20Aid%20Plan%202010.pdf

SECTION II: COLLABORATION

A: 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)
Santa Barbara County Fire Safe Council	Paul Cashman, Chairman
Los Padres National Forest	Mark VonTillow, Battalion Chief
Santa Barbara City Fire	Ann Marx, Wildfire Specialist
City of Goleta	Ann Wells, Advance Planning Manager
Mission Canyon Association	Ray Smith, President
Vandenberg Fire	Mark Smith, Battalion Chief
Department of Fish and Wildlife	Christine Thompson, Region Manager
Fire Associates for the Community of Tepusquet	Renee Oneil, Boardmember
Carpinteria-Summerland Fire Protection District	Ed Foster, Fire Marshal
City of Buellton	John Kunkel, City Manager
Hollister Ranch Owners Association	Scott Coffman, Boardmember
Montecito Fire Protection District	Al Gregson, Fire Marshal
Santa Barbara Range Improvement Association	Ralph Lausten, President
City of Solvang	Brad Vidro, City Manager

SECTION III: VALUES

A: 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: 2010 Assessment*[6] produced a variety of GIS data layers identifying assets, threats, and priority landscapes (combinations of assets and threats into priorities). The data from the 2010 Assessment will help the County assess these values at risk and aid in the design of mitigation activities to address these risks.

[6] http://frap.cdf.ca.gov/assessment2010.html

B: 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 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	Santa Barbara
Tajiguas	Vandenberg Air Force Base
Vandenberg Village	Mission Hills
Carpinteria	Cuyama
Casmalia	Gaviota
Goleta	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	Santa Maria
Santa Ynez	Sisquoc
Solvang	Summerland
Montecito	Los Olivos
Garey	Guadalupe
Isla Vista	Los Alamos
Venucopa	

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 assigned the role of managing the list to the California Fire Alliance (Alliance). The list can be found on the California Fire Alliance website: http://www.cafirealliance.org/communities_at_risk/communities_at_risk_list .

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

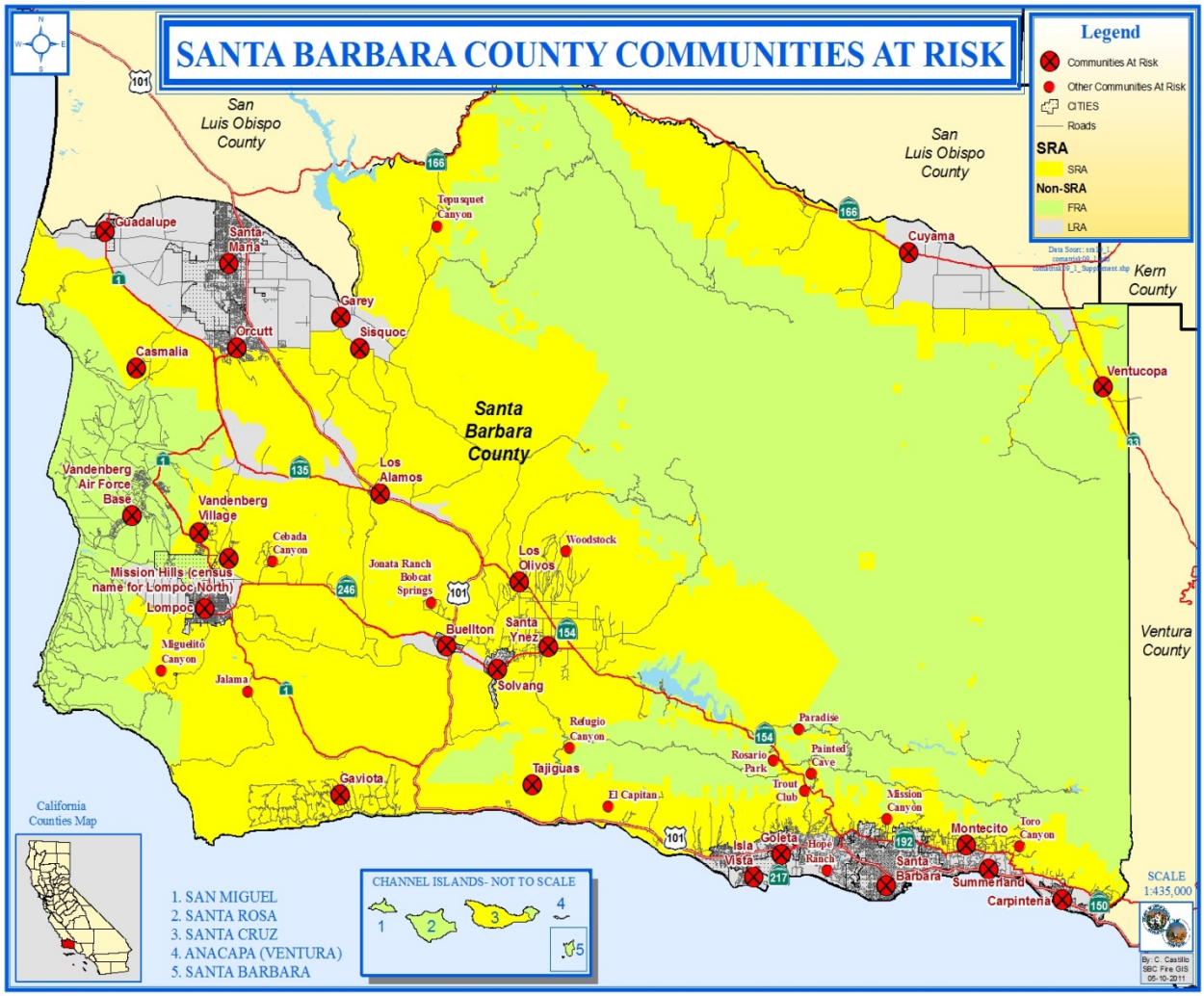


Figure 6

SECTION IV: PRE FIRE MANAGEMENT STRATEGIES

A: FIRE PREVENTION SERVICES DIVISION (FIRE MARSHAL)

The Fire Prevention Services Division is broken into three main sections: Prevention, Investigation, 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.

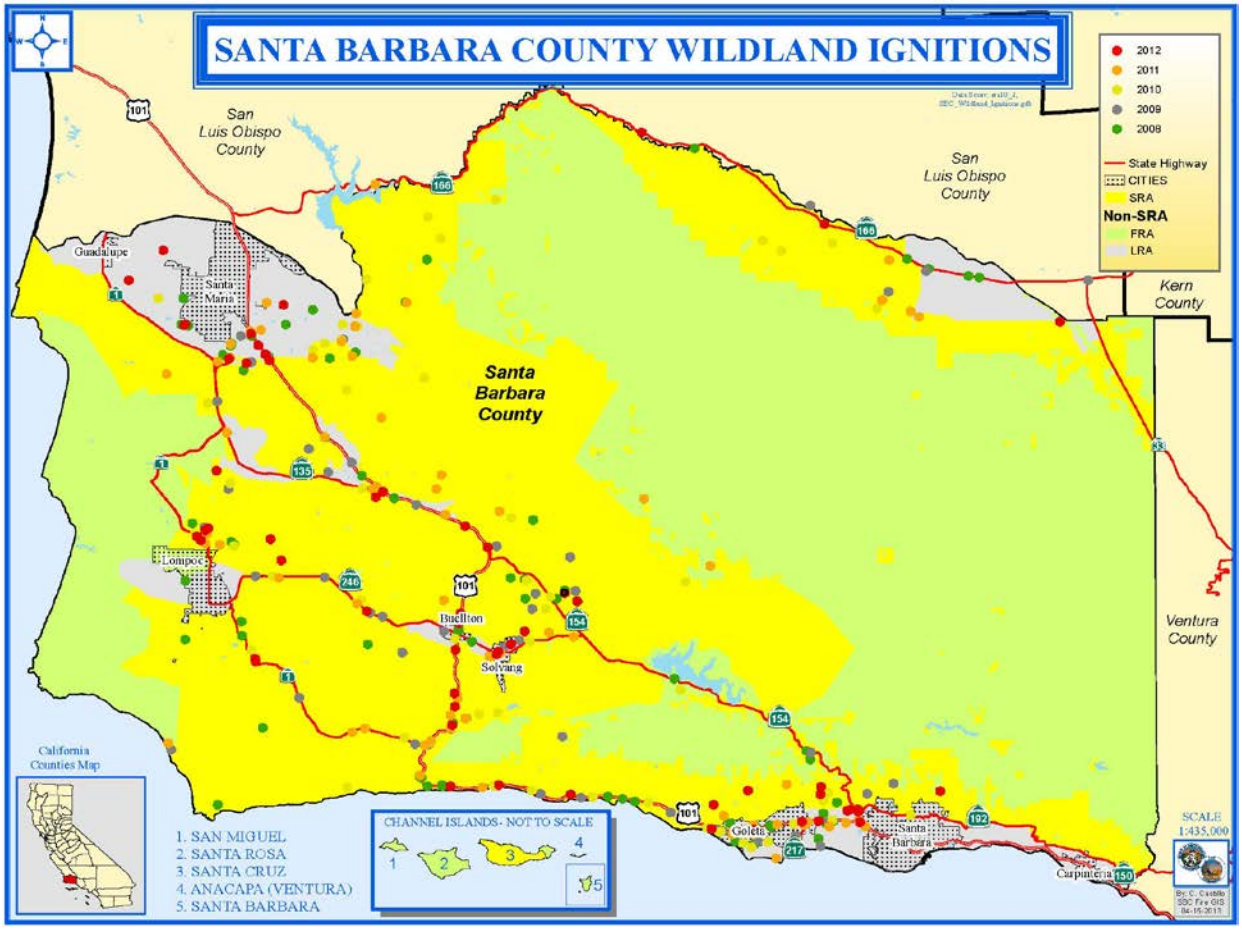


Figure 7

The map on the previous page (figure 7) 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.

Cause	***Number***
Other	12
Equipment	21
Smoking	2
Debris	19
Lightning	9
Vehicle	28
Railroad	1
Electrical	63
Campfire	6
Playing with Fire	8
Fireworks	6
Undetermined	120

Table 3 *Ignitions by Cause*

The ignitions data is used to prioritize education programs and identify the need for additional laws and ordinances. The placement of most starts along the map indicates that roadside causes represent a large portion of reported starts. 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. 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, 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 and follow up of incidents within our reporting system.

ENGINEERING & STRUCTURE IGNITABILITY (Prevention/New Development)

PREVENTION SECTION

Development in Hazardous Areas

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 a collaborative effort, Santa Barbara County Planning and Development staff and Santa Barbara County Fire Prevention staff work to insure 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 County uses planning to minimize these fire hazards by requiring elevated development standards within especially vulnerable areas (in both the SRA and LRA). 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 help minimize, but not entirely eliminate, the hazards from wildland fires.

In Santa Barbara County, Planning and Development staff 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

State Law[7] also requires the use of ignition resistant building methods and materials as a measure to reduce structure ignitability for new buildings located in any Fire Hazard Severity Zone (FHSZ) within SRA, any local agency VHFHSZ (very high fire hazard severity zone), or any Wildland-Urban Interface Fire Area designated by the enforcing agency. The County Planning & Development Department staff refers to the most current and adopted County of Santa Barbara Fire Hazard Severity Zone maps to identify the Fire Hazard Severity Zones and Wildland-Urban Interface Fire Areas for the unincorporated County (see figure 8).

[7] Fire Ignition Resistant Construction Methods California Code of Regulations, Title 24, Part 2-California Building Code (CBC)

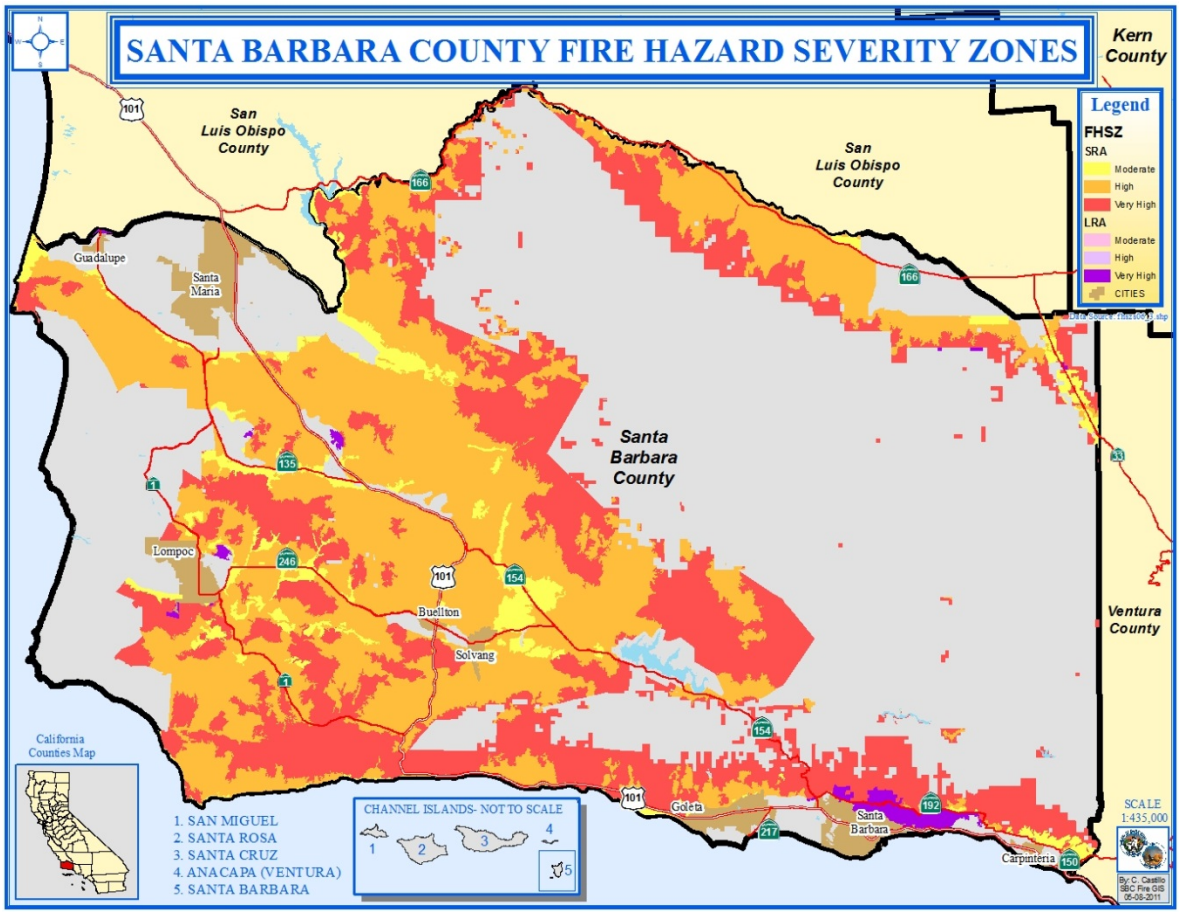


Figure 8

The Fire Prevention section maintains Development Standards which serve as control measures designed to promote fire protection and comply with State law[8]. 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. The table below provides a summary of Development Standards 1 through 7. These Development Standards are updated by County Fire as needed to ensure compliance with State law.

Santa Barbara County Fire Department Development Standards[9]	
Development Standard #1 Private Roadway and Driveway Standards	Establishes minimum standards for driveways and private roads. These standards outline minimum road widths and vegetation clearance designed to provide fire vehicles access to residences and associated structures.
Development Standard #2 Fire Hydrant Spacing and Water Flow Rates	Establishes fire hydrant spacing, discharge outlet configuration and flow rate requirements. Flow rate standards are used when calculating peakload water supply requirements for one-and-two family dwelling units.

[8] 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.
[9] http://www.sbcfire.com/fp/dr/index.html

Development Standard #3 Stored Water Fire Protection Systems Serving One and Two-Family Dwellings	Establishes standards for stored water fire protection systems serving one and two-family dwellings.
Development Standard #4 Automatic Fire Sprinkler System Standards	Establishes standards for automatic fire sprinkler systems.
Development Standard #5 Automatic Alarm System Standards	Establishes standards for automatic alarm systems.
Development Standard #6 Vegetation Management Plan	Establishes standards for vegetation management plans.
Development Standard #7 Access Gates	Establishes standards for gates on private roads and private driveway access points.

INVESTIGATION AND INSPECTION SECTION

The Investigation staff is responsible for fire origin and cause investigation, code enforcement, California Fire Code permit issuance, and engine company support with inspections. Santa Barbara County Fire engine companies are responsible for performing building inspections and maintaining inspection records for their district.

Strategies:

- 100% fire cause determination
- 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
- code enforcement
- cost recovery
- engine company resource

- 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.

B: VEGETATION MANAGEMENT PROGRAM

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

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 unincorporated Local Responsibility Area (LRA) in the Santa Barbara County Fire Protection District. 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.

The program is managed by a Vegetation Management Captain. Initial inspections are completed by engine companies. 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.

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.

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.

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 and mechanical treatments.

SECTION V: PRE FIRE MANAGEMENT TACTICS

A: DIVISION / BATTALION / PROGRAM PLANS

Department Programs

Santa Barbara County Fire has the current department wide programs in place:

- Automatic Vehicle Locator/Mobile Data Computer (AVL/MDC) Program
  - ✓ Installation of hardware on fire department vehicles to aid in managing fire resources in the field and provide emergency responders with up to date information
  - ✓ Provide a platform for maintaining up to date field information and inspection data
- 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
  - ✓ Adopt a CWPP template through the County Board of Supervisors
  - ✓ Establish a core list of stakeholders
- Public Information and Education Programs:
  - ✓ Ready! Set! Go!

  - ✓ Fire Safety Trailer Program
    - o Provide fire safety training to elementary age children

- ✓ Community Meetings/Fire Safe Council

The Fire Safe Council

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

Administrative Services Division

Training and Safety

- ➢ Development of Santa Barbara County Fire Training Plan
- ➢ Annual Core Competencies for safety personnel
- ➢ Annual wildland training (multijurisdictional)
- ➢ Development of Training Manuals

Information Technology

- ➢ Information dissemination and network management
  - ✓ Department wide support
  - ✓ Public
    - o Website hosting and updating

Fire Prevention Services Division

Prevention

- ➢ Maintain and apply Fire Department Development Standards to new development
- ➢ California Fire Code adoption and amendments through the Santa Barbara County Code of Ordinances
- ➢ Assign parcel addressing
- ➢ Work collaboratively with County Planning and Development

Investigation

- ➢ Goal to investigate 100% of all wildland ignitions
- ➢ Code enforcement
- ➢ Building and business inspections

- Issuing fire code permits

Vegetation Management

- Defensible Space Program
  - Enforcement of PRC 4291
- GIS
  - Maintain County Fire spatial database
  - Work collaboratively with other County Departments to share spatial data and maintain enterprise geodatabase
- Wildland Preplan mapping project
  - Creation of large format aerial maps focusing on LRA and SRA areas in the County accompanied by preplan documentation for identified at risk communities
  - Figure 9 represents the preplan project area and the associated zone blocks

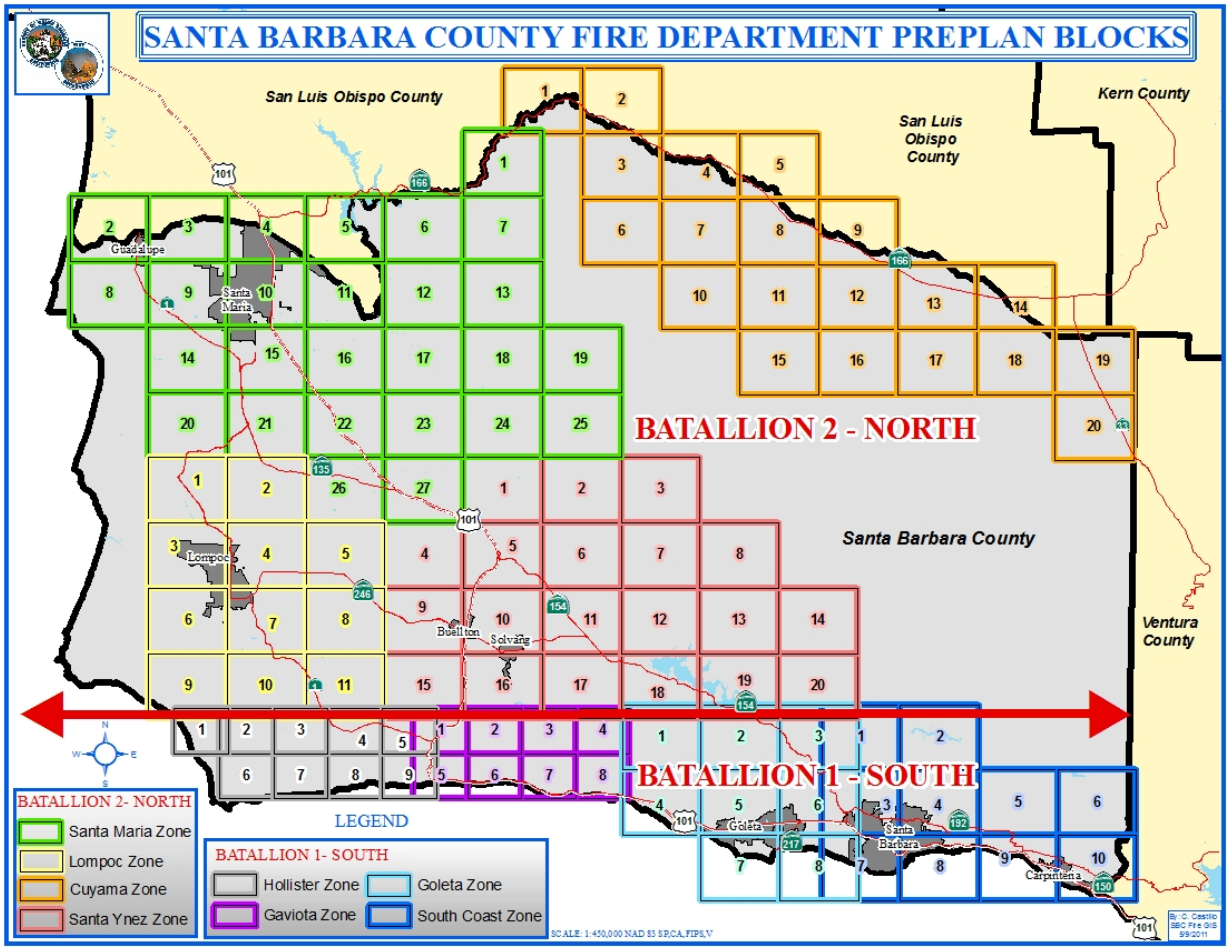


Figure 9

- Hazard Reduction Burn Permit program
  - Permit process so homeowners living in or adjacent to SRA lands can burn piles of hazardous fuels
- Fire Safe Council outreach
  - Vegetation Management Captain sits on the Santa Barbara County Fire Safe Council Board
  - Community education and outreach

- Vegetation Management Projects
  - At risk communities are a priority
  - Grant funding
- Collaboration with Range Improvement Association
  - Mutually beneficial projects
- Fire Plan updating
  - 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)

Operations Division

Santa Barbara County is divided into two geographical Battalions, as seen in figure 9. Separated by the Santa Ynez Mountain Range, Battalion 1 is to the south and Battalion 2 is to the north. Figure 10 represents the current direct protection areas for the County.

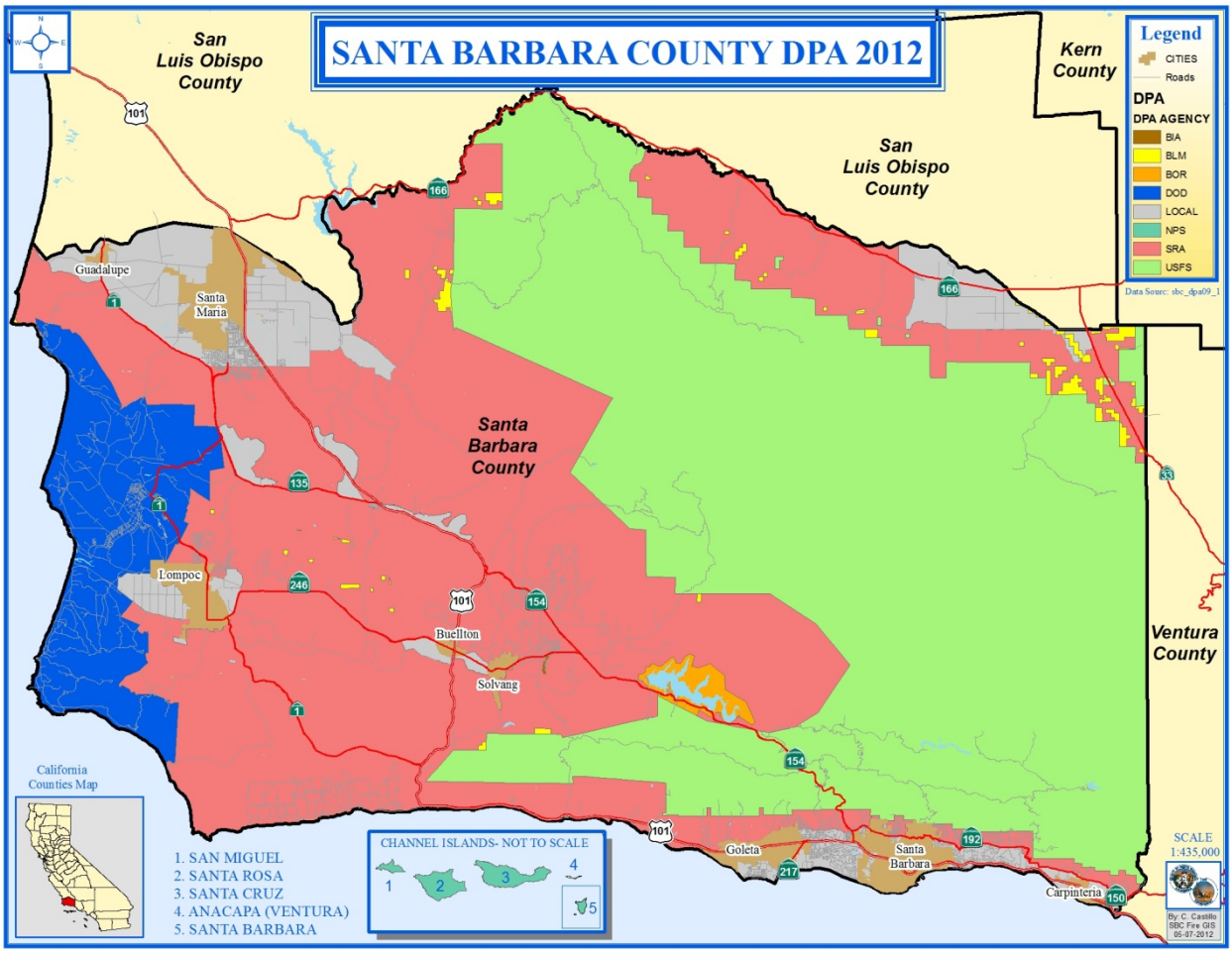


Figure 10

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 as well as the rural community of Hollister Ranch to the west. Battalion 1 is served by seven County fire stations distributed throughout the unincorporated areas of the County and the City of Goleta.

The predominate vegetation type in the wildland areas is chaparral and coastal sage scrub. With the recent fires in 2008 and 2009, approximately 20,000 acres of chaparral were consumed above the cities of Goleta and Santa Barbara. Even with the recent fires, the majority of the Santa Ynez front country has not been subject to fire in over forty plus years. The Hollister Ranch community 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.

Weather in Battalion 1 is typical to other coastal communities of central and southern California. Sunny skies are common along the coast, 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. Maximum readings in summer average about 80°F with winter minimum temperatures in the 40's. A diurnal wind pattern (land and sea breeze) characterizes most of the area, with onshore winds common in daytime and light 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. As mentioned earlier the area is also subject to "sundowner" winds that have contributed to the severity of wildland fires in Battalion 1 including the Paint Fire that occurred in 1990 and resulted in one death and the loss of 673 homes, the Gap Fire in 2008 that burned 9,433 acres above the city of Goleta, the Tea Fire in 2009 that destroyed 210 homes, and the Jesusita Fire in 2009 that destroyed 80 homes.

Battalion 2

Unlike Battalion 1, Battalion 2 is spread out over a very large area and consists of smaller rural communities like Los Alamos, Sisquoc, and Cuyama. Battalion 2 is served by nine County fire stations; one in the city of Solvang and one in the city of Buellton, the other seven are distributed throughout the unincorporated areas of the County.

Vegetation in Battalion 2 varies from vineyards, agricultural fields, grass covered range land and oak woodlands in the valleys, and chaparral and brush that cover the slopes of Santa Ynez, Sierra Madre, and San Rafael Mountains. The wildland areas are dominated by chaparral, which poses the most widespread wildland fuel threat. The La Brea Fire in 2009 and the Zaca Fire in 2007 (California's second largest wildfire to date) combined burned in excess of 331,000 acres in the backcountry of the County, which was dominated by chaparral. Many of the County's rural communities are located in areas surrounded by vegetation that is in the same condition as the fuels that burned in these two large wildfires.

Weather in Battalion 2 is a typical semi-arid Mediterranean climate. There can be a large variation in weather conditions from the Santa Maria and Lompoc Valleys which are in close proximity to the coast and the Cuyama Valley which is in the far north east 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 upvalley and upslope winds that typically peak in the afternoon creating hazardous fire weather conditions.

Programs

Engine Companies

- Respond to emergencies
- Perform building inspections
- Perform defensible space inspections
- Perform defensible space consultations at the request of residents

Air Operations

- Provide aerial reconnaissance
- Fire suppression
- Rescue operations

Construction Section

- 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 in LRA and SRA lands
- Fire suppression

APPENDIX A: PRE FIRE PROJECTS

Batt	Project Number	Project Name	Planning Area	Status	Estimated Completion Year	Project Type	Activity Acres
1,2		Defensible Space Program	SRA	O	n/a	PREV	n/a
1,2		Ready! Set! Go! Program	SRA/LRA	O	n/a	PREV	n/a
2	3012-2008-VMP-003	Tepusquet Community Defensible Space Grant	SRA	C	2011	VMP	200
1,2		Fire Access Roads (Construction)	SRA	M	n/a	FPL	n/a
1,2		County CWPP Template	SRA/LRA	C	2011	FPL	n/a
1,2		Infrastructure/Repeater Site Clearance	SRA	M	2011	FPL	n/a
1		CWPP for City of Goleta	LRA	C	2012	FPL	n/a
1	3012-2008-FPL-001	Mission Canyon Fire Safe Council Grant	SRA	C	2013	FPL	40+
2	3012-2008-FPL-002	Burton Mesa Fuels Treatment Area	SRA	M	2013	FPL	6
1,2		Chipping Program	SRA/LRA	P	2013	FPL	n/a
2		Barham Range Improvement Burn	SRA	O	2014	VMP	920
1		CWPP for Carpinteria/Summerland Fire District	SRA/LRA	O	2013	FPL	n/a
2		Tepusquet Ranch LLC VMP Burn	SRA	P	2014	VMP	400
1	3012-2014-VMP-001	Refugio Road Clearing	SRA	A	2014	VMP	n/a
1	3012-2014-VMP-003	Painted Cave Community Fuel Break	SRA	P	2015	VMP	60
1	3012-2014-VMP-002	Trout Club Clearing	SRA	P	2015	VMP	25
2		Los Alamos VMP	SRA	P	2015	VMP	5000

Status Guide: A = Active, P = Planning, C = Completed, O = Ongoing, M = Maintenance.

Project Type: VMP, CFIP, FPL = Fire Plan, PREV = Prevention, and FI = Forest Improvement

A. Unit Plan Goals

Goal 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.

Objectives: *Santa Barbara County Fire maintains a GIS section comprised one GIS Specialist and the Pre Fire Engineer. The section coordinates with other local and state government agencies to maintain relevant spatial databases in order to assist with the identification of wildland fire risks. The GIS section maintains the Wildland Fire Preplans for the unit which identifies the communities at risk and details resource needs and fire history for the community.*

Goal 2: Articulate and promote the concept of land use planning as it relates to fire risk and individual landowner objectives and responsibilities.

Objectives: *Santa Barbara County Fire will continue to maintain a close relationship with local government and other community groups to identify those specific key elements for a fire safe community. This will be accomplished by working with local Fire Safe Councils, our Pre Fire Captain currently sits on the board, and we will provide input to community CWPP plans. We will continue to coordinate our efforts with Planning and Development to assure the latest fire safe construction and planning is utilized for new development in those areas known to be in High Fire Hazard Zones. Our defensible space program includes the inspection of approximately 10,000 home sites during the course of the year.*

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

Objectives*: Santa Barbara County Fire will continue to work closely with partnering agencies and community groups in establishing Community Wildfire Protection Plans for specific areas in the county identified as communities at risk. For the current year, our unit partnered with the Capinteria/Summerland Fire Protection District to produce a CWPP for their community. Our GIS section will continue to maintain our current Wildland Fire Preplans and update them with the most up to date relevant information.*

The Pre-Fire Engineer position for the unit is an active board member for the Santa Barbara Fire Safe Council, helping to guide the council in their efforts to educate the community about fire risks. In addition, the unit operates a fire safe trailer that visits all second grade classrooms in the district to promote fire safety. Finally, there is an active C.E.R.T. program in our district. The unit sponsors classes with our own certified instructors along with supporting other C.E.R.T. programs with attendance from our operational personnel.

Goal 4: Increase awareness, knowledge and actions implemented by individuals and communities to reduce human loss and property damage from wildland fires, such as defensible space and other fuels reduction activities, fire prevention and fire safe building standards.

Objectives: *Continue to operate and enforce the defensible space program. Through engine-company inspections, continue to inspect all home sites within our district with a goal to reach 100% compliance. We currently inspect approximately 10,000 home-sites annually for compliance with defensible space rules. In addition, we inspect all home-sites for access issues and enforce our local development standards for access.*

Goal 5: Develop a method to integrate fire and fuels management practices with landowner priorities and multiple jurisdictional efforts within local, state and federal responsibility areas.

Objectives: *Our unit works closely with our local Range Improvement Association in order to identify projects that meet their stated interests along with ours for community wildfire protection. The unit has ongoing projects working closely with the land owners, state agencies such as the Department of Fish and Wildlife and our local Air Resources Board. During the current year, the unit has maintained a live fuels moisture program in the county. The program records and tracks bi-monthly, the live fuel moistures from 5 specific sites representing the various climates and fire regimes within the unit's jurisdiction. This information is utilized for fire severity predictions and as an aid to identify those areas that would benefit from fuel maintenance projects.*

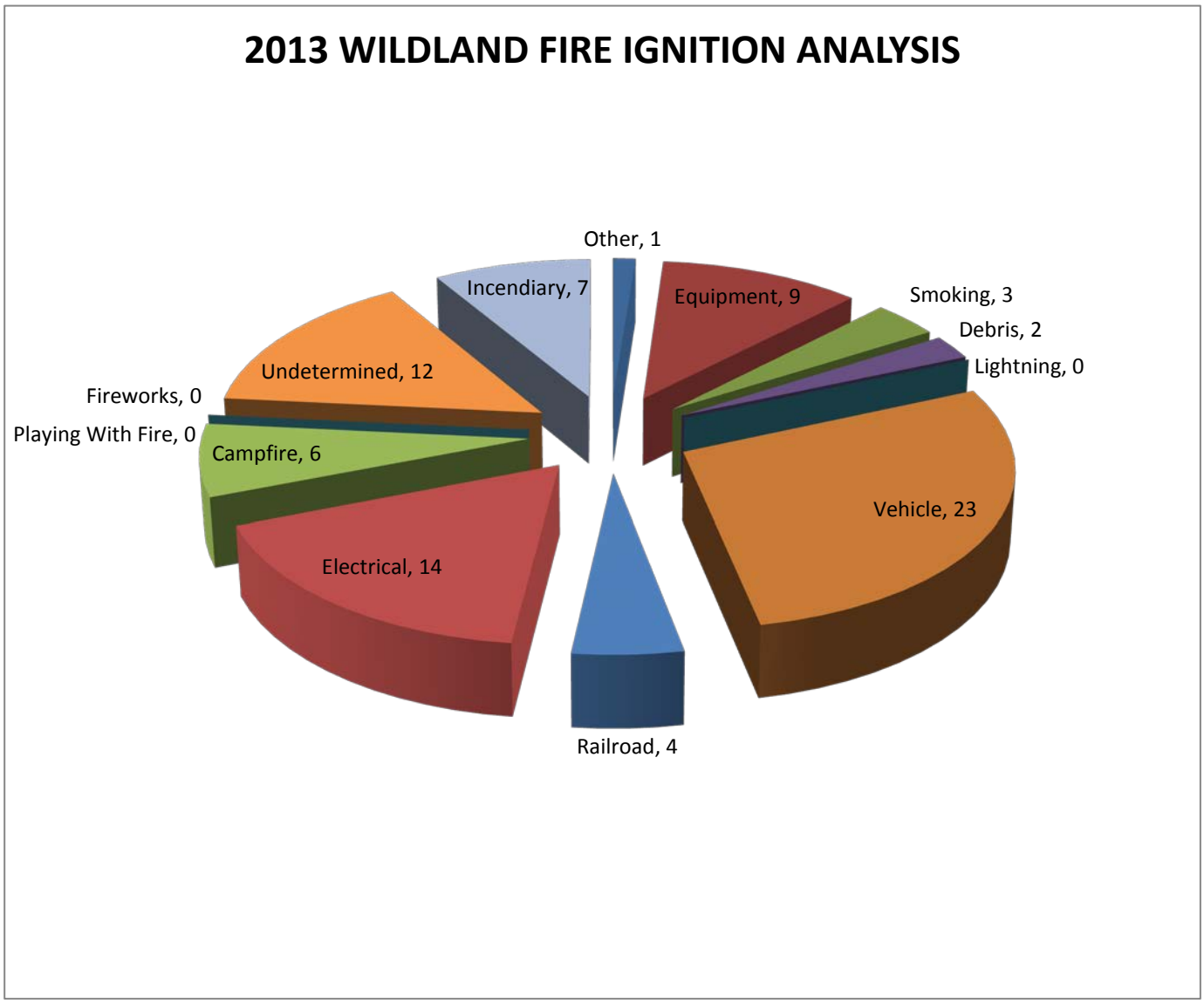
Goal 6: Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.

Objectives: *The unit maintains cooperate agreements with its' federal, state and local partners in the Santa Barbara County Operating Area. The plan identifies areas of mutual response and identifies the level of response from each cooperating agency. In 2012, the unit initiated a private study in order to help determine the effectiveness of emergency response within the unit's responsibility area.*

The unit has established a career track that outlines the necessary training, experience and classes needed to achieve the necessary development for appropriate succession planning. The department supports the program through funding and coverage of personnel for attendance to the mandatory classroom training.

APPENDIX C: 2013 WILDLAND FIRE IGNITION ANALYSIS

Cause	*Number*
Other	1
Natural Source	0
Equipment	9
Smoking	3
Debris	2
Lightning	0
Vehicle	23
Railroad	4
Electrical	14
Campfire	6
Playing with Fire	0
Fireworks	0
Incendiary	7
Undetermined	12

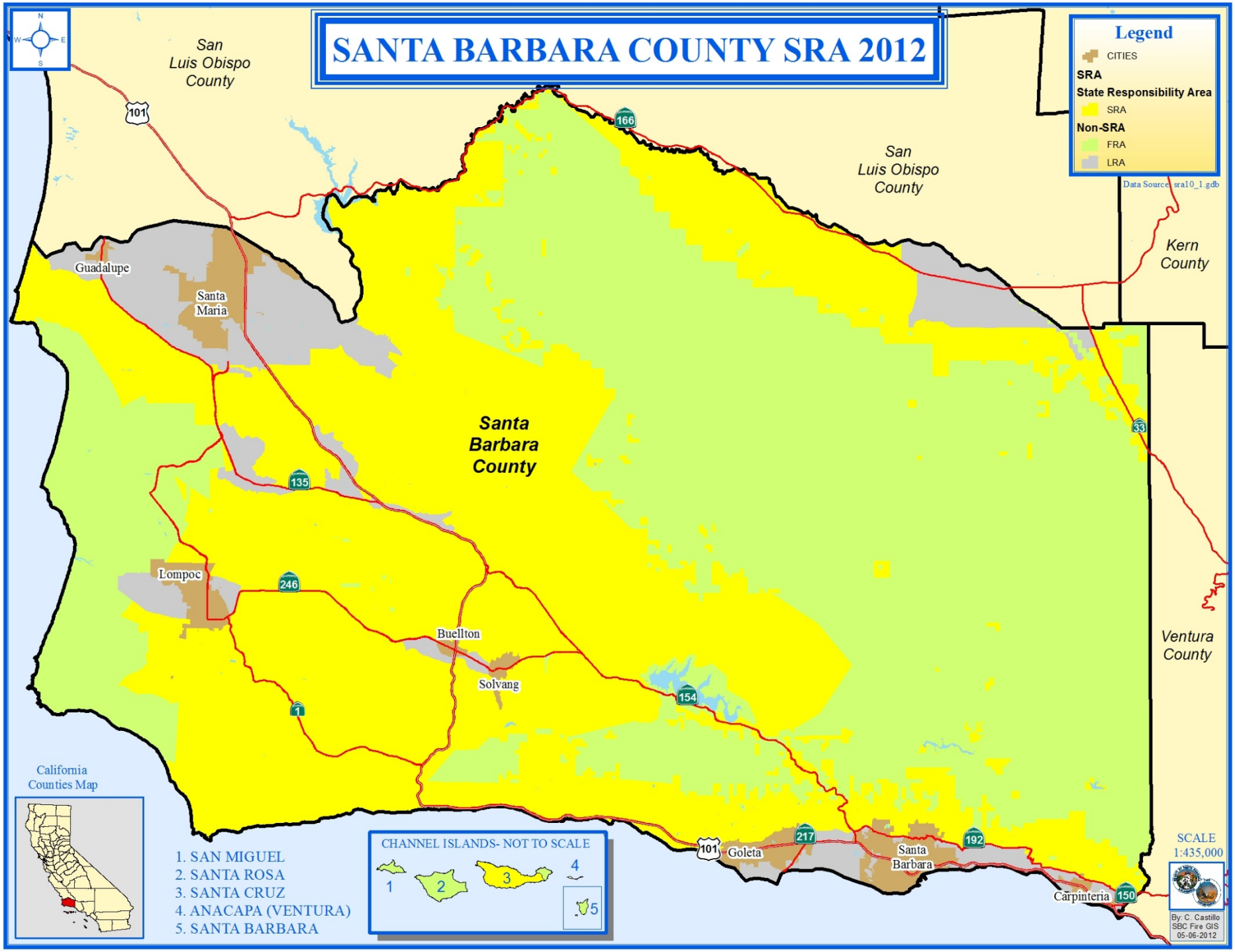


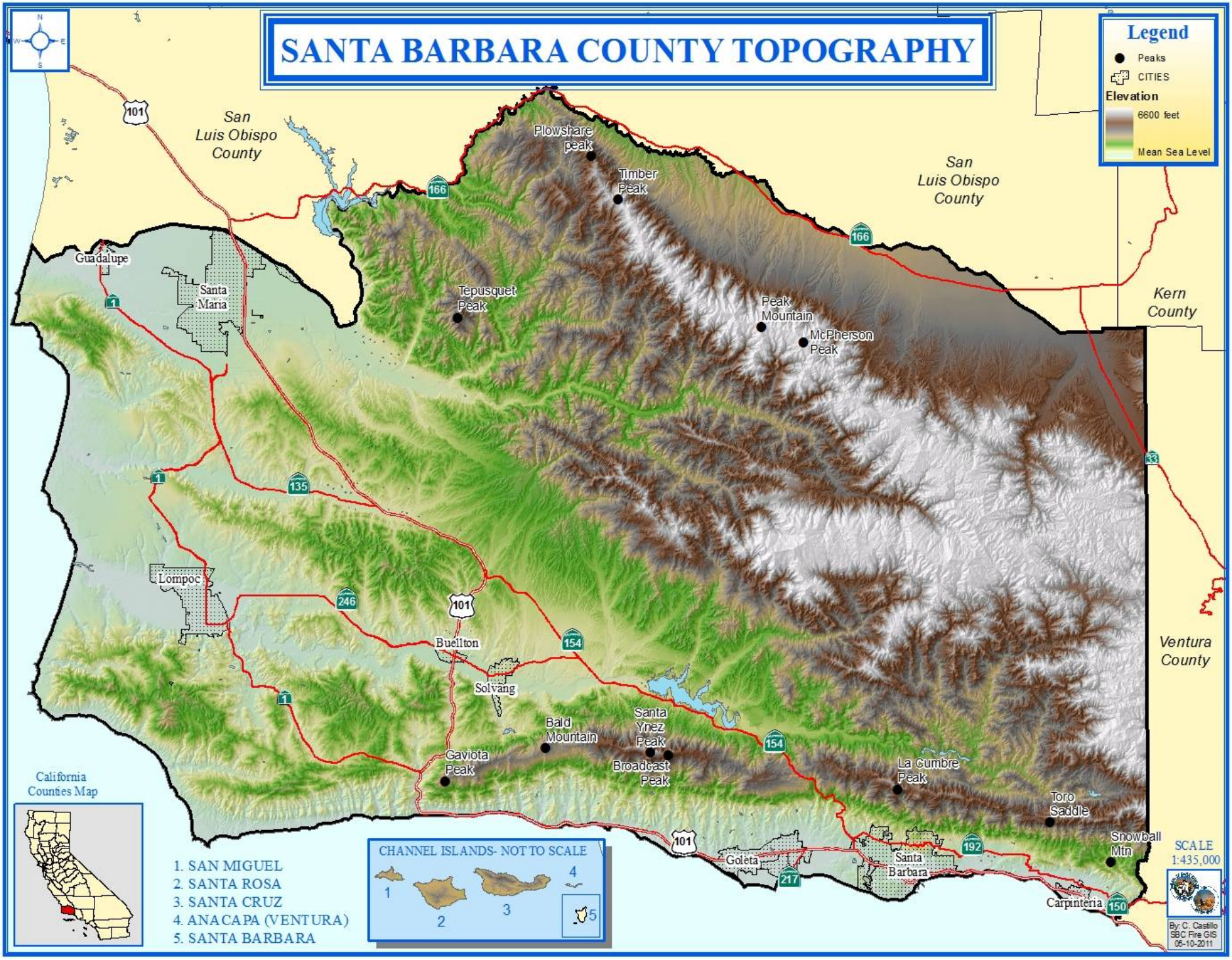
The above charts represent the breakdown by cause of all wildland fires in the SBC DPA occurring in 2013. The unit has continued to educate its personnel on the importance of cause determination follow up and documentation. It is the policy of the unit to determine cause on all wildland ignitions and we pursue an aggressive policy of responding investigators to most ignitions.

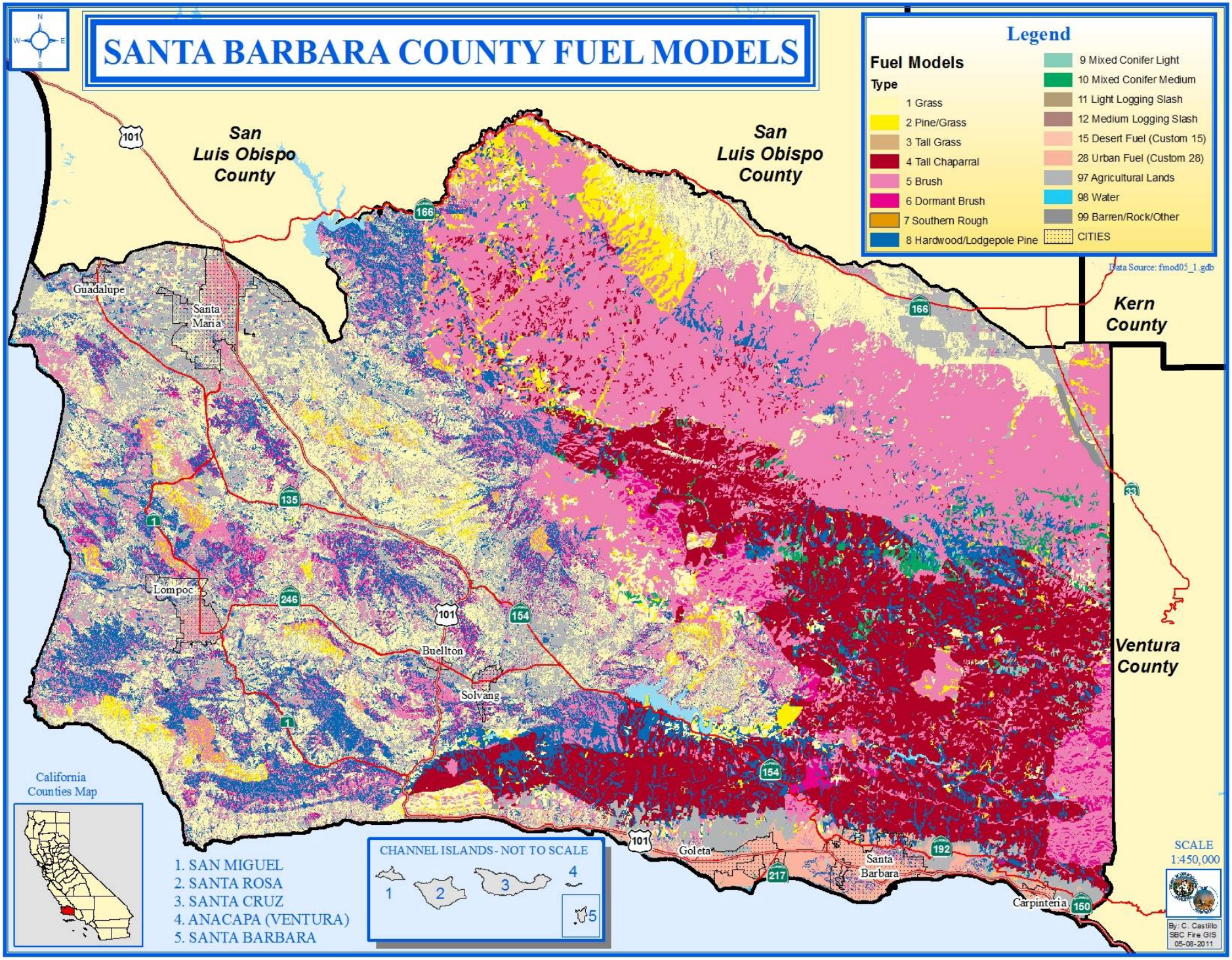
EXHIBITS: **MAPS**

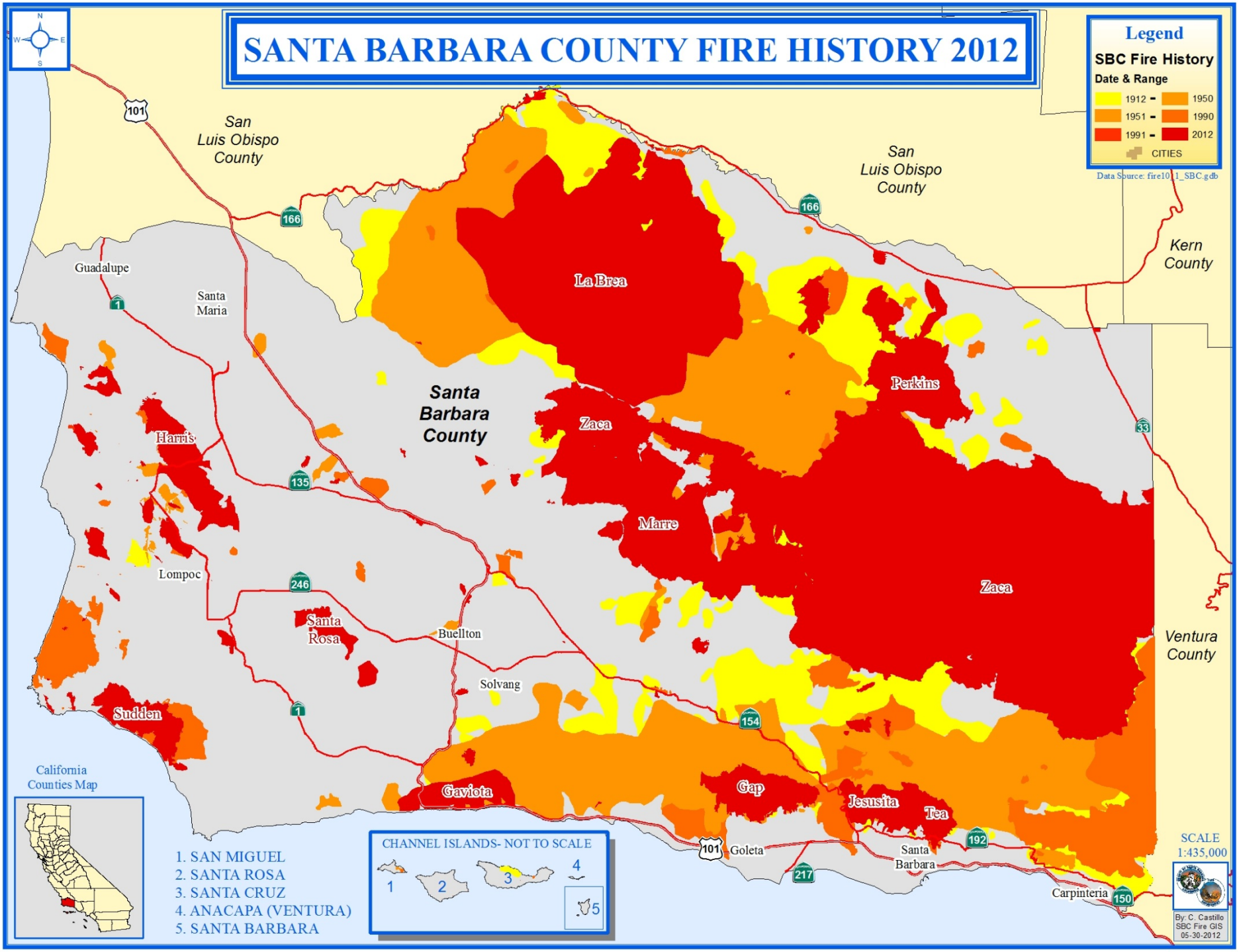
The following maps are the full size version of the maps included in the Unit Strategic Fire Plan. Also included is a map depicting the Santa Barbara County Communications Sites.

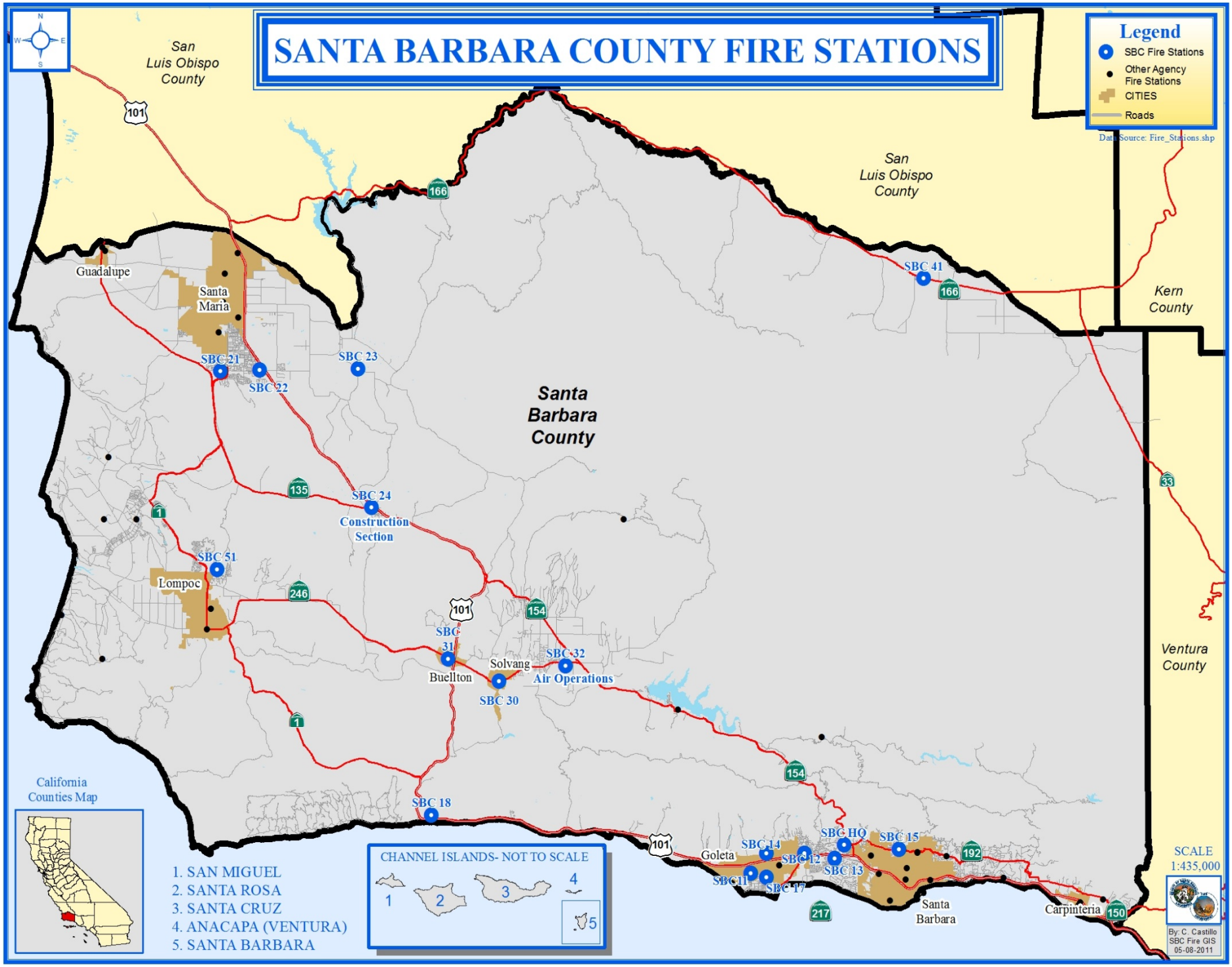
Figure	***Title***	***Pages***
Figure 1	Santa Barbara County SRA 2012	8 and 41
Figure 2	Santa Barbara County Topography	9 and 42
Figure 3	Santa Barbara County Fuel Models	11 and 43
Figure 4	Santa Barbara County Fire History 2012	14 and 44
Figure 5	Santa Barbara County Fire Stations	16 and 45
Figure 6	Santa Barbara County Communities at Risk	21 and 46
Figure 7	Santa Barbara County Wildland Ignitions	22 and 47
Figure 8	Santa Barbara County Fire Hazard Severity Zones	26 and 48
Figure 9	Santa Barbara County Fire Department Preplan Blocks	32 and 49
Figure 10	Santa Barbara County DPA 2012	33 and 50
Figure 11	Santa Barbara County Communication Sites	51

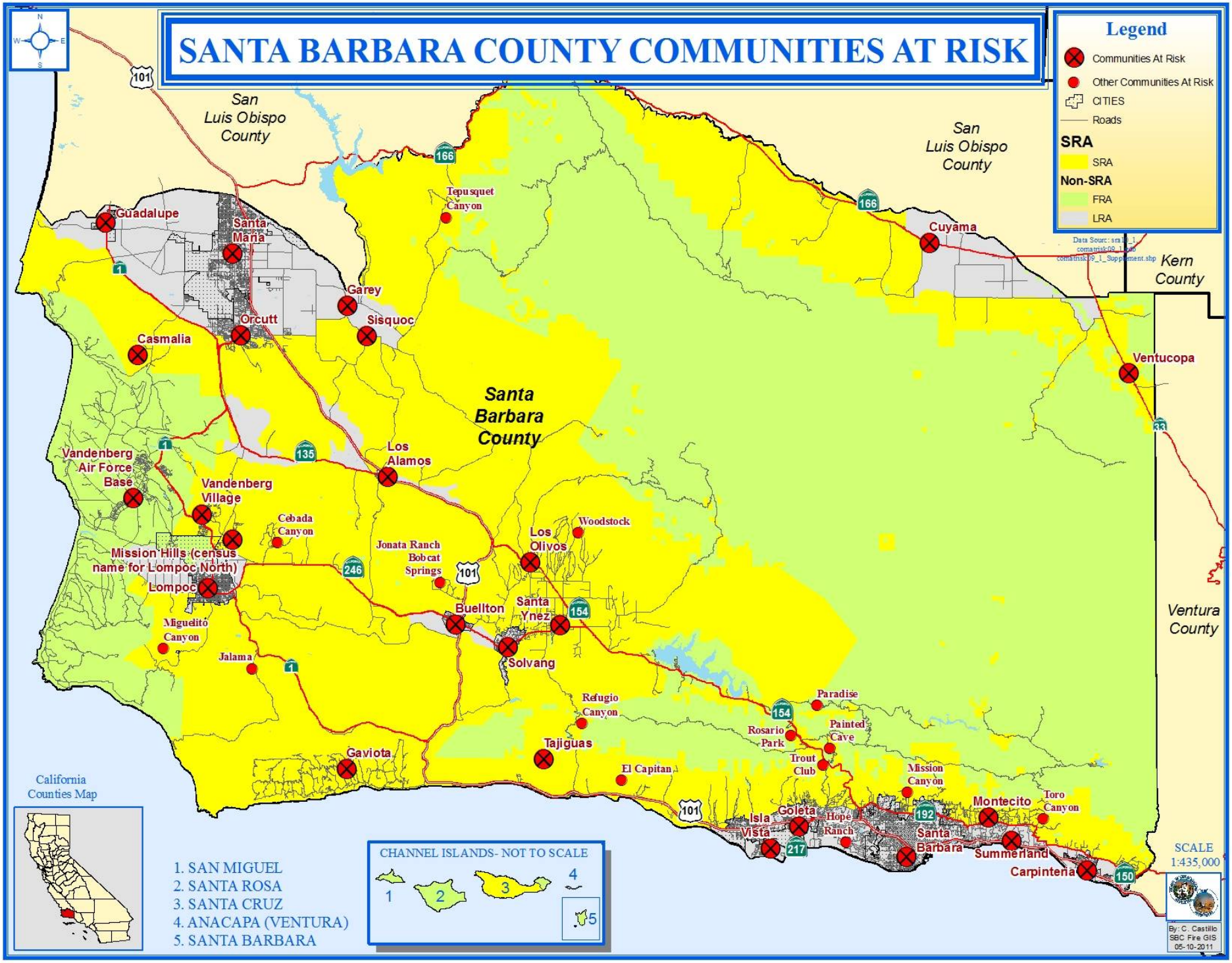

SANTA BARBARA COUNTY SRA 2012
Legend
CITIES
SRA
State Responsibility Area
SRA
Non-SRA
FRA
LRA
Data Source: sra10_1.gdb
San Luis Obispo County
San Luis Obispo County
Kern County
Ventura County
Santa Barbara County
Guadalupe
Santa Maria
Lompoc
Buellton
Solvang
Goleta
Santa Barbara
Carpinteria
101
166
135
246
1
154
217
192
150
33
California Counties Map
1. SAN MIGUEL
2. SANTA ROSA
3. SANTA CRUZ
4. ANACAPA (VENTURA)
5. SANTA BARBARA
CHANNEL ISLANDS- NOT TO SCALE
SCALE 1:435,000
By: C. Castillo
SBC Fire GIS
05-06-2012

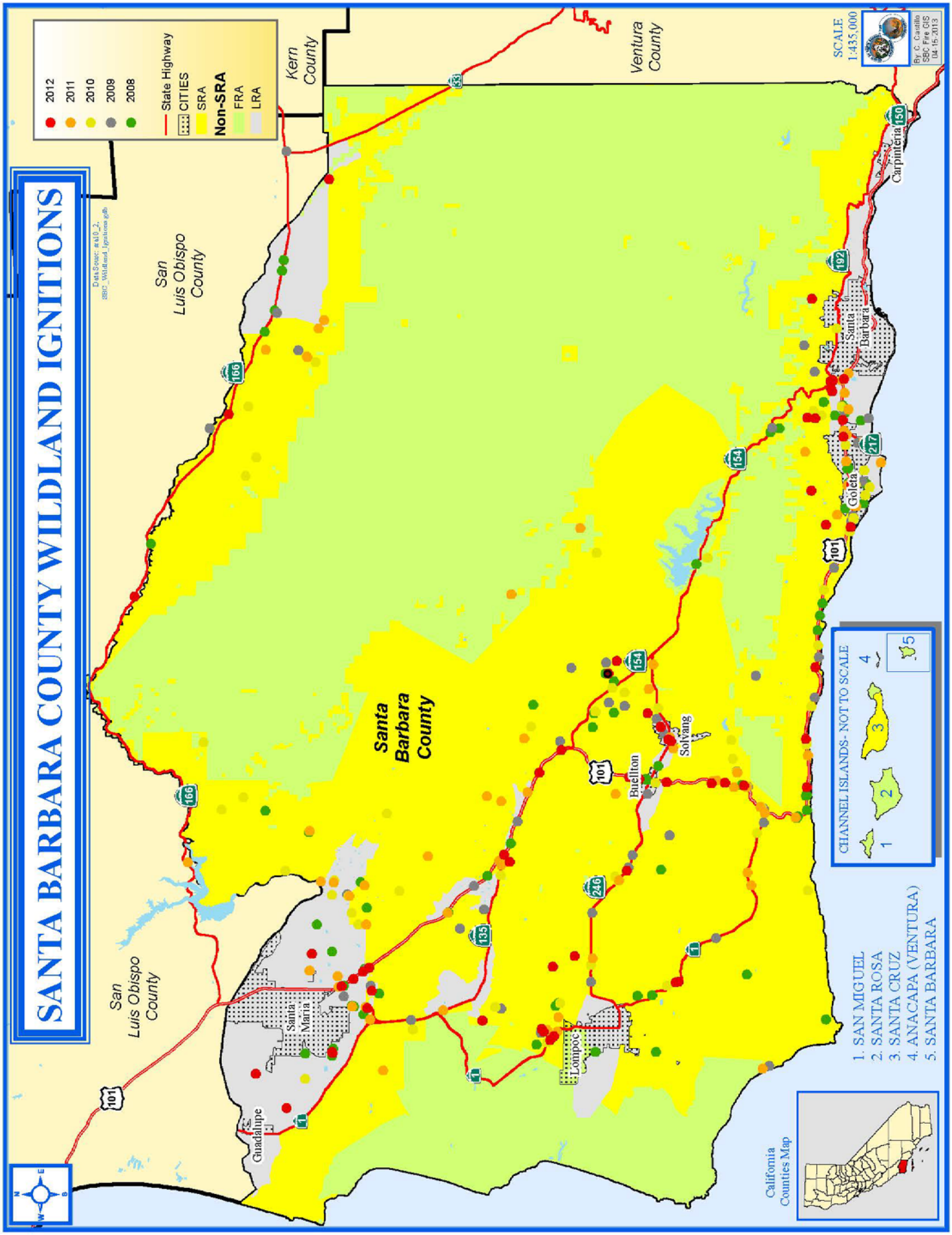

SANTA BARBARA COUNTY TOPOGRAPHY
Legend
Peaks
CITIES
Elevation
6600 feet
Mean Sea Level
San Luis Obispo County
San Luis Obispo County
Kern County
Ventura County
Plowshare peak
Timber Peak
Tepusquet Peak
Peak Mountain
McPherson Peak
Guadalupe
Santa Maria
Lompoc
Buellton
Solvang
Bald Mountain
Santa Ynez Peak
Broadcast Peak
Gaviota Peak
La Cumbre Peak
Toro Saddle
Snowball Mtn
Goleta
Santa Barbara
Carpinteria
California Counties Map
1. SAN MIGUEL
2. SANTA ROSA
3. SANTA CRUZ
4. ANACAPA (VENTURA)
5. SANTA BARBARA
CHANNEL ISLANDS- NOT TO SCALE
SCALE 1:435,000
By: C. Castillo SBC Fire GIS 05-10-2011

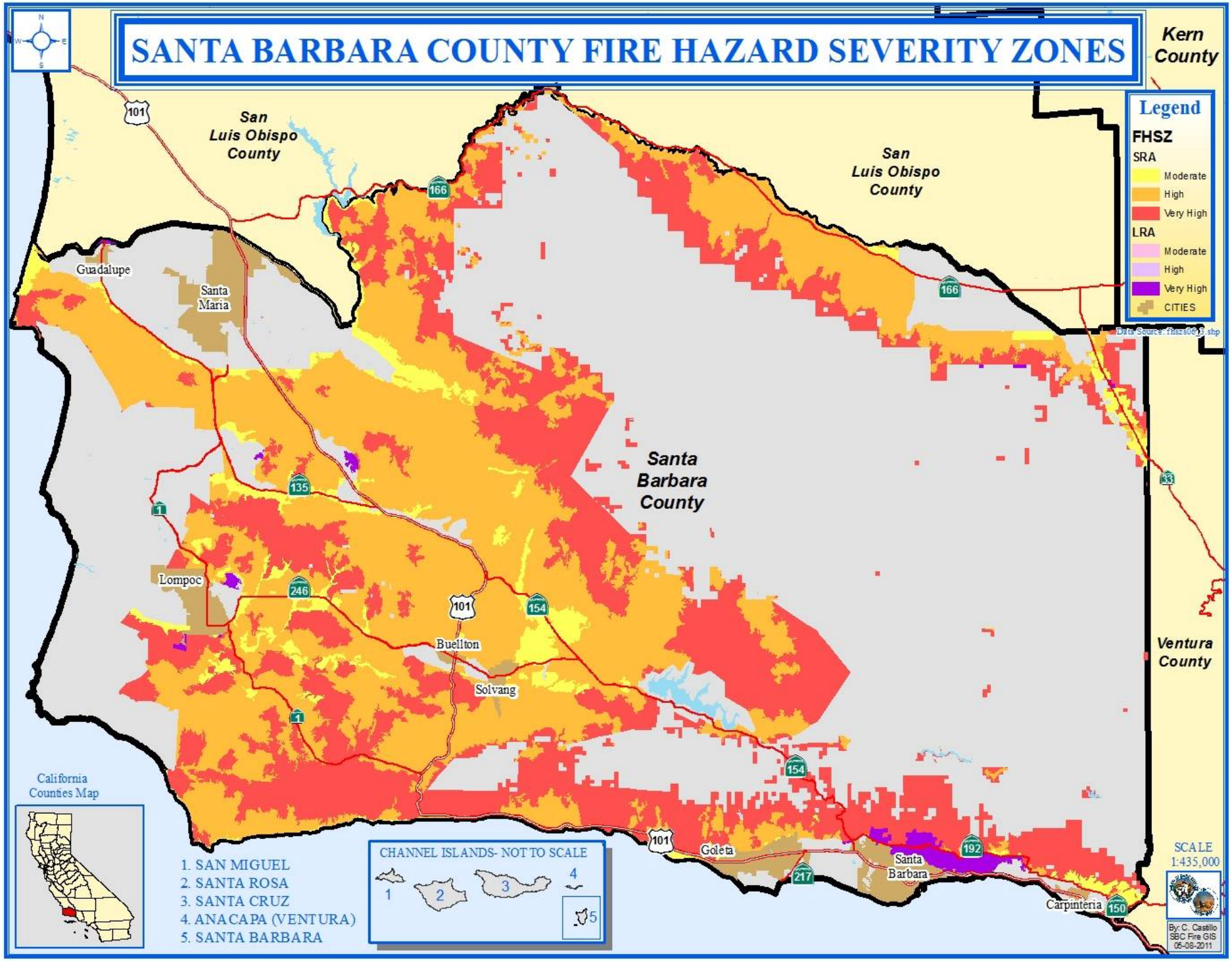

SANTA BARBARA COUNTY FUEL MODELS
Legend
Fuel Models
Type
1 Grass
2 Pine/Grass
3 Tall Grass
4 Tall Chaparral
5 Brush
6 Dormant Brush
7 Southern Rough
8 Hardwood/Lodgepole Pine
9 Mixed Conifer Light
10 Mixed Conifer Medium
11 Light Logging Slash
12 Medium Logging Slash
15 Desert Fuel (Custom 15)
28 Urban Fuel (Custom 28)
97 Agricultural Lands
98 Water
99 Barren/Rock/Other
CITIES
Data Source: fmod05_1.gdb
San Luis Obispo County
San Luis Obispo County
Kern County
Ventura County
Guadalupe
Santa Maria
Lompoc
Buellton
Solvang
Goleta
Santa Barbara
Carpinteria
California Counties Map
1. SAN MIGUEL
2. SANTA ROSA
3. SANTA CRUZ
4. ANACAPA (VENTURA)
5. SANTA BARBARA
CHANNEL ISLANDS - NOT TO SCALE
SCALE 1:450,000
By: C. Castillo
SBC Fire GIS
05-08-2011

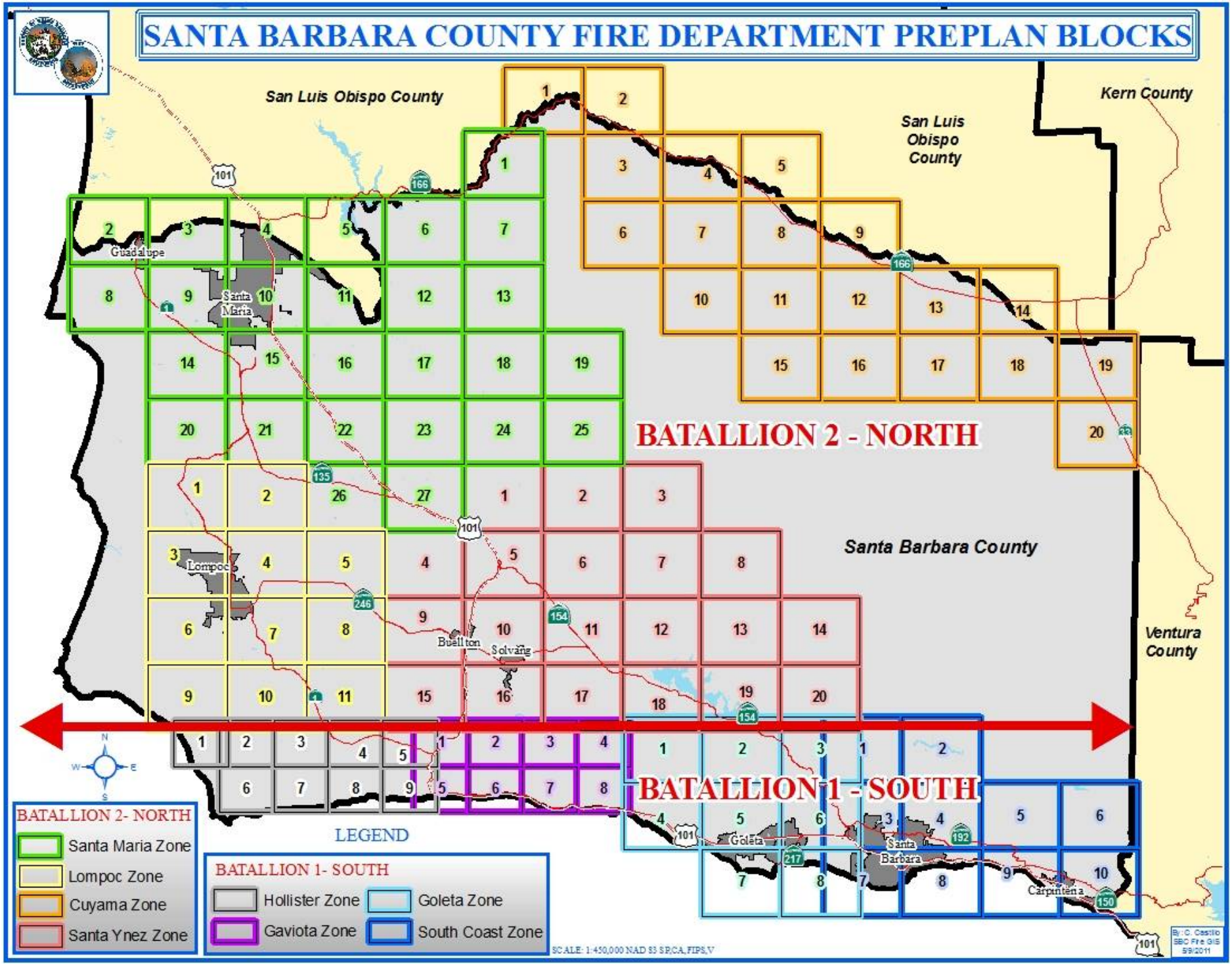

SANTA BARBARA COUNTY FIRE HISTORY 2012
Legend
SBC Fire History
Date & Range
1912 - 1950
1951 - 1990
1991 - 2012
CITIES
Data Source: fire1011_SBC.gdb
San Luis Obispo County
San Luis Obispo County
Kern County
Ventura County
Santa Barbara County
Guadalupe
Santa Maria
Lompoc
Santa Rosa
Buellton
Solvang
Goleta
Santa Barbara
Carpinteria
La Brea
Zaca
Perkins
Marre
Zaca
Harris
Sudden
Gaviota
Gap
Jesusita
Tea
California Counties Map
1. SAN MIGUEL
2. SANTA ROSA
3. SANTA CRUZ
4. ANACAPA (VENTURA)
5. SANTA BARBARA
CHANNEL ISLANDS- NOT TO SCALE
SCALE 1:435,000
By: C. Castillo
SBC Fire GIS
05-30-2012

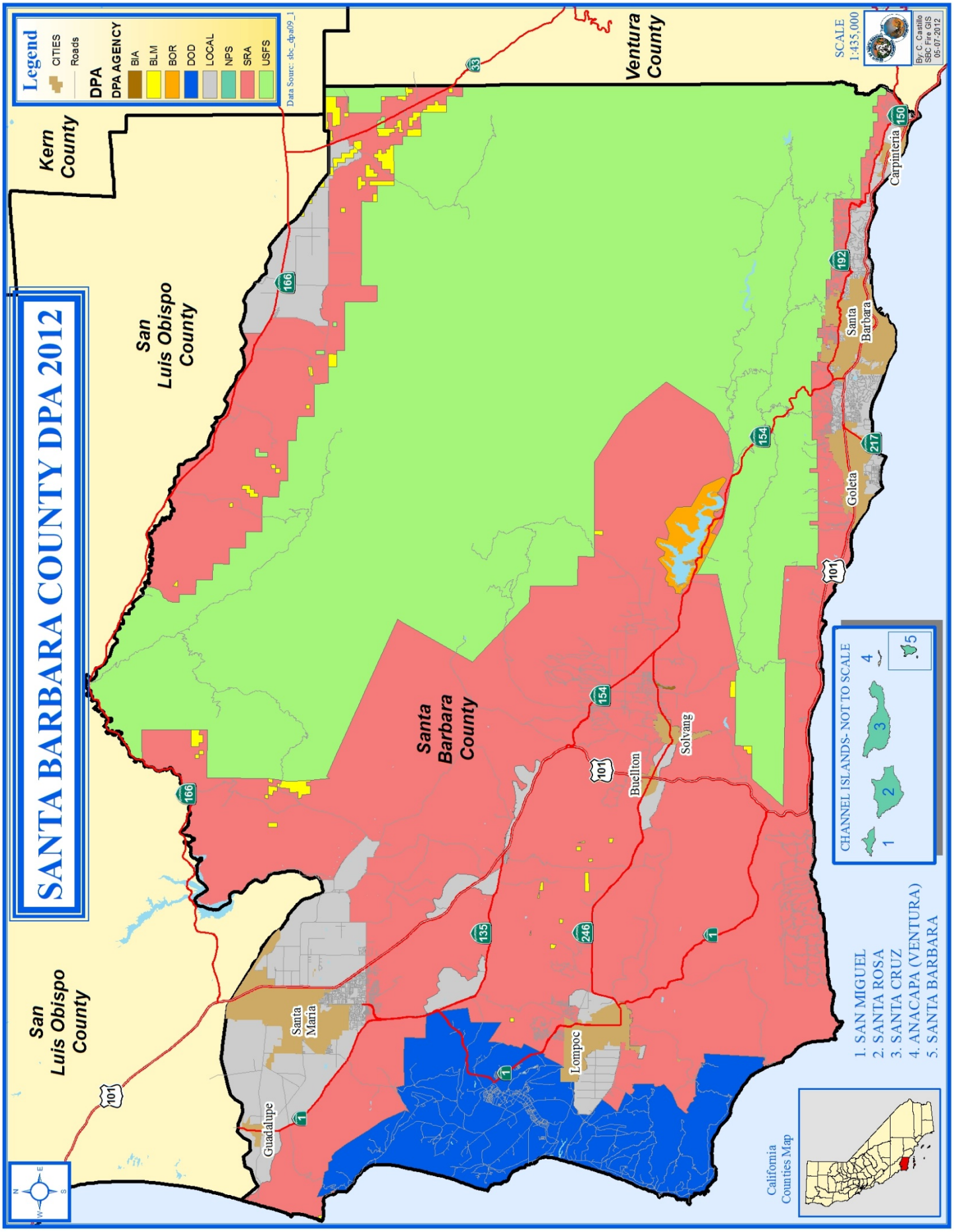

SANTA BARBARA COUNTY FIRE STATIONS
Legend
SBC Fire Stations
Other Agency Fire Stations
CITIES
Roads
Data Source: Fire_Stations.shp
San Luis Obispo County
San Luis Obispo County
Kern County
Ventura County
Santa Barbara County
Guadalupe
Santa Maria
Lompoc
Buellton
Solvang
Goleta
Santa Barbara
Carpinteria
SBC 21
SBC 22
SBC 23
SBC 24
Construction Section
SBC 51
SBC 31
SBC 30
SBC 32
Air Operations
SBC 18
SBC 41
SBC 14
SBC 11
SBC 17
SBC 12
SBC HQ
SBC 13
SBC 15
California Counties Map
1. SAN MIGUEL
2. SANTA ROSA
3. SANTA CRUZ
4. ANACAPA (VENTURA)
5. SANTA BARBARA
CHANNEL ISLANDS- NOT TO SCALE
SCALE 1:435,000
By: C. Castillo
SBC Fire GIS
05-08-2011

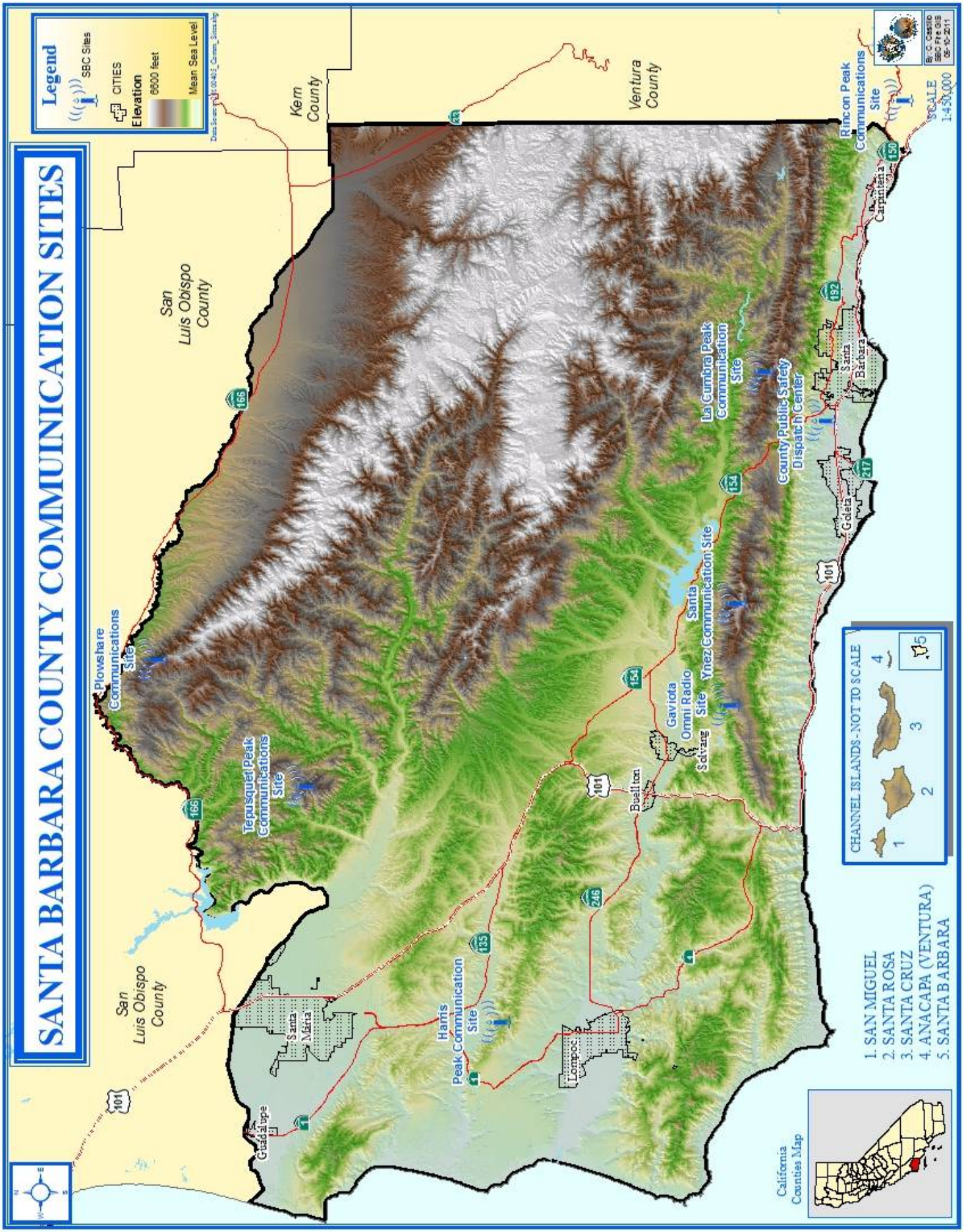

SANTA BARBARA COUNTY COMMUNITIES AT RISK
Legend
Communities At Risk
Other Communities At Risk
CITIES
Roads
SRA
SRA
Non-SRA
FRA
LRA
San Luis Obispo County
San Luis Obispo County
Kern County
Ventura County
Santa Barbara County
Guadalupe
Santa Maria
Orcutt
Casmalia
Garey
Sisquoc
Tepusquet Canyon
Cuyama
Ventucopa
Vandenberg Air Force Base
Vandenberg Village
Mission Hills (census name for Lompoc North)
Lompoc
Cebada Canyon
Jonata Ranch Bobcat Springs
Los Alamos
Los Olivos
Woodstock
Buellton
Santa Ynez
Solvang
Miguelito Canyon
Jalama
Refugio Canyon
Tajiguas
Gaviota
El Capitan
Paradise
Rosario Park
Painted Cave
Trout Club
Mission Canyon
Hope Ranch
Goleta
Isla Vista
Santa Barbara
Montecito
Toro Canyon
Summerland
Carpinteria
California Counties Map
1. SAN MIGUEL
2. SANTA ROSA
3. SANTA CRUZ
4. ANACAPA (VENTURA)
5. SANTA BARBARA
CHANNEL ISLANDS- NOT TO SCALE
SCALE 1:435,000
By: C. Castillo SBC Fire GIS 05-10-2011


SANTA BARBARA COUNTY WILDLAND IGNITIONS
2012
2011
2010
2009
2008
State Highway
CITIES
SRA
Non-SRA
FRA
LRA
Kern County
Ventura County
San Luis Obispo County
Santa Barbara County
SCALE 1:435,000
By: C. Castillo SBC Fire GIS 04.15.2013
Santa Maria
Guadalupe
Lompoc
Buellton
Solvang
Goleta
Santa Barbara
Carpinteria
CHANNEL ISLANDS- NOT TO SCALE
1. SAN MIGUEL
2. SANTA ROSA
3. SANTA CRUZ
4. ANACAPA (VENTURA)
5. SANTA BARBARA
California Counties Map


SANTA BARBARA COUNTY FIRE HAZARD SEVERITY ZONES
Kern County
San Luis Obispo County
San Luis Obispo County
Santa Barbara County
Ventura County
Guadalupe
Santa Maria
Lompoc
Buellton
Solvang
Goleta
Santa Barbara
Carpinteria
Legend
FHSZ
SRA
Moderate
High
Very High
LRA
Moderate
High
Very High
CITIES
California Counties Map
1. SAN MIGUEL
2. SANTA ROSA
3. SANTA CRUZ
4. ANACAPA (VENTURA)
5. SANTA BARBARA
CHANNEL ISLANDS- NOT TO SCALE
SCALE 1:435,000
By: C. Castillo
SBC Fire GIS
05-08-2011


SANTA BARBARA COUNTY FIRE DEPARTMENT PREPLAN BLOCKS
San Luis Obispo County
Kern County
San Luis Obispo County
Santa Barbara County
Ventura County
BATALLION 2 - NORTH
BATALLION 1 - SOUTH
Guadalupe
Santa Maria
Lompoc
Buellton
Solvang
Goleta
Santa Barbara
Carpinteria
LEGEND
BATALLION 2- NORTH
Santa Maria Zone
Lompoc Zone
Cuyama Zone
Santa Ynez Zone
BATALLION 1- SOUTH
Hollister Zone
Goleta Zone
Gaviota Zone
South Coast Zone
SCALE: 1:450,000 NAD 83 SP,CA,FIPS,V
By: C. Castillo
SBC Fire GIS
5/9/2011


SANTA BARBARA COUNTY DPA 2012
Legend
CITIES
Roads
DPA
DPA AGENCY
BIA
BLM
BOR
DOD
LOCAL
NPS
SRA
USFS
Data Source: sbc_dpa09_1
Kern County
San Luis Obispo County
Ventura County
Santa Barbara County
Santa Maria
Guadalupe
Lompoc
Buellton
Solvang
Goleta
Santa Barbara
Carpinteria
SCALE 1:435,000
By: C. Castillo
SBC Fire GIS
05-07-2012
CHANNEL ISLANDS- NOT TO SCALE
1. SAN MIGUEL
2. SANTA ROSA
3. SANTA CRUZ
4. ANACAPA (VENTURA)
5. SANTA BARBARA
California Counties Map


SANTA BARBARA COUNTY COMMUINICATION SITES
Legend
SBC Sites
CITIES
Elevation
8600 feet
Mean Sea Level
Kern County
Ventura County
San Luis Obispo County
San Luis Obispo County
Plowshare Communications Site
Tepusquet Peak Communications Site
Harris Peak Communication Site
Gaviota Omni Radio Site
Santa Ynez Communication Site
La Cumbra Peak Communication Site
County Public Safety Dispatch Center
Rincon Peak Communications Site
Santa Maria
Lompoc
Buellton
Solvang
Goleta
Santa Barbara
Carpinteria
Guadalupe
CHANNEL ISLANDS - NOT TO SCALE
1. SAN MIGUEL
2. SANTA ROSA
3. SANTA CRUZ
4. ANACAPA (VENTURA)
5. SANTA BARBARA
California Counties Map
SCALE 1:450,000

ANNUAL ACCOMPLISHMENTS REPORTING (2013)

Fire Planning:

The Department continues to fund and maintain our GIS section, coordinating with other local and state agencies to maintain relevant special databases in order to identify wildland fire risks. With the aid of this section, we completed a State Responsibility Area review, identifying those areas that meet and/or no longer meet the SRA criteria. In addition, the GIS section maintained and updated Wildland Preplans countywide.

SBC assisted the Carpinteria-Summerland Fire Protection district with the completion of their Community Wildfire Protection Plan through document review and GIS mapping preparation.

Investigations and Enforcement:

The Unit investigated all vegetation fires in the SBC DPA for the year 2013.

Wildland Fire Prevention Engineering:

The department inspected approximately 10,000 home sites in the district for compliance with defensible space regulations.

Civil Cost Recovery:

The Investigation Section has 12 wildland fire incidents in the Cost Recovery process.

Education and Information:

The Department Public Information Officer is responsible for coordinating communications between the department, the news media and the public. The office is staffed full time during the day with a PIO, and 8 stand-by cadre members. Someone is on call 24/7 including after hours and on weekends.

The department provides educational information regarding a wide range of topics to help those interested in learning more about personal and public safety.

For the year 2013 SBC sent out 13 Public Service Announcements, 20 news releases and taught 4 CERT classes. In addition, numerous Ready! Set! Go! brochures were distributed at the fire station level. The department operates a fire safety trailer with a goal of meeting all elementary schools in the department's jurisdiction each year. The Department Website is updated frequently to support the programs described.

Vegetation Management:

Developed plans with the Range Improvement Association for prescribed firing of approximately 1,100 acres to improve forage and create a fuel breaks for the surrounding communities of Buellton and Los Alamos. 100 acres were completed during February, 2013. Developing VMP prescribed burn of 400 acres to improve forage and create fuel break for the surrounding community of Tepesquet. Ten acres of fuel treatment were completed in the Burton Mesa Project. The Vegetation Management Section is tracking live fuel moistures every two weeks at five separate areas in the county for purposes of fire prediction, resource allocation, and prescribed fire planning.

Volunteerism:

We continue to maintain a position on the board of the local 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.

Fire Hazard Severity Mapping and Mitigation:

Our GIS section produces FHSZ maps for SRA and LRA.

Other Fire Prevention Projects in SRA:

We continue to work closely with our local planning and development, through the funding of 2 positions in our Fire Prevention Division, New Development Section, incorporating up to date land use planning techniques in cooperation with landowner objectives, regarding the risks of wildfire.
We continue to maintain our own development standards, unique to Santa Barbara County incorporating land use decisions towards minimizing the risks of wildfires.
The unit has in place cooperating agreements with its federal and local partners in the Santa Barbara County Operations Area to insure the closest available resources are utilized for wildfire suppression.

FOR M.W. DYER — 6/9/14

Unit Chief — **Date**

Michael W. Dyer, Fire Chief