

# 2024 UNIT FIRE PLAN COUNTY OF LOS ANGELES FIRE DEPARTMENT





## UNIT FIRE PLAN AMENDMENTS

Date	Section	Page	Description of Update	Updated By
3/29/2024	Section 1: Unit Overview	I	Amendments	Fire Plan Unit
3/29/2024	Section I: Unit Overview	ii	Table of Contents	Fire Plan Unit
3/29/2024	Section I: Unit Overview	4	LA County Population Stats	Fire Plan Unit
3/29/2024	Section I: Unit Overview	5	Department Statistics	Public Information Office
3/29/2024	Section I: Unit Overview	5	LAC Budget	Fire Plan Unit
3/29/2024	Section I: Unit Overview	8	Organizational Chart	Fire Plan Unit
3/29/2024	Section I: Unit Overview	12	Fire History Map	Fire Plan Unit
3/29/2024	Section I: Unit Overview	14	Department Statistics	Fire Plan Unit
3/29/2024	Section II: Collaboration	17	Fire Safe Council/Firewise USA Map	Forestry Technical Operations Unit
3/29/2024	Section III: Values	19	Tree Mortality Section	Mapping Unit
3/29/2024	Section IV: Pre-Fire Management Strategies	23	Ignition Statistics	Mapping Unit
3/29/2024	Section IV: Pre-Fire Management Strategies	24	Acres Burned Chart	Mapping Unit
3/29/2024	Section IV: Pre-Fire Management Strategies	Various	Update Links	Fire Plan Unit
3/29/2024	Section IV: Pre-Fire Management Strategies	26	2023-24 Grant and Fire Plan Projects List	Fire Plan Unit
3/29/2024	Section IV: Pre-Fire Management Strategies	28	Fire Plan Unit Focus	Fire Plan Unit
3/29/2024	Appendix A	34	Internal Project Map (new)	Fire Plan Unit
3/29/2024	Appendix A	35	External Project Map (new)	Fire Plan Unit
3/29/2024	Appendix C	37/38	2023 Statistical Summary	Public Information Office
3/29/2024	Appendix C	39	Brush Fire Log	Fire Plan Unit
3/29/2024	Exhibits: Maps	40	Fire Hazard Severity Zones Map	Fire Plan Unit
3/29/2024	Exhibits: Maps	41	SRA Map	Fire Plan Unit
3/29/2024	Exhibits: Maps	42	DPA Map	Fire Plan Unit
3/29/2024	Exhibits: Maps	43	Divisions Map (new)	Fire Plan Unit
3/30/2024	Exhibits: Maps	44	Battalions Map (new)	Fire Plan Unit
3/31/2024	Exhibits: Maps	45	Fire Stations Map (new)	Fire Plan Unit
3/29/2024	2023 Accomplishments	46	2023 Accomplishments	Fire Plan Unit
3/29/2024	2023 Accomplishments	46	Defensible Space Unit Statistics	Defensible Space Unit
3/29/2024	2023 Accomplishments	46	Fuel Modification Statistics	Fuel Modification Unit

# Table of Contents

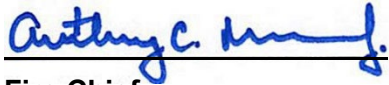
SIGNATURE PAGE .....	1
EXECUTIVE SUMMARY.....	2
SECTION I: LOS ANGELES COUNTY UNIT OVERVIEW.....	4
LOS ANGELES COUNTY UNIT DESCRIPTION.....	4
VEGETATION OF LOS ANGELES COUNTY.....	9
TOPOGRAPHY AND WEATHER OF LOS ANGELES COUNTY .....	10
FIRE HISTORY .....	11
THE WILDFIRE ENVIRONMENT.....	13
FIRE DANGER RATING SYSTEM.....	13
UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES.....	14
SECTION II: COLLABORATION .....	14
AGREEMENTS / AGENCIES / COMMUNITY .....	14
SECTION III: VALUES .....	18
PRIORITY LANDSCAPES OF LOS ANGELES COUNTY .....	18
TREE MORTALITY IN LOS ANGELES COUNTY .....	19
VALUES.....	20
SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES.....	23
FIRE PREVENTION.....	23
FORESTRY DIVISION .....	28
WILDFIRE MITIGATION AND PREVENTION SECTION .....	28
DEFENSIBLE SPACE SECTION .....	29
PUBLIC EDUCATION AND OUTREACH SECTION .....	30
FIRE SUPPRESSION PHILOSOPHY.....	32
THE FIRE PROTECTION SYSTEM.....	32
DIVISION/BATTALION/PROGRAM PLANS .....	32
APPENDIX A: PRE-FIRE PROJECTS MAPS .....	34
APPENDIX B: DEPARTMENT GOALS AND OBJECTIVES .....	36
APPENDIX C: 2023 STATISTICAL SUMMARY .....	37
EXHIBITS: MISCELLANEOUS MAPS.....	40
2023 ACCOMPLISHMENTS .....	46

## SIGNATURE PAGE

### Unit Fire Plan developed for the County of Los Angeles:

This Plan:

- Is intended for use as a planning and assessment tool only. It is the responsibility of those implementing projects to ensure that all environmental compliance and permitting processes are met.
- Was collaboratively developed. Interested parties within the unit – city, County, State, and federal agencies – 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.



**Fire Chief**

Anthony C. Marrone, Fire Chief  
Forester and Fire Warden

JUNE 1, 2024

**Date**

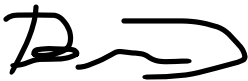


**Division Chief**

Ron Durbin, Chief, Forestry  
Forestry Division

6/1/24

**Date**



**Pre-Fire Engineer**

Brad Weisshaupt, Deputy Forester  
Forestry Division

6/1/24

**Date**





## **EXECUTIVE SUMMARY**

The 2018 California Strategic Fire Plan (Plan) is the current evolution of the first Statewide Fire Plan developed in 2010. It was a collaborative effort between the State Board of Forestry and Fire Protection and the California Department of Forestry and Fire Protection (CAL FIRE). The Plan recognizes that wildfires will occur in California and works to answer the question, “How do we prepare and live with that risk?” The 2010 and 2018 Plans build upon this concept first developed in the 1996 California Fire Plan which led to collaborative efforts in fire prevention. A copy of the 2018 Strategic Fire Plan for California can be found at [2018 Strategic Fire Plan for California](#).

The vision of the Plan for California – 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 Plan outlines eight goals focused on enhancing protection of lives, property, and natural resources from wildland fire, as well as improving environmental resilience to wildland fires. Each goal is meant to build upon the previous one; the eight 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 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. Actions can include creation of defensible space and other fuel reduction activities, educating homeowners about fire prevention, and encouraging fire safe building standards.
5. Develop a method to integrate fire and fuel management practices with landowner priorities and multiple jurisdictional efforts within local, State, and federal responsibility areas.
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. Address post-fire responsibilities for natural resource recovery, including watershed protection, reforestation, and ecosystem restoration.

The County of Los Angeles Fire Department (Department) is one of six contract counties (Orange, Los Angeles, Kern, Ventura, Santa Barbara, and Marin), which have executed a contract with the State of California to provide wildland fire protection on State Responsibility Areas (SRA). The Department has the responsibility as a contract county to implement the Plan in Los Angeles County. As such, the Department functionally operates as a CAL FIRE unit and is responsible for all Strategic Fire Plan activities within the County. The Department's 2024 Unit Fire Plan replaces the previous Plan.

The most current Department Unit Fire Plan can be found here: [OSFM Strategic Fire Plan for California](#).



**Brush Clearance Deadline Signage and Shaded Fuel Break Examples**

## **SECTION I: LOS ANGELES COUNTY UNIT OVERVIEW**

### **LOS ANGELES COUNTY UNIT DESCRIPTION**

Los Angeles County (LA County), one of California's original 27 counties, was established on February 18, 1850. LA County originally occupied a comparatively small area along the coast between Santa Barbara and San Diego counties, but within a year its boundaries were enlarged from 4,340 square miles to 34,520 square miles, sprawling east to the Colorado River.

In 1853, a bill was introduced dividing the eastern portion of LA County to create San Bernardino County. During the subsequent years, LA County slowly reduced to its present size and the last major detachment occurred in 1889, with the creation of Orange County. LA County encompasses approximately 4,084 square miles of land, in which 1,741 square miles are flat, 1,875 square miles are mountainous, 246 square miles consist of hills, 59 square miles of mountain valleys, and 28 square miles of marshland. It also includes 131 square miles on San Clemente and Santa Catalina islands.

LA County has the largest population (9,663,345 - 2023 U.S. Census Bureau Estimate) of any county in the nation and is exceeded by only 10 states. Approximately 25 percent of California's residents live in LA County.

The Board of Supervisors (Board), created by the State Legislature in 1852, is the governing body within LA County, consisting of five supervisors elected to four-year terms by voters within their respective supervisorial districts. The Board has executive, legislative, and quasi-judicial roles in addition to appointing all department heads other than the Assessor, District Attorney, and Sheriff, which are elected positions.

As a subdivision of the State, LA County is charged with providing numerous services affecting the lives of its residents. Traditional mandatory services include fire protection, law enforcement, property assessment, tax collection, public health protection, social services, relief to people experiencing homelessness, flood control, and recreational services through the Department of Parks and Recreation. Within the Department, the Forestry Division manages the Defensible Space Section containing the Defensible Space Inspection Unit; the Wildfire Mitigation and Prevention Section containing the Vegetation Management Unit, Environmental Review Unit, the Forestry Technical Operations Unit, and the Fire Plan Unit; and the Public Education and Outreach Section containing the Fuel Modification Unit, the Malibu Unit, the San Dimas Unit, and the Grants/Interpretive Unit.

There are 88 cities contracting with LA County for municipal services to varying degrees. Sixty-five percent of LA County – approximately 2,653.5 square miles – is unincorporated where the County provides all municipal services. For over one million people living in unincorporated areas, the Board serves as their “City Council.” LA County is the largest employer in the five-county region with just over 113,000 budgeted employees.

The Fire Department started in the late 1800s with the formation of two separate departments. The first department, the Los Angeles County Board of Forestry, was charged with protecting natural resources and responsible for planting and maintaining Department



landscapes. The second department, the Los Angeles County Fish and Game Warden, was then assigned the responsibility as the Los Angeles County Fire Warden.

The Forest Protection Act of 1905 enabled local governments like LA County to form fire districts and “appropriate money for the purpose of forest protection, improvement, and management” (Berg and Boyarsky, 2004). Financing in those early years, like it is today, was provided by the taxpayers of LA County at the behest of the Board. In the early years, the budget was miniscule. In 1908, records indicate that the Board spent \$710 to extinguish 21 fires. On May 8, 1911, the Board created the County of Los Angeles Board of Forestry, which later became the Los Angeles County Forestry Department. By 1912, the Forestry Department’s budget had grown to \$1.5 million. Under the direction of County Forester Stuart J. Flintham, foresters went about planting trees along major avenues and roadways around the basin.

In 1919, over 135,000 acres of wildland fires blackened the County of Los Angeles, prompting the merging of these two departments which resulted in greater emphasis on fire suppression, creating the County Forester and Fire Warden. Between September 1923 and 1925, 31 separate fire districts were formed, the first two being in Signal Hill and Santa Monica Canyon. This became official in December 1925 when Spencer D. Turner was appointed head of all fire crews making him LA County Forester, Fish and Game Warden, and Fire Chief.

In 1956, Fire Chief Emeritus Keith E. Klinger created the visionary Lakewood Plan, allowing incorporated cities within LA County to contract with the Department for fire protection services. Today, 60 cities are served by the Department, which staffs a total of 174 engine companies, 35 truck companies, 117 Advanced Life Support units, and numerous specialized apparatus.

The Department created one of the nation’s first firefighter paramedic programs; its 50<sup>th</sup> anniversary was commemorated in 2019. Throughout its history, the Department has emerged as a leader in the fire service on local, regional, and national levels. In terms of total fire stations and personnel, the Department is the nation’s third largest metropolitan fire department.

The Department operates 8 bureaus, 9 field divisions, 22 field battalions, 176 fire stations and 9 fire suppression camps and answers over 449,000 emergency calls annually. Additionally, the Department has Fire Prevention, Forestry, Air and Wildland, Lifeguard, Health Hazardous Materials, Command and Control, Materials Management, Planning and Grants, Information Management, Financial Management, Human Resources, Employee Relations, Training Services, Office of Diversity, Equity and Inclusion, Organizational Development, Risk Management, Construction and Maintenance, Fleet Services, and Executive Support Divisions, which provide valuable services to over 4.1 million LA County residents.

The Department’s Fiscal Year 2023-2024 Final Adopted budget is approximately \$1.654 billion. The budget is primarily funded by property tax revenue, making up approximately 63% of the Department’s revenue. Other funding sources include fee-for-service cities and the Prop E special tax.

## **MISSION STATEMENT**

The mission of the Los Angeles County Fire Department is to protect lives, the environment, and property by providing prompt, skillful, and cost-effective fire protection and life safety services.

## **CORE VALUES**

Integrity – Teamwork – Caring – Courage – Commitment – Community

## **FIRE DEPARTMENT VISION**

The Los Angeles County Fire Department will be an exemplary organization acclaimed for our national reputation, our regional strength, and our hometown attentiveness as we provide fire protection and life safety services.



LA Co Fire Dept. Core Values

## MESSAGE FROM FIRE CHIEF ANTHONY C. MARRONE

The Los Angeles County Fire Department (Fire Department) provides fire protection and life safety services to 4.1 million residents within our jurisdiction of 59 cities and all unincorporated areas of Los Angeles County (County), and the City of La Habra located in Orange County. The Fire Department's service area includes suburban neighborhoods, city centers, commercial districts, sandy beaches, mountain ranges, chapparal covered hills and more.

There are 4,825 budgeted positions within the Department's emergency and business operations bureaus, including firefighters, dispatchers, lifeguards, nurses, and administrative support.

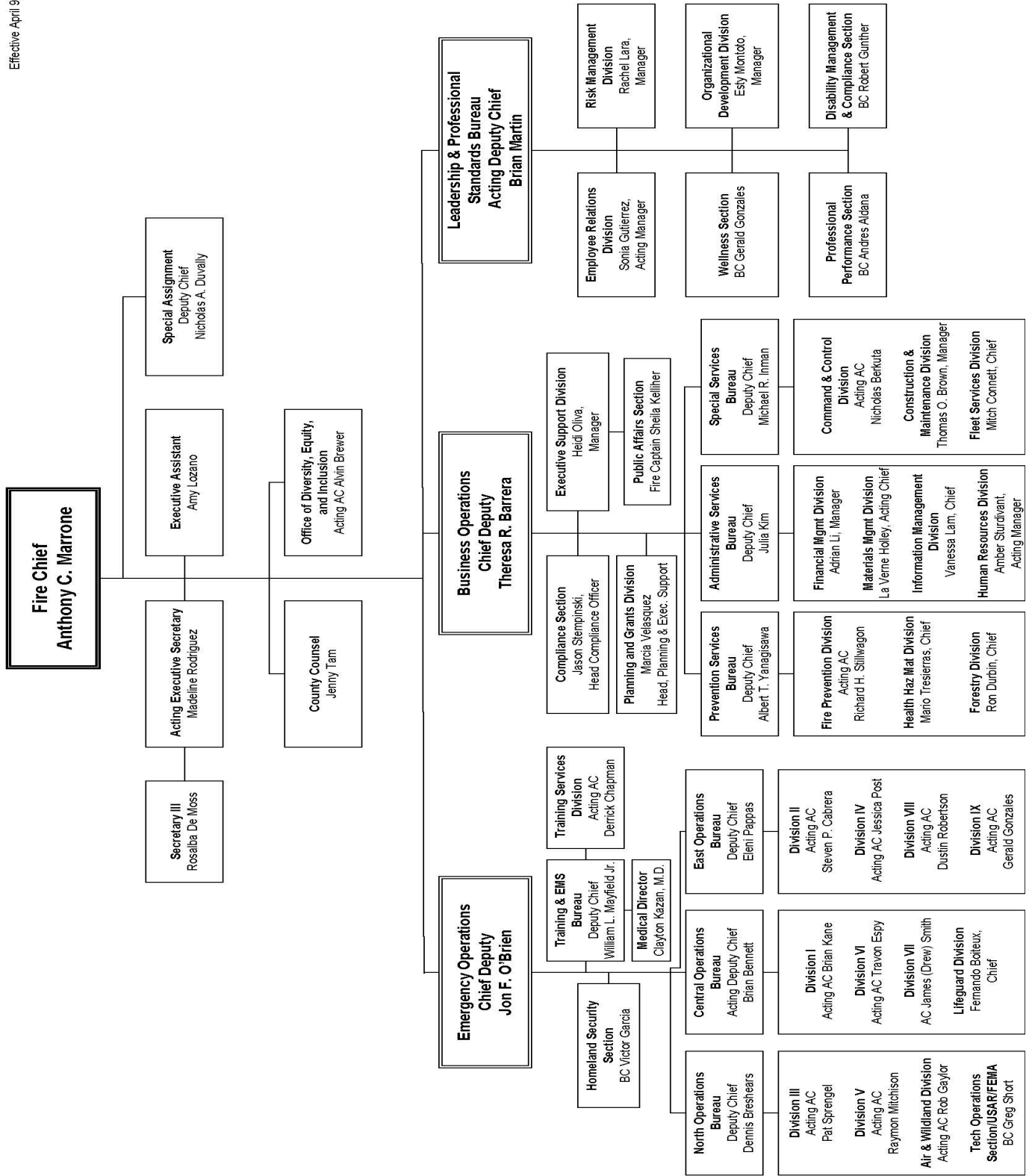
As the communities we serve continue to grow and diversify, our County remains committed to expanding and adjusting to ever-changing demands and needs. Together, with the Board of Supervisors, Chief Executive Office, and other County departments, we partner and collaborate on numerous challenges confronting our communities (e.g., health pandemic, large-scale disasters/emergencies, homelessness, mental health, etc.).

As an all-hazard Fire Department, we are focused on providing the highest quality professional emergency and medical service to residents, property owners, and visitors through accountability and transparency.

By continually evaluating our performance and accomplishments, we set goals and standards while implementing improvements in the areas of service delivery, operational effectiveness, emergency preparedness, workforce welfare, workplace inclusivity, equity, and fiscal solvency.







## VEGETATION OF LOS ANGELES COUNTY

The County has a vast range of vegetation types across coastal areas, the Santa Monica Mountains, San Gabriel Mountains, valleys, and the desert. The Antelope Valley is located on the western side of the Mojave Desert. Vegetation types consist of California juniper (*Juniperus californica*), Joshua tree (*Yucca brevifolia*), California scrub oak (*Quercus berberidifolia*), creosote (*Larrea tridentata*), California poppy (*Eschscholzia californica*), and many native and non-native grasses (*Poa spp.*). Traveling east, the landscape is dominated by pinyon pine (*Pinus edulis*) woodlands and a desert chaparral understory. Streambeds have cottonwoods (*Populus spp.*), willows (*Salix spp.*), and related vegetation requiring more water.

High country areas located in the eastern portion of LA County include elevations from 5,000-10,000 feet. Dominant vegetation types are conifers, hardwoods, and more traditional forest communities. This landscape consists of Coulter pine (*Pinus coulteri*) and mixed conifers on dry slopes, whereas bigcone Douglas-fir (*Pseudotsuga macrocarpa*) and Jeffery pine (*Pinus jeffreyi*) populate slopes receiving more precipitation. There are also significant oak woodland communities along shaded canyon slopes and riparian communities within streambeds.

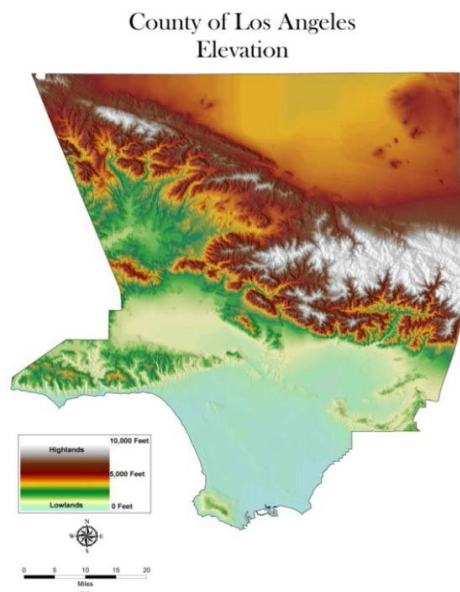
Much of the Santa Clarita Valley and the Santa Monica Mountains have the following vegetation types: coastal sage, riparian, oak woodlands, and chaparral. Coastal sage communities are typically found in lower elevations and drier sites of coastal south-facing slopes. The coastal sage community can be referred to as soft chaparral where foliage is soft, grey-green, and aromatic. Various plants include purple sage (*Salvia leucophylla*), California sagebrush (*Artemisia californica*), coast buckwheat (*Eriogonum latifolium*), laurel sumac (*Malosma laurina*), and lemonade berry (*Rhus integrifolia*). Riparian communities are woodlands with multi-layered vegetation, including Arroyo willows (*Salix lasiolepis*), California black walnut (*Juglans californica*), California sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), Mexican elderberry (*Sambucus nigra*), California bay laurel (*Umbellularia californica*), and mule fat (*Baccharis salicifolia*). Oak woodlands are found on northern slopes blanketed with coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*) in warmer areas, hollyleaf cherry (*Prunus ilicifolia*), California bay laurel (*Umbellularia californica*), coffeeberry (*Frangula californica*), and poison oak (*Toxicodendron pubescens*).

Chaparral communities typically have shrubby vegetation seen on both coastal and inland hillsides and are separated into two types: soft chaparral (usually called coastal sage scrub) and taller, hard chaparral. Chaparral is dominated by evergreen and drought deciduous shrubs one to fifteen feet tall. Most plants are recognized by tough, leathery leaves that reduce water loss in dry climates. Many chaparral plants contain volatile oils, which produce a strong odor and increase flammability. Common examples include various species of ceanothus (*Ceanothus spp.*), manzanita (*Arctostaphylos spp.*), sage (*Salvia spp.*), sagebrush (*Artemisia spp.*), sumac (*Malosma spp.*), toyon (*Heteromeles arbutifolia*), and chamise (*Adenostoma spp.*).

Determining wildfire risks in LA County involves assessing fire-adapted chaparral ecosystems, dynamic Mediterranean weather conditions, values at risk, and the fire protection system's ability to respond. The California Strategic Fire Plan employs an intensive assessment process graphically depicting fuels, weather, and assets at risk in a Geographic Information System (GIS) program. GIS layers are field-validated and used to identify areas within or adjacent to the Wildland-Urban Interface (WUI) most at risk. *The California's Forests and Rangelands: 2017 Assessment* ([FHSZ ArcGIS Online Map](#)) produced a variety of GIS data layers identifying assets, threats, and priority landscapes (combinations of assets and threats into priorities).

## TOPOGRAPHY AND WEATHER OF LOS ANGELES COUNTY

LA County encompasses 4,084 square miles. Forty-seven percent of this is mountainous, while the remainder consists of alluvial valleys, coastal plains, and high desert. Large mountain ranges within LA County include the Santa Monica, San Gabriel, Santa Susana, and Verdugo Mountains and run east to west, while main canyon drainages flow north and south. This natural topography creates airflow patterns linking the desert with the Pacific Ocean. LA County elevations start at sea level and rise to 10,064 feet at the Summit of Mount San Antonio, also known as Mount Baldy, in the San Gabriel Mountains.



The LA basin experiences a Mediterranean climate with warm, dry summers and mild, wet winters. Due to various micro-climates found in LA County, coastlines experience cooler temperatures of 40°F to 80°F, while inland areas experience more extreme temperatures, from light snow in winter to 100+°F in summer. Precipitation occurs approximately 35 days a year averaging about 15 inches. Although Southern California received substantial rain in 2022-23 and 2023-24, hot, dry, and windy fall conditions can create a potential for extreme fire behavior on wildland incidents.

During the autumn and winter months, high-pressure weather systems develop over the Great Basin and upper Mojave Deserts, heating up the air. These systems often produce strong offshore winds, known locally as Santa Ana winds, with powerful down slope winds blowing through Southern California mountain passes. These hot, dry winds blow through valleys and canyons, from the high desert to the coast, pre-heating and dropping fuel moisture and relative humidity in all areas of LA County. This condition produces a high risk of wildland fires where temperatures are high, fuel moisture is low, and winds blow at 30-70 miles per hour.



Due to vast differences in weather across LA County, ranging from the desert to the ocean and covering five different Fire Weather Forecast Zones (FWFZ), the Department has placed 22 Remote Automated Weather Stations (RAWS) throughout the County aligning with the FWFZs ([LACoFD RAWS ArcGIS Online Map](#)). Information from these stations (including temperature, relative humidity, 20-foot wind speed, 10-hour dead fuel moisture percentage) feed into the national Weather Information Management System (WIMS) and help inform a Daily Fire Weather Forecast and Fire Danger Rating for each FWFZ in the County. These products inform and influence augmented staffing decisions within the Department.



## FIRE HISTORY

The County has a vast fire history dating back to Native Americans using fire to create biological diversity and maintain landscapes. Today, LA County experiences large, damaging, and costly wildfires which affect a significant number of residents. In recent years, LA County battled large, wind-driven fires destroying hundreds of homes and hundreds of thousands of acres of scenic landscape. The 2020 Lake Fire consumed 31,089 acres with 33 structures destroyed and 6 structures damaged. The 2020 Bobcat Fire burned 115,796 acres with 171 structures destroyed and 47 other structures damaged. The 2019 Santa Ana wind-driven Tick Fire scorched 4,615 acres. The 2018 Woolsey Fire consumed nearly 96,949 acres, destroyed over 1,643 structures, and claimed three lives. The 2016 Sand Fire burned 41,432 acres consuming one home, a movie ranch, and claimed one life. Due to ongoing growth and development within LA County, the Department continues working to protect and prevent catastrophic fires from destroying vulnerable communities; addressing wildfire potential continues to be a top priority.



## **THE WILDFIRE ENVIRONMENT**

A thorough wildfire environment evaluation is essential in understanding fire severity potential in LA County. With greatly varying fuel types, weather, and topography, recognizing each component is vital to firefighter safety and helps in determining which projects and programs are most efficient in preventing catastrophic wildfires; this is a major focus of the Department's Fire Plan Unit.

### **Fuel**

Wildland fuel is vegetation covering the landscape. Fuel provides the thermal energy source that fire needs to spread. Ornamental vegetation around homes and structures is also considered fuel. Large WUI areas of great concern within LA County are where native fuels and residential communities come together and provide a dangerous wildfire environment.

### **Weather**

Weather can change rapidly, making it the most dynamic component of the fire environment. It is comprised of temperature, wind, relative humidity, cloud cover, precipitation, and atmospheric stability.

### **Topography**

Topography includes slope, aspect, and elevation. These factors play an important role while fighting wildland fires. Slope affects the rate of spread, while aspect may affect fire intensity. Elevation changes impact the amount of oxygen in the air and vegetation types.

## **FIRE DANGER RATING SYSTEM**

As part of the National Fire Danger Rating System, the Department has 22 RAWs in five Fire Weather Forecast Zones across the County. The 1500-hour outputs from these stations (temperature, relative humidity, 20-foot wind speed, 10-hour dead fuel moisture percentage) are plugged into the WIMS system to produce a Burn Index (BI) for each RAW location. Station Burn Indices are averaged per Fire Weather Forecast Zone to develop an adjective rating for that zone (Smokey Bear's arm). When used in conjunction with the current Live Fuel Moisture (LFM) for that zone, a Fire Danger Rating Forecast is developed. This forecast and the BIs inform departmental preparedness for high fire danger days, including red flag and Santa Ana wind events.

In 2022, the Department transitioned to the 2016 NFDRS Fuel Models which, in turn, created new BI threshold numbers for the 90<sup>th</sup> and 97<sup>th</sup> percentiles for Very High and Extreme Fire Danger Days.

The daily outputs can be found at [LACoFD Fire Weather Danger & LFM](#).

## **UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES**

The Department currently has 4,825 budgeted positions, a total of 176 fire stations (including FS55 and FS155 on Catalina Island), 237 fire engines (including reserve engines), 3 light forces, 32 quints, 76 paramedic squads, 9 fire suppression camps, 10 bulldozers, 10 helicopters, 2 Urban Search and Rescue (USAR) task forces, 3 Hazardous Material (HAZMAT) task forces, 6 swift water rescue units, 58 lifeguard beach patrol vehicles and 8 rescue boats, 23 Prevention offices, 10 Forestry units, and numerous other response vehicles and facilities as listed in Appendix "C." The Department serves unincorporated areas of LA County as well as 60 incorporated cities.

The Department has a contractual agreement with CAL FIRE to provide wildland fire protection for SRA. The Gray Book staffing agreement identifies resource allocations CAL FIRE considers necessary for protection of SRA and provides funding accordingly. In LA County, the Gray Book provides funding for 24 stations and fire prevention activities.

## **SECTION II: COLLABORATION**

### **AGREEMENTS / AGENCIES / COMMUNITY**

#### **Cooperative Fire Service Agreements**

In emergency services, mutual aid is an agreement among emergency responders to lend assistance across jurisdictional boundaries. This may occur due to an emergency response exceeding the capability of local resources, such as a disaster or a multiple alarm fire. Mutual aid may be requested only when such an emergency occurs or may be a formal standing agreement for cooperative emergency management on a continuing basis, such as ensuring resources are dispatched from the nearest fire station, regardless of the incident's jurisdictional boundary. Agreements sending the closest resources are regularly referred to as "automatic aid agreements." Current agreements include:

- Los Angeles County Operational Area Mutual Aid Plan
- California Fire Master Mutual Aid Agreement
- California Master Cooperative Wildland Fire Management and Stafford Act Response Agreement
- California Fire Assistance Agreement

**Additional Fire Agencies in Los Angeles County:**

US Forest Service, Angeles National Forest  
 National Park Service, Santa Monica Mountains Recreational Area  
 City of Alhambra                      City of La Habra Heights                      City of San Gabriel  
 City of Arcadia                      City of La Verne                      City of San Marino  
 City of Avalon                      City of Long Beach                      City of Santa Fe Springs  
 City of Beverly Hills                      City of Los Angeles                      City of Santa Monica  
 City of Burbank                      City of Manhattan Beach                      City of Sierra Madre  
 City of Compton                      City of Monrovia                      City of South Pasadena  
 City of Culver City                      City of Montebello                      City of Torrance  
 City of Downey                      City of Monterey Park                      City of West Covina  
 City of El Segundo                      City of Pasadena  
 City of Glendale                      City of Redondo Beach

**Agencies coordinating with the County of Los Angeles Fire Department:**

<b>POLITICAL ENTITY</b>	<b>JURISDICTION</b>
LOS ANGELES COUNTY BOARD OF SUPERVISORS	LOCAL GOVERNMENT
LOS ANGELES COUNTY SHERIFF’S DEPARTMENT	LOCAL GOVERNMENT/LAW ENFORCEMENT
ORANGE COUNTY FIRE AUTHORITY	LRA AND SRA FIRE PROTECTION
KERN COUNTY FIRE DEPARTMENT	LRA AND SRA FIRE PROTECTION
VENTURA COUNTY FIRE PROTECTION DISTRICT	LRA AND SRA FIRE PROTECTION
NATIONAL PARK SERVICE	FEDERAL GOVERNMENT
CALIFORNIA STATE PARKS	STATE
SANTA MONICA MOUNTAINS CONSERVANCY	PUBLIC LAND OWNERSHIP, RECREATIONAL USE
MOUNTAINS RECREATION AND CONSERVATION AUTHORITY	STATE
LOCAL WATER COMPANIES	PUBLIC & PRIVATE, WATER STORAGE & TREATMENT
PUBLIC UTILITY COMPANIES	PRIVATE
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CalFire)	STATE
AIR QUALITY MANAGEMENT DISTRICT	STATE/COUNTY
CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE	STATE
UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) - SOILS CONSERVATION	FEDERAL GOVERNMENT
UNITED STATES FISH AND WILDLIFE SERVICE	FEDERAL GOVERNMENT
BUREAU OF RECLAMATION	FEDERAL GOVERNMENT
UNITED STATES DEPARTMENT OF AGRICULTURE FOREST SERVICE (USFS)	FEDERAL GOVERNMENT
NATIONAL PARK SERVICE	FEDERAL GOVERNMENT
TOPANGA COALITION FOR EMERGENCY PREPAREDNESS	HOMEOWNER’S ASSOCIATION
SIXTY (60) CONTRACT AND FEE FOR SERVICE CITIES	LOCAL GOVERNMENT
TWENTY-EIGHT (28) INDEPENDENT CITY FIRE DEPARTMENTS	LOCAL GOVERNMENT
BUREAU OF LAND MANAGEMENT	FEDERAL GOVERNMENT



## Community Participation

### Fire Safe Councils (FSCs) – [California Fire Safe Council](#)

FSCs are grassroots community-driven organizations whose objective is making California's communities less vulnerable to catastrophic wildfire. FSCs protect residents and provide firefighters a safe place to fight the oncoming wildfire through education programs and fire hazard reduction projects such as shaded fuel breaks or home hardening. FSCs started in the early 1990s; there are now over 200 FSCs statewide. Through the FPU and community services liaisons (CSLs), the Department supports these community-based organizations and efforts. In the early 2000s, the Department developed support mechanisms for 15 active FSCs in LA County.



### NFPA Firewise Communities Program – [NFPA Firewise USA®](#)

Brush, grass, or forest fires do not have to be disasters. The National Fire Protection Association Firewise Communities program encourages local solutions for wildfire safety by involving homeowners, community leaders, planners, developers, firefighters, and others in the effort to protect people and property from wildfire risks.

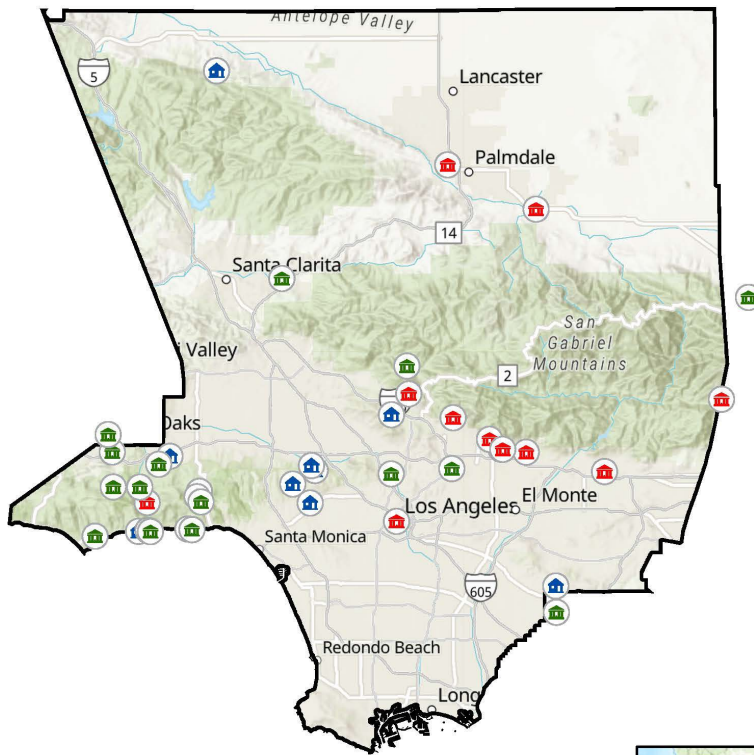


### Community Emergency Response Team (CERT) – [LACoFD CERT](#)

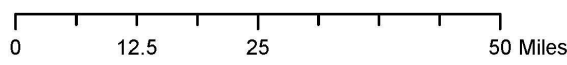
The CERT program educates and trains people in disaster preparedness for hazards impacting their community, providing basic disaster response skills, such as fire-safety, light search and rescue, team organization, and disaster medical operations. Using training learned in classrooms and exercises, CERT members can assist neighborhoods or workplaces when professional responders are not immediately available. CERT members are encouraged to support emergency response agencies by taking active roles in emergency preparedness projects in their community. In June 2003, the Department began offering the Federal Emergency Management Agency-approved 20-hour CERT training curriculum to cities and communities we serve.



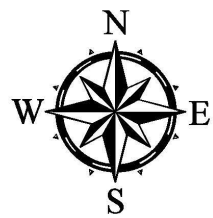
# County of Los Angeles Fire Safe Councils & Firewise Communities



-  Active Fire Safe Council
-  Historic Fire Safe Council
-  NFPA Firewise Community
-  LA County Boundary



NAD 83 FPU 03/31/2024 Scale: 1:1,000,000



Map by H. Hammoud, 2024

**16 Active Fire Safe Councils & 11 Firewise Communities in Los Angeles County**

## **SECTION III: VALUES**

### **PRIORITY LANDSCAPES OF LOS ANGELES COUNTY**

Priority Landscapes as defined by *California's Forests and Rangelands: 2010 Assessment* prepared by the California Department of Forestry and Fire Protection Fire and Resource Assessment Program (FRAP) are landscapes featuring assets, such as water supply, urban population, and ecosystems threatened by any form of damage (i.e., fire, pollution, pest damage, etc.). It also presents an analysis of trends, conditions, and the development of priority landscapes throughout California. Based on the FRAP assessment, communities in the WUI, rangelands, and protected habitats in LA County are considered high priority landscapes.



#### **The Federal Mandate**

In response to the 2008 Farm Bill, the 2010 FRAP Assessment shifted focus to a format developed by the USDA Forest Service for State forestry assessments. Each chapter included analyses of threats and assets to generate “Priority Landscapes,” to target potential areas more efficiently for investment and treatment.

The 2017 Assessment was developed in cooperation with our federal partners, including the Forest Service. However, the focus has changed to an indicator-based approach for tracking the State’s progress towards sustainability.

#### **The State Mandate**

By State law (PRC 4789), CAL FIRE must periodically assess California’s forest and rangeland resources. The previous effort was California’s Forests and Rangelands: 2010 Assessment. Assessment results are used by the State Board of Forestry and Fire Protection to develop and update a forest policy statement for California. In 2010, the strategy report, produced by FRAP as part of the Assessment process, served as the policy statement.

The 2017 Assessment considers various existing planning efforts; these range from local plans such as Community Wildfire Protection Plans to Statewide Plans, like the State Wildlife Action Plan, the State Water Plan, and the Forest Carbon Plan. The Assessment also integrates research related to renewable energy and climate change from the California Energy Commission, the Air Resources Board, California Department of Fish and Wildlife, and various academic institutions. Many reports and data sources were used in preparation of this Assessment, including extensive use of forest inventory data from the Forest Service’s Forest Inventory and Analysis program.

## TREE MORTALITY IN LOS ANGELES COUNTY

Approximately one million acres of forest within and adjacent to the San Bernardino, Cleveland, and Angeles National Forests have experienced severe tree mortality due to the drought-induced, pine bark beetle epidemic, Polyphagous Shot Hole Borer (PSHB), and Goldspotted Oak Borer (GSOB). These forests are directly adjacent to major metropolitan areas in LA County; however, tree mortality is also widespread within the WUI and urban areas. Fire risks from dead or dying trees pose a major threat to public safety, private property, and ecosystem health.

Currently, the Department, the Los Angeles County Department of Agricultural Commissioner/Weights and Measures (ACWM), the Los Angeles County Department of Public Works, the USFS and the local FSCs are actively involved in GSOB and PSHB monitoring and mitigation projects.

On January 27, 2016, the California Board of Forestry and Fire Protection declared the Community of Green Valley a Zone of Infestation (ZOI) for GSOB (Goldspotted Oak Borer). Emergency measures were taken to mitigate the hazard posed by the GSOB infestation, and long-term plans were put in place to help the forest recover and rehabilitate from the damage caused by this oak borer. In February 2019, a \$200,000 Fire Prevention grant was used to remove 143 infested trees. Additionally, the Department received a \$3 million Forest Health Grant in the same month to remove infested oak trees. This grant's primary goal was to preserve approximately 12,000 healthy trees by removing infested trees and controlling the spread of GSOB. This effort also supports reduced greenhouse gas emissions. Moreover, over 6,000 oak seedlings are being grown to promote reforestation and age-class diversity.

Unfortunately, in March 2024, a new GSOB infestation discovery was made on Mountains Recreation and Conservation Authority (MRCA) land, south of Santa Clarita, and 20 miles south of Green Valley. It appears that firewood movement is the most likely cause of this spread. This area is just 14 miles from the Santa Monica Mountains, where an estimated 600,000 coast live oaks reside.

As of March 2024, the Department contract vendors have removed 1,228 dead or infested trees. The Forest Health grant was successfully amended to include basal injections as another tool to preserve existing oak woodlands, decrease fire hazards, and increase defensible space. At this time, 785 trees have been injected, totaling 24,000 inches of diameter at breast height.

Forestry Division projects include spatial and quantitative data collection on vegetative mortality issues throughout LA County. The focus of this intensive forest inventory is being directed to hot spots (areas of most concern), which are showing the highest appearance of tree mortality and declining vegetation conditions. An assessment of viable treatment options and effective treatment activities is ongoing on private and public lands. Efforts monitoring spread of insect-related mortality, as well as ongoing hazard mitigations in the region are increasing workloads for Division personnel. Some of this work builds on existing CAL FIRE programs; however, challenges arise when projects overlap into private property.

Forest health, resilient landscapes, fire adapted, and Firewise communities are the main focus of land management planning and activities. Current Department work is supported by the National Fire Plan and California Strategic Fire Plan in developing short and long-term vegetation management and fire protection strategies.



Goldspotted Oak Borer Beetle



Camp Crews Chipping Infested Wood

**VALUES**

Generalized assets at risk must be identified within LA County to show areas containing high value assets. Areas with the highest combined asset values and fire risk are targeted for fire plan projects, particularly where such projects reduce damage if a fire starts in the project area during high fire-hazard weather.

In LA County, the following are priority values and assets at risk (in no prioritized order):

- Public and firefighter safety
- Water and watershed
- Vital infrastructure (power lines, gas lines, highways, roads, etc.)
- Structures
- Wildlife and habitat (including rare and endangered species)
- Air quality
- Soil erosion
- Recreation
- Agriculture and rangeland
- Cultural and historic resources

Potential projects are identified, and an objective analysis determines the degree projects will reduce potential suppression costs and damage to valued assets within the project area. The asset framework and validation process are refined as stakeholders are identified and participate in the fire plan process. Multiple agencies have played a vital role in identifying assets within LA County. Identifying locations of assets at risk is critical to fire protection planning. Fire protection resources should be allocated, in part, based on assets being protected. Considering resource limitations, a thorough understanding of assets at risk is necessary to determine pre-fire management projects providing the greatest benefit. The Department’s primary concern is reducing fire risk and potential loss of assets, providing safety and protection of life, property, and the environment, while reducing suppression costs. Public and firefighter safety is paramount. As development continues and expands into the WUI, it becomes exceedingly more difficult to provide protection against the threat of wildland fires.



<b>ASSETS AT RISK</b>	<b>PUBLIC ISSUE CATEGORY</b>	<b>LOCATION AND RANKING METHODOLOGY</b>
WATERSHEDS	PUBLIC SAFETY, PUBLIC WELFARE	WATERSHED WITH A HISTORY OF PROBLEMS OR PROPER CONDITIONS FOR FUTURE PROBLEMS. RANKS ARE BASED ON AFFECTED DOWNSTREAM POPULATIONS
SOIL	ENVIRONMENT	WATERSHED RANKED BASED ON EROSION POTENTIAL
WATER SUPPLY	PUBLIC HEALTH	1) WATERSHED AREA UP TO 20 MILES FROM WATER SUPPLY FACILITY 2) GRID CELLS CONTAINING DOMESTIC WATER DIVERSIONS, RANKED BASED ON NUMBER OF CONNECTIONS; 3) CELLS CONTAINING DITCHES THAT CONTRIBUTE TO THE WATER SUPPLY SYSTEM
SCENIC VALUE	PUBLIC WELFARE	FOUR MILE VIEWSHED AROUND SCENIC HIGHWAYS, RANKED BASED ON POTENTIAL IMPACT TO VEGETATION TYPES (TREE VS. NON-TREE TYPES)
AIR QUALITY	PUBLIC WELFARE, PUBLIC HEALTH, ENVIRONMENT	POTENTIAL DAMAGE TO HEALTH, MATERIALS, VEGETATION AND VISIBILITY; RANK BASED ON VEGETATION TYPE
HISTORIC BUILDINGS	PUBLIC WELFARE	FROM STATE OFFICE OF HISTORIC PRESERVATION, RANKED BASED ON FIRE SUSCEPTABILITY
RECREATION	PUBLIC WELFARE	UNIQUE RECREATION AREAS OR AREAS WITH POTENTIAL DAMAGE TO FACILITIES, RANK BASED ON FIRE SUSCEPTABILITY
STRUCTURES	PUBLIC WELFARE, PUBLIC SAFETY	RANK BASED ON HOUSING DENSITY AND FIRE SUSCEPTABILITY
NON-GAME WILDLIFE	PUBLIC WELFARE, ENVIRONMENT	CRITICAL HABITATS AND SPECIES LOCATION BASED ON INPUT FROM CALIFORNIA DEPT. OF FISH AND WILDLIFE AND OTHER STAKEHOLDERS
GAME WILDLIFE	PUBLIC WELFARE, ENVIRONMENT	CRITICAL HABITATS AND SPECIES LOCATION BASED ON INPUT FROM CALIFORNIA DEPT. OF FISH AND WILDLIFE AND OTHER STAKEHOLDERS
INFRASTRUCTURE	PUBLIC WELFARE, PUBLIC SAFETY	INFRASTRUCTURE FOR DELIVERY OF EMERGENCY AND OTHER CRITICAL SERVICES (I.E., REPEATER SITES, TRANSMISSION LINES)

California's Forests and Rangelands: 2010 Assessment identified a variety of "Priority Landscapes" applicable to all areas of California.

Based on the Priority Landscapes developed by the Assessment, 11 landscapes are considered immediate priorities for LA County. The following best identifies LA County's current issues, problem areas, and potential strategies:

1. Community Wildfire Planning
2. Population Growth and Development Impact
3. Preventing Wildfire Threats to Maintain Ecosystem Health
4. Restoring Wildfire Impacted Areas to Maintain Ecosystem Health
5. Preventing Wildfire Threats for Community Safety
6. Water Quality
7. Water Supply
8. Conserving Green Infrastructure
9. Managing Green Infrastructure
10. Threats to Forest Carbon from Wildfire, Insects, and Disease
11. Threats to Forest Carbon from Development

From the Priority Landscapes, the following Assets at Risk are identified as the highest concerns and should be addressed first:

- **Structures, Major Roads, and Transmission Lines** – as threatened from wildfire. The value of housing, measured by density, with susceptibility to loss (exposure). Fire access road vegetation clearance for ingress/egress. Power delivery and communication sites susceptible to extended loss of service due to fire or the simple interruption of these services is a public safety and welfare issue.
- **Ecosystems** – as threatened by localized development and landscape level development. Based on potential ecological damage from a severe fire event, areas can diverge significantly due to the historic fire return interval and development resulting in fuel conditions that could promote ecological damage (e.g., mortality within large tree diameters, soil impacts, and type conversions).
- **Water Supply, Water Quality** – as threatened by wildfire and the effects of wildfire on soil surfaces, threats to and from localized development, watersheds, and climate change. Watersheds can burn in the dry season and then discharge torrents of debris into downstream-populated plains during subsequent severe, wet-season storms.

## **SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES**

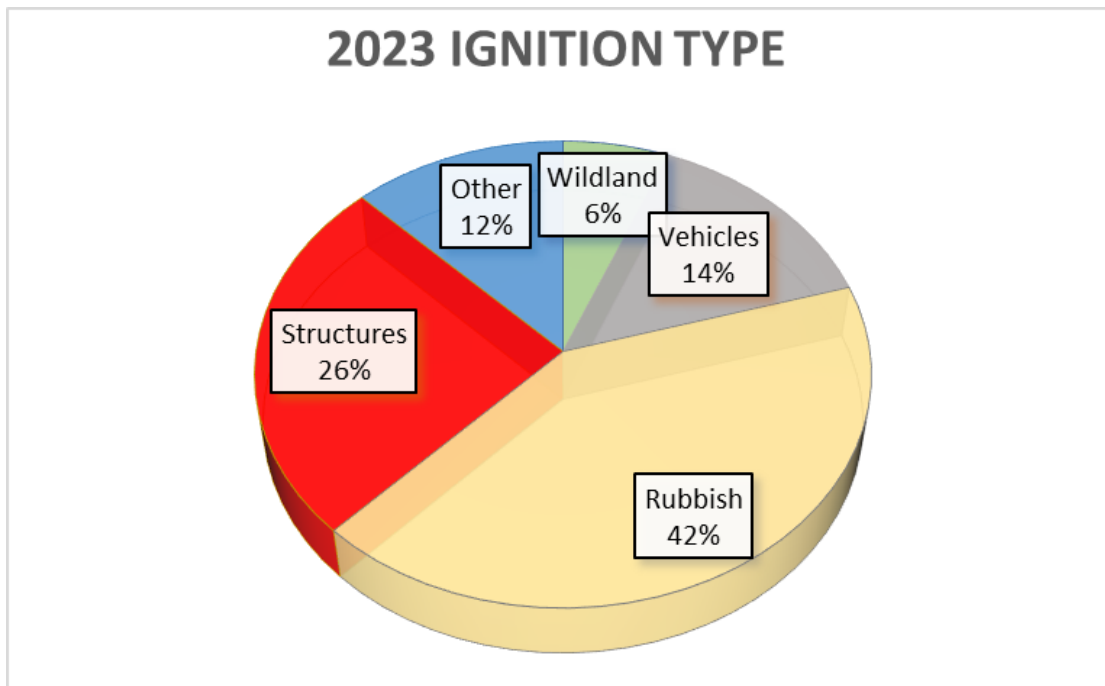
### **FIRE PREVENTION**

In 2023, the County recorded 9,030 ignitions (fire starts). Due to the large number of ignitions, the FPU evaluated and analyzed their cause to find methods in preventing fires from developing.

#### **Ignition Starts**

The largest number of fires are caused by outside rubbish fires at 3,775. The National Fire Incident Reporting System (NFIRS) reference guide describes outside rubbish fires as trash, waste fires, garbage dump or sanitary landfill fires, construction or demolition landfill fires, dumpsters, or other outside trash receptacle fires and outside stationary compactor, or compacted trash fires. Known sites can implement fire prevention practices, such as misters and defensible space implementation.

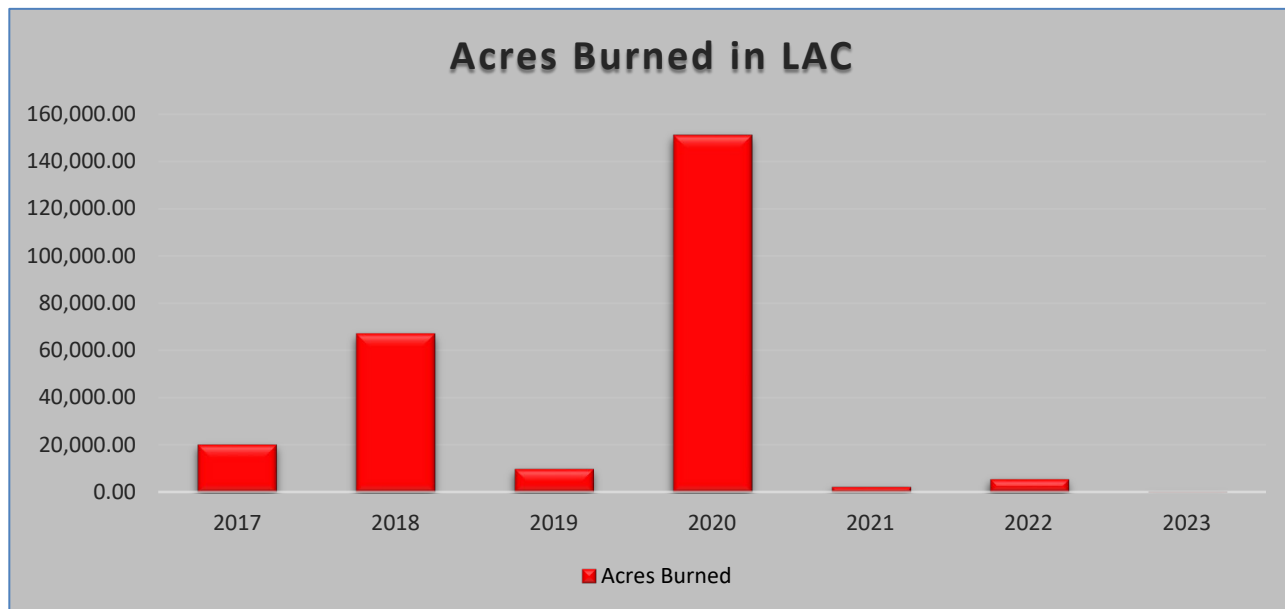
Structure fires are the next largest ignition category threatening LA County at 2,295. Fire prevention and public education programs can increase awareness and minimize structure loss.



**Ignition Types 2023**

Rubbish fires are the largest ignition source at 3,867, followed by 2,393 structure ignitions, 1,289 vehicle ignitions, 553 wildland ignitions, and 1,105 other ignition sources.

Roadway maintenance is an effective mitigation method for vehicle ignitions. There were 553 wildland ignitions along major and minor WUI access roads in 2023. Brush clearance must be completed for 10 feet on both sides of fire access roads.



2017-2023 Acres Burned

## Prevention

Fire Prevention’s focus is educating citizens in reducing the risk from hazardous conditions through programs such as Ready-Set-Go, home hardening inspections, and working with stakeholders to apply for wildfire education grants. These programs focus on awareness of fire causes and reducing fire damage costs. The Department’s FPU coordinates programs and activities to create efficient and timely Pre-Fire Management projects.

## Passive Protection

Passive protection such as defensible space, hazard fuel reduction, proper defensible space maintenance, fire-resistive landscaping, fire-resistive construction, and good housekeeping around structures plays a critical role in increasing wildfire survivability. The sum effect of passive protection is a force multiplier for active firefighting resources. A single firefighting resource may protect many more structures when passive protection is properly employed. In some cases, firefighting resources may not be necessary at all, thus freeing firefighters for additional assignments.

## Pre-Fire Management

The Pre-Fire Engineer (PFE) and unit staff work with myriad stakeholders and cooperators including federal, State, and local government entities, FSCs, individual citizens, and organizations to assist with the development and implementation of their fire plan. PFE programming includes the following: fire prevention, vegetation management, administration, and working under the Forestry Division Chief.

## Fire Prevention Engineering

The Fire Prevention Division is under the leadership of the Department's Fire Marshal. This Division focuses on educating communities on the benefits of proper safety practices and identifying and eliminating all types of hazardous conditions posing a threat to life, property, and the environment. Safety inspections are consistently conducted in commercial, industrial, and residential developments. Numerous fires are investigated and tracked. Acquired information is used to update fire codes and fire prevention best management practices.

**Arson/Fire Investigation Unit:** Conducts cause investigations of major alarm fires, wildland fires, suspected arson, and other fires. This unit interviews witnesses, collects evidence, writes reports, and conducts training programs for Department personnel.

**Codes and Ordinances Unit:** Conducts research, answers requests for information, and maintains the Department's legal and historic library. This unit proposes code changes to the California Fire Code and California Building Code groups and coordinates the fire code adoption process with all contract cities.

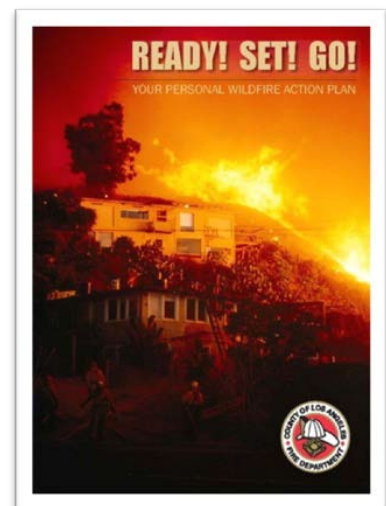
**Land Development Unit:** Reviews firefighting water requirements and Department access for projects prior to a public hearing.

**Building Plan Check Unit:** Performs nonstructural fire safety plan review and approves architectural plans for various occupancies.

**Information and Education:** The Public Information Officer (while not under Fire Prevention) works closely with prevention personnel to develop specific programs, educational materials, and public statements. Ultimately, public education is the responsibility of all members of the Department. Each section interacts with the public and is responsible for increasing the public's awareness of wildfire safety and preparedness. The Department uses several publications to provide safety information to citizens of LA County.

Among them are:

- ✓ Ready! Set! Go! – [LACoFD Ready! Set! Go!](#)
- ✓ Community Emergency Response Team (CERT) [LACoFD CERT](#)
- ✓ County of Los Angeles Fuel Modification Guidelines [LACoFD Forestry Fuel Modification](#)
- ✓ For a complete list of WUI fire prevention education materials, please visit: [LACoFD Fire Hazard Reduction Programs](#)





Additional WUI information and brochures are available through the Forestry Division’s Interpretive Unit at (818) 890-5723.

County of Los Angeles Fire Department  
 Website: [www.fire.lacounty.gov](http://www.fire.lacounty.gov)  
 Facebook: [www.facebook.com/LACoFD](https://www.facebook.com/LACoFD)  
 X: @LACo\_FD

## Community Fire Hazard Reduction Project Support

The Department’s Fire Plan Unit provides fire hazard reduction project design, development, planning, and implementation for communities in LA County.

### 2023-2024 County of Los Angeles Grant and Fire Plan Projects

County of Los Angeles Wildfire Prevention Grant Projects		
City of Claremont Human Services Department	Hazardous Fuels Reduction	Claremont Hills Wilderness Park, City of Claremont
Puente Hills Habitat Preservation Authority (PHHPA)	Puente Hills Hazardous Fuels Reduction Project	Puente Hills, City of Whittier
San Gabriel Valley Conversation Corps (SGVCC)	SGVCC Forest Resiliency and Youth Engagement (FRYE) Program	San Gabriel Valley, County of Los Angeles
Conservation Concierges & Social and Environmental Entrepreneurs (SEE)	Hazardous Fuels Reduction and Public Education	Community of Chatsworth-Lake Manor, City of Los Angeles
Emergency Preparedness in Calabasas (E.P.I.C. – FSC)	Home Hardening/Home Assessments	City of Calabasas
SGVCOG CWPP	Planning	San Gabriel Valley, County of Los Angeles
SGVCOG Prevention Outreach	Wildfire Prevention Outreach/ Education	San Gabriel Valley, County of Los Angeles
City of Hidden Hills	Hazardous Fuels Reduction	City of Hidden Hills
County of Los Angeles Fire Department	Excavator Purchase for Fuels Reduction Projects	County of Los Angeles
City of Los Angeles Bureau of Sanitation	Hazardous Fuel Reduction	Lopez Canyon, City of Los Angeles
Boy Scouts of America – Camp Josepho	Defensible Space Fuels Reduction	Pacific Palisades, City of Los Angeles
Montebello Fire Department	Hazardous Fuels Reduction and Public Education	Whittier Narrows Recreation Area, City of Montebello
Mount Saint Mary’s University	Wildfire Prevention/Hazardous Fuels Reduction	Mount Saint Mary’s University Campus, City of Los Angeles
City of Rolling Hills Estates	Hawthorne Blvd. Hazardous Fuels Reduction Project	City of Rolling Hills Estates
Resource Conversation District of the Santa Monica Mountains (RCDSMM)	HIZEP: Home Ignitions Zone Evaluation Program	Santa Monica Mountains, County of Los Angeles
Wildlife Waystation	Hazardous Fuels Reduction	Little Tujunga Canyon, City of Los Angeles

### County of Los Angeles Wildfire Prevention Grant Projects

Organization		
Glendale Fire Department	Fire Reduction/Brush Abatement	City of Glendale
County of Los Angeles Fire Department (LACoFD)	Goldspotted Oak Borer Forest Health Grant	Community of Green Valley, County of Los Angeles
Mountains Recreation and Conservation Authority (MRCA)	2023 MRCA Hazardous Fuels Reduction	County of Los Angeles
U.S. Green Building Council Los Angeles	Wildfire Defense Education & Tours	Various – Educational Workshops

### County of Los Angeles Fire Department Hazardous Fuels Reduction Projects

Description				
VMP Fuels Reduction Project	Broadcast Burn, Thinning	Planned	50	Tonner Canyon, City of Industry
Annual Motorway Maintenance	Grading, Roadside Mastication	Completed Annually	75 miles	County of Los Angeles
Bradbury-Duarte Hazardous Fuel Reduction Project	Thinning, Chipping, Pile Burn	Active	4	City of Duarte
Helispot 69 B Fuels Reduction	Prescribed Herbivory	Planned Q3 2024	32	Community of Topanga
Newhall Pass Fuels Reduction Project	Prescribed Herbivory	Planned	30	City of Santa Clarita
ISHB Tree Removal	Thinning, Air Curtain Burner	Planning	2	Tapia State Park
Henninger Flats CalVTP	Thinning, Pile Burn, Broadcast Burn	Writing CalVTP	100	City of Altadena
Bonelli and 57 Freeway Corridor	Broadcast Burn	Planned	20	City of Diamond Bar
Bonelli Park Interior Rx	Broadcast Burn	Completed in Maintenance	17	City of Diamond Bar
JPL CalVTP	Broadcast Burn, Thinning	Planning	50	City of Pasadena
Pitchform Ranch VMP	Broadcast Burn, Thinning	In Progress	15	Community of Leona Valley
Spring Drills Live Fire Training	Broadcast Burn	Completed Annually	25	City of Santa Clarita
Transition Habitat Conservancy Tumbleweed Rx	Pile Burn, Habitat Improvement	Completed Annually	3	City of Antelope Valley

## Engineering and Structure Ignitability

All newly constructed homes in the Fire Hazard Severity Zone (FHSZ) are subject to strict construction guidelines. Metal mesh with openings no greater than one-eighth inch (1/8") is required over all attic vents to prevent or limit ember intrusions. All eaves must be "boxed in," limiting susceptible exposed wood. Windows must be one-hour fire-rated, which means they can withstand one hour of heat from a wildfire before breaking. These are just a few specific preventive methods reducing structure damage and loss that are contained in the LA County Building Code.

## FORESTRY DIVISION



Since its inception in 1911, the Department's Forestry Division has been involved in conservation and natural resource protection through its forestry programs. The Division is comprised of three sections: Wildfire Mitigation and Prevention, Public Education and Outreach, and Defensible Space. Forestry Division employees serve citizens by using acquired knowledge to preserve and enhance the environment for the benefit of all residents of LA County. The Division is responsible for reviewing environmental documents related to development and protection of Oak tree resources, development of vegetation management projects, coordination of wildland fire planning, enforcement of the Department's Defensible Space Program, fuel modification plan review, FSC support, and California Strategic Fire Plan implementation.

As LA County's population increases, further expansion of residential areas into the WUI is inevitable. Panoramic views, wildlife, fresh air, and solitude are just a few reasons people choose to live in wildland areas of LA County. Rewards may be numerous, but the increased risk of wildland fires, subsequent flooding and erosion pose a serious threat to life and property.

## WILDFIRE MITIGATION AND PREVENTION SECTION

### Fire Plan Unit

The Forestry Division's Fire Plan Unit (FPU) is in charge of implementing the California Strategic Fire Plan (drafted by the CAL FIRE and the Board of Forestry) and the County of Los Angeles Unit Fire Plan in LA County. The planning process defines a level of service, considers assets at risk, incorporates the cooperative inter-dependent relationships of wildland fire protection providers, provides for public stakeholder involvement, and creates a fiscal framework for policy analysis.

The FPU works with communities and organizations across LA County to limit fire risk in WUI areas. The FPU focuses on strategic wildfire mitigation by modeling fire hazard with Geographic Information Systems (GIS) and identifying the most effective fuels reduction treatments per project site. This provides a prescription to limit loss from catastrophic wildfire by using the right treatment in the right place to protect lives and property while

minimizing environmental impacts. The FPU coordinates programs and activities with the intent of creating efficient and timely pre-fire management projects.

### **Vegetation Management Program**

The Vegetation Management Unit (VMU) assists with planning and implementing projects using the Board of Forestry California Vegetation Treatment Program and CAL FIRE Vegetation Management Program. This unit helps the Pre-Fire Engineer plan vegetation treatments to reduce wildfire risk while ensuring compliance with the California Environmental Quality Act (CEQA).

The VMU works closely with the Air and Wildland Division's Prescribed Fire Office to implement projects outlined in this fire plan (aligning with the Department's priority areas) to reduce hazardous vegetation around WUI communities, to construct fuel breaks, and to restore healthy ecological fire regimes.

### **Environmental Review Unit**

The Forestry Division's Environmental Review Unit (ERU) collaborates with the Los Angeles County Department of Regional Planning (DRP) in implementing environmental ordinances. ERU personnel review all County Oak tree permit applications submitted through the DRP and develop implementation recommendations. Additionally, unit personnel produce environmental documentation and recommendations, such as, non-significant impact documents, negative declarations, and mitigation measures consistent with CEQA mandates for construction projects and developments. The ERU ensures the Department's Forestry Division statutory responsibilities are addressed in the project planning phase.

## **DEFENSIBLE SPACE SECTION**

### **Defensible Space Inspection and Enforcement Program (DSU)**

The Defensible Space Program is a joint effort between the Department and the ACWM Weed Abatement Division. This unified enforcement legally declares improved and unimproved properties a public nuisance, and where necessary, requires the clearance of hazardous vegetation. These measures create "defensible space" for effective fire protection of life, the environment, and property. The Department's DSU enforces the Fire Code regarding clearance on improved parcels, coordinates inspections, and compliance efforts with fire station personnel, and provides annual defensible space training to station personnel. The DSU collaborated with CAL FIRE database developers to ensure consistent reporting.

Approximately 113,000 existing homes in the FHSZ were inspected by fire personnel in 2023. These inspections are performed in the spring and summer to evaluate properties for adequate defensible space. LA County requires the State's 100 feet of clearance and may extend fire hazard reduction up to 200 feet depending on aspect, slope, and environmental conditions. Defensible Space inspection guidelines require no vines on structures, or large trees within the first 30 feet of the home. Inspectors look for adequate vegetation removal and breaks in fuel continuity and density. Depending on slope direction

from the structure, fire intensity can be mitigated by decreasing density and clearing vegetation. If a property is found to be non-compliant, LA County has a process to inspect improved parcels and may impose fines and fees for inadequate fire hazard reduction. A non-compliant property requiring clearance by the Los Angeles County ACWM will be charged an administrative fine and assessed an abatement enforcement fee.



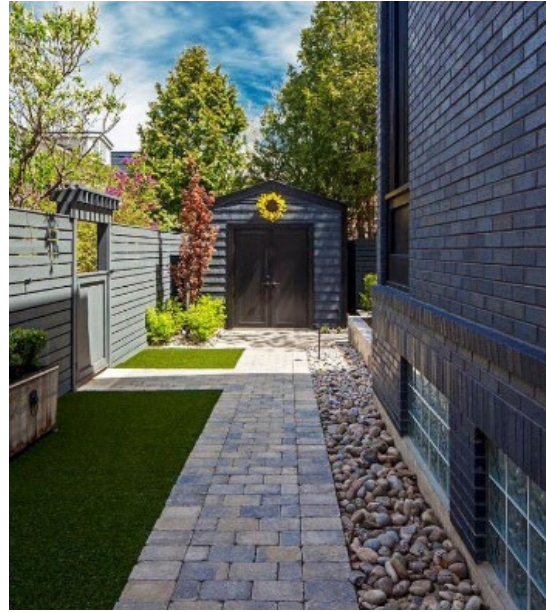
Defensible Space Zones

## PUBLIC EDUCATION AND OUTREACH SECTION

### Fuel Modification Unit (FMU)

The Forestry Division's FMU objective is to ensure defensible space necessary for effective fire protection in newly constructed homes (or remodeled 50% or greater) within the State's FHSZ. The FMU provides guidelines and reviews landscape plans for approval before construction or additions to a structure. Fuel modification reduces radiant and convective heat and provides valuable defensible space for firefighters to make an effective stand against an approaching fire front. A fuel modification plan identifies specific zones subject to fuel modification within a property. Once homes are constructed, an inspection is performed confirming implementation of the approved landscape plan. After the occupancy inspection, fuel modification parcels are moved into the Defensible Space Inspection Program.





**Fuel Modification Landscapes**

A fuel modification zone is a restricted or limited planting area around a structure where vegetation (ornamental and/or native) has been modified and/or partially or totally replaced with drought-tolerant, low-fuel-volume plants. Zones may extend to 200 feet from structures. Fuel Modification Guidelines can be found at: [LACoFD Forestry Fuel Modification](#).



**Fuel Modification Example Landscapes**

## **FIRE SUPPRESSION PHILOSOPHY**

Life safety is the number one priority for fire suppression efforts: during a WUI fire, protection of firefighters and civilians is paramount, followed by values at risk and natural resources. Rules and guidelines have been developed protecting firefighters and the public. These guidelines can help the public understand why firefighters perform specific tactics during wildfires.

Some of these guidelines are: *The 10 Standard Firefighting Orders, the 18 Watch-Out Situations, the Risk Management Process, Primary, Alternate, Contingent, Emergency Plans (P.A.C.E.), and the WUI Guidelines.* In extreme wildfire conditions, such as a Santa Ana wind event, it can be extremely unsafe and unrealistic for firefighters to make an effective defensive stand on ALL values at risk in the WUI area.

With all wildfires, specific strategic and tactical actions must take place. From initial dispatch to containment of a wildfire unified command has become best practice. To accomplish this, all fire agencies in LA County and the State use the National Incident Management System.

When a wildfire grows beyond initial attack, particularly in the WUI, two primary focuses are perimeter control and structure defense. These are identified by the Incident Commanders and developed in the Incident Action Plan. In addition, firefighting resources are assigned in the Operational area for tactical patrol to monitor values at risk after the fire front has passed.

## **THE FIRE PROTECTION SYSTEM**

Although fire is a necessary component of local ecosystems, in most cases, unchecked wildfire is no longer a viable fire/fuel management option in LA County. This is due to population growth and assets at risk having interfaced and intermixed with wildlands to an extent that uncontrolled fires must be quickly extinguished. Therefore, the main emphasis of wildfire protection in LA County is an aggressive initial response firefighting strategy.

## **DIVISION/BATTALION/PROGRAM PLANS**

The FPU assessment process utilizes weather, assets at risk, fuels and input from various regions, bureaus, divisions, and battalions to determine priority areas and prioritize hazard fuel reduction projects. The Fire Plan Assessment, with its science-based approach, is evaluated in conjunction with other intangibles to arrive at a "reasonable" assessment of the needs and likelihood of accomplishing a project.

The current assessment indicates there is a significant need for fuels reduction work throughout foothill communities, especially in WUI areas adjacent to local mountain ranges, such as, the Santa Monica Mountains, the Angeles National Forest, Verdugo, and San Rafael Mountains.



Each battalion was consulted to determine pre-fire management projects considered important in reducing wildfire potential and impacts. Projects are assigned a relative ranking by the Vegetation Management Unit. Theoretically, a project with the highest hazard would have the highest priority.

Nonetheless, there are a number of circumstances where projects less than the highest priority are given preference. Some of these circumstances include the following: the Department's current commitment to an existing pre-fire project, community participation necessary to complete a project, the preparatory work and ease of instituting the project, the project type, a required match for grant-funded projects and the established commitment between the Department, Fire Safe Councils, and communities. The FPU's primary function is to identify, propose, and support Countywide fire hazard reduction projects.



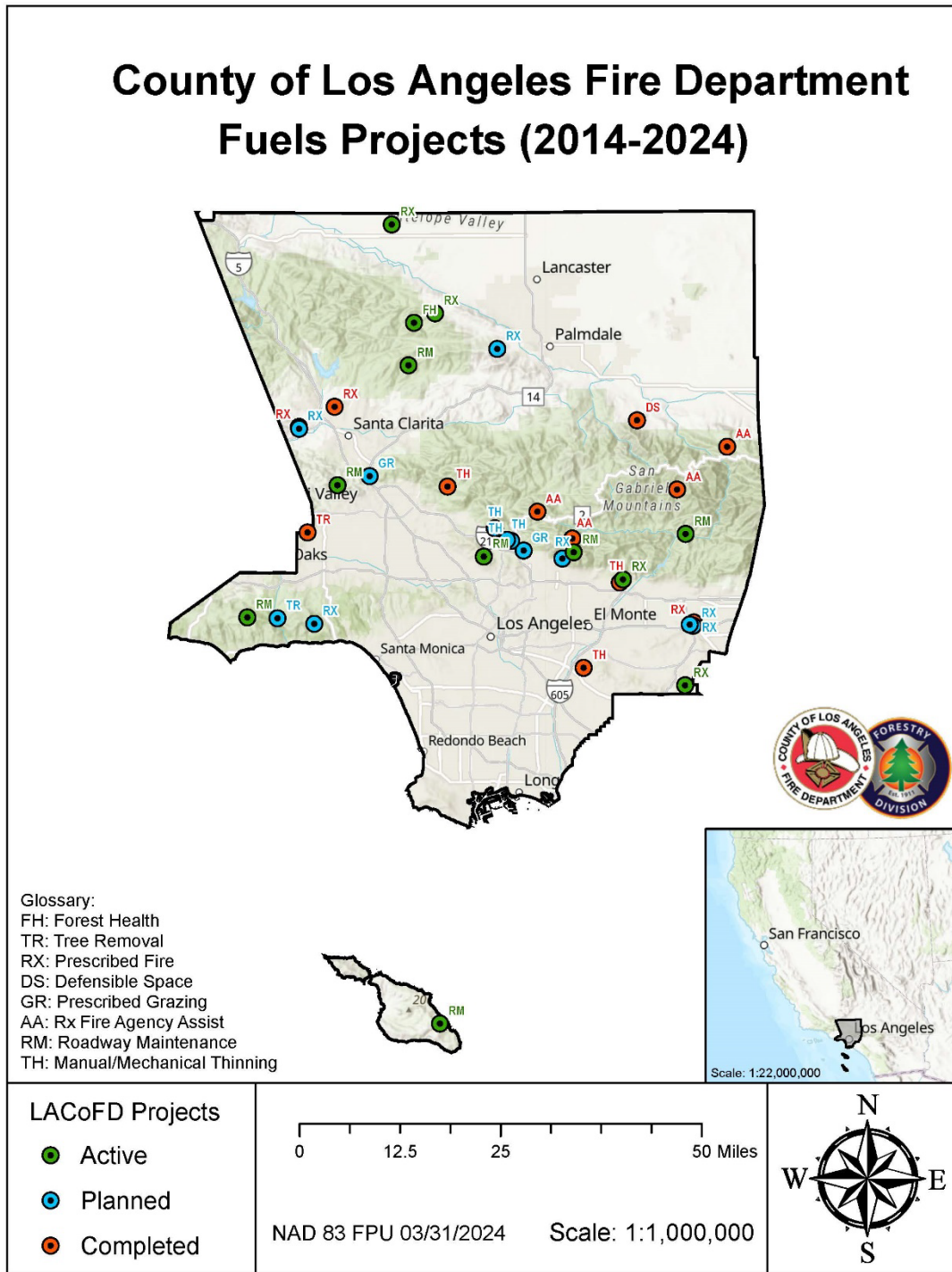
**Defensible Space Before Mitigation**



**Defensible Space After Mitigation**

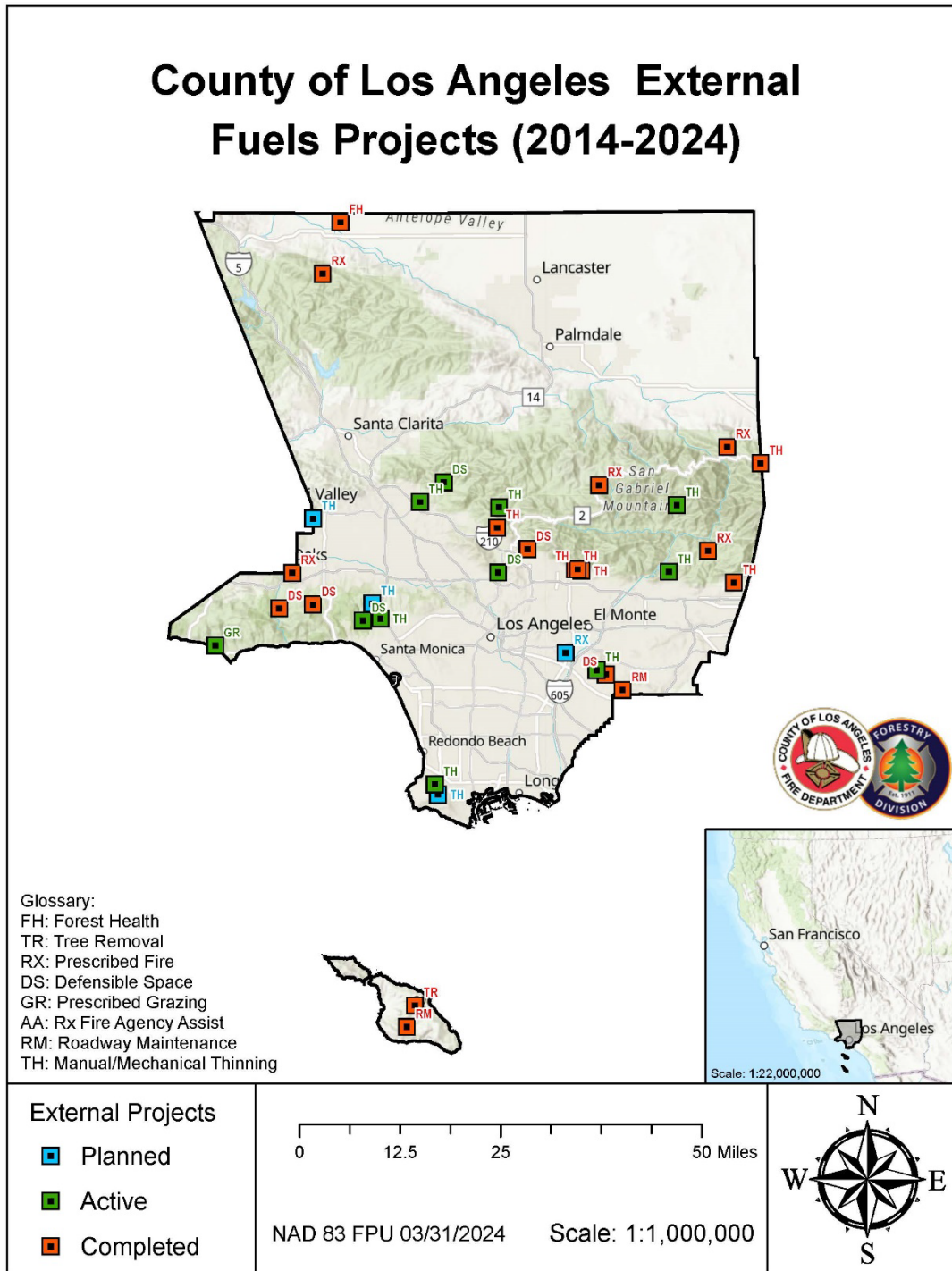
**APPENDIX A: PRE-FIRE PROJECTS MAPS**

**Fuels Reduction Projects Managed by Los Angeles County Fire Department:**



**12 Active, 12 Planned, and 12 Completed Fuels Reduction & Forest Health Projects under LACoFD**

**Fuels Reduction Projects Managed by External Orgs. in Los Angeles County:**



**11 Active, 4 Planned, and 19 Completed Fuels Reduction & Forest Health Projects in LAC**

## **APPENDIX B: DEPARTMENT GOALS AND OBJECTIVES**

The Department's mission statement is to protect lives, the environment, and property by providing prompt, skillful, and cost-effective fire protection and life safety services. This mission compliments the goal of the 2018 California Strategic Fire Plan. Therefore, the Department will continue to support and align with the intent of the 2018 California Strategic Fire Plan by addressing identified objectives. The goals of the Department's Unit Fire plan are as follows:

- Analyze the potential of wildfire threats to communities at the battalion level within and adjacent to the WUI.
- Prioritize within each battalion where hazardous fuel reduction projects can make the largest impact to protection of life, property, and natural resources.
- Develop battalion-specific maps identifying prioritized values and assets, and at-risk communities.
- Develop battalion-specific strategies and tactics within the Department's Unit Fire Plan.
- Determine large scale fire prevention strategies which parallel the County's land use planning strategies.
- Continue to reach out and assist communities at risk to establish local FSCs and establish appropriate defensible space.
- Continue to work with communities at risk to develop Community Wildfire Protection Plans.



# APPENDIX C: 2023 STATISTICAL SUMMARY

Ga



County of Los Angeles  
**Fire Department**  
 Fire Chief Anthony C. Marrone

# 2023 STATISTICAL SUMMARY

## FIRE DEPARTMENT — Three Year Data 2021-2023

	2023	2022	2021
Acreage Burned	5,002	4,946	2,261

FIRE INCIDENTS			
Structures	2,833	2,722	2,943
Vehicles	1,492	1,544	1,646
Rubbish	4,529	4,015	4,482
Brush / Grass	613	593	753
Outside Storage	309	276	330
Misc. Property	1,005	1,125	1,219
<b>TOTAL</b>	<b>10,781</b>	<b>10,275</b>	<b>11,373</b>

EMERGENCY MEDICAL RESPONSES			
<b>TOTAL</b>	<b>331,434</b>	<b>332,531</b>	<b>312,550</b>

OTHER INCIDENTS			
False Alarms	10,398	10,326	13,478
Mutual Aid Provided	2,526	2,260	2,144
Haz-Mat	786	679	677
Misc. Incidents	93,439	77,093	63,702
<b>TOTAL</b>	<b>107,149</b>	<b>90,358</b>	<b>80,001</b>
<b>TOTAL INCIDENTS</b>	<b>449,364</b>	<b>433,164</b>	<b>403,924</b>

## Fire Loss in Dollars 2021-2023

	2023	2022	2021
Property and/or Structure	\$ 85,401,965	\$ 95,444,395	\$ 110,734,401
Vehicle	\$ 14,646,089	\$ 19,238,401	\$ 17,518,706
All Others	\$ 2,594,461	\$ 1,436,421	\$ 1,759,367
<b>Total Dollar Loss</b>	<b>\$ 102,642,515</b>	<b>\$ 116,119,217</b>	<b>\$ 130,012,474</b>

## LIFEGUARD - Three Year Data 2021-2023

	2023	2022	2021
Ocean Rescues	5,977	10,714	9,286
Medical Calls	12,131	14,066	13,303
Boat Rescues (Distress)	425	438	435
Missing Persons	382	631	634
O2 Therapy	105	121	112
Drownings	1	3	3
<b>Beach Attendance</b>	<b>34,894,826</b>	<b>76,533,245</b>	<b>51,869,968</b>

3,961,285 Residents  
 1,295,894 Housing Units  
 60 District Cities and all  
 Unincorporated Communities  
 2,311 Square Miles

### DIVISION I

Battalions 7, 14 & 18 – 10 Cities

CARSON  
 GARDENA  
 HAWTHORNE  
 HERMOSA BEACH  
 LAWDALE  
 LOMITA  
 PALOS VERDES ESTATES  
 RANCHO PALOS VERDES  
 ROLLING HILLS  
 ROLLING HILLS ESTATES

### DIVISION II

Battalions 2 & 16 – 9 Cities

AZUSA  
 BALDWIN PARK  
 BRADBURY  
 CLAREMONT  
 COVINA  
 DUARTE  
 GLENORA  
 IRVINDALE  
 SAN DIMAS

### DIVISION III

Battalions 4, 6 & 22 – 2 Cities

LA CAÑADA FLINTRIDGE SANTA CLARITA

### DIVISION IV

Battalions 8, 9 & 21 – 12 Cities

ARTESIA  
 BELLFLOWER  
 CERRITOS  
 HAWAIIAN GARDENS  
 LA HABRA  
 LAKEWOOD  
 LA MIRADA  
 NORWALK  
 PARAMOUNT  
 PICO RIVERA  
 SIGNAL HILL  
 WHITTIER

### DIVISION V

Battalions 11 & 17 – 2 Cities

LANCASTER PALMDALE

### DIVISION VI

Battalions 13 & 20 – 7 Cities

CUDAHY  
 HUNTINGTON PARK  
 INGLEWOOD  
 LYNWOOD  
 MAYWOOD  
 SOUTH GATE  
 VERNON

### DIVISION VII

Battalions 1 & 5 – 6 Cities

AGOURA HILLS  
 CALABASAS  
 HIDDEN HILLS  
 MALIBU  
 WEST HOLLYWOOD  
 WESTLAKE VILLAGE

### DIVISION VIII

Battalions 12, 15 & 19 – 5 Cities

DIAMOND BAR  
 INDUSTRY  
 LA PUENTE  
 POMONA  
 WALNUT

### DIVISION IX

Battalions 3 & 10 – 7 Cities

BELL  
 BELL GARDENS  
 COMMERCE  
 EL MONTE  
 ROSEMEAD  
 SOUTH EL MONTE  
 TEMPLE CITY



# 2023 STATISTICAL SUMMARY

## PERSONNEL

Chief Officers	119	Administrative Professionals	757
Captains	699	Lifeguards Permanent	177
Firefighter Specialists	742	Lifeguards Recurrent	602
Firefighter Paramedics	753	Dispatchers	96
Firefighters	607	Foresters	28
Call and Patrol Firefighters	50	Haz Mat Specialists	89
Fire Suppression Aides	170	Other	54
Pilots	10	<b>TOTAL PERSONNEL</b>	<b>4,953</b>



## EMERGENCY OPERATIONS

Battalions	22	Hazardous Materials Task Force	4
Fire Stations	175	USAR Task Force	2
<b>Engine Companies</b>	<b>228</b>	Swift Water Rescue Units	6
Type I	176	Fire Boats	2
Type III	11	Foam Units	3
Patrols	41	Mobile Air/Light Units	3
<b>Truck Companies</b>	<b>35</b>	Water Tenders	13
Light Forces	3		
Quints	32		
<b>Paramedic Units</b>	<b>113</b>		
Paramedic Air Squads	3		
Assessment Engines	28		
Assessment Quint/Light Force	1		
Paramedic Engines	6		
Paramedic Squads	75		

## RESERVE EQUIPMENT

Engines	61
Trucks/Quints	11
Squads	29
Battalion Command Vehicles	21

## LIFEGUARD DIVISION

Lifeguard Stations	24
Lifeguard Towers	159
Beach Patrol Vehicles	58
Baywatch Boats	8
Baywatch Paramedic Boats	2
Baywatch Paramedic Squads	2

## HEALTH HAZ MAT DIVISION

Emergency Responses	894
Response Teams	3

## AIR & WILDLAND DIVISION

### Air Operations

Brush Fire Responses	240
EMS Helicopter Transports	582
Hoist Rescues	97
Gallons Dropped	302,080

### Helicopters

Bell 412	5
Firehawk	5

### Fire Suppression Camps

Paid	4
Correctional (CDCR)	5

### Fire Suppression Crews

Paid	8
Correctional (CDCR)	9

### Heavy Equipment

Dozers	10
Dozer Transport Trucks	10
Fuel-Tender	1
Heli-Tenders	9
Excavator	2
Heavy Dump Truck	1
Track Loader	3
Rubber Tire Loader	3
Other	11

## FORESTRY DIVISION

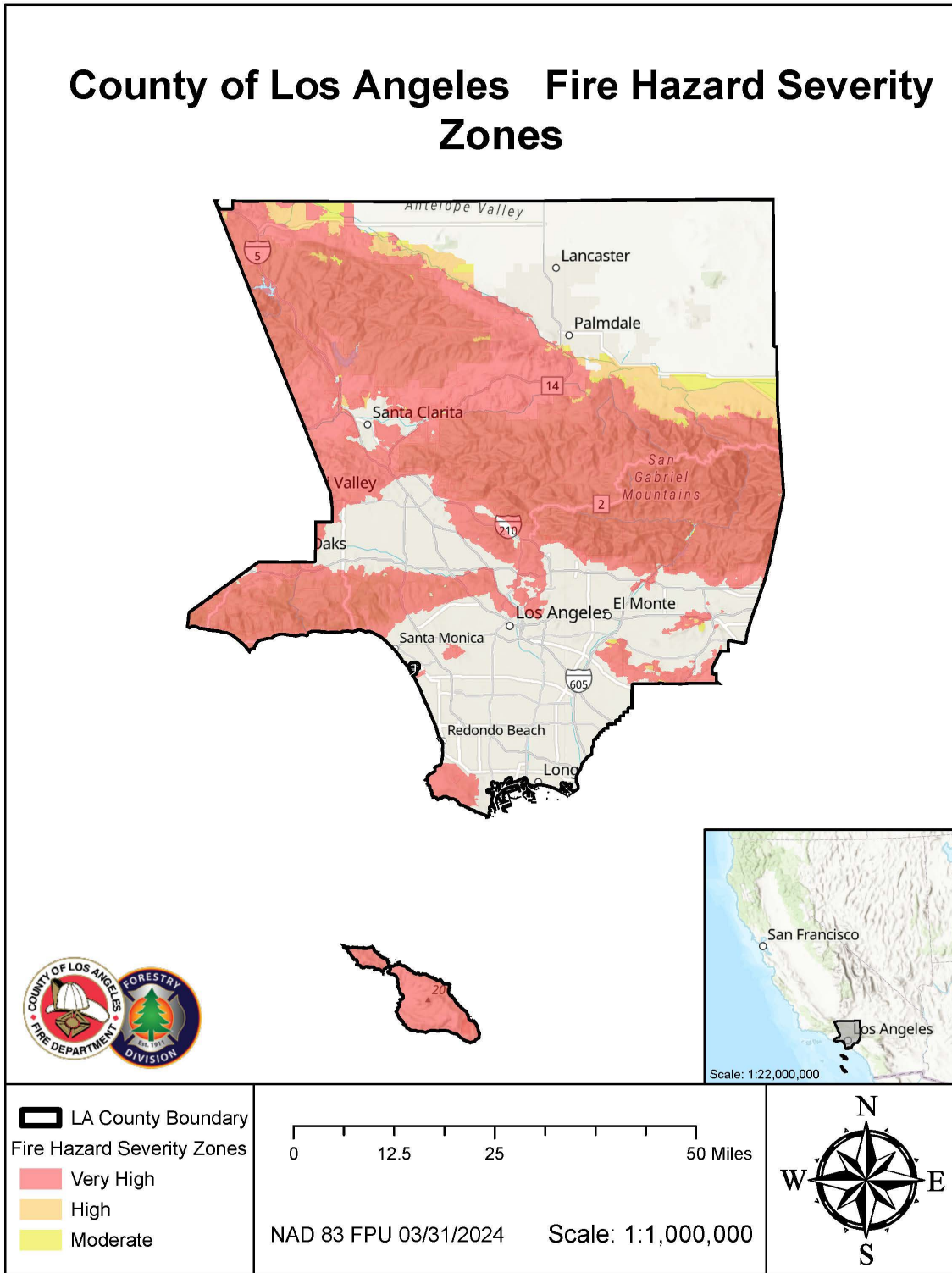
Fuel Modification Plans Reviewed	2,627
Defensible Space Inspections	113,321



**COUNTY OF LOS ANGELES FIRE DEPARTMENT BRUSH FIRE LOG 2023**

<b>Name</b>	<b>Incident Number</b>	<b>Jurisdiction</b>	<b>Date</b>	<b>SRA Area</b>	<b>SRA Buffer Area</b>	<b>CFPD Area</b>
Tuna Fire	24857	FS 70	1/21/2023	0	0.9	0.9
Hurst Fire	200728	FS 73	6/17/2023	0	2.1	2.1
Largo Fire	204421	FS 79	6/20/2023	9.8	0	9.8
Franklin Fire	215391	FS 77	6/29/2023	4.3	6.1	10.4
Chantry Fire	233541	ANF	7/2/2023	0	3.7	3.7
Peter Fire	220515	FS 80	7/3/2023	13.8	0	13.8
Kanan Fire	248393	FS 65	7/25/2023	0	7.8	7.8
Victor Fire	248830	FS 73	7/25/2023	0	53.3	53.3
Owen Fire	72623	FS 69	7/26/2023	11.9	0	11.9
Baker Fire	294539	FS 81	8/15/2023	12.9	0	12.9
Rock Fire	361087	FS 140	10/21/2023	7.5	0	7.5
Greg Fire	385338	FS 132	11/2/2023	4.5	0	4.5
Don Fire	384155	FS 69	11/9/2023	4.4	0	4.4
Wagon Fire	411899	FS 132	11/10/2023	4.5	0	4.5
<b>TOTAL</b>				<b>73.6</b>	<b>73.9</b>	<b>147.5</b>

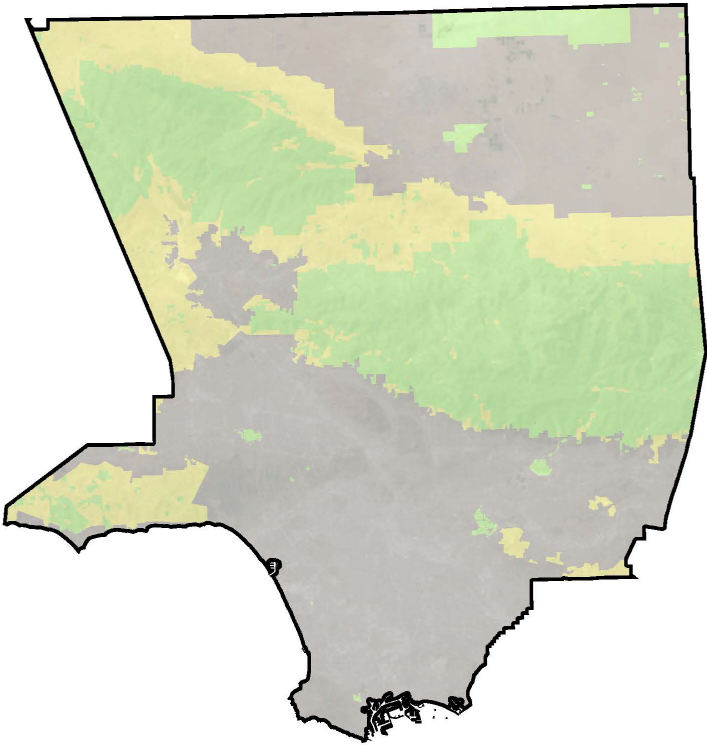
**EXHIBITS: MISCELLANEOUS MAPS**







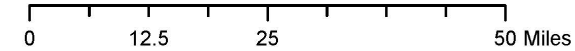
Map by H. Hammoud, 2024



# County of Los Angeles Responsibility Areas



-  LA County Boundary
-  Local Responsibility Area (LRA)
-  State Responsibility Area (SRA)
-  Federal Responsibility Area (FRA)

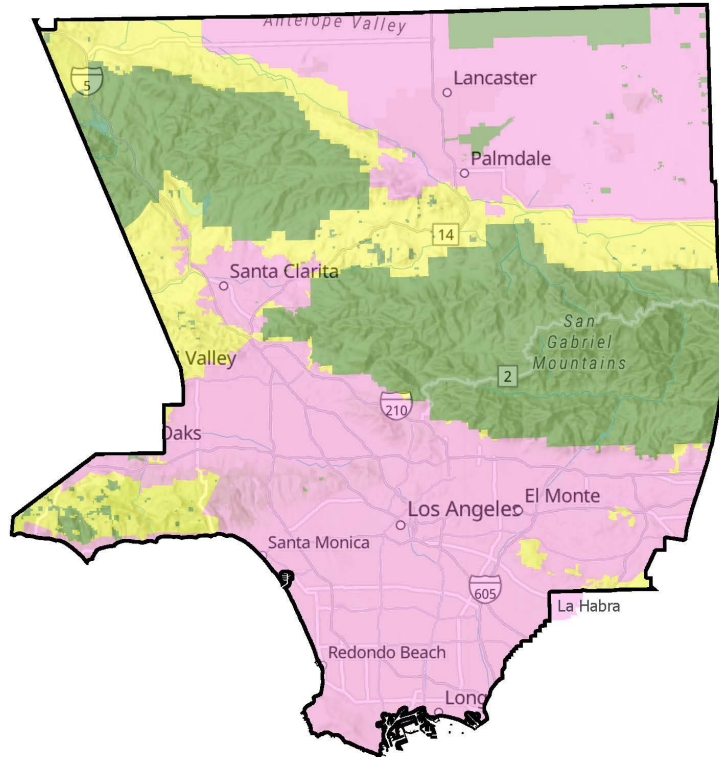


NAD 83 FPU 03/31/2024      Scale: 1:1,000,000



Map by H. Hammoud, 2024

# County of Los Angeles Direct Protection Areas

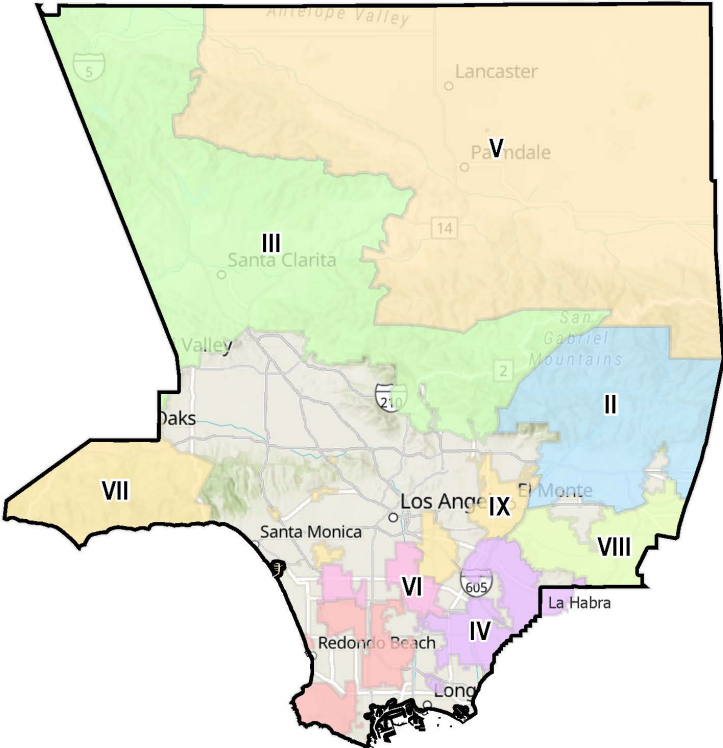


<p><b>LA County Boundary</b></p> <p><b>DPA Class</b></p> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span> Federal</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFFF00; border: 1px solid black; margin-right: 5px;"></span> State</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFB6C1; border: 1px solid black; margin-right: 5px;"></span> Local</li> </ul>	<p>0 12.5 25 50 Miles</p> <p>NAD 83 FPU 03/31/2024    Scale: 1:1,000,000</p>	
---	--	--

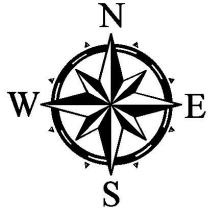
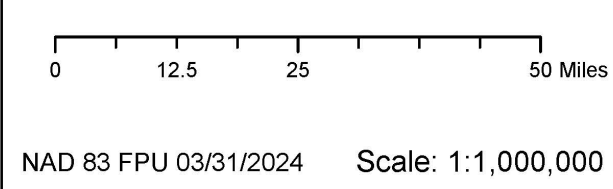
Map by H. Hammoud, 2024



# County of Los Angeles Fire Department Divisions

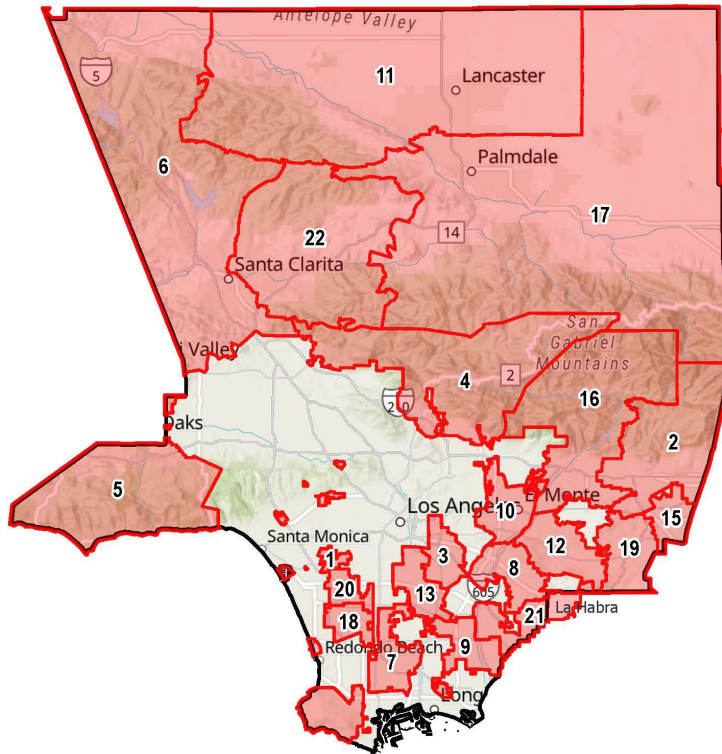




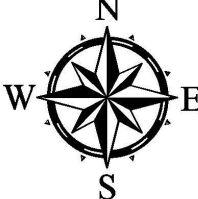
	IX
LACoFD Divisions	V
I	VI
II	VII
III	VIII
IV	



Map by H. Hammoud, 2024

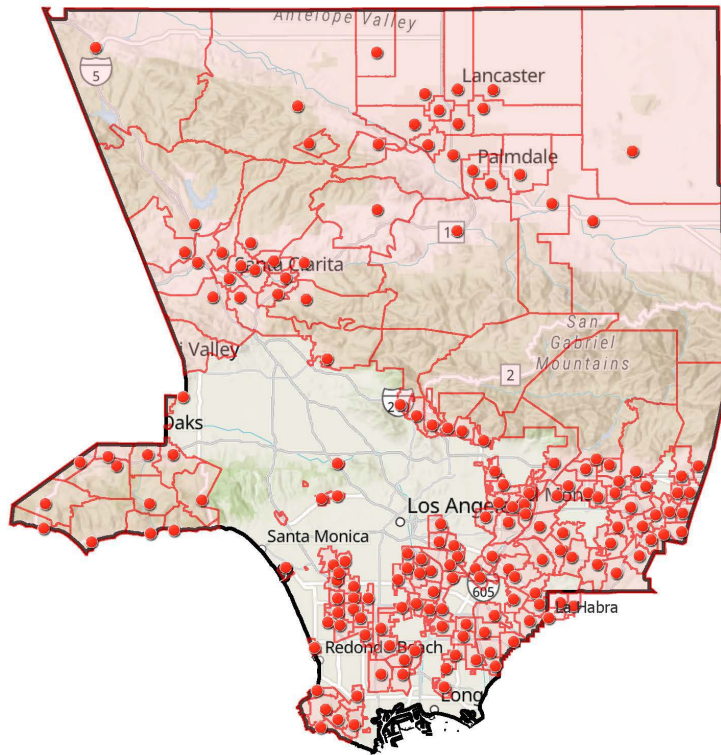
# County of Los Angeles Fire Department Battalions



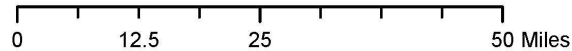
<p> Battalion Boundaries</p> <p> LA County Boundary</p>	<p>0 12.5 25 50 Miles</p>	
<p>NAD 83 FPU 03/31/2024      Scale: 1:1,000,000</p>		

Map by H. Hammoud, 2024

# County of Los Angeles Fire Department Fire Stations

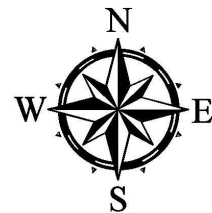


- Fire Station
- Fire Station Boundaries
- LA County Boundary



NAD 83 FPU 03/31/2024

Scale: 1:1,000,000



Map by H. Hammoud, 2024

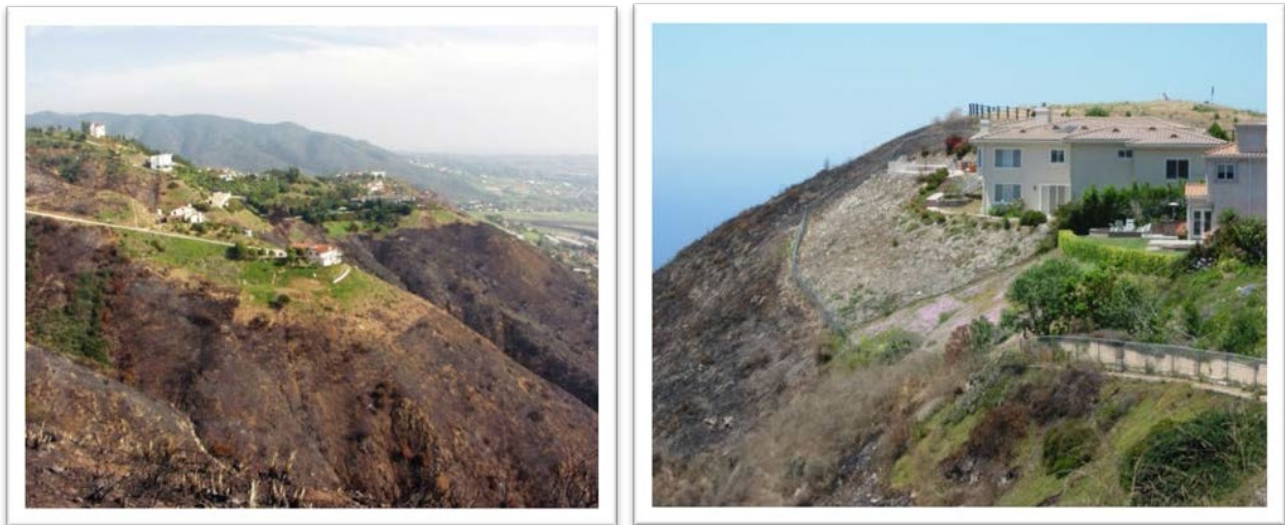
## 2023 ACCOMPLISHMENTS

### ANNUAL REPORT OF UNIT ACCOMPLISHMENTS

In 2023, the Department completed 113,631 Defensible Space Inspections and issued 5,489 Official Inspection Reports for non-compliant parcels. There were 256 violations after the second inspection by fire station personnel and forwarded to the Forestry Division DSU for non-compliance follow-up. The DSU consulted with the property owners and 256 non-compliance letters were sent; 226 properties were cleared by owners, 30 parcels were cleared by the ACWM, Weed Abatement Division.

The Department's Fuel Modification Unit reviewed 2,627 Fuel Modification plans and performed over 740 occupancy inspections on previously approved Fuel Modification plans.

The Department's Air and Wildland Division brushed and maintained roughly 75 miles of motorways and fire roads with the assistance of the Heavy Equipment Section. The Fire Suppression camps, both paid and correctional, treated 241 acres, which protected 425,123 structures, 99 communities, and involved approximately 4,204 crew and personnel hours.



Defensible Space Protection from Wildfire