

SECTION V: PRE FIRE MANAGEMENT TACTICS

A: PROGRAM PLANS

Determining the wildfire problem in Los Angeles County involves assessing the interrelated results of chaparral covered, fire adapted ecosystems, the resulting weather of a Mediterranean climate, the values at risk, and the fire protection system's ability to deal with the occurrence of wildfire. A major element of the California Strategic Fire Plan is an extensive assessment process that graphically depicts fuels, weather and assets at risk data, in a computer based Geographic Information System (GIS). The GIS thematic layers are then continually field-validated and used to identify the wildland urban-interface/intermix fire problem.

It is a commonly accepted concept, that fire is part of the natural life cycle of the chaparral ecosystem in Los Angeles County. Without fire, the chaparral-covered terrain of Los Angeles County reaches an mature 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. Historically, fires occurred naturally as a result of lightning and were introduced by native inhabitants. Native Americans, 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 whether natural or introduced tended to promote ecosystem health and reduced the number of large acreage, high intensity fires. As the County continues to grow in population, values at risk are encroaching on and intermixing with the wildlands. Consequently, wildfires threaten the values at risk and are seen as bad and should be extinguished promptly. Suppression efforts are quite successful, but result in the eventual, build-up of fuel for fire in the wildland or in and around the structures, making wildfires more intense and more destructive. Although the fire protection system has become more efficient, those fires that do escape initial attack efforts can quickly overwhelm the available suppression resources. Wildfires under certain severe fire weather conditions, such as a Santa Ana wind event, can prevent initial attack resources from suppressing the fire, while still small, and can spread so quickly and threaten so many values at risk that suppression resources cannot arrive quickly enough to prevent a majority of the damage.

The Wildfire Environment

A cursory understanding of the wildfire environment is helpful in understanding the fire problem in Los Angeles County and what projects and programs are most effective in preventing large loss incidents. The wildfire environment can be regarded as the conditions, influences, and modifying forces that control the fire behavior. Firefighters become skilled at recognizing the status of the three components that make up the wildfire environment. The nature and or condition of fuels, weather and topography dictate the likelihood of a fire starting, the direction and rate of spread a fire takes and the intensity at which a fire burns.

FUEL

Wildland fuel is the vegetation layer that covers the topography. Fuel provides the thermal energy source upon which fire behavior relies. Fuels are also found in the home ignition zone and the built structures.

WEATHER

Weather is the most variable component of the fire environment and can change rapidly in space and time. Weather represents such elements as temperature, wind, relative humidity, cloud cover, precipitation, and atmospheric stability.

TOPOGRAPHY

Topography includes such elements as slope, aspect, elevation and configuration or lay of the land. In relation to time, topography can be considered static, for the forces that change it generally work very slowly. In horizontal space, however, topography can change quickly, particularly in mountainous country.

HAZARDOUS FUELS

Los Angeles County has 4001 square miles, the bulk of which is covered with fire adapted vegetation, ornamental vegetation and millions of homes and structures.

Chaparral provides the most widespread wildland threat in Los Angeles County. It can be found on the slopes of the Santa Monica Mountains throughout the San Gabriel Mountains. This chaparral community is characterized by woody shrubs of chamise, ceanothus, and sugar bush, which dominate dry rocky slopes and provide erosion control and watershed protection. Numerous grasslands and fields are found throughout the County, especially in the Antelope Valley, and present the potential for fast moving wildland fires that can transition into heavier fuel and tree canopies.

The first step in the hazard assessment process is development of a land/ vegetation coverage map for the County from the most recent and detailed vegetation composition and structure information. Vegetation data from a variety of sources are patched together to provide a complete, albeit heterogeneous, surface fuel coverage map for the County. The various

vegetation types (fuels) found in Los Angeles County, have specific characteristics that allow them to be categorized according to how they burn.

Translating the variety of vegetation data into stylized fuel characteristics models used to predict fire behavior develops the surface fuel map. This process, known as "cross walking", translates information on plant species, crown cover and tree size into 13 standard fuel models. The crosswalk process uses other factors, such as watershed boundaries; slope, aspect and elevation, to further refine vegetation/fuel model relationships. The system used to categorize these 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.

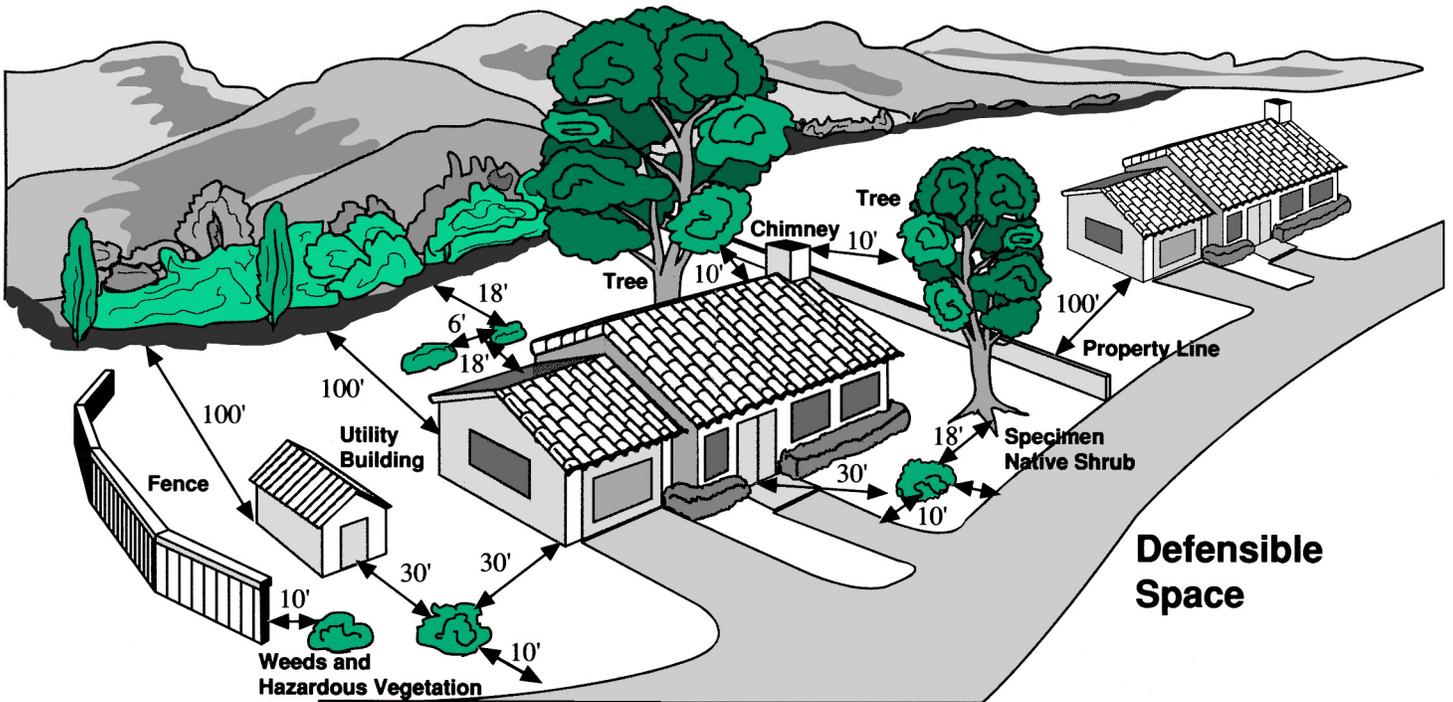
The second step of the hazard assessment process is development of a land/ structures coverage map for the County from the most recent and detailed development (improve properties) composition and structure specific information.

Before discussing what constitutes an initial attack success or failure, we must first concede that our fire prevention efforts have failed or a natural event has occurred. Once a fire starts, success is defined as the ability of the fire protection system to limit damage and costs within an acceptable level. Determining what an acceptable cost or damage amount is ultimately defining the desired protection by the stakeholders involved.

Assuming that the prescription based planning fire protection system is properly applied, an appropriate and timely response, with properly equipped and trained firefighters based on fire danger, the matrix can provide wildfire managers with a simple tool to determine where the suppression system would be expected to fail. For example: a medium size, high intensity wildfire might overwhelm a "high" level initial attack response, even if an equal level of protection were provided statewide. This might be the threshold where wildfire managers decide to focus intense pre-fire mitigation projects in order to bring initial attack efforts back into the successful range. On the other hand, a large fire of low intensity where initial attack fails may indicate an un-equal level of protection or some other weakness in the prescription based system.

The County of Los Angeles Fire Department takes a unified approach to pre-fire management practices.

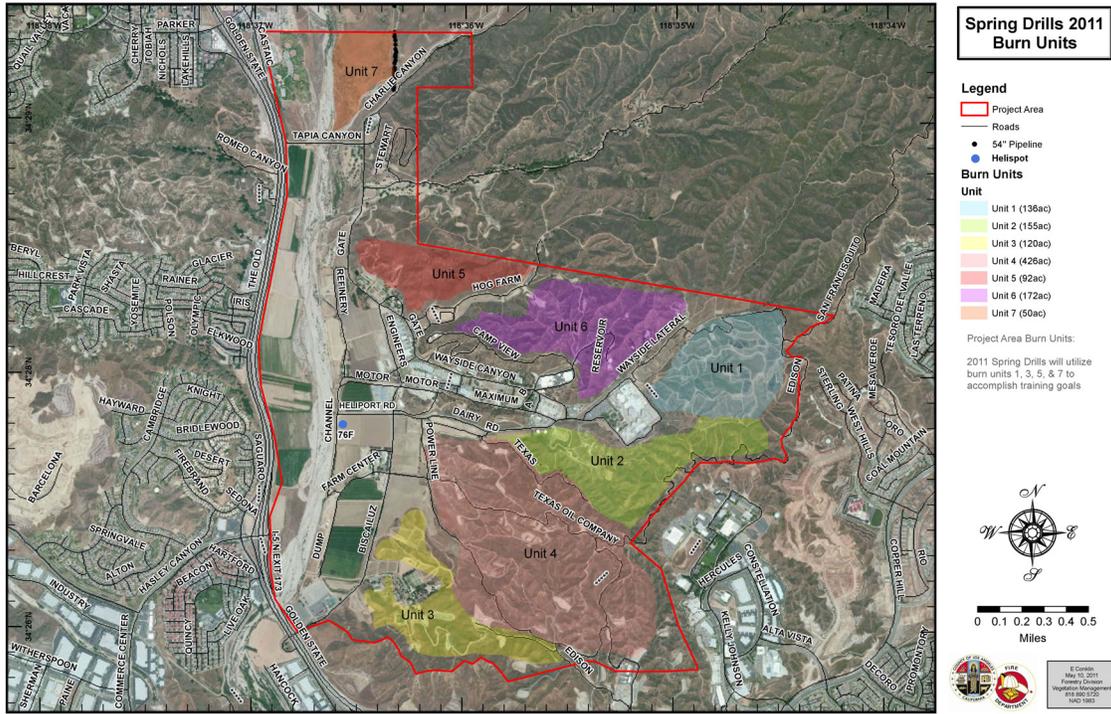
- 1. Structural Ignitability Reduction by implementing safe building standards**
- 2. Fire Hazard Reduction in the Home Ignition Zone by annual inspection/fuel modification/fire safe council projects**
- 3. Integrated Vegetation Management by planning and implementing fire hazard reduction projects**



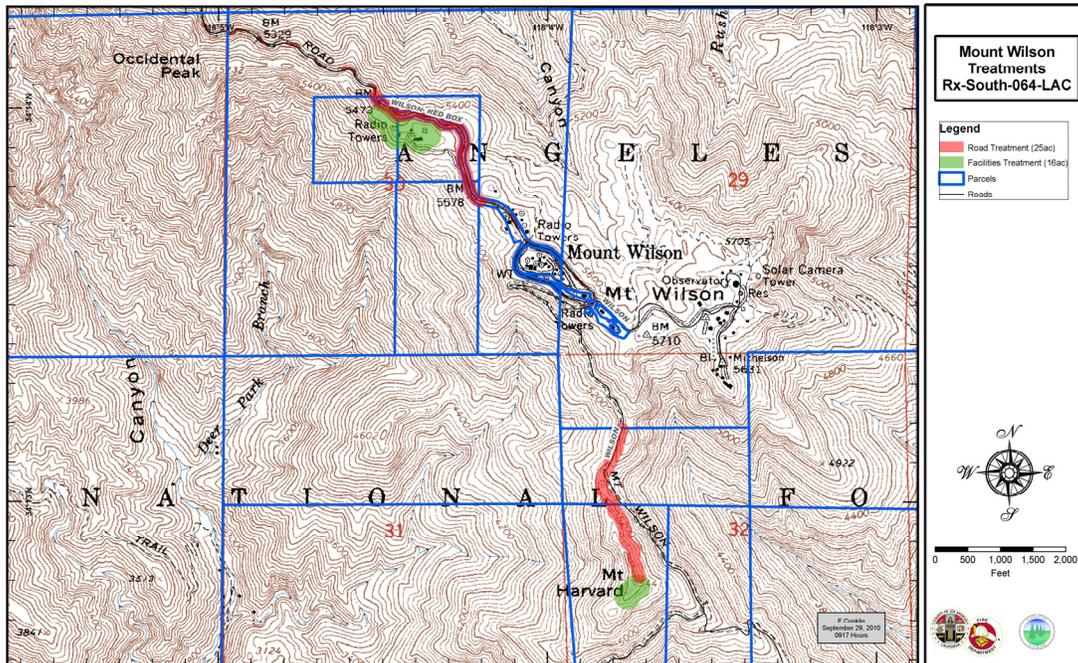
APENDIX A- PRE FIRE PROJECTS

OPERATIONAL PROJECTS

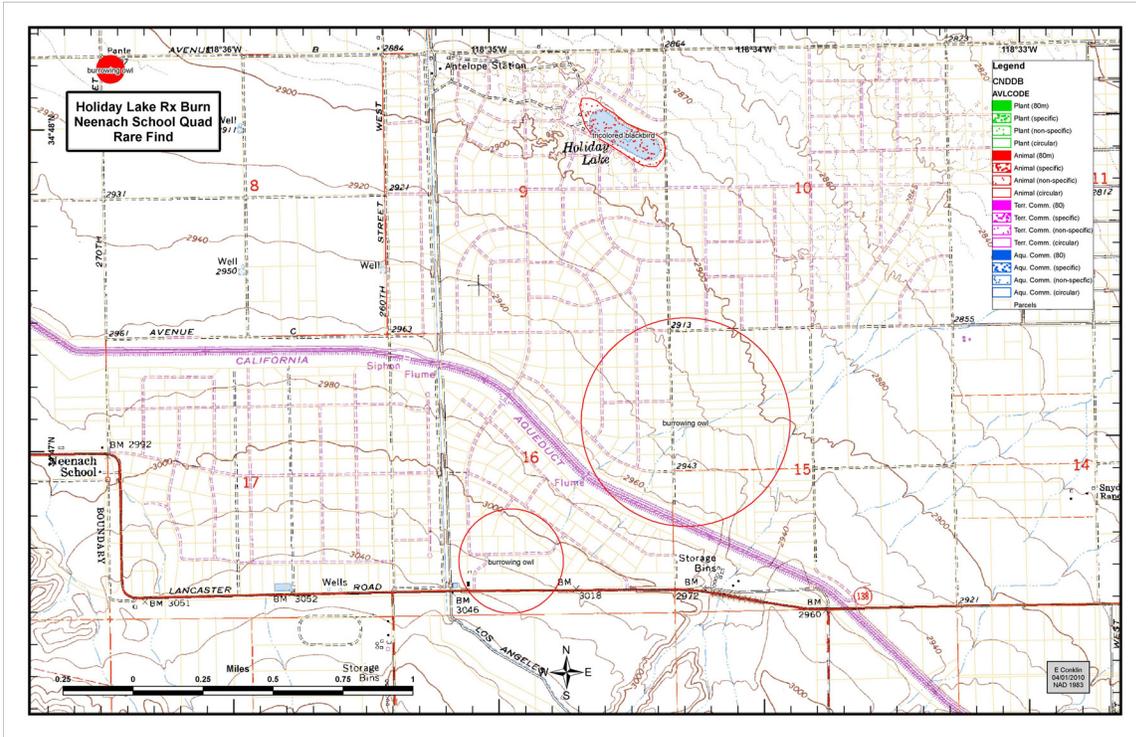
- 1. Wayside Detention Center-Spring Drills and Rehab 2011 NOE
 Treatment Area - 75 Acres
 Treatment Methodology: Hand Crews, Prescribed Fire
 Treatment Goal(s): Fire Hazard Reduction, Training



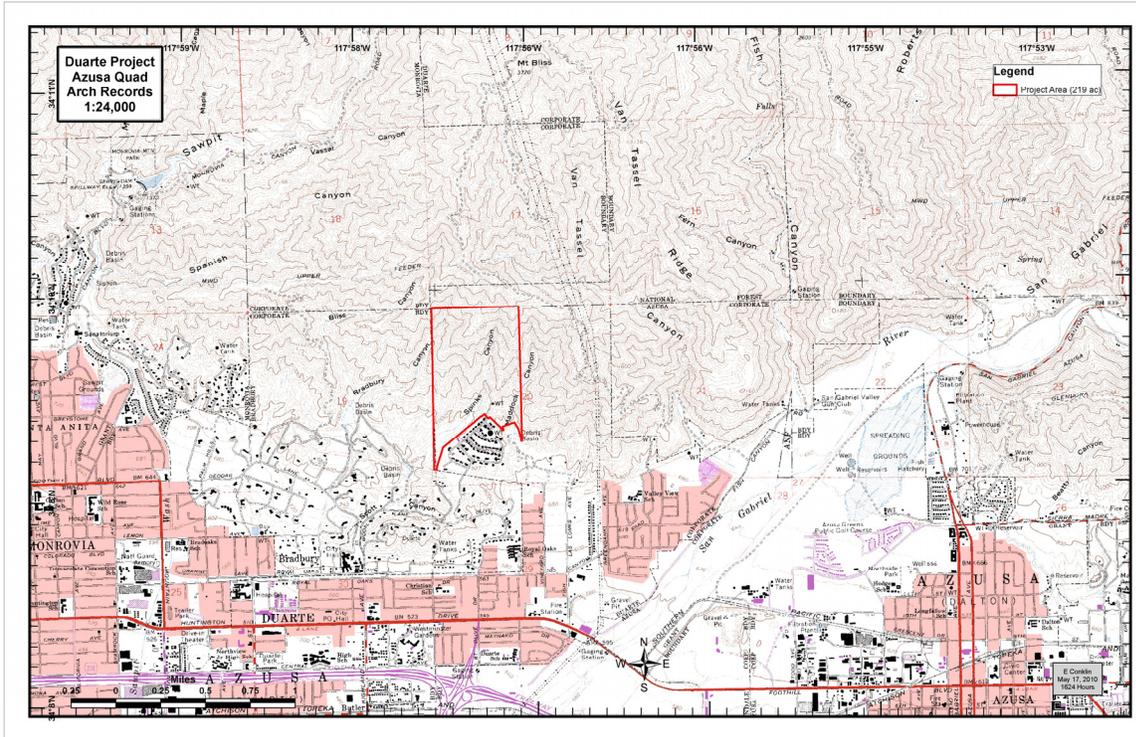
- 2. Mount Wilson Fuels Reduction - NOE
 Treatment Area - 49 Acres
 Treatment Methodology: Hand Crews
 Treatment Goal(s): Fire Hazard Reduction



3. Holiday Lake Habitat Improvement - NOE
 Treatment Area - 3 Acres
 Treatment Methodology: Prescribed Fire
 Treatment Goal(s): Fire Hazard Reduction, Training



4. Duarte Eucalyptus Removal - NOE
 Treatment Area - 16 Acres
 Treatment Methodology: Hand Crews
 Treatment Goal(s): Fire Hazard Reduction, Training

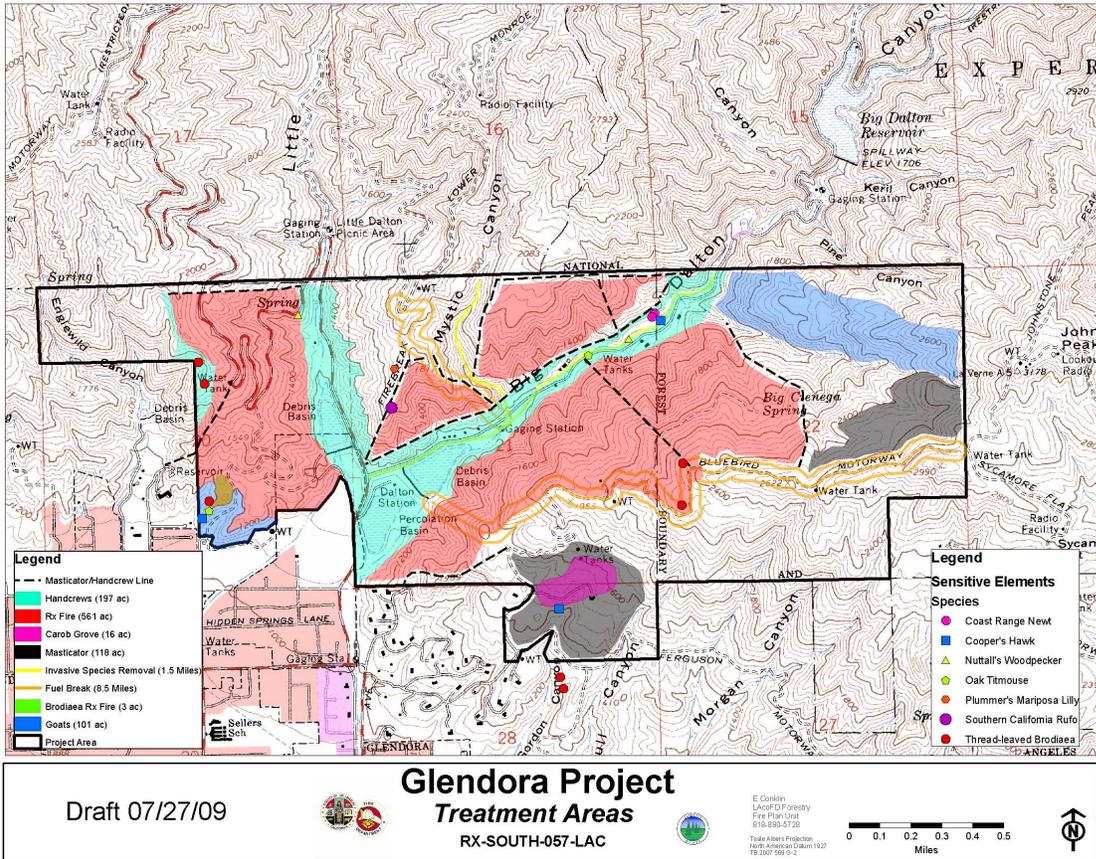


5. Glendora Vegetation - Management Program

Treatment Area – 1,640 Acres

Treatment Methodology: Biological, Hand Crews, Mechanical, Prescribed Fire

Treatment Goal(s): Fire Hazard Reduction, Habitat Restoration

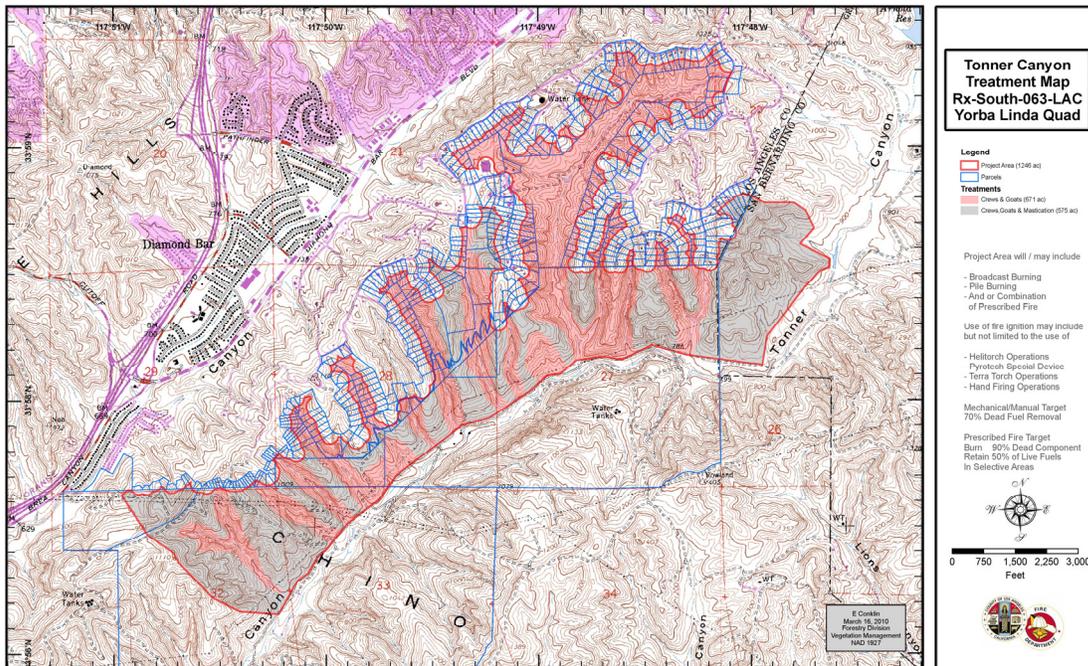


6. Tonner Canyon - Vegetation Management Program

Treatment Area – 1,246 Acres

Treatment Methodology: Biological, Hand Crews, Mechanical, Prescribed Fire

Treatment Goal(s): Fire Hazard Reduction, Habitat Restoration



PROJECTS IN

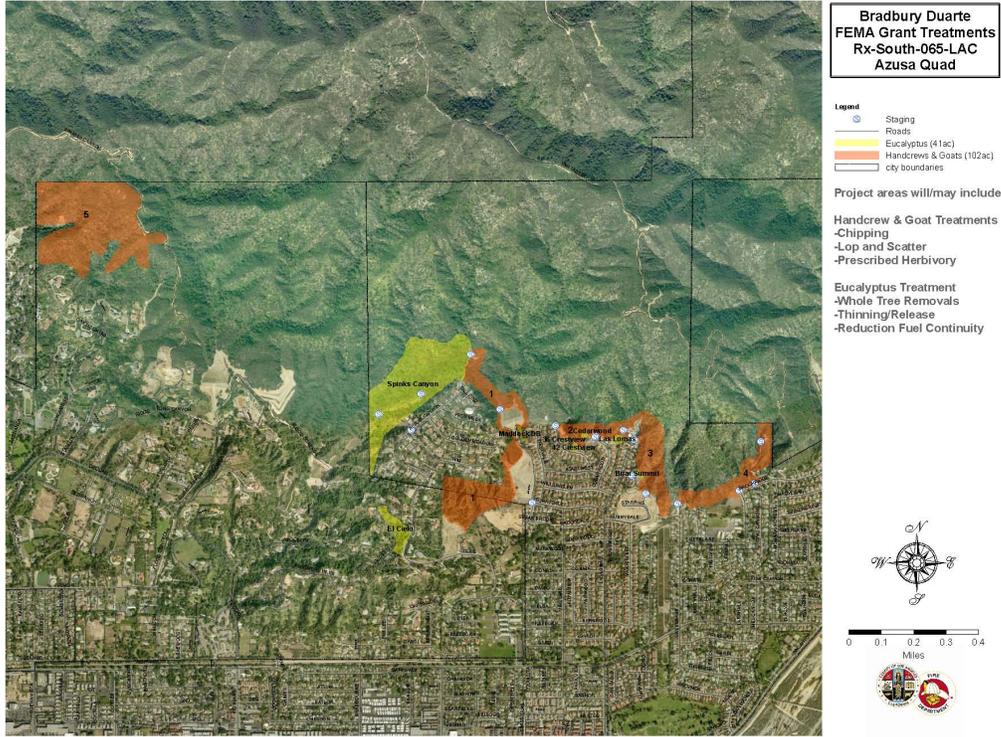
DEVELOPMENT

1. Bradbury-Duarte - FEMA Grant

Treatment Area – 145 Acres

Treatment Methodology: Biological, Hand Crews, Mechanical

Treatment Goal(s): Fire Hazard Reduction, Defensible Space, Habitat Restoration

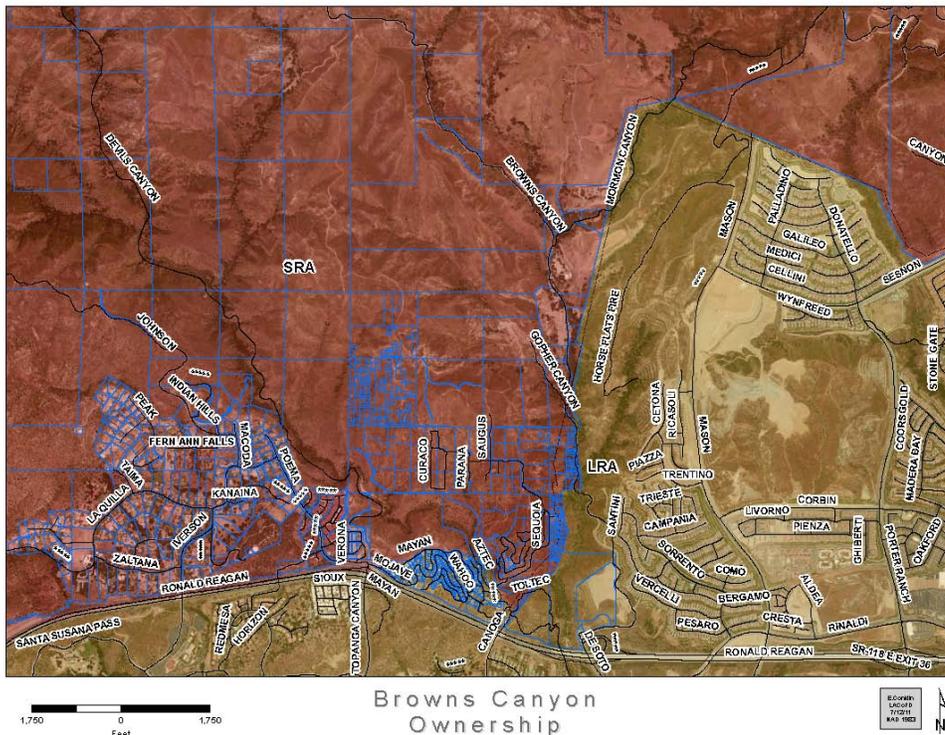


2. Browns Canyon - Vegetation Management Program

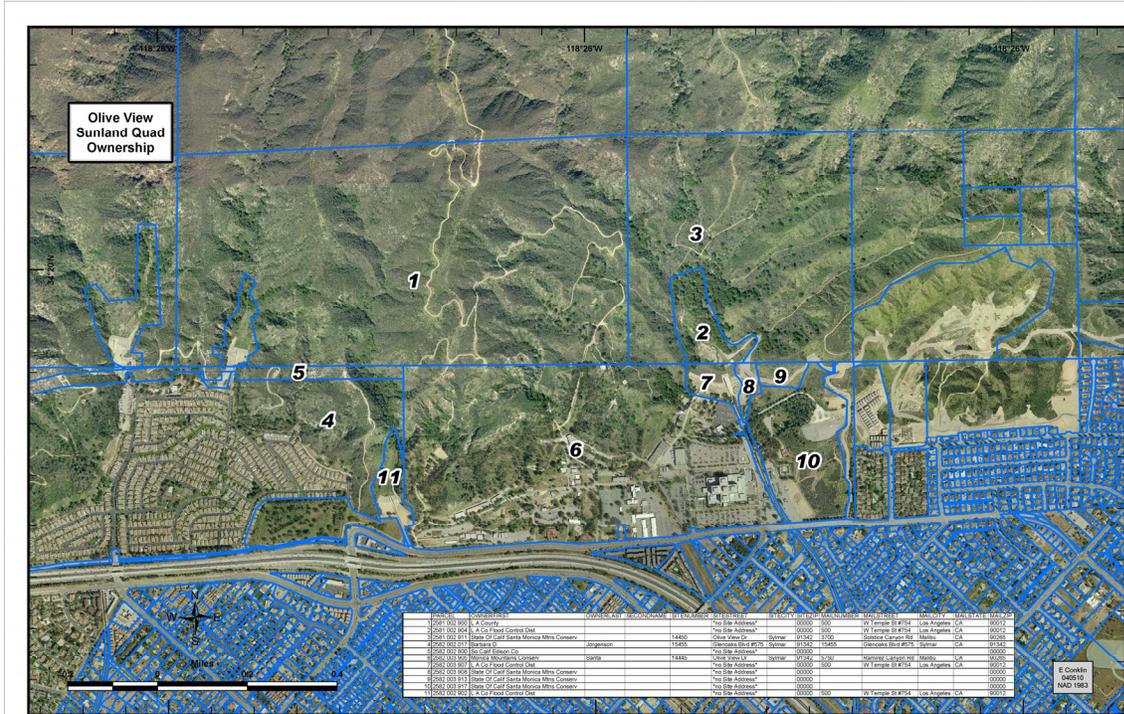
Treatment Area – 100 Acres

Treatment Methodology: Hand Crews, Prescribed Fire

Treatment Goal(s): Fire Hazard Reduction, Training



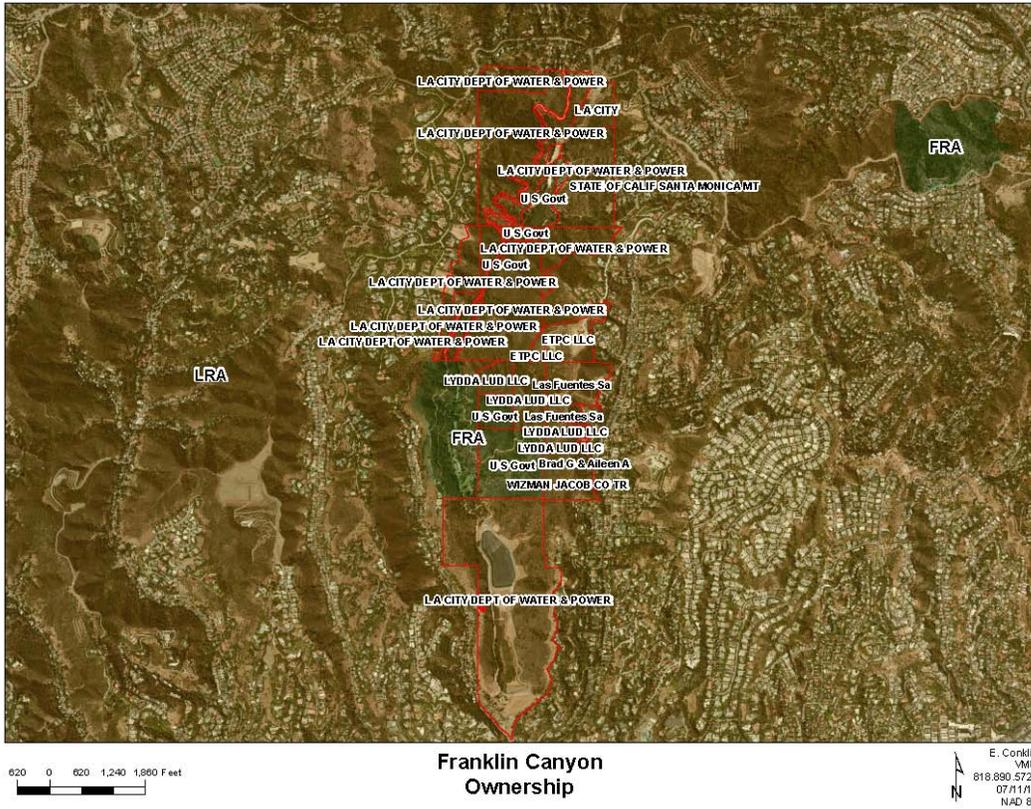
3. Olive View Eucalyptus Removal - NOE
 Treatment Area – 25 Acres
 Treatment Methodology: Hand Crews
 Treatment Goal(s): Fire Hazard Reduction, Training, Post Fire Recovery



PROPOSED PROJECTS

1. Charmlee Park - Vegetation Management Program
 Treatment Area – TBD Acres
 Treatment Methodology: Hand Crews, Mechanical, Prescribed Fire
 Treatment Goal(s): Fire Hazard Reduction, Training, Habitat Restoration
2. Newhall Ranch - Vegetation Management Program
 Treatment Area – TBD Acres
 Treatment Methodology: Hand Crews, Mechanical, Prescribed Fire
 Treatment Goal(s): Fire Hazard Reduction, Training, Habitat Restoration
3. Stevens Ranch - Vegetation Management Program
 Treatment Area – TBD Acres
 Treatment Methodology: Hand Crews, Mechanical, Prescribed Fire
 Treatment Goal(s): Fire Hazard Reduction, Training, Habitat Restoration
4. Bonelli Park - Vegetation Management Program
 Treatment Area – TBD Acres
 Treatment Methodology: Hand Crews, Mechanical, Prescribed Fire
 Treatment Goal(s): Fire Hazard Reduction, Training, Habitat Restoration
5. Castaic Park - Vegetation Management Program
 Treatment Area – TBD Acres
 Treatment Methodology: Hand Crews, Mechanical, Prescribed Fire
 Treatment Goal(s): Fire Hazard Reduction, Training, Habitat Restoration

2. Franklin Canyon - Vegetation Management Program (Los Angeles City Fire)
 Treatment Area – TBD Acres
 Treatment Methodology: Hand Crews, Mechanical, Prescribed Fire
 Treatment Goal(s): Fire Hazard Reduction, Training, Habitat Restoration, Watershed Protection



3. Encino Reservoir - Vegetation Management Program (Los Angeles City Fire)
 Treatment Area – TBD Acres
 Treatment Methodology: Hand Crews, Mechanical, Prescribed Fire
 Treatment Goal(s): Fire Hazard Reduction, Training, Habitat Restoration, Watershed Protection

