



Unit Strategic Fire Plan

CAL FIRE/Riverside County Fire

May 2016

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SIGNATURE PAGE

Strategic Fire Plan developed for Riverside Ranger Unit:

- The Riverside Ranger Unit plan was collaboratively developed. Federal, State, City, and County agencies within the Unit were 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.
- The plan is intended for use as a planning and assessment tool only. It is the responsibility of those implementing the projects to ensure that all environmental compliance and permitting processes are met as necessary.



Unit Chief
John R. Hawkins

4-11-2016

Date



Pre-Fire Engineer
Mic Sebastian

4-11-2016

Date

Executive Summary

The 2016 Riverside Unit Pre-Fire Management Plan strongly reflects the continuing State of Emergency that exists in the San Jacinto Mountains (Battalion 11). Unit personnel, including the Unit Chief, Deputy Chief – Central Operations, Bautista Division Chief, Pre-Fire Division Chief, Pre-Fire Battalion Chief, Pre-Fire Engineer, Unit foresters, and Riverside County Fire Department Office of Emergency Services are working diligently with the Mountain Area Safety Task Force (MAST) to come up with solutions to mitigate this problem. Although Pre-Fire activities continue in other parts of the county, the focus of our activities has been and must continue to be these communities and watersheds within the mountainous area until the unprecedented threat can be sufficiently mitigated.

In spite of the emphasis on the San Jacinto Mountain communities, Pre-Fire projects have also been planned and implemented on State Responsibility Area lands in and adjacent to the San Bernardino and Cleveland National Forest. Expansion of Pre-Fire work into the areas of Anza, Sage, Aguanga and the Elsinore Front Country has begun with a focus on evacuation routes and community defense projects. A number of cooperative projects have taken place with many more being planned. A continuing effort of treating fuels on Multi-species Preserves and other public lands within SRA has increased over the last two years; these projects are not proximal to any national forest.

Plan Concept and Process

The State Board of Forestry and Fire Protection along with the California Department of Forestry and Fire Protection (CAL FIRE) have drafted a comprehensive update of the Fire Plan for wildland fire protection in California. The planning process defines a level of service measurement, considers assets at risk, incorporates the cooperative interdependent relationships of wildland fire protection providers, provides for public stakeholder involvement, and creates a fiscal framework for policy analysis.

Goals and Objectives

The overall goal of the Pre-Fire Management Plan is to reduce total government costs and citizen losses from wildland fires in the Riverside Unit by protecting assets at risk through focused pre-fire management prescriptions and increasing initial attack success. The Fire Plan has five strategic objectives:

- Create wildfire protection zones that reduce the risks to citizens and firefighters.
- Include all wildland, not just the State Responsibility Areas. Analysis will ultimately include all wildland fire service providers - Federal, State, Local government, and private. This is the long-term strategy. This plan is primarily focused on the CAL FIRE Direct Protection Area (DPA) of the Riverside Unit; however the current extreme fuel conditions existing in the San Jacinto Mountains require the Unit to include the (SRA) within U.S. Forest Service DPA.
- Identify and analyze key policy issues and develop recommendations for changes in public policy. Analysis will include alternatives to reduce total costs and/or increase fire protection system effectiveness.

- Describe the wildland fire protection system in fiscal terms. This can include all public/private expenditures and potential economic losses.
- Translate the analysis into public policy.

Fire Plan Framework

The five major objectives form the basis of an ongoing fire planning process to monitor and assess Riverside County's wildland fire environment. They include:

- Wildfire Protection Zones; these zones are buffers around the community to reduce citizen and firefighter risks from costly and damaging fires.
- Initial Attack Success; This measure can be used to assess the department's ability to provide an equal level of protection to lands of similar type, as required by Public Resources Code 4130. This measurement is the percentage of fires that are successfully controlled before unacceptable costs are incurred.
- Assets Protected; the assets addressed in the plan are citizen and firefighter safety, watersheds and water, timber, wildlife and habitat (including rare and endangered species), unique areas (scenic, cultural, and historic), recreation, range, structures, and air quality.
- Pre-fire Management; this is the process that assesses alternatives to protect assets from unacceptable risk of wildland fire damage. Project alternatives may include a combination of fuels reduction, ignition management, fire-safe engineering activities, and forest health improvement to protect public and private assets.
- Fiscal framework; this is a tool for assessing and monitoring the cost effectiveness of the wildland fire protection systems.

Pre-Fire Management Plan Applications

- Identify those areas of concentrated assets and high risk for state, federal, local officials and for the public.
- Allow wildland fire service providers to create a more efficient fire protection system focusing on meaningful solutions for identified problem areas.
- Give citizens an opportunity to identify public and private assets. Then design and find funding to carry out projects to protect those assets.
- Identify, before fires start, where cost-effective pre-fire management investments can be made to reduce taxpayer costs and citizen losses from wildfire.
- Encourage an integrated intergovernmental approach to reducing costs and losses.
- Enable policy makers and the public to focus on what can be done to reduce future costs and losses from wildfires.

SECTION I: UNIT OVERVIEW

UNIT DESCRIPTION

The Fire Situation

General Description

The Riverside Unit experienced increased wild fire activity in 2013 which is in stark contrast to prior years dating back to 2006. The Gorgonio, Mountain and Silver Fires on the San Jacinto range were the first major fires in this area since the Esperanza Fire of 2006. The Falls Fire on the Trabuco range above the community of Lakeland Village was another major fire in 2013, and the first of that magnitude since 1988. These 4 major fires burned in excess of 52,000 acres, resulting in numerous evacuations, temporary business closures, damage and temporary closures to major roads, structure loss and damage, and impacts to the watershed within the County of Riverside.

In 2008 the Riverside County Strategic Contingency Plan which covers the southern and western borders of the Riverside Unit was created after the 2007 Southern California Fire Siege, this siege affected Riverside's neighboring counties of San Diego and Orange. As a result of the 2013 fires in the Riverside Unit, a review of the Strategic Contingency Plan was reviewed and updated. The MAST (Mountain Area Safety Taskforce) and the Mountain Communities Fire Safe Council's (MCFSC) Community Wildfire Protection Program (CWPP) are currently being reviewed and updated. The scope of the review is targeting evacuation procedures and routes, defensible space inspections and fuels treatments. The after action review of the Falls Fire has initiated the need for a fuels buffer along the wild land urban interface from the community of Corona to the north, to the community of Temecula to the south. This fuel reduction buffer crosses many jurisdictional boundaries which will provide a challenge. The Riverside Unit has initiated the planning process and is actively meeting with Agency Cooperators.

This plan is currently being expanded to cover additional areas of the county and is being incorporated into the Mobile Data Computing Solution in order for responding resources to have access to this information readily.

Riverside Unit has an elevated potential for large fires in 2016. The continued drought conditions have shown increases to the Energy Release Component (ERC) at our weather station facilities. The predicted "El Nino" for the fall and spring may alleviate some risk, but the resulting grass crop may provide ground fuels not present in recent years to promote ignition possibilities. These numbers are predicted to spike to extreme levels after the traditional "June Gloom" marine layer gives way to normal hot summer temperatures and low relative humidity. A "bad" Santa Ana season in the fall may be blowing over a very dry and flammable fuel bed.

General Description of Desired Future Condition

San Jacinto Mountains

- Reforestation efforts will help restore forest species, stand structures and composition back to uneven-aged mixed conifer.
- Reforestation efforts will aid preventing erosion and protect water quality.
- Shaded fuel breaks are a method of protecting communities from catastrophic fire by removing (Brush) ladder fuels while retaining larger mature trees.
- Generally, Height growth is a function of tree genetics and site quality; while diameter growth is a function of stand stocking or number of trees per area.
- Fire behavior is a function of fuel, weather and topography. The amount and type of fuel can be treated so that catastrophic fire is mitigated.
- An overall goal of 40-80 Trees per Acre (TPA) is recommended, CAL FIRE staff are currently working to educate the public on the concept of Basal Area/Acre as the preferred method for determining stocking standards.
- Our goal is to manage the watershed to result in a more healthy fire safe forest and chaparral ecosystem.

A. Vegetative Wildfire Fuels

Wildland fuels (live and dead vegetation) are a key component of fire behavior. The various fuels found in California have specific characteristics, which allow fire behavior analysts to categorize them based on how they burn. The Fire Behavior Prediction System (FBPS) was the method chosen for categorizing fuels for the fire plan process. This method classifies fuels into 13 different fuel models, each of which has specific physical and burning characteristics. The models include 3 grasses, 4 brushes, 3 timber and 3 slash fuel types. Custom fuel models have also been developed from these basic models to take into account the variations found in desert areas and Wildland areas with an urban component. The fuel models are used to label current and historic fuels. Historic fuels, those fuels that existed prior to a significant wildfire or VMP burn, are important because they tell us what the climax vegetation and fuel type will be for a particular area. The historic fuel models are used to label the Unit's planning belts in the fire plan. Current fuel models are used along with slope class, ladder fuel component, crown closure, and difficulty of control rating to derive the fuel hazard rank for each quad 81st. It has been determined that in California no wildland fuel can be considered to have a low hazard rating, so the adjective descriptions only include medium, high or very high.

In Riverside County, as well as San Bernardino and San Diego, we have seen dramatic and historic changes in our montane chaparral and timber fuel types in the last few years. The persistent drought, bug kill, frost kill, and disease have killed huge stands of timber and brush over tens of thousands of acres in our wildland areas. It has become the number one fuel problem for our County. Mortality mapping is constantly being updated cooperatively through the MAST using GIS technology.

Battalion 1 – Perris

Battalion 1 is located between two large reservoirs, Lake Mathews to the west and Lake Perris to the east. Battalion 1 is LRA and SRA with a few small pockets of FRA, mostly BLM. The City of Perris is central to the area. The City of Perris has a large WUI component to the South and West. The fuels in and around the city are best described as light with annual grasses being the carrier of most fires. To the South of Lake Mathews lies the Gavilan Hills, this includes a large County owned ecological reserve named the Estelle Mountain Reserve.

The Gavilan Hills area has had a history of large fires, there are pockets of chaparral on northern slopes but, most of this area is grasslands that will continue to support large fires with extreme fire rates of spread. South of Lake Perris is the Nuevo community; this is agriculture area that transitions into a WUI component in the Jurupa Hills area. Jurupa Hills has had multiple large fires in its history; the fuel loading is annual grasses and light brush with heavier fuels on northern slopes.

Battalion 2 – Lake Elsinore

The Battalion 2 area East of Interstate 15 is comprised mainly of fuel model 1(Grass) fuels that have a significant fire history. The West portion of the Battalion consists of a mix of SRA, LRA, USFS land with CAL FIRE DPA and USFS land with Federal DPA. This area is known collectively as the Ortega Front country and is bordered on the south by La Cresta and to the north by the Battalion 2/4 border. This area poses one of the greater fire risks in Riverside County and consists primarily of a fuel model 4 (Coastal Chaparral). There are portions of this area with significant fire history and areas that have no recorded fire history.

Battalion 3 – Beaumont

The Beaumont Battalion lies in the San Gorgonio Pass which is a separation point between the Pacific coastal slopes and the Coachella Valley desert slopes. The elevation ranges from 1100' MSL in the mouth of the Whitewater River to over 5000' in the Oak Glen area. The terrain ranges from gentle rolling hills to steep rocky escarpments. Grazing of livestock has had an impact on the more gentle slopes and some of these areas are dominated by annual grasses. The San Gorgonio Pass is infamous for large, intense and damaging fires that can occur during any part of the year. Due to the diversity of soils, climate and topography there are these distinctive fuel types: heavy mixed chaparral on the coastal slopes at higher elevations, oak woodland in the rolling hills, coastal sage scrub at the lower elevations, and brittlebush/creosote scrub on the higher desert slopes. Some areas of the Beaumont Battalion have been burned over repeatedly in the last two decades and there is some type conversion to weedy annual grasses in these areas. The fuels in the area recover to nearly pre-fire conditions after 20 years if left undisturbed by repeated fires.

Battalion 4 – Corona /Battalion 14 - Jurupa

In the Santa Ana River drainage there is a continual fuel bed from the Mission Boulevard Bridge to the Van Buren Boulevard Bridge in Pedley extending west to Highway 71 along the Riverside County northern border. The river bottom fuel load is made up of annual grasses, bamboo; various brush and tree species. In the Chino Hills area annual grasses are abundant, with small patches of brush and a few oak/sycamore trees in the canyon areas. Most of this area was burned in the 2008 Freeway Fire. In the Dawson Canyon and Spanish Hills area the fuels are annual grasses and light brush. With the exception of a few canyons, these hills have been burned numerous times over many years. Because of the light fuel load, the large fires in this area have been predominantly wind driven. In the foothills that run along the Cleveland National Forest the fuels are generally light grasses with heavy brush. CAL FIRE and USFS have been maintaining the fuel breaks and truck trails that run along the Main Divide Truck Trail and down several main ridge lines into the Temescal and Corona Valleys.

Battalion 5 – San Jacinto

The fuels in Battalion 5 below 2000' in elevation mostly consist of grasses and coastal sage scrub (Fuel Model 2). Above 2000' in elevation the fuel type is dependent on the length of time since last fire, i.e. less than 20 years ago – grass and medium brush (Fuel Model 6), greater than 20 years ago - heavier mixed brush (Fuel Model 4). A high dead to live ratio exists in the mature chaparral fuels due to the persistent and continued drought.

Battalion 9-Moreno Valley

The Moreno Valley Battalion is located in a semi-arid region of western Riverside County in a valley that sits at approximately the 1500 foot level bordered to the northwest by Box Spring Mountain and Lake Perris Recreation Area on the south. The north and eastern borders is a steep rocky area known as the Badlands. Reche and San Timoteo Canyons sit just to the north of the city that creating two highly traveled two lane roads for access to the Cherry Valley area and San Bernardino Counties. The pre-dominant fuels in the areas surrounding Moreno Valley Battalion include annual grasses (Fuel Models 1 and 3) and light brush species of sage and buckwheat (Fuel Models 5).

All of the canyons, hills and mountains bordering Moreno Valley area have a significant history of large fires. All of these fires historically have some threat to the residences within Urban Interface (WUI) or rural intermix creating the need to for augment resources for structure defenses in neighboring canyons and hills which including such fires as “Kitching”, “Alessandro”, “Reche”, “Gilman”, “Box Springs”, “Oliver”, “Locust”, “Pass”, “Theodore”, “Stallion” and “Pilgrim” and many others fires. Many of these fires have threaten homes in all sections of the city limits near Hidden Springs, Sunnymead Ranch, Moreno, Moreno Valley Ranch and Rancho Bellagio sections of the community. The WUI component is not just exclusive to the outer limits of the city. Within the city limits of Moreno Valley there are two major WUI zones with the first being the homes surrounding approximately 160 acres of the Poorman’s Reservoir and the second area is approximately 260 acres near Moreno peak at the northwest corner of Moreno Beach and Cottonwood Avenue.

Battalion 11 – Mountain

Station 23 – Pine Cove

The fuels in the Pine Cove/Idyllwild area are composed of mature chaparral with a mixed conifer forest over-story. The predominant understory species include Manzanita, chaparral whitethorn, deer brush and Chemise. The tree over story consists of mixed stands of Jeffery Pine, Ponderosa Pine, Coulter pine, Incense Cedar, White Fire and Sugar Pine.

Station 29 – Anza

The fuel types in the Anza area consist of approximately 25% fuel model 1 mostly located on the valley floor on the Cahuilla Indian Reservation and along the Cooper Cienega Truck trail to the south. Fuel model 4 is approximately 30%, intermixed in areas through the valley. Fuel model 6 is approximately 45%, consisting of larger stands of Manzanita and red shank with plant height as high as 10-15 feet on average. Overall, the area has a grass under story, which is 12-18" in height. The grass is also matted down, which adds to the fuel loads. The red shank is showing new stringy bark, which adds to the ladder fuels in the brush fields.

Station 30 – Pinyon

The fuels in the Pinyon area consist of Fuel Models 4 and 6, with patches of Fuel Model 1 located throughout. A fuels reduction project has thinned and removed fuels along Hwy 74 and around some communities, to allow safe egress from the mountain.

Station 53 – Garner Valley

The persistent drought has left an abundance of dead and downed fuels as well as a high dead to live ratio in the chaparral fuels. The understory and grass crop is continuous. The brush that is not dead is showing normal growth this year. Some areas have had fuels reduction projects to thin and remove fuels near transportation corridors and communities and camping areas. The Mountain Fire of 2013 impacted the north eastern boundary with complete ground fuel consumption and significant consumption to various conifer and deciduous tree species within the burn scar.

Station 77 – Lake Riverside

The Lake Riverside area is located near Aguanga. The fuels near Highway 79 and Highway 371 consist of grass (Fuel Model 3) and progressing northeast on Highway 371 the fuels change into fuel model 4.

Battalion 13 - Menifee

Battalion 13 is 42 square miles and has roughly the following boundaries: north of the Cities of Murrieta and Wildomar, south of City of Perris, west of the Winchester area and northeast of the City of Lake Elsinore. Battalion 13 is LRA and SRA. the City of Menifee dominates the area. The city has multiple large housing tracks that border tracts of open land. Fuel loading varies in the area: Large stands of Chaparral exist south of Scott Rd. but most of the area consists of light brush and annual grasses. Large fires with a substantial WUI component have occurred in the area west of Menifee Rd.

Battalion 15 – Temecula

Battalion 15 is located in Southwest Riverside County. The Temecula Battalion is intersected by Interstate 15 running north and south. The City of Murrieta borders Temecula to the north, and the unincorporated portion of Riverside County borders Temecula along the west, south and east. The Cleveland National Forest is located to the west and south of Temecula. Interstate 15 also intersects a portion of the Cleveland National Forest to the south. The terrain west of Temecula is comprised of steep mountainous terrain with a dense growth of chaparral and Avocado groves. The chaparral is comprised of annual grasses, Chamise, Sage, and Buckwheat. The unincorporated community of La Cresta and the Santa Rosa Plateau is located northwest of Interstate 15. The Santa Rosa Plateau is made up of a growth of Coast Live Oak and Engelmann Oak Savanna woodlands. The bunchgrass prairies contain wildflowers such as lilies, lupines, and checkerblooms. Within the grasslands mule deer, badgers and burrowing rodents can be found feeding. Among the chaparral chamise, manzanita, and coastal sage scrub can be found. In the past years VMP burns have been conducted within the Plateau's grasslands. The flat mesas of the plateau are made up of volcanic basalt which eroded away over time. The top of the mesas reveal vernal pools which support animal and plant species. The Community of La Cresta is sparsely populated with million dollar homes and horse ranches and also bordered by the Cleveland National Forest.

The Santa Margarita drainage is partially located within the City of Temecula and is a topographical funnel west to the Pacific Ocean. The weather during the summer is clear and hot. Fog penetration is common during spring, early summer, and fall month as the fog travels up the Santa Margarita drainage. The community also experiences strong southwest winds surfacing most afternoons as the sea breeze comes up the Santa Margarita drainage. Also in this drainage is dense chaparral. CAL FIRE San Diego Unit is located south of the Temecula Battalion in San Diego County.

The Pechanga Band of Luiseno Indians and reservation is located south of the City of Temecula and east of Interstate 15. The reservation covers approximately 5000 acres of flat lands and rolling hills with a growth of annual grasses, oak tree stands and medium to dense growth of chaparral. Located within the City of Temecula is the residential community of Wolf Creek. Over the last several years master planned communities have replaced the once vegetative covered rolling hillsides.

The northeast portion of the Temecula Battalion is the unincorporated community of French Valley. This area is comprised of master planned residential communities and rolling hills covered with annual grasses. Johnson Ranch and Lake Skinner Preserves are also located east of the French Valley community.

The unincorporated community of Glen Oaks is located in the eastern portion of the Temecula Battalion. The Glen Oaks community is comprised of rolling foothills sparsely populated with custom homes and horse ranches. The growth of vegetation in the Glen Oaks area is comprised of annual grasses and medium Chamise.

B: UNIT PREPAREDNESS AND FIREFIGHTING CAPABILITIES

During the Peak Staffing period Riverside Unit has 94 Stations staffed with 1150 CAL FIRE career personnel, 240 Riverside County & OES personnel and 280 volunteer/reserve firefighters available to staff the following resources:

CAL FIRE resources include: 12 Battalion Chiefs, 16 Type 3 Engines, 16 Hand Crews, 1 Air Attack, 1 Type 2 Helicopter, 2 Type 3 Air Tankers, and 3 Dozers

Riverside County Fire Department resources include: 23 Battalion Chiefs, 81 Type 1 Engines, 5 Type 2 Engines, 1 Dozer, Water Tenders, 8 Truck Companies, 2 Medic Squads, 8 Medic Ambulances, 2 Haz-Mat Units and 2 Breathing Supports.

The Community Emergency Response Team (CERT) Program educates citizens about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. Using the training learned in the classroom and during exercises, CERT members can assist others in their neighborhood or workplace following an event when professional responders are not immediately available to help. CERT members also are encouraged to support emergency response agencies by taking a more active role in emergency preparedness projects in their community.

The Riverside County Fire Department, Office of Emergency Services is the lead CERT training agency for the Riverside County Operational Area. In 2013, we conducted 21 CERT Classes, and trained more than 675 citizen volunteers to be better prepared for an emergency. In 2016, we are scheduled to conduct more than 30 CERT Classes.

Resource Management equipment consists of; 4 utility pick-ups, 1 hook-lift truck, 1 hook-lift trailer, 5 chipper bins, 2 log hauler bins, 2 dump bins, 2 job box bins, 1 flatbed bin, 2 light duty brush bins 1 skid steer tractor, bucket and grapple with trailer and 2 Moor-bark chippers.

Dispatch Agreements:

Pechanga Fire Department

Morongo Fire Department

Idyllwild Fire Protection District

Automatic Aid Agreements:

Cabazon Band of Mission Indians dated May 5, 1998

City of Hemet dated September 2, 2008

City of Corona (for Hazmat Responses) dated October 10, 1995

Idyllwild Fire Protection District dated May 23, 2000 - An Auto Aid, in addition to a Cooperative Agreement for Dispatch & Communications Services dated May 10, 2011. City of Murrieta dated March 25, 2008

Morongo Band of Mission Indians dated December 21, 1999 - Is an Auto Aid, in addition to a Cooperative Agreement for Dispatch & Communications Services dated August 1, 2000.

Orange County Fire Authority dated June 1, 1999

Pechanga Band of Luiseno Mission Indians dated November 1, 2001 - An Auto Aid, in addition to a Cooperative Agreement for Dispatch & Communications Services dated November 9, 2010.

City of Palm Springs dated September 6, 1978

City of Redlands dated July 27, 2010

Mutual Aid Agreements:

California Rehabilitation Center (Norco) dated November 20, 1984

Chuckawalla Valley State Prison Fire Department dated December 3, 1991. City of Corona (for Hazmat Responses) dated October 10, 1995

Imperial Valley dated August 13, 2001

Mutual Aid Pact between La Paz County, AZ; San Bernardino County; Riverside County; and the Colorado River Indian Reservation dated July 19, 1989

March Air Force Base dated July 27, 2010

Niland Fire District dated September 3, 1991

SECTION II: COLLABORATION

COMMUNITY / AGENCIES / FIRE SAFE COUNCILS

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

Plan Development Team:

ORGANIZATION	REPRESENTATIVE
San Bernardino National Forest	Chief Freddie Espinoza
Cleveland National Forest	Chief Caralton Joseph
Bureau of Land Management	Chief Nickie Washington
US Fish & Wildlife Service	Karen Cleary Rose
CAL FIRE	Chief John Hawkins
California Department of Fish & Game	Brennan, Kevin
California Department of Parks & Recreation	Vacant
California Department of Transportation	Mueller, Jody
California Highway Patrol	Sergeant Ed Casillas
Riverside County Sheriffs	Sheriff-Coroner, Stanley Sniff
Riverside County Fire Department	Riverside County Fire Chief, John R. Hawkins
Riverside County TLMA	Director, George Johnson
Riverside County Parks & Recreation	Dustin McLain
City of Banning	City Manager, Andy Takata
City of Beaumont	City Manager, Alan Kapanicas
City of Calimesa	City Manager, Randy Anstine
City of Canyon Lake	City Manager, Elizabeth Martyn
City of Corona	City Manager, Brad Robbins or Corona Fire Chief, John Medina
City of Desert Hot Springs	City Manager, Robert Adams
City of Eastvale	City Manager, Carol Jacobs
City of Hemet	City Manager, Wally Hill
City of Jurupa Valley	City Manager, Steve Harding
City of Lake Elsinore	City Manager, Grant Yates
City of La Quinta	City Manager, Frank Spevacek
City of Menifee	City Manager, Robert Johnson
City of Moreno Valley	City Manager, Michelle Dawson
City of Murrieta	City Manager, Rick Dudley or Fire Chief Scott Ferguson

City of Norco	City Manager, Andy Okoro/ Fire Chief, G.Pemberton
City of Palm Springs	City Manager, David Ready or Fire Chief, J.K. Nalder
City of Perris	City Manager, Richard Belmudez
City of Riverside	City Manager, Scott Barber/Fire Chief, Michael Moore
City of San Jacinto	Interim City Manager, Tim Hults
Rubidoux CSD	Manager, David Lopez
City of Wildomar	City Manager, Gary Nordquist
Mountain Communities Fire Safe Council	Edwina Scott, Executive Director
Southwest Riverside County Fire Safe Council	Susan Frommer, President
Habitat Conservation Groups	Regional Conservation Authority
Utility Companies	SCG, SGE, MWD,EMWD,EVMWD
City of Temecula	City Manager, Aaron Adams
City of Palm Desert	City Manager, John Wohlmuth

COLLABORATION continued

Mountain Area Safety Task Force (MAST)

The California Department of Forestry and Fire Protection (CAL FIRE), in cooperation with all of the agencies and individuals in the Riverside County MAST, have teamed up to mitigate an unprecedented emergency facing the forested mountain communities. Multiple years of severe drought combined with drastically overstocked tree stands have resulted in tremendous rates of tree mortality due to bark beetles in and around the community. In March 2002, the Riverside County Board of Supervisors declared a local emergency. In March 2003, Governor Davis concurred with the County and issued his own State of Emergency Proclamation. These emergency declarations are still active to date.

The MAST was formed to mitigate the threat to life, property, watershed and the ecosystem. It is currently Riverside Unit's single greatest threat to SRA, (even though it is within federal DPA) and is the number one priority of the Riverside Unit. This is not only for the protection of life, property and resources, but to protect the lives of CAL FIRE and other agency firefighters and law enforcement personnel that may be called to fight a fire or conduct large-scale evacuations in communities within the San Jacinto Mountains.

MAST consists of members from many agencies, groups and elected officials they include :CAL FIRE, Mountain Communities Fire Safe Council; U.S. Forest Service; Riverside County Fire Department; Natural Resource Conservation Service; Idyllwild Fire Protection District; Riverside County Board of Supervisors; Riverside County Office of Emergency Services; State OES; Riverside County Flood Control; Southern California Edison; Senator Feinstein; Congresswoman Bono-Mack; Senator John Benoit 37th Senatorial District; Assemblymen Manuel V. Perez 80th District and Brian Nestande 64th District; California Department of Fish and Game; California Department of Transportation; Riverside County Transportation Land Management Agency; South Coast Air Quality Management District; Pine Cove/Idyllwild/Fern Valley/Lake Hemet Water Districts; Riverside County Waste Management; Pine Cove Property Owners Association; UC Co-op Extension Service; Riverside County Sheriff's Office; California Highway Patrol. The MAST is organized using the Incident Command System (ICS) with a unified command; formal Incident Action Plans (IAPs) are produced and followed by the MAST members.

SECTION III: VALUES

A: VALUES

VALUES AT RISK

Water quality has proven to be another example of a critical asset within Riverside County. Water stored in reservoirs within the county is supplied to businesses and residences throughout the Los Angeles Basin as well as the Inland Empire. Maintenance of water quality is crucial to Riverside County's 1.5 million residents and the support of its largest business, agriculture. Public consumption, recreation, and hydro-electricity are all affected by the quality of water. There are 8 reservoirs within the county that supply water for drinking, recreation, or hydroelectricity. They are: Lake Perris, Lake Mathews, Vail Reservoir, Lake Hemet, Canyon Lake, Lake Elsinore, Lake Skinner and Diamond Valley Lake. The following is a summary of the assets at risk, by Battalion for Riverside Unit. The information primarily is in consideration to the potential for large and damaging wildland fires, and the potential for a significant amount of structures damaged.

Battalion 1 – Perris

The Perris Battalion is divided into the following communities; Nuevo, Perris, Good Meadow, Mead Valley, Lake Mathews and Woodcrest. Each of the communities has a high risk of significant structural damage due to the fuel loadings and the history of large fires that have created a substantial structure loss. The communities in the Battalion are all typical WUI threatened areas, a mix of large residential tracks that border the wildland and single dwellings intermixed in the wildland.

Like most other Battalions, Battalion 1 has electrical transmission lines that pass through as well as part of the interstate highway system. The Estelle Mountain Reserve, Lake Mathews Reserve and Lake Perris Reserve all have significant biological habitats that require suppression modification tactics.

Battalion 2 – Lake Elsinore

The primary values at risk in Battalion 2 are homes interspersed in the WUI. There is also a set of major electrical transmission lines on the East side of I-15 that pass through the County Ecological preserve. I-15 can and will be affected in the event of a major fire incident on either side of the freeway causing potential closures and economic/traffic impacts. Following any major fire occurrence on the Trabuco District, a severe winter will pose flooding and life safety risks. The West portion of the Battalion has suffered several major fires in recent history to include the Decker canyon fire in August of 1959 which claimed the lives of 5 firefighters, and the Ortega fire in 1988 which burned 16,000 acres from Orange County into Lakeland Village and the Falls Fire of 2013. The valley also experiences a unique weather pattern in the summer months called the "Elsinore effect". Valley floor heating creates a thermal low which draws a strong onshore flow over the Ortega Mountains and down into the valley creating strong down slope/down canyon winds during the heat of the day.

Battalion 3 – Beaumont

Values at risk in the Beaumont Battalion include residential, commercial-industrial and recreational, with some minor agricultural values including orchards and dry land farming. In addition the San Gorgonio Pass is a significant location for critical infrastructure. Multiple gas and fuel pipelines, high tension power lines, a transcontinental railroad and freeway are found in the Pass. Major watershed surrounds the Pass communities as well. Residential areas include the flatter valley bottoms as well as the foothill wildland-urban interface areas above Calimesa, Cherry Valley, Banning and Yucaipa. Significant wildland-urban intermix areas of residences also are located in the Twin Pines and Poppet Flats area. These areas have been devastated by fire frequently. Commercial-industrial uses are mostly south of the I-10 freeway in Banning and Beaumont, but some future development may occur in the Cherry Valley-Calimesa area. Agricultural areas are centrally located in the San Gorgonio Pass between Beaumont and Banning and in the Cherry Valley and Banning Bench areas. Recreational areas include the National Forest areas surrounding the Pass as well as private recreation facilities in Poppet Flats, south of Banning and Beaumont and Cherry Valley. Major watersheds include the San Gorgonio River as it flows through the Banning Canyon area, the Potrero Creek as it flows south from the Pass to the San Jacinto Valley, the Millard and Potrero Creeks on the Morongo Indian Reservation and Whitewater Canyon which drains to the east and is the major watershed for the Coachella Valley. Fire protection improvements to protect the above include the Truck Trails, cisterns and fuel break systems that were constructed during the mid-20th Century. This includes the Pisgah Peak, International, Mile High, Cherry Canyon, and North Mountain systems. Maintenance and improvement of these systems is critical to the protection of the Pass area.

Battalion 4 – Corona

The major values at risk from a Santa Ana River bottom fire are the structures that line the bluffs overlooking the river and the potential loss of wildlife habitat. There is a problem gaining access to a good portion of the river bottom. A small portion of the Chino Hills is located along the west end of the County line and on a normal fire day we are able to contain a fire there to 100 acres or less, but when there is a Santa Ana wind event, a fire has the potential to run into Orange County rapidly, threatening hundreds of homes in the Yorba Linda/Carbon Canyon areas. The Chino Hills State Park covers just over 13,000 acres of the Chino Hills and holds recreational values and wildlife habitat. The Dawson Canyon and Spanish Hills areas consist of the hills south of Home Gardens running east to Lake Hills and running south basically along the east side of I-15 to Lake Street. The values at risk generally consist of the approximately 135 homes located in the two areas. The values at risk in the foothills that run along the Cleveland National Forest (Trabuco Ranger District) from the Orange County line to the Battalion 2 and 4 dividing line, which consist of numerous housing developments that are adjacent to the wild land areas and the numerous houses built in some of the canyons and hillsides.

Battalion 5 – San Jacinto

The major values at risk within Battalion 5 are the residential areas of the San Jacinto Valley, and the community of Sage which has classical WUI operational problems with many homes and ranches. The biggest risk currently facing Battalion 5 is the west-facing slopes below the communities of Idyllwild and Pine Cove. A repeat of the 1974 Soboba Fire is now possible due to fuel conditions. Also at risk in Battalion 5 are the areas south of Diamond Valley Lake, specifically Avery Canyon, Gible road and Polly Butte, and the foothills surrounding Simpson Park, located south of the community of Hemet. A fire starting at the east end of Simpson Park, in conjunction with Santa Ana wind conditions, has the potential to be a multimillion dollar loss fire

Battalion 9 – Moreno Valley

The three major components at risk within Moreno Valley Division are communication, recreation areas and homes. The first is the communications repeater towers and recreational hiking trails located on Box Spring Mountain. Box Spring Mountain is home to communication infrastructure for CAL FIRE, Riverside County Fire and local law enforcement repeaters. The loss of these towers during a wildland fire has the potential to impact public safety communication capacities throughout northwest Riverside. It is the Battalion's top priority to maintain Box Spring Mountain Road access to the repeaters as well as maintain a defensible space around the communication towers themselves. The Box Spring Mountain Park has miles of hiking trails intersecting the mountain that poses a life safety threat to the public using the trails.

The second value is the Lake Perris State Park Recreation Area. A fire within the Lake Perris State Park Recreation area has the potential to create sediment and soil run-off impacting one of the drinking water reservoir within Southern California. Additionally, fires within the state park would threaten the public safety of hundreds citizens utilizing the recreation facilities within the park.

The third is the large structure defense component within the Wildland Urban Interface (WUI) in all sections of Moreno Valley like Hidden Springs, Sunnymead Ranch, Pigeon Pass, and Moreno Valley Ranch near the Moreno Valley College campus and golf course. Additionally, the eastern section of Moreno Valley has a more rural intermix of wildland fuels due to the larger equestrian ranch style homes and parcels near Redlands Blvd, Moreno Beach, Cottonwood, Locust, Theodore, Reche Canyon, San Timoteo Canyon and Gilman Springs road areas.

Battalion 11 –Mountain/Pine Cove

The values at risk in the Pine Cove/Idyllwild area include residences, business, and a significant number of camps, which are typically occupied by children throughout the summer. The potential problems faced in the communities include: difficult ingress and egress, potential for smoky conditions and limited visibility coupled with narrow; winding roads, power lines throughout forested and residential areas, and steep rocky terrain.

Battalion 11 –Mountain /Anza

The values at risk in the Anza area are primarily the large number of homes scattered throughout the brush fields in the valley. All of the large public assets, such as the Trinity Boys Home property, propane storage facility, schools, and the community itself are well protected with large areas of defensible space. With the predominately east wind influence present, any fire started within the brush fields to the south and east ends of the valley will have the potential for a large damaging fire due to the response times of both initial attack engines and extended attack engines. This with the scattered homes in these areas will cause a chance of property loss. The northern portion of the valley has large stands of brush Fuel models 4 and 6 that can be influenced by winds both east and west that can push fire through the areas up the south slopes of Thomas and Cahuilla Mts. to the USFS lands. This area also has scattered homes throughout the brush areas. With the exception of the Bailey fire an 1993, there has been no real large fire history with the valley area in the past 15- 20 years.

Battalion 11 – Mountain/Pinyon

The major values at risk located in the Pinyon area consist of scattered, residential single-family dwellings located in and around fuel model 4. The BLM Santa Rosa National Monument is also located in this Battalion.

Battalion 11 – Mountain/ Garner Valley

Values at Risk include scattered residences and ranches, community areas and several campgrounds, summer camps and recreation areas. The Mountain Fire scar has had an effect on water quality in Lake Hemet. The Mountain Fire did contribute to both long and short term economic hardship of the area. Tourism has seemed to stabilize to pre fire levels, but the long term effect on cattle ranching due to loss of grazing land has yet to be determined. Fuel reduction projects and thinning has reduced the fire threat for some of the area, but persistent and continued drought has left an abundance of dead and down fuels in areas that have not been cleared or thinned.

Battalion 11 – Mountain/ Lake Riverside

Aguanga is a rural community and within the last decade a large increase in private dwellings has been noticed. Several senior trailer parks, an elementary school, casino, and a private extreme sports camp are located within its boundaries. San Bernardino national forest skirts the northern boundaries of Station 77's Primary Response Area.

Battalion 13 – Menifee

Battalion 13 is 42 square miles and has roughly the following boundaries: North of Murrieta city, South of Perris city, west of the Winchester area and just East of Elsinore (halfway down Railroad Canyon Road). The area with the highest potential for large and damaging fires is in the area of Menifee, Station 68's PRA. The primary housing construction in the area of Cottonwood Canyon is single and doublewide mobile homes. The hazards include, but are not limited to: Limited access and egress, limited water supply, and housing construction.

The area south of Bundy Canyon Road may also pose a problem, however it is a north facing aspect. During north wind conditions, coupled with a wildland ignition, the potential exists for fire to rapidly spread south to Murrieta.

Battalion 14 – West Riverside

The major values at risk within Battalion 14 are the residential areas on the north and west side of Box Springs Mountain and along the border with the Riverside City Fire Department. There are also homes that are threatened along the base of the Jurupa Mountain Range running from the Glen Avon area east to the Rubidoux area. Even though the fuel load is light after a number of fires going through this area there is still potential in both areas for destructive fires. Evacuations are difficult in and along Box Springs Mountain due to Pigeon Pass Road being closed off going over the hill into Moreno Valley. There are limited roads going up to the toe of the slopes on the north and west side including the Highgrove area. A fire starting during Santa Ana wind conditions has a high potential for loss of life and property due to the total number of homes and people living in these areas, especially in the interface with the Santa Ana River drainage

Battalion 15 – Temecula

Major assets at risk in the Temecula area include the De Luz area (A major Avocado producing region) inter-mixed with very high dollar housing and the Santa Margarita river drainage, which runs from Temecula to the Pacific Ocean. Old Town Temecula is also at risk, due to prevalent westerly afternoon winds, which have pushed fire downhill into Temecula in the past. Additionally, a community of homeless has set up a decent size encampment at the mouth of the Margarita drainage. The eastern portion of the battalion has seen an explosion in construction the last 10 years with hundreds of homes and ranches being built in the WUI environment. The potential is here as everywhere in the county for a large high dollar fire. If there were a start in the Santa Margarita drainage, it would be difficult to achieve initial attack success, due to fuels, topography, and Accessibility.

Battalion 15 – Temecula/ Bear Creek

The major values at risk within Station 75's Initial Attack area (SRA) include hundreds of residential structures in the La Cresta and Tenaja area with a minimum square footage of 4,000 feet up to a maximum of 12,000 square feet on five-acre parcels. This area is a significant watershed and environmental sensitive area. Included in station 75's PRA is one of the county's oldest partners in the VMP process, the 6,500-acre Santa Rosa Nature Conservancy, which contains over 10 miles of roads only accessible by Type III engines. Recreational areas include Tenaja Falls and a portion of the Wildomar off Highway Vehicle area on the Cleveland National Forest, both of which are located in the initial attack area. There are also numerous equestrian facilities and trails in the La Cresta area. A significant potential for a large destructive wildfire exists within Station 75's area. This potential includes reasons listed above, a lack of any significant recorded fire history, and climatic conditions relating to the daily coastal influences. These large communities with hundreds of significantly sized residences within the wild land urban interface have only two routes of ingress or egress in the event of an emergency. The general population frequently uses recreational areas and opportunities in this area to access the National Forest. In the event of a wildfire there is a significant reflex time to augment required resources to affect evacuations and structure protection necessary in the area.

Battalion 15 – Temecula/ Wolf Creek

Major values at risk within Station 92's first in area include hundreds of custom and ranch style residential structures with some equestrian activity. Accessibility, water supplies and water sources are good to these residential structures. The Pala/Temecula Grade area, where there is a very heavy brush load and an active real estate market has generated large, high dollar homes in the area. There are also two smaller and older style developments/communities, which have limited access and poor water supplies. As a general rule, access to the residential structures can be made by Type I engines, however access to the wildland is limited to Type III engines.

Battalion 15 – Temecula/Glen Oaks

Major values at risk within Station 96's first in area include the Glen Oaks area and the Temecula Wine Country (a major grape / wine producing region). This area has orchards intermixed with very high dollar housing. This area also has a significant watershed and environmentally sensitive areas.

B: COMMUNITIES AT RISK

	<u>Place Name</u>	<u>County Name</u>	<u>Federal Threat</u>	<u>Federally Regulated</u>	<u>Year</u>
1	Aguanga	Riverside	-	-	2001
2	Anza	Riverside	-	-	2001
3	Banning	Riverside	-	-	2001
4	Beaumont	Riverside	-	-	2001
5	Cabazon	Riverside	-	-	2001
6	Calimesa	Riverside	-	-	2001
7	Canyon Lake	Riverside	-	-	2001
8	Cathedral City	Riverside	-	-	2001
9	Cherry Valley	Riverside	-	-	2001
10	Coachella	Riverside	-	-	2001
11	Corona	Riverside	-	-	2001
12	Desert Hot Springs	Riverside	-	-	2001
13	East Hemet	Riverside	-	-	2001
14	El Cerrito	Riverside	-	-	2001
15	Gilman Hot Springs	Riverside	-	-	2001
16	Glen Avon	Riverside	-	-	2001
17	Hemet	Riverside	-	-	2001
18	Highgrove	Riverside	-	-	2001
19	Home Gardens	Riverside	-	-	2001
20	Homeland	Riverside	-	-	2001
21	Idyllwild-Pine Cove	Riverside	-	-	2001
22	Indian Wells	Riverside	-	-	2001
23	Indio	Riverside	-	-	2001
24	Juniper Flats	Riverside	-	-	2001
25	La Quinta	Riverside	-	-	2001
26	Lake Elsinore	Riverside	-	-	2001
27	Lakeland Village	Riverside	-	-	2001
28	Lakeview	Riverside	-	-	2001
29	March Air Force Base	Riverside	-	-	2001
30	Mead Valley	Riverside	-	-	2001
31	Mira Loma	Riverside	-	-	2001
32	Moreno Valley	Riverside	-	-	2001
33	Morongo Indian Reservation	Riverside	-	-	2001

	<u>Place Name</u>	<u>County Name</u>	<u>Federal Threat</u>	<u>Federally Regulated</u>	<u>Year</u>
34	Mountain Center	Riverside	-	-	2001
35	Murrieta	Riverside			2001
36	Murrieta Hot Springs	Riverside			2001
37	Norco	Riverside	-	-	2001
38	Nuevo	Riverside	-	-	2001
39	Palm Desert	Riverside	-	-	2001
40	Palm Desert Country Club	Riverside		-	2001
41	Palm Springs	Riverside	-	-	2001
42	Pechanga Indian Reservation	Riverside	-	-	2001
43	Pedley	Riverside			2001
44	Perris	Riverside	-	-	2001
45	Pinyon Pines	Riverside	-	-	2001
46	Quail Valley	Riverside	-	-	2001
47	Rancho Mirage	Riverside		-	2001
48	Riverside	Riverside		-	2001
49	Romoland (Ethanac)	Riverside			2001
50	Rubidoux (West Riverside)	Riverside			2001
51	Sage	Riverside	-	-	2001
52	San Jacinto	Riverside		-	2001
53	Sedco Hills	Riverside			2001
54	Snow Creek	Riverside	-	-	2001
55	Sun City	Riverside	-	-	2001
56	Sunnyslope	Riverside			2001
57	Temecula	Riverside		-	2001
58	Thomas Mountain	Riverside	-	-	2001
59	Thousand Palms	Riverside	-	-	2001
60	Torres Martinez Indian Reservation	Riverside	-	-	2001
61	Valle Vista	Riverside	-	-	2001
62	White Water	Riverside	-	-	2001
63	Wildomar	Riverside		-	2001
64	Winchester	Riverside		-	2001
65	Woodcrest	Riverside		-	2001

SECTION IV: PRE-FIRE MANAGEMENT STRATEGIES

A: FIRE PREVENTION

Defensible Space/Fire Safe Inspections

Riverside Unit is conducting Fire Safe Inspections on structured parcels utilizing the LE100 program throughout the unincorporated areas of the county. The LE100 form contains a compilation of codes, from both the Public Resources Code and the Riverside County Ordinance 787, which adopts the California Fire Code. This allows for the utilization of PRC 4291 and some more specific regulation required by the County Ordinance.

As a part of the MAST Organization the private lands in the San Jacinto Mountains are being inspected by three different agencies, the California Department of Forestry and Fire Protection/Riverside County Fire, the United States Forest Service, and The Idyllwild Fire Protection District.

LE100 Inspection Reports 2011 - 2015

YEAR	2011	2013	2015
Number of Inspections	2,561	11,815	22,088
Number of Corrected Violations	10	188	2,945
Number of Violations	553	1,051	4,660

These numbers reflect inspections in LRA and SRA by Riverside County Fire and CAL FIRE

LE100 Inspection Reports by DPA 2011-2015

DPA	LRA			SRA		
YEAR	2011	2013	2015	2011	2013	2015
Number of Inspections	2,422	6,772	4,357	139	5,043	15,258
Number of Corrected Violations	10	98	108	0	90	4,239
Number of Violations	508	471	421	45	580	2,837

These numbers reflect inspections in LRA and SRA by Riverside County Fire and CAL FIRE

Hazardous Vegetation Inspections on Vacant Parcels:

Riverside Unit also conducts inspections and enforcement on vacant parcels in the unincorporated areas of the County utilizing Riverside County Ordinance 695, in both the SRA and LRA. The Hazard Abatement section of the Fire Prevention Bureau is staffed by Riverside County funded personnel which conduct the inspections and enforcement. Unlike the LE100 program those properties that are in violation and not corrected by the property owners are abated by Riverside County Fire Contractors and later billed or their property receives a special assessment on their property tax bill.

The program’s current primary inspection area focuses on the western portion of Riverside County. It currently does not include the High Fire Hazard Areas of Sage and Anza. Later implementation in these areas would require additional funding for the Hazard Abatement Office. Advances in geographic information technology and mobile computing would assist the Hazard Abatement Program in advancing into these areas as well as streamlining the current internal processes. In 2010 a fire occurred in the “La Sierra” area quickly moving upslope threatening homes, abatement under Ordinance 695 in this area assisted in saving structures.

Riverside County Ordinance 695 Inspection Reports 2011 - 2015

YEAR	2011	2013	2015
Parcels Inspected	57,440	66,184	67,050
Notices of Violation Mailed	10,566	9,594	11,135
Parcels cleared by Contractor	1,276	634	842

Dead, Dying or Neglected Orchards Inspections

Riverside Unit conducts inspections for dead, dying and neglected orchards under Riverside County Ordinance 772. Due to the increase in water costs and the economic times many thriving orchards have been left to die and in turn have created a hazardous fire concern since many of these orchards lie in close proximity to housing developments. The Hazard Abatement Staff inspects and enforces this ordinance, if a property is determined to be in violation of the Ordinance the owner is sent a Notice of Violation and the property is posted as such. If the property owner does not abate the property themselves a Contractor is hired to abate the property and the property owner is billed and/or a special assessment is placed on their property taxes. Eight (8) orchards in 2015 were posted for abatement, with one (1) sent to a County contractor.

Railroad Right Away Inspections

In 2010 the Riverside Unit began conducting inspections along railroad right of ways under Public Resource Code 4296.5 and utilization of the Railroad Fire Prevention Guide. A five (5) year fire history was conducted to identify inspection criteria. It was determined thirty (30) railroad caused fires were identified with ten (10) of those being SRA and the remaining twenty (20) in the LRA. As a result of this cooperative approach no violations were found, nor were there any ignitions or fires attributed to the railroad in 2015.

Railroad Right Away Inspections	2013	2015
Mile of track Inspected	45	470
LRA Violations	0	0
<i>SRA Violations</i>	0	0

Power line Inspections

Riverside Unit conducts Power line Inspections under Public Resource Code 4292 (vegetation clearance around poles) and 4293 (vegetation clearance around power lines) in cooperation with Southern California Edison, Banning Electric and Anza Electric. The inspections are completed by the Hazard Abatement Staff. All violations were corrected.

Power line Inspection Reports 2011 - 2015

YEAR	2011	2013	2015
Poles Inspected	10,111	29,767	32,360
PRC 4292 Violations	24	68	61
PRC 4293 Violations	10	16	31

Open Burning

Riverside Unit has a problem with persons burning debris and/or burning without a permit. In the Riverside Unit a permit for burning is required for tumbleweeds, Pit style BBQ's and agricultural burning. CFC Section 307.1 requires a permit for open burning unless the fire is for recreational purposes. When it is determined a person conducted open burning without a permit a citation is issued. Ninety six (96) citations were issued in 2015 under CFC 307.1 for burning without a permit. Continued enforcement and coordination with the Public Information Section will be necessary to reduce the number of persons burning debris and reduce the amount of fires caused by their unsafe practices. Education in other languages such as Spanish may assist this issue.

Equipment Caused Fire

In the Western portion of Riverside County Equipment caused fires are uniformly everywhere. As the LE100 statistics and the Hazard Abatement Office statistics show the number of property owners in violation of hazardous vegetation on their property is very high. In turn this requires the property owner to abate the property utilizing equipment many times during the incorrect time of the day, using unmaintained equipment or not equipped with spark arrestors. The public information section has assisted in educating the public on the proper manner to use equipment through press releases. Cost recovery for incidents determined to be equipment caused are being pursued at the local and/or Region level. Continued education and coordination with the Public Information Section will be necessary to reduce equipment caused fires. Signage along roadways may assist this issue.

Children Playing With Fire

Fires caused by children playing with fire are prevalent across the County. The Riverside Unit has personnel from the Fire Prevention Bureau assigned to administer the Juvenile Fire Setter's Program. This program is designed to assist these children in their curiosity about fire and educate them on the dangers associated. Children are either voluntarily placed into the program or placed in the program through the Juvenile Court System. Continued education is necessary at a minimum the grade school level in the dangers of fire to reduce the amount of fires caused by children.

Fire Closure Areas

The Whitewater Canyon fire closure area is the most active for persons violating. It is enforced cooperatively with the Bureau of Land Management and Fire Prevention Staff. Signs are displayed each year when the closure takes effect and they are many times destroyed and even more times ignored. No (0) citations were issued by Fire Prevention Staff for violating the fire closure under Riverside County Ordinance 787 in 2015. In 2011 more signs were placed in a more permanent and visible fashion to assist in deterring the public from violating the fire closure. Fire closure maps in appendix D.

- ENGINEERING & STRUCTURE IGNITABILITY

Ordinances Regarding Construction

The Riverside Unit has adopted the 2000 Edition of the California Fire Code, which specifies various requirements for the development of new construction within the County. The Fire Protection Planning Section of the Riverside County Fire Department is responsible for ensuring new developments within the county meet the various ordinances pertaining to building homes in the wildland. These ordinances include PRC 4290, PRC 4291, Riverside County Ordinance 787.6, and the 2010 California Building Code, Chapter 7A, Materials and Construction Methods for Exterior Wildfire Exposure. With the passage of SB 1241, Resource Management will become more involved with comment on land use decisions. With the housing element of this Bill beginning in January of 2014, assistance and comment with County and Local Government on reducing fire risk in SRA development, classified under PRC 4102 and lands identified in very high fire hazard severity zones our technical advice on fire hazard planning will play an important role in reducing wildfire threat to communities

Unit Staff are working with the local Fire Safe Councils to disseminate information and educate the public on the message of Firewise home construction practices. The LE100 program at the station level provides for a one-on-one contact with residents. This is the opportunity for residents to discuss what they can do to ensure their homes survivability in the event of a catastrophic wildland Fire.

- INFORMATION AND EDUCATION

Public Information & Education Bureau

The CAL FIRE - Riverside Unit Public Affairs and Education Bureau offers several outreach and public education/awareness programs. Our audiences and methods of education and outreach typically include, but are not limited to:

- K-5 Child Education Programs such as “9-1-1 for Kids,” “Learn Not to Burn,” “I Spot Something Hot and” Stop-Drop-and-Roll.”
- The elderly - FEMA’s “Preparing Makes Sense for Older Americans” brochure.
- The disabled.
- Community Groups via community meetings presented by Public Information/ Education staff and fire station personnel.
- Fire Safe Councils via planning meetings and workshops with Pre-Fire Management staff and Public Information/Education staff.
- MAST via monthly planning and preparedness meetings with Pre-Fire Management, OES, and Public Information/Education staff.
- Monthly fire preparedness and safety message contributions to community newsletters, print, and television media, along with the www.rvcfire.org website.
- The “Ready, Set, Go” interactive web-based preparation guide for homeowners. Access is available via www.readyforwildfire.org, www.rvcfire.org, and the www.fire.ca.gov websites. This program has been presented at all of our partner city council meetings, CSA meetings, and unincorporated communities by affected Battalion Chiefs, fire station personnel, and Public Information/Education staff. A “Ready-Set-Go” handbook is part of this preparedness campaign and has been distributed at community safety fairs throughout the County/Unit.
- Working collaboratively with the Fire Prevention Bureau to inform the public about arson arrests and assistance in seeking information on potential arson suspects via news releases. Working with children in the Juvenile Fire setter Program. Installing prevention/education based road signs.

The CAL FIRE/Riverside Unit and Riverside County Fire Department are pro-active in efforts to raise awareness of the multitude of fire-prone areas in our jurisdiction and the threats they pose. By maintaining informational road signs and utilizing the www.rvcfire.org and www.fire.ca.gov websites, we have the ability to not only provide current incident information but the ability to communicate our fire prevention messages. In February 2011, the CAL FIRE/Riverside Unit implemented a “Twitter” social networking account that links the “follower” back to our website to be informed of significant incidents that may affect the follower’s community – always with an attached safety message regarding wildland fire preparedness, evacuation information, brush clearance requirements, hazard mitigation information, or a myriad other regional or seasonal messages.

Future plans to provide fire safety education to the public include:

- Fire safety messages provided on freeway frontage billboards.
- PSA's displayed in movie theaters, on shopping carts, on grocery store and gasoline station monitors, and streaming video on our www.rvcfire.org website and our Riverside County Fire Department YouTube page.
- Continued fire safety school programs.
- Presence and public outreach at community events and safety fairs.
- Radio, television, and print media PSA's.
- Continued and expanded presence in the social media market.

B: VEGETATION MANAGEMENT

Vegetation Management Program Projects

Summary of the Vegetation Management Program

The Riverside Unit integrated its Vegetation Management and Pre-Fire Engineering Programs in January 1998 and created a Pre-fire Management Division. This integration has combined the planning and assessment tools developed for the 1995 California Fire Plan with the resources of the Vegetation Management Program (VMP) in order to implement fire hazard/fuels reduction projects in the most appropriate areas of Riverside County. The VMP Program has been used very successfully for fire hazard reduction in Riverside County since the program was first created. The use of fire weather, fire history, and fuels information provided through the Fire Plan provides a foundation to explain and justify to management and to the public why we are spending limited VMP resources and staff time in these high fire hazard areas.

The focus of VMP in Riverside County has historically been and will continue to be directed at fire hazard/fuels reduction and ecological restoration projects. The presence of numerous endangered species throughout Southern California has made burning for native habitat restoration a valuable tool. In most cases, these restoration burns also lend themselves to reduce fuel loads that pose a fire hazard to adjacent urban development. There is very little grazing activity in the county and therefore burning for range improvement has not been a priority. Pre-fire staff is assisting several ecological reserves with the development of fire management plans that will involve fuels management as a component; additionally these plans assist fire managers in pre-planned control objective during wildfire events. Chipping is also a very appropriate tool that is used, particularly where there are smoke sensitive issues or where there is too great a threat to use prescribed fire.

Wildland Urban Interface (WUI) grants from the USDI Bureau of Land Management (BLM) and similar (USFS) United States Forest Service grants are often required to help finance these critical projects. These grants are awarded on an annual basis and must meet the criteria set forth by each agency.

Past Projects

Lake Mathews VMP

The Management Plan for the Lake Mathews/Estelle Mountain Reserve specifies the use of prescribed fire to reduce or eliminate the non-native annual grasses and return the landscape to the native grass and sage scrub species. The vegetation within the Reserve is comprised primarily of non-native annual grassland, with smaller areas of mixed chaparral, coastal sage scrub, and California juniper woodland. Ultimately, VMP plans will be developed to implement prescribed fire on the 6,478 acres within the northern half of the Reserve. The area has been divided into 43 prescribed fire units that will be burned on a rotational basis that best mimics the natural fire cycle. Three units totaling 500 acres were scheduled for burning during the spring of 2002. However, numerous lawsuits prevented any work from occurring on that project. It is currently suspended pending a resolution of those legal issues.

In spring 2003, Metropolitan Water District of Southern California (MWD) approached CAL FIRE about conducting VMP on lands owned by MWDF in the Lake Mathews Project area. We are currently working with the MWD environmental consultant in pursuing the identification of specific project units in order to proceed with environmental review.

Tenaja VMP

The Tenaja VMP project is located west of Murrieta along the De Luz Creek drainage south of the intersection of Tenaja Road and Avenida La Cresta. The northern and eastern portion of the project is comprised mostly of large residentially zoned parcels. The central and southern project area is conservation and park land primarily covered with chaparral plants on the slopes and Engelmann Oak woodlands in the drainages.

The purpose of the Tenaja VMP is to reduce hazardous fuel loading in the upper De Luz Creek watershed. Historically, large fires initiating in the De Luz, Fallbrook, and Camp Pendleton areas have burned with the prevailing on shore winds and threatened the now developed areas on the Santa Rosa Plateau. This project is part of a larger plan to reduce the fuel loading adjacent to the plateau communities of Tenaja and La Cresta. Prescribed burning has taken place on the Santa Rosa Plateau Ecological Reserve immediately to the east since 1987 and additional projects are planned to the northwest on both state responsibility lands and the Cleveland National Forest within the next three years. Combined, these projects will provide a significant buffer against fires moving with the onshore prevailing winds from the south and west toward these now heavily developed communities.

Specifically, the Tenaja VMP will use prescribed fire to treat 364 acres of watershed in and adjacent to the De Luz Creek drainage. The northern end of the project will tie into Tenaja road and a newly constructed fuel break along the Rancho California Road easement. The west and east flanks will primarily utilize existing road systems with some new hand line construction. The southern end of the project area is steep with no existing roads and will therefore involve mostly construction of hand line.

The interior vegetation will be burned in a mosaic pattern to develop age classes that are less likely to sustain major wildfires and enhance wildlife habitat.

The primary objectives of the prescribed burn project are to reduce fuel loading in the chaparral plant species and develop a mosaic of age and species diversified vegetative cover. An overall reduction in chaparral fuel loading of 50 to 80% is desired. Engelmann oak woodlands will not be treated and will be protected from adjacent burning operations. Approximately 300 acres have been completed to date and as of 2003, the Tenaja project was incorporated into the Santa Rosa Plateau Reserve Project because the land involved was given to the Reserve. Additional acreage will be added to the remaining balance of 64 acres and it was slated for burning in fall 2003 or spring/summer 2004. Currently, the Tenaja project is held up in litigation. The project remains open, but with no foreseeable short-term resolution to the lawsuits.

Lake Mathews/Estelle Mountain Core Reserve:

The Lake Mathews/Estelle Mountain (LMEM) Core Reserve is located in western Riverside County and is currently 11,232 acres in size. The Reserve's current configuration and management structure has its origins in a 1996 Habitat Conservation Plan (HCP) for the Stephen's kangaroo rat. The Reserve Management Committee (RMC) is comprised of representatives from the U.S Fish and Wildlife Service, the California Department of Fish and Game, the Bureau of Land Management, The Metropolitan Water District of Southern California, the Riverside County Habitat Conservation Agency, and the Center for Natural Lands Management.

The 1993 fire management plan serves as a foundation and model to expand the planning effort into the LMEM Core Reserve. In May 1998, the RMC initiated the expanded fire management planning effort in cooperation with the California Department of Forestry and Fire Protection. The expanded plan, completed in the spring of 1999, addresses pre-fire fuels management and fire suppression planning issues as they relate to the protection of public safety and endangered species habitat management.

Pre-fire management projects will focus on the implementation of prescribed fire on 6,478 acres within the northern half of the reserve. The area has been divided into 43 prescribed fire units that will be burned on a rotational basis that best mimics the natural fire cycle. Pre-fire management efforts in this area will focus on fuel breaks, weed abatement and focused fire prevention activities aimed at keeping fire out of the area in order to facilitate regeneration of native species. In 2004 prescribed fire had been utilized on 1,006 acres in the reserve, and the plan remains open to continue the rotation of burning the prescribed fire units.

Mount Baldy:

The Mount Baldy VMP is an emergency fuels reduction project that will be done cooperatively with the San Bernardino National Forest. This 272-acre project represents a critical piece of ground that is the last remaining link tying the former West Ridge II VMP project with the 1999 Mixing Fire. Without

treating these fuels, which include large acreages of dead chaparral resulting from the drought, a fire starting along State Highway 74 in the Dry Creek area would be able to sweep uphill to threaten Mountain Center and Baldy Mountain Village. Although only 75 acres of SRA would be treated in this co-op project, these acres are critical to the project due to topography. Three-quarters of this project was completed in Fall 2003, and the remaining one-quarter is scheduled for Spring 2005.

Water Canyon VMP:

This project consists of three treatment sites as follows: one prescribed fire in the Water Canyon area, and maintenance of three existing un-maintained fuel breaks surrounding the Oak Glen area. The Oak Glen area surrounds Beaumont, an interface community identified in the August 17, 2001, Federal Register, Part III Department of Agriculture Urban Wildland Interface Communities document. The community and surrounding area is directly above wildland fuels with three or more homes/business structures per acre, five watersheds, power lines, transportation, and shared municipal services. The overall purpose is to modify or break up the fuels in such a way as to lessen catastrophic fire and its threat to public and firefighter safety and damage to property.

Local CAL FIRE crews and equipment were assigned to the three project sites to remove hazardous fuel buildup during non-fire season and provide maintenance of the sites during early fire season, and also conduct a prescribed fire. This project was completed in 2009; the Unit is involved with maintenance work in the project.

Red Hill North / Red Hill South VMP:

The unincorporated community of Pine Cove, located in the San Jacinto Mountains of Riverside County, has a population of approximately 1500 permanent residents on 2200 improved parcels. Pine Cove is situated predominately on a western/southwest aspect of the San Jacinto Mountain range at 6200' elevation and is "mid-slope" between the San Jacinto Valley to the west at 1700' in elevation and San Jacinto Peak at 10,804' in elevation to the east. Lands owned and protected by the USDA Forest Service/San Bernardino National Forest and San Jacinto State Park surround the community of Pine Cove.

The vegetative community is comprised of mature chaparral with a mixed conifer forest over story. The predominant under story species include Manzanita, Chaparral Whitethorn, Deer Brush and Chamise. The tree over story consists of mixed stands of Jeffrey Pine, Ponderosa Pine, Coulter Pine, Incense Cedar, White Fir and Sugar Pine. There is no recorded fire history for the area since fire records started being kept around 1924; therefore it is assumed the vegetative community is at least 75 years old.

The Riverside Unit has re-entered into agreements with the current private property owners whose properties lie within the Red Hill Vegetation Management Program and established new projects such as the Maxwell Trail and Point of Rocks VMP's, which add protection from a fire spreading down slope into the communities from the north and east, project area encompasses 500 acres. In addition to

maintaining the prescribed fuel loading levels completed, it is proposed that CAL FIRE increases the treatment area within the same private properties to broaden the “shaded fuel break” and create a wider buffer of protection. The actual width of the treated area will vary depending on the type of vegetation and topography. The proposed fuel reduction project will be completed by piling dead vegetation, thinning brush and small trees with chainsaws and placing this material into small piles to be burned in cool weather or chipped where accessible. The net treatment area is approximately 750 acres.

This fuel reduction project is part of a larger plan to tie several fuel treatment projects together and thus provide a continuous fuel modification zone along the western edge of the San Jacinto Mountain communities

These projects have the potential to reduce the damages from wildland fires spreading into the community of Pine Cove, Idyllwild, and Fern Valley. Fire history records indicate that fires in the surrounding area are traditionally slope and wind driven, burning in an easterly direction. The only exceptions to this historical data are those fires that are wind driven during a “Santa Ana” wind event.

The proposed project is intended to provide a buffer of protection to the communities of Pine Cove and Idyllwild by reducing fuel-loading levels and to provide an area to which fire suppression forces can safely take action on an encroaching fire.

The original 1991 Red Hill Vegetation Management Project was supported by the Idyllwild/Pine Cove Coordinated Resource Management Planning Group (CRMP) and by the Pine Cove Property Owners Association. The project was also well supported by the participating property owners. In addition, the 1991 Red Hill Vegetation Management Project was conducted in conjunction with the USDA Forest Service/San Bernardino National Forest fuel break project that “linked” federal lands that separated the private property parcels of the original project.

Since this project was initially envisioned in the 2000 RRU Fire Plan, the massive tree mortality and resulting State emergency declaration for the area have occurred. Thousands of trees have died within the project area. Therefore, CAL FIRE is re-entering the same project area on multiple occasions, as more trees die and future treatment will be required for several years to come. Insect control crews from Bautista and Oak Glen camp as well as regular grade crews are working on this massive fuel reduction project.

In 2012, contractors funded by grants, have finished maintenance work on Red Hill South and were planning to continue to Red Hill North. In 2014 funding was secured through Fire Prevention Fee sources and Red Hill North was completed. These fuel breaks will need continued maintenance at regular intervals to be effective and a tactical resource.

Poppet Flats VMP:

The rural community of Poppet Flats is located at the northern end of the San Jacinto Mountains, approximately six miles south of Banning along Highway 243. Within the community there are over 400 private parcels, many of which contain occupied residences. The largest landowner is the Silent Valley Club, which is a 460-acre RV Park housing 850 campsites and 1150 storage units. Lands managed by the San Bernardino National Forest, the Bureau of Land Management (BLM), and the Bureau of Indian Affairs surround most of the community. Access in and out is limited to Poppet Flats Road running out to Highway 243 on the east. Secondary access can be made to the southwest; however, it is unreliable due to locked gates at the Soboba Indian Reservation and lack of maintenance.

Poppet Flats sits in a southwest-facing valley, which ranges in elevation from 3200 to 4000ft., numerous fires have started on the Soboba Indian Reservation below Poppet Flats as well as recent arson fires along Highway 243 to the northeast. The physical orientation and location of the community places it at extreme risk from the normal southwest wind driven fire as well as the "Santa Ana" wind driven fire from the east. Vegetation within and around the community is composed primarily of chaparral species such as Chamise and Manzanita, however, a significant cover of native California oak species is found along Poppet Creek. The age class of the vegetation varies since several large fires have burned in the area over the last three decades.

Phase one; completed July 2003 involved the construction of the fuel break and truck trail on private, National Forest, and BLM lands east of Poppet Flats Road. Phase two of the project completed the construction of a fuel break north and west of the community. The truck trail was re-constructed to allow access for Type-3 engines and vegetation cleared to create a fuel break with an average width of 100 feet. Actual width will varied in order to create a feathered, mosaic appearance. All cut material will be piled and burned or chipped. Vegetation Management Program (VMP) agreements will be re initiated with private property owners to facilitate work and address environmental concerns on their lands.

In addition to the perimeter fuel modification, a community-chipping program will continue facilitating the disposal of green waste generated by the property owners' annual weed/brush abatement activities. Chipping is accomplished by CAL FIRE Camp Crews using a State-owned chipper housed at Oak Glen Conservation Camp. Local residents within the community are very supportive of the projects. The Silent Valley Club, which is the largest private landowner within the project area, has committed their support through use of equipment and other resources. The San Bernardino National Forest and Bureau of Land Management are also committed to providing resources and support to the project.

This projects initial work was instrumental in protecting the community during the fatal Esperanza incident in 2007; few residences were lost directly in part of the fuels reduction surrounding the community by all agencies and home owners involved

Current Projects

El Cariso and Decker Canyon Fuel Break Rancho Capistrano

This project will involve the improvement of a fuel break in the El Cariso/Decker canyon area located along Highway 74 west of Lake Elsinore. The location of these communities puts them at extreme risk from wild fires burning under on shore or Santa Ana wind conditions in predominantly chaparral fuels. This project will reduce the fire hazard by modifying the fire environment and giving fire protection agencies points of access to initiate defensive and offensive control strategies around the community.

The project is divided into the following components:

El Cariso Village HFR (Hazardous Fuel Reduction): Establish a 100 to 150 foot wide fuel break completely around the community of El Cariso Village. A fuel break was originally constructed in 1990 on State Responsibility Lands north of Highway 74. This fuel break is being reconstructed with a new segment added south of Highway 74 in order to completely encircle the village. Cut material is being piled and burned or chipped on site. In June 2004, the El Cariso Fuel break was completed. To date this project is in need of maintenance and has evolved into not only the fuel break maintenance but also, focused PRC 4291 inspections and a community wide homeowner brush removal and chipping program, utilizing CalFire hand crews for chipping.

Decker Canyon Fuel break: Vegetation is planned to be thinned, pruned, and/or cleared within 50 feet of each side of the primary roads within Decker Canyon in order to improve access for fire equipment and escape routes for residents leaving the area. Cut material will be chipped and spread on site or piled and burned.

Cooperators in this project will include private landowners, the Cleveland National Forest, the Orange County Fire Authority and the Riverside Unit of CAL FIRE. This project is being planned; hopes are to see the projects be established by 2012. These projects will link a recently approved major fuel break system on the Cleveland National Forests, the North and South main divide truck trail/fuel break.

In 2014 funding was secured through the Fire Prevention Fee and a 42 acre shaded fuel break was completed around the community of El Cariso. This project will need continued maintenance to maintain effectiveness and tactical advantage.

Lake Perris VMP

Lake Perris State Recreation Area is located in western Riverside County about 18 miles southeast of the city of Riverside. The project area is located at between 1600 and 1700 feet in elevation in the basin northeast of the lake. Lake Perris has approximately 2000 acres of habitat that is grassland. These grassland areas were highly disturbed in the past by grazing and agriculture and are currently dominated by non-native plants. The predominant plants are European annual grasses and mustards including Wild oats (*Avena* spp.), Bromes (*Bromus* spp.) and mustards (*Brassica* spp.). Also present, but less dominant are annual forbs including filaree (*Erodium* spp.).

The project implements prescribed fire within the Lake Perris State Recreation Area (LPSRA) for the purpose of habitat restoration. This is part of a long-term management plan to restore fire to the LPSRA at intervals that mimic the natural fire cycle as closely as possible.

The specific objective of this project is to create conditions favorable to the Stephens' kangaroo rat (SKR) and other native wildlife species by removing European annual grasses and mustard and promoting the growth of low growing annual forbs and selected native grasses. Complete consumption, > 90% is desired, with removal of the annual grasses and mustard as well as their seed and accumulated litter from the burn unit.

The current project area covers 500 acres divided into four (4) burn units. Two of the units covering 281 acres were burned in 2010. In 2011 two additional units are planned to be burned for 250 acres. In 2012 one unit is planned for 142 acres. The State Park continues to approach CAL FIRE for additional burning opportunities within the park.

Southwest Riverside County Multi-Species Reserve VMP

The Southwest Riverside County Multi-species Reserve (SWRCMSR) incorporates approximately 15,000 acres in southwest Riverside County around Lake Skinner and north to the Diamond Valley Lake. The reserve is a composite of ownerships comprised of the Metropolitan Water District, Riverside County Regional Park and Open Space District, and the Riverside County Habitat Conservation Agency. The reserve was established to enhance and protect endangered species habitat and protect the watersheds surrounding Lake Skinner and Diamond Valley Lake. A committee, comprised of a representative from each of the landowners as well as the U.S. Fish and Wildlife Service and the California Department of Fish and Game, is responsible for management decisions on the reserve lands.

The final plan was completed in 2008 and initiated use of prescribed fire and other fuels management projects including broadcast burning and shaded fuel breaks networks throughout the reserve. In May/June 2010, 180 acres were burned contributing to a successful reintroduction of Stephen's Kangaroo Rats into those units. Much more is planned with possibilities of re-establishing native oak trees into areas farmed and stripped years ago. Fuels reduction throughout the project will afford protection to the surrounding communities of Sage, Hemet, Murrieta, and the Temecula Valley. In May 2011, working with SWRCMSR and the San Diego Zoo, CAL FIRE burned pie shaped wedges to facilitate habitat experiments for the Stephen Kangaroo Rat. These experiments have been published, and show overwhelming evidence that burning creates the most suitable habitat for the endangered Stephens Kangaroo rat. Later that month, working under the VMP program CAL FIRE burned an additional 43 acres.

Santa Rosa Plateau Ecological Reserve VMP

The project involves prescribed burning on the Santa Rosa Plateau Ecological Reserve, which is located immediately west of Murrieta in the eastern foothills of the Santa Ana Mountain Range. A VMP plan was first developed for the Reserve in the mid-1980's and subsequent burn plans have been in place ever since. There are 402 acres covered under the current agreement.

Prescribed fire was introduced onto the reserve primarily to simulate natural fire cycles and characteristics that support native vegetation communities historically present in the area. The reserve is divided into numerous burn units that are randomly selected for burning each year. On average fire is returned to the same unit approximately every five to seven years, with between 100-200 acres being treated annually. In addition to the ecological benefits, these recurring cycles of fire generate plant communities with less dangerous wild fire behavior characteristics. They also develop vegetative age classes that will be less likely to create or sustain major wild fires.

Fuels are primarily annual grasses with oak woodland cover; however, chaparral is present in all or portions of several units. Project preparation work involves cutting of hand line and road maintenance to facilitate access and control lines. Burning is typically carried out using drip torches and aerial ignition devices. Management of the reserve has changed, and is now the responsibility of The California Department of Fish and Wildlife, under the direction of a management committee. Ownership is comprised of The California Department of Fish and Wildlife, The Nature Conservancy, the Riverside County Regional Park and Open Space District. The new agreement with the Department of Fish and Wildlife took effect in May 2011.

The burning on this project has greatly increased the re-establishment of local native grasses and a very healthy habitat area.

Johnson Ranch VMP

The Johnson Ranch VMP is 671 acres east of Murrieta and South of Lake Skinner. The Ranch is managed by the Center for Natural Lands Management. The Ranch is owned by the California Department of Fish & Wildlife, Riverside County Regional Parks & Open-Space, The City of Temecula, and The University of California, Riverside.

Fuels are primarily annual grasses and non-native weeds. One of the goals is to re-establish native plants on the reserve. In establishing the plants, it is hoped that the animal habitat will increase the wildlife. Burning is typically carried out by hand ignition devices. The Johnson Ranch VMP has just been renewed and is effective till May 2015.

Orchard/Lake Mathews VMP

The Orchard/Lake Mathew VMP is 2,111 acres south of Lake Mathews in the Estelle Mountain Reserve. The reserve is owned and managed by Riverside County Habitat Conservation Agency.

The fuels on the reserve are primarily grasses, but there are oaks and some coastal sage. The area of the VMP was used as orange and grape groves. The Conservation Agency is attempting to return the land to a native state. Broadcast burning is a tool that has helped eliminate non-native grasses and noxious weeds. In 2010 we burned 99 acres. Burning has been carried by hand firing control lines that are mowed with a scratch line included. Burning continued in 2011, CAL FIRE working with BLM and various local agencies completed 280 acres of prescribed burning. In 2012, land management concentrated our efforts to burning piles of discarded orange trees. The Stephens Kangaroo Rat population has exploded in area of prescribed burning, raptors are becoming present. This VMP has been submitted for 2016 and re-entry will occur this year.

Woodhouse VMP

The project is part of planned efforts to return and maintain native plant and animal habitat within the San Timoteo Reserve. In the 1800's the whole area of San Timoteo was used as a cattle grazing area, and a majority of the native plants were destroyed. In 1991 the County of Riverside started buying the land for a Stephens Kangaroo Rat reserve. Through the mitigation process the Regional Conservation Authority started buying parcels and established the county owned reserve. By introducing fire it is hoped to eradicate non-native grasses and weeds, specifically, the Yellow Star Thistle and restore native vegetation, providing animal habitat for the Stephens Kangaroo rat and the Burrowing Owl.

The reintroduction of prescribed fire will simulate the natural fire cycle and generate plant communities having less dangerous wildfire behavior characteristics. They will also develop vegetative age classes which will be less likely to create or sustain major wildfires.

LIST OF PROJECTS FOR 2016

- Santa Rosa Plateau VMP 92 acres, broadcast burning,
- Johnson Ranch VMP 204 acres, broadcast burning.
- Orchard/Lake Mathews 40 acres of piles
- San Jacinto State Park / Stone Creek VMP 110 acres, pile burning.
- Lake Perris VMP 142 acres, broadcast burning.
- Assist BLM, Lake Mathews, 85 acres Steel Peak 20 acres, Potrero 10 acres.
- Woodhouse VMP 129 acres.
- Maxwell Hazardous Fuel Reduction 117 acres.
- Tenaja Road Hazardous Fuel Reduction 6 miles.
- Rancho Carrillo Road Fuel Reduction 3 miles.

California Forest Practice Act – Exemptions and Emergency Notices

There are numerous Timber Harvest Plan (THP) exemptions and emergency notices in effect that are resulting in thousands of trees being removed with 100% slash cleanup in most cases. This activity will have an enormous impact on reducing the staggering amount of fuel that has resulted from the drought and bark beetle outbreak. CAL FIRE Foresters have been busy conducting Forest Practice inspections on the timber operations occurring on private land.

The governor's emergency proclamation temporarily lifted the requirement for filing exemptions and notices with the State. However, all other provisions of the Forest Practice Act and Rules are in affect. It is estimated that tens of thousands of trees have been removed off of SRA lands in the last year by Licensed Timber Operators and tree service contractors and that thousands more trees need to be removed.

Along power line rights of way CAL FIRE foresters are working closely with Southern California Edison (SCE)-hired foresters and line clearing crews to ensure compliance with the forest practice rules. We are also working with government crews that are removing trees along state highways and county roads for the same purpose.

As part of the VMP program and the San Jacinto Zone of Infestation authorized insect control program, CAL FIRE conservation camp crews are also removing thousands of trees in compliance with the forest practice rules.

Future Projects and Priority Rankings

Spring Crest DFPZ VMP

The Spring Crest DFPZ is a proposed project to protect the community of Spring Crest, near Pinyon. The proposed project involves construction of fuel breaks along the roads surrounding the community, and roads with in the community. This will provide for resident and firefighter safety, ease of ingress and egress during a fire, and increasing the defensibility of the homes in the area. The contributors to the project will be CAL FIRE/RVC, USFS, and Private Landowners.

Mockingbird Canyon Hazardous Fuel Reduction

The Mockingbird Hazardous Fuel Reduction is a proposed project to protect approximately 60 structures within the SRA and unincorporated area near Lake Matthews. Dense vegetation has accumulated to the rear of these adjoining properties utilized as horse trails and has now become a direct threat to improvements. As of 2016 funding opportunities are being sought.

Grants

Significant Forest Health Enhancement Program and Hazardous Fuels Treatment (FHEP) grant funds have come to CAL FIRE in Southern California from the USFS. These funds have been used to augment our traditional programs, including VMP and CFIP by providing additional staff for planning projects and helping to cover operational costs. Additionally, Riverside County has received grants for increasing forest health, creating jobs, promoting biomass utilization, and reducing fire risk

FHEP

The Forest Health Enhancement Program grants began in August 2003, and ran through December 2009. This grant was awarded to three CAL FIRE southern units (RRU, MVU, and BDU). In Riverside, project funding was limited geographically to the forested areas in the San Jacinto Mountain range. 46 projects of various scales and objectives were completed including: 465 acres of tree planting, 182 acres of mastication, and 545 acres of fuel reduction/forest health improvement projects using CAL FIRE crews or contractors. Projects not completed by the expiration of the grant were rolled into the Hazardous Fuels Treatment Grants I and II that began July 2008.

County Grants

Various grants have been awarded to Riverside County Fire. The funds have been used to augment biomass utilization, continue the Dead Tree and Slash Removal programs, expand an existing CWPP, collaborate with and support Fire Safe councils, and plan and implement various fuel reduction/forest health projects including fuel break implementation and maintenance.

SECTION V: PRE- FIRE MANAGEMENT TACTICS

DIVISION / BATTALION / PROGRAM PLANS

Moreno Valley Division

Battalion 9

Reche Canyon Area: Continue to maintain a diligent LE100 Program, while placing Fire Prevention signs at the entrances to all canyons. Develop a pre-fire attack plan for the area.

San Timoteo Canyon Area: Continue to maintain a diligent LE100 Program while placing Fire Prevention signs at entrance(s) to canyon. Inspections would focus on enforcement of posting address and inspecting Rail Road Right of Way clearance. Develop a pre-attack fire plan for the area.

Pigeon Pass / Box Springs Area: Continue to maintain a diligent LE100 Program. Develop a pre-fire attack plan for the area including the Box Spring Mountain area and the Hidden Spring community.

Gilman Spring Area: Target the area for enforcement of existing laws for off road vehicle use and target shooting. Area has a history of strip and burn stolen vehicles as primary ignition sources. Develop a pre-fire attack plan in the area.

March SKR Reserve: Continue working with Center for Natural Lands Management to remove invasive exotic grasses and weeds to restore native grass and forb communities.

San Timoteo Canyon Preserve: Continue working with BLM, RCA, Riverside County Parks, State Parks, and Riverside Land Conservancy to remove invasive exotic grasses and weeds. This restoration of the habitat would lessen the fuel loading; therefore, decrease the area fire intensity.

The Moreno Valley Division is in the planning stages to develop pre-fire attack plans for the historical fire danger locations within the division. These plans will identify roads, water sources, heli-spots, staging areas, evacuation trigger points, potential resources needs for structure defense, and possible incident base locations.

North West Division

Battalion 4

Information and Education: Work with the public affairs bureau to improve public outreach and school programs to reduce the number of Playing with Fire and Equipment ignitions.

Battalion 14

Information and Education: Work with the public affairs bureau to improve public outreach and school programs to reduce the number of Playing with Fire and Equipment ignitions.

In Cooperation with the Riverside City Fire Department, enhancing our shared boundaries for cooperative fire protection is a priority. The City of Riverside is currently working on placing additional turn around points along the bike trail on the south side of the Santa Ana River. They are also placing Mile/Trail Markers on the Bike Trail to better locate fires or medical emergencies. These items will make for better cooperative firefighter safety and access points along the river.

The SOLAR Communications Plan has been put into place to cover the four County jurisdictions which include Riverside, Orange, San Bernardino and Los Angeles and conduct an annual interagency exercise to institute the operations plan.

We will concentrate our LE100 program and inspectors in the areas of Battalion 4 along the I-15 corridor to reduce our fire potential and remove fuels for defensible space. In Battalion 14 we've coordinated our efforts with Battalion 9 to cover the north and west sides of Box Springs Mountain along with the efforts of the Riverside City Fire Department to provide defensible space and perform LE100 inspections.

Continued Truck Trail maintenance continues to be a priority, specifically Skyline, Indian and the Bedford. These truck trails are vital ingress and egress routes for fire suppression resources and continual maintenance is coordinated thru cooperative agreements with state, federal and county agencies and dependent upon funding sources.

The after action review of the Falls Fire has initiated the need for a fuels buffer along the wild land urban interface from the community of Corona to the north, to the community of Temecula to the south. The area of Temescal Valley specifically, Trilogy and Sycamore Creek communities fall within this planned project area and are a priority in this Division.

A focused review and of the evacuation, pre-attack and initial attack portions of the Riverside County Strategic Contingency Plan of 2008 which apply to this Division are a priority.

Oak Glen Division

Battalion 3 Pass Areas

Create Evacuation Safety Corridor for Highway 243 from Banning to Vista Grande. Old Banning Idyllwild Road Area:

Target the area for enforcement of existing laws for off road vehicle use & illegal target shooting. Conduct PRC 4291 utility inspections from South Banning to Poppet Flats by developing a plan with Cooperating agencies.

Poppet Flats and Twin Pines Areas

Continue diligent LE100 Program, Place Fire Prevention signs at entrance(s) to area. Work with Fire Safe Councils on LE100 program (Residential Structure Clearance) compliance. Continue community chipping program to reduce hazardous fuels in the WUI areas.

San Timoteo Canyon Area

Continue diligent LE100 Program, Place Fire Prevention signs at entrance(s) to the canyon. Enforce address posting. Inspect Railroad Right of Way clearance.

San Timoteo Canyon Preserve

Continue working with BLM, RCA, Riverside County Parks, State Parks, and Riverside Land Conservancy to remove invasive exotic grasses and weeds to restore native grass and forb communities and manage chaparral communities. This restored habitat is important to the threatened and endangered plants and animals. These native plant communities have significantly lower fuel loading than the invasive exotic grasses and weeds. This would produce much lower intensity fires. *Pending approval of burn plan.

Oak Glen and North Mountain Areas

Inspect and maintain truck trails, water cisterns and fuel breaks. Develop and implement fire safety plan for Bogart Park, continued inspection and annual Maintenance.

Moronggo Indian Reservation

With Moronggo Fire Department, develop and implement reservation wide Fire Safety and Prevention Plan. Moronggo Fire Department is committed to developing a Wildland urban interface (WUI) plan/Fire Safe (defensible space) on the reservation.

Division wide:

- Inventory existing approved truck trails. Develop and implement after storm inspection program for reimbursement and repair of related storm damage to existing truck trails. (FEMA and State, and federal declarations) Determine Land ownership and update agreements
- Re-implement Battalion wide K-6 Smokey Bear education program

Bautista Division

Battalion 5

Avery Canyon Area

Due to limited ingress and egress to the Avery Canyon Area there is a need to establish a secondary escape route from New Port Road east to Polly Butte.

Sage, Aguanga, Val Vista Area

Create Evacuation Safety Corridors on R-3 (Sage Road) from Saint John's Grade to Hwy 79 South at Radee Junction and on Red Mountain Road by roadside fuel modification(s). Work with Fire Safe Councils on LE100 program compliance. Set up community chipping projects.

Glen Oaks, De Portola Area

Work with Fire Safe Councils on LE100 program compliance.

Wilson Valley Reserve

Continue working with Center for Natural Lands Management to remove invasive exotic grasses and weeds to restore native grass and forb communities and manage chaparral communities. This restored habitat is important to the threatened and endangered plants and animals. These native plant communities have significantly lower fuel loading than the invasive exotic grasses and weeds. This would produce much lower intensity fires.

Soboba Indian Reservation

Work with tribal leadership, develop and implement reservation wide Fire Safety and Prevention Plan

Division wide:

- Inventory existing approved truck trails. Develop and implement after storm inspection program for reimbursement and repair of related storm damage to existing truck trails. (FEMA and State, and federal declarations)
- Re-implement Battalion wide K-6 Smokey Bear education program

Battalion 11

Anza, Aguanga Area

Complete or Create Evacuation Safety Corridors on all highways and major roads. Work with Fire Safe Councils on LE100 program compliance. Set up community chipping projects. Inspect and maintain truck trails and truck trail fuel breaks.

Battalion wide:

- Maintain and support completed, active and planned MAST projects
- Cahuilla, Ramona and Santa Rosa Indian Reservations:
- Work with the tribal leadership, develop and implement reservation wide Fire Safety and Prevention Plan

Division wide:

- Inventory existing approved truck trails. Develop and implement after storm inspection program for reimbursement and repair of related storm damage to existing truck trails. (FEMA and State, and federal declarations)
- Re-implement Battalion wide K-6 Smokey Bear education program

South West Division

Battalion 1

Battalion 1 enjoys a Mediterranean climate, has a significant fire history of small fires, with two significant fires occurring within the last twenty years (Juniper Flats Fire and the Cerrito Fire). Annual grass, buckwheat and coastal sage comprise the majority of the fuel types found in Battalion 1.

Perris / Goetz Area

- Continued diligent LE-100 effort in the SRA areas of Fire Station 1's first due.
- Work with BLM to reduce fuels along the San Jacinto Riverbed in Fire Station 1's first due through fuel reduction or a VMP program. This area was significantly cleaned up in 2010 of trash, tires, dilapidated vehicles and abandoned boats.
- Work with UC Riverside to maintain a fuel reduction program around the exterior of the Motte-Rimrock Preserve, to prevent natural or man caused fires from spreading onto the Preserve, in Fire Station 1's first due.

Nuevo / Juniper Flats Area

- The continued diligent LE100 program for the Juniper Flats area and fire closure areas in Fire Station 3's first due.
- Semi-permanent signage to denote fire closure areas in Fire Station 3's first due. Signs to be maintained posted and stored by fire station personnel.
- Work with Southern California Edison to establish lockable gates on the power line easement roads in Fire Station 3's first due. State locks to be placed in line with Edison locks to ensure fire department access. This will limit the number of vehicle fires spreading into the vegetation and unattended bonfires spreading into the vegetation in this area.
- Work with State Parks, DFW and DWR to ensure fuel reduction along the Ramona Expressway is undertaken and maintained.

Good Meadow Area

- The continued diligent LE100 program for the Good Meadow area in Fire Station 9's first due.
- Work with Good Meadow Elementary School / Public Affairs Bureau to establish school programs to reduce the number of PWF caused fires in Fire Station 9's first due. Also, to send home literature in Spanish language to educate the parents of the LE5 process, to reduce the amount of illegal burns in Fire Station 9's first due.
- Work with BLM to increase enforcement of the BLM shooting area in Fire Station 9's first due (Steele Peak), post appropriate signage either warning the public of shooting caused fires or closing the area during fire season.

Homeland / Juniper Flats Area

- The continued diligent LE100 program in the Juniper Flats and SRA areas of Fire Station 54 first due.
- Place fire prevention sign at the Hwy 74 entrance to the Juniper Flats area, as well as two additional signs within the Juniper Flats area of Fire Station 54's first due.
- Work with County Fire OES and the Public Affairs Bureau to set up a town hall meeting in Juniper Flats area for fire safety educational purposes and identify the possible need for the establishment of a Fire Safety Council in the Juniper Flats area

Battalion 2

Close coordination with the Southwest Fire Safe Council has contributed to the success of the completed programs.

Fire Prevention

- Continue to do outreach school programs with grant money and public requested presentations and tours.
- Work and support Public Affairs Bureau in placement and maintenance of Battalion fire prevention sign inventory.
- Continue LE100 enforcement in high risk areas and coordinate with CNF on enforcement in USFS DPA areas.
- Conduct periodic multi-agency enforcement actions on various homeless camps in the Battalion that pose historically high fire risk.

Fuels Projects

- Projects as listed in the 2009 remain as a goal with several currently in progress.
- Of significant interest is a long standing conceptual fuel break along the front country listed in the 2009 fire plan as the Elsinore Front Fuel Break. This fuel break would extend from roughly Wildomar to McVicker Canyon along the private/USFS boundary. This is a project that will require many personnel hours to pursue and has been supported by State Assembly and B.O.S staff in the past.

Currently in progress:

- South Main Divide fuel break renewal
- El Cariso Village Fuel Break renewal
- Continue Truck Trail maintenance in cooperation with CNF/USFS and pursue truck trail maintenance with Riverside County Parks Multi Species Preserve on their property.

Complete:

- Rancho Carrillo Dead Tree removal/chipping
- Rancho Capistrano Hazardous fuels removal/chipping.
- CWPP for the Southwest Fire Safe Council area to include the mountain communities of Battalion 2 and Battalion 15

Battalion 13

Canyon Lake

- Continue LE100 program. Concentrate on north side of Canyon Lake as well as Meadowbrook area.
- Place fire prevention sign near off road access area north of fire station.
- Continue to work with BLM on fuel management and fire break projects on north side of station in sections 26 and 34 of Canyon Lake.

Menifee Lakes Station 76

- Continue fire-prevention-education programs in grades K thru 3.
- Place fire prevention signs at Menifee Road x of Simpson at off road access.
- Place fire prevention signs on Scott Road between Briggs Road and Leon Road.
- Continue LE-100 program. Concentrate on SE roll area in sections 16, 17 and 18. TS 6S, R2W.
- **Menifee Station 68**

There are 3 major areas of concern:

1) The area south of Scott Rd. and Bundy Canyon Rd. This area is a north facing aspect with limited access and limited water supply. East winds will push fire toward Wildomar, Murrieta and Lake Elsinore.

2) The Cottonwood Canyon area. This area, which is in the City of Wildomar, has limited access and egress and no water supply for fire suppression. Single and double wide mobile homes are seriously threatened by the overgrown open space parcels between improved lots.

3) The area west of Murrieta Rd. This area also has poor access, egress and water supply. East winds in this area will push fire through Cottonwood Canyon, into the City of Wildomar and Lake Elsinore. With north or south winds, fire be can pushed further into the City of Menifee, or over Bundy Canyon Rd. and into Murrieta City.

Priorities:

- Priority staff WT 68 24/7 during declared fire season.
- Ensure County and City responsibilities for road improvement are being met.
- New hydrants to be included with all improvements and construction.
- Maintain vegetation clearance along Cottonwood Canyon Rd. as a Safety Corridor to the north.
- Possible Fuel breaks, or maintenance of existing dirt roads south of Bundy Canyon Rd. between the City of Menifee and Murrieta.
- Continue code enforcement for unimproved lots.
- Place fire prevention sign on both Scott Rd. and Murrieta Rd.
- Dedicate Paloma Valley High School as an evacuation center.
- Clear brush and flammable vegetation from roadside shoulders.

Quail Valley Area

- Continue Fire Prevention Education program with grades K-3.
- Place Fire Prevention signs at both main access points to Quail Valley.
- Continue and accelerate the weed abatement program for unimproved lots.
- Continue public education and LE100 enforcement of improved lots.
- Work with Riverside County Parks to implement fuel breaks and hazard reduction zones near residential areas at SE corner of Kabian Park.
- Continue enforcement of applicable laws and regulations regarding recreation and land use in the BLM area of Section 26, T5S, R4W, and west of Quail Valley.

Sun City Plan

- Continue LE100 inspections.
- Continue fire-prevention programs with grades K-3.
- Post signs at McCall x Valley, Chambers x Valley, McCall x Antelope, McCall x Aspel and Rousch Rd. x Valley.

Temecula Division

Battalion 15

Deluz Canyon:

Continue a thorough and conscientious LE100 Program combined with an aggressive community education program using various media outlets and community meetings.

Tenaja area:

Continue a thorough and conscientious LE100 Program combined with an aggressive community education program using various media outlets and community meetings. Work with the Fire Safe Council on various projects to protect and prepare the Tenaja community and surrounding areas.

Temecula Wine Country:

Continue a thorough and conscientious LE100 Program combined with an aggressive community education program using various media outlets and community meetings.

Pala / Temecula Rd. & Rainbow Canyon areas

Continue a thorough and conscientious LE100 Program combined with an aggressive community education program using various media outlets and community meetings.

Johnson Ranch, Santa Rosa Plateau and Lake Skinner Reserves

Continue working with California Department of Fish & Wildlife, Center for Natural Lands Management RCHCA, Nature Conservancy, South West Riverside County Multi Species Reserve and Metropolitan Water District to remove invasive exotic grasses and weeds to restore native grass and forb communities. This restored habitat is important to the Burrowing Owl and the Stephens Kangaroo Rat. These native plant communities have significantly lower fuel loading than the invasive exotic grasses and weeds. This would produce much lower intensity fires.

Pechanga Indian Reservation

City of Temecula Fire Department and the Pechanga Fire Department work collectively to develop a comprehensive fire prevention plan that upon implementation would be of mutual benefit to both the City Of Temecula and Pechanga tribal land.

Santa Margarita Drainage and surrounding City of Temecula areas

The Santa Margarita drainage now lies within Temecula City limits. Work with University of San Diego (majority property owner) and The City of Temecula to develop and put into practice comprehensive fire prevention and fire management plan.

City of Temecula

Continue the city wide fire prevention and safety education program using television, radio, printed mediums along with school, community service clubs, HOA and local events to inform and educate the public.

Training Bureau

The CAL FIRE/Riverside County Training Bureau is responsible in training 1,200 CAL FIRE personnel and 400 Riverside County reserve firefighters. To accommodate all the hours it takes to train this large work force, the training is divided into three main components.

- Formal Training - performed at Clark Training Center, Roy Wilson Training Center or the Cal Fire Academy in Lone California. This training can be classroom, field or a combination of both. Examples of formal training are CAL FIRE Basic Firefighter Academy, C-234 Intermediate Firing, Incident Management II, S-290 Intermediate Fire Behavior and Command 1B
- In Service Training (IST) – hands on training with engine and truck companies at one of the training centers. Entire crews perform drills; participate in classroom instruction or both.
- Self-Paced Training - by using the Riverside County computer network, firefighters complete self- paced education programs through the Target Solutions. Target Solutions allows the training bureau to reach a wide audience on specific subjects.

The Training Bureau continues to educate firefighters from the first year Firefighter I to the most seasoned veteran. The bureau uses instructors that have varying degrees of experience and expertise. The Training Bureau personnel are viewed as leaders throughout the state because of the level of training they have implemented for the Returnee Firefighter Training Program and the Basic Firefighting Academy. The dedicated classrooms for fire training are used for beginning, intermediate and advanced levels of instruction.

Wildland fire training is extensive throughout the county. Wildland fires are the largest and deadliest incidents our personnel respond to. The Unit dedicates 25% of its training hours to wildland firefighting training. All aspects of wildland firefighting are taught throughout the year.

APPENDIX A: PRE-FIRE PROJECTS



PRE-FIRE ACTIVITIES for Riverside Unit (RRU) 2015

This report contains activities that have been completed or are currently active. Activities with a start date prior Jan 1st of the year in the report title are not reflected in this report.

<u>PROJECT NAME</u>	<u>TYPE</u>	<u>PROJECT STATUS</u>	<u>PROJECT ACREAGE</u>	<u>TREATMENT OBJECTIVE</u>	<u>TREATMENT NAME</u>	<u>ACTIVITY DESCRIPTION</u>	<u>QTY</u>	<u>UOM</u>	
Dark Canyon	FPL	Active	106.73	Fuel Break (Polygon)					
				Dark Canyon South Plot					
				RxBurn (Piles)	5.00	Acres			
				RxBurn (Piles)	5.00	Acres			
El Cariso Village HFR	FPL	Complete in Maintenance	189.98	Fuel Reduction (Polygon)					
				EICariso_WUI_HFT					
				Chipping	50.00	Acres			
				Chipping	50.00	Acres			
				Chipping	50.00	Acres			
El Potrero GSC Chipping	PREV	Active	365.79	Fuel Reduction (Polygon)					
				2015 PPF Fuel Reduction					
				Chipping	14.00	Acres			
				Project Administration	8.00	Hours			
				Thinning	14.00	Acres			
IDYLLWILDPINECOVE	VMP	Active	4233.92	Fuel Reduction (Polygon)					
				Camp Maranatha					
				Chipping	2.00	Acres			
				Chipping	2.00	Acres			
Mockingbird Canyon	FPL	Active	163.68	Fuel Reduction (Polygon)					
Poppet Flats Truck Trail Fuel Reductior	PREV	Complete in Maintenance	29	Road Maintenance (Line)					
				Poppet Flats TT Fuel Reduction					
				Chipping	45.00	Acres			
				Project Administration	16.00	Hours			
				Road Grading	5.00	Miles			
				Road Grading	5.00	Miles			
				Road Grading	5.00	Miles			
				Thinning	45.00	Acres			
RRU Cistern Rehabilitation	PREV	Complete	1.45	Fire Prevention (Point)					
				2015 Cistern Rehab					
				Road Grading	0.50	Miles			
				Thinning	1.50	Acres			
Santa Rosa Plateau VMP	VMP	Active	9152.47	Fuel Reduction (Polygon)					
				West Burro Mesa					
				RxBurn (Broadcast)	83.00	Acres			
				RxBurn (Broadcast)	83.00	Acres			
				RxBurn (Broadcast)	83.00	Acres			
				RxBurn (Broadcast)	83.00	Acres			
				Type Conversion (Polygon)					
				Colorado					
				RxBurn (Broadcast)	12.00	Acres			
				RxBurn (Broadcast)	12.00	Acres			
				RxBurn (Broadcast)	12.00	Acres			
Skinner VMP	VMP	Complete in Maintenance	23575	Fuel Reduction (Polygon)					
				Skinner South					
				RxBurn (Broadcast)	215.00	Acres			
				RxBurn (Broadcast)	215.00	Acres			

APPENDIX B: AMENDMENTS TABLE

UNIT STRATEGIC FIRE PLAN AMENDMENTS

<u>Date</u>	<u>Section Updated</u>	<u>PageNumbers Updated</u>	<u>Description of Update</u>	<u>Updated By</u>
6-20-12	Unit Prep	9	Statistics	M. Barr
6-20-12	Red Hill VMP	28	Fuel Break Maintenance	M. Barr
6-20-12	Lake Perris VMP	30	Planned Burns	M. Barr
6-20-12	Multi-Species VMP	30	Habitat Experiments	M. Barr
6-20-12	Johnson VMP	31	VMP Renewal	M. Barr
6-20-12	Wood House VMP	31	New VMP	M. Barr
6-20-12	2012 Projects	32	Listed 2012 projects	M. Barr
6-20-12	Projects List	49	Wood House VMP added	M. Barr
6-20-12	Supplement	63	Unit Accomplishments	M. Barr
4-1-14	Cover Page		Update	M. Sebastian
4-1-14	Executive Summary	2	Update	M. Sebastian
4-1-14	Unit Overview	4	Fire Situation	M. Sebastian
4-1-14	Vegetative Fuels	6	Perris – Beaumont	M. Sebastian
4-1-14	Vegetative Fuels	7	Jurupa- San Jacinto	M. Sebastian
4-1-14	Vegetative Fuels	8	Moreno Valley	M. Sebastian
4-1-14	Vegetative Fuels	9	Garner Valley - Menifee	M. Sebastian
4-1-14	Unit Preparedness	11	CERT-Resource Management	M. Sebastian
4-1-14	Collaboration	14	Contacts	M. Sebastian
4-1-14	Sec. III/Values at Risk	18	Perris- Lake Elsinore	M. Sebastian
4-1-14	Sec. III/Values at Risk	19	Beaumont	M. Sebastian
4-1-14	Sec. III/Values at Risk	19,20	San Jacinto-Moreno Valley	M. Sebastian
4-1-14	Sec. III/Values at Risk	20,21	Battalion 11	M. Sebastian
4-1-14	Sec. III/Values at Risk	21	Battalion 14	M. Sebastian
4-1-14	Sec. IV/Fire Prevention	24	LE-100	M. Sebastian
4-1-14	Sec. IV/Fire Prevention	25	Ord. 695 – Railroad Inspections	M. Sebastian
4-1-14	Sec. IV/Fire Prevention	25	Power line Inspections	M. Sebastian
4-1-14	Engineering/Ignitability	28	Update	M. Sebastian
4-1-14	Public Information	29,30	Update	M. Sebastian
4-1-14	Vegetation Management	33	Redhill North	M. Sebastian
4-1-14	Vegetation Management	36	El Cariso HFR	M. Sebastian
4-1-14	Vegetation Management	39	2014 Project List	M. Sebastian
4-1-14	Sec. V/ Pre-Fire Tactics	43	Battalion 9	M. Sebastian
4-1-14	Sec. V/ Pre-Fire Tactics	44	Northwest Division	M. Sebastian
4-1-14	Sec. V/ Pre-Fire Tactics	49,50	Battalion 2	M. Sebastian
4-1-14	Appendix A	54	Pre-Fire Projects	M. Sebastian
4-1-14	Appendix C	56	Unit Goals	M. Sebastian
4-1-14	Ignition Data	59,60	Update	M. Sebastian
3-15-16	Ignition Data/Maps/App A/C/D		Update	M. Sebastian

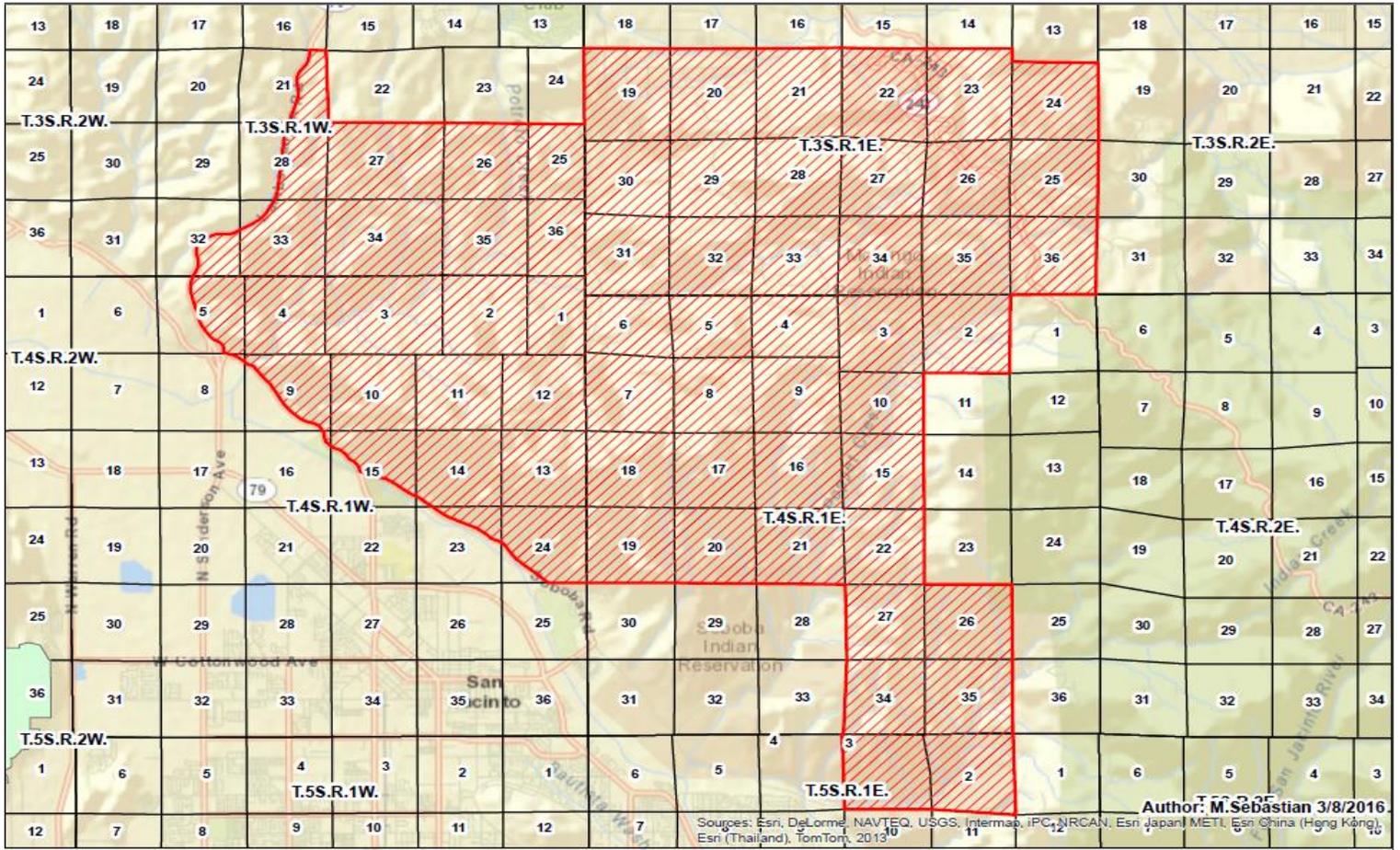
2016 RIVERSIDE UNIT GOALS

- Move forward with current and planned Pre-Fire projects.
- Pursue funding sources for Unit “In Maintenance” fuel reduction projects and prioritize.
- Expand our area of operation beyond the San Jacinto Mountain Communities and begin planning of new projects in High Risk SRA and Local Responsibility Area (LRA) areas.
- Resume maintenance of historic truck trails, fuel breaks and water tanks. Complete GIS Geodatabase edits on Unit Truck Trail data base and populate data on Mobile Data Computers (MDC’s)
- Maintain fuel breaks around critical infra-structure (communication sites) and high risk residential areas.
- Continue Gold Spotted Oak Borer control and eradication measures.
- Continue monitoring Dead, Dying and Diseased Trees and pursue funding opportunities for removal.
- Solidify Unit SRA/DPA lines through a focused review.

APPENDICES D:

EXHIBITS: MAPS

Figure A: Unit Fire Closure Map/North Mountain-Indian Canyon



NORTH MOUNTAIN FIRE CLOSURE AREA

North_Mountain_FCA



Disclaimer: This map and any data within shall be used for reference only. The State of California and CAL FIRE make no representations or warranties regarding the accuracy of data or maps. Neither the State nor the Department shall be liable under any circumstances for any direct, special, incidental or consequential damages with respect to any claim by any user or third party on account of or arising from the use of data or maps.

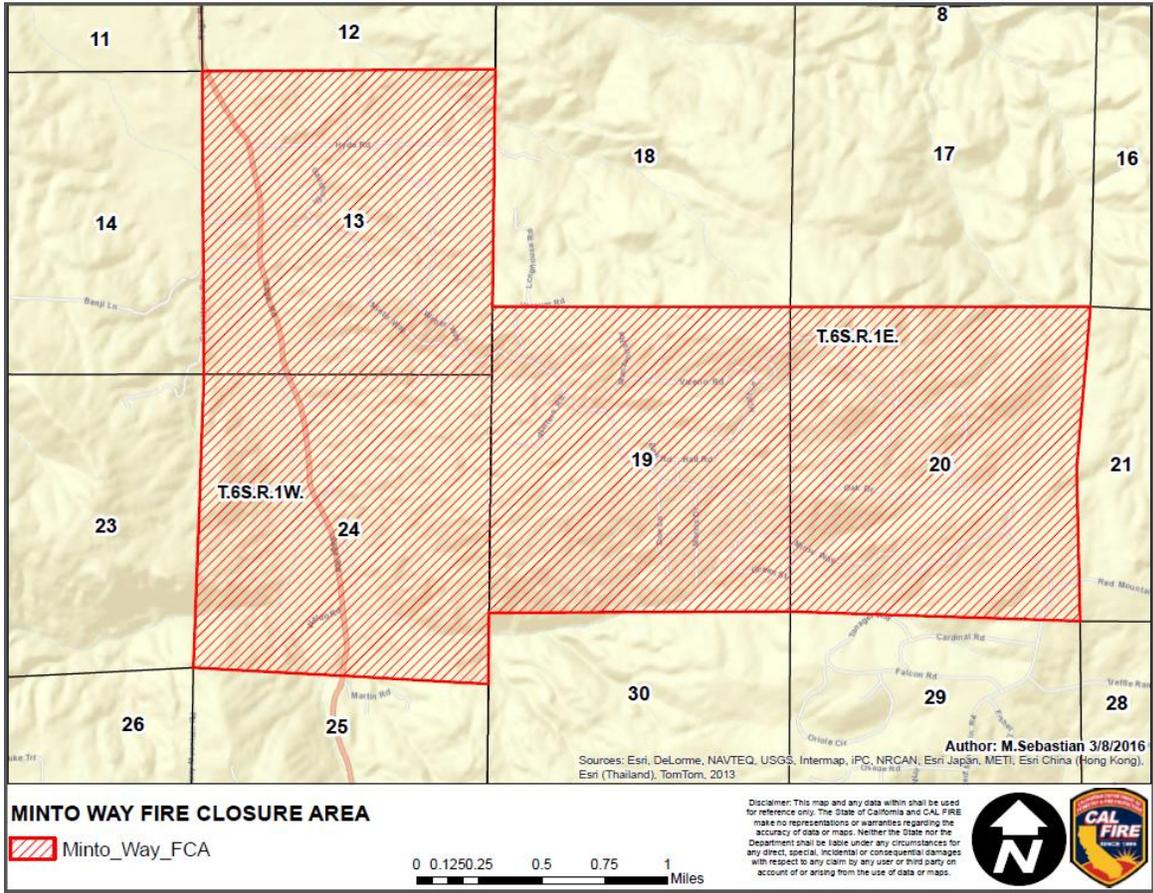


Author: M. Sebastian 3/8/2016

Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

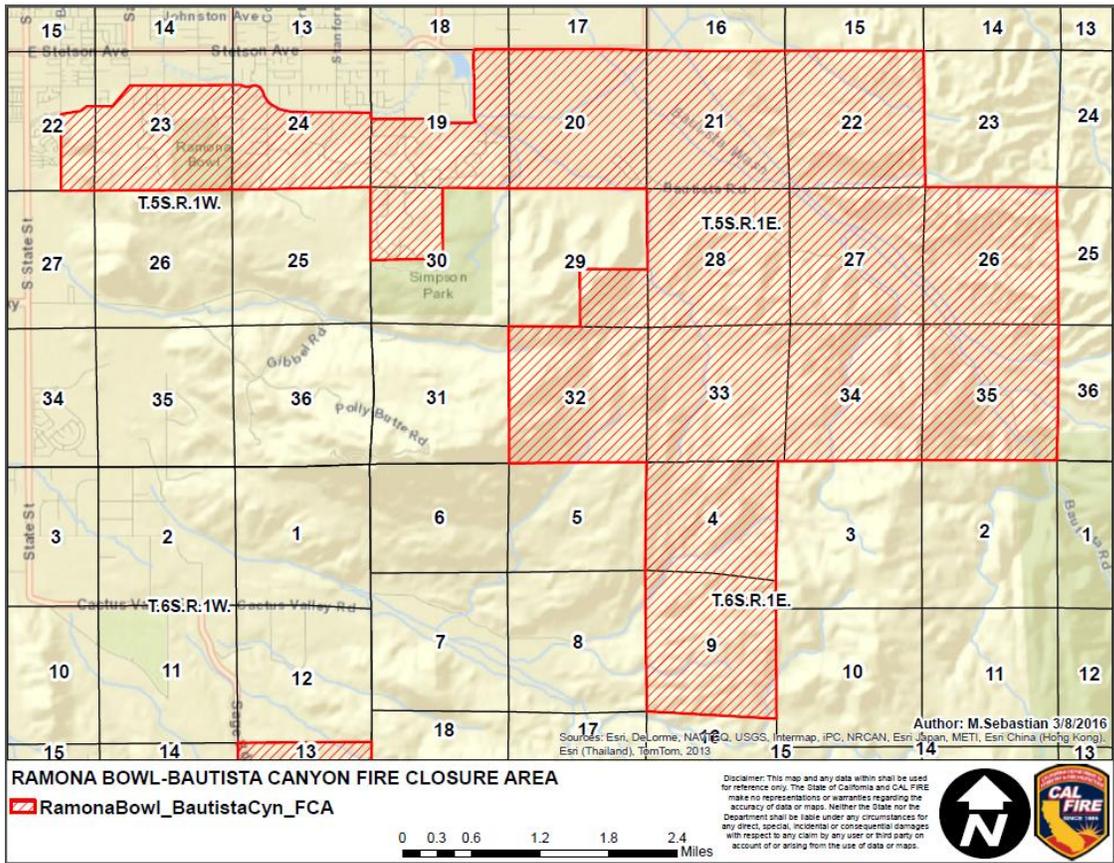
EXHIBITS: MAPS

Figure B: Unit Fire Closure Map/Minto Way



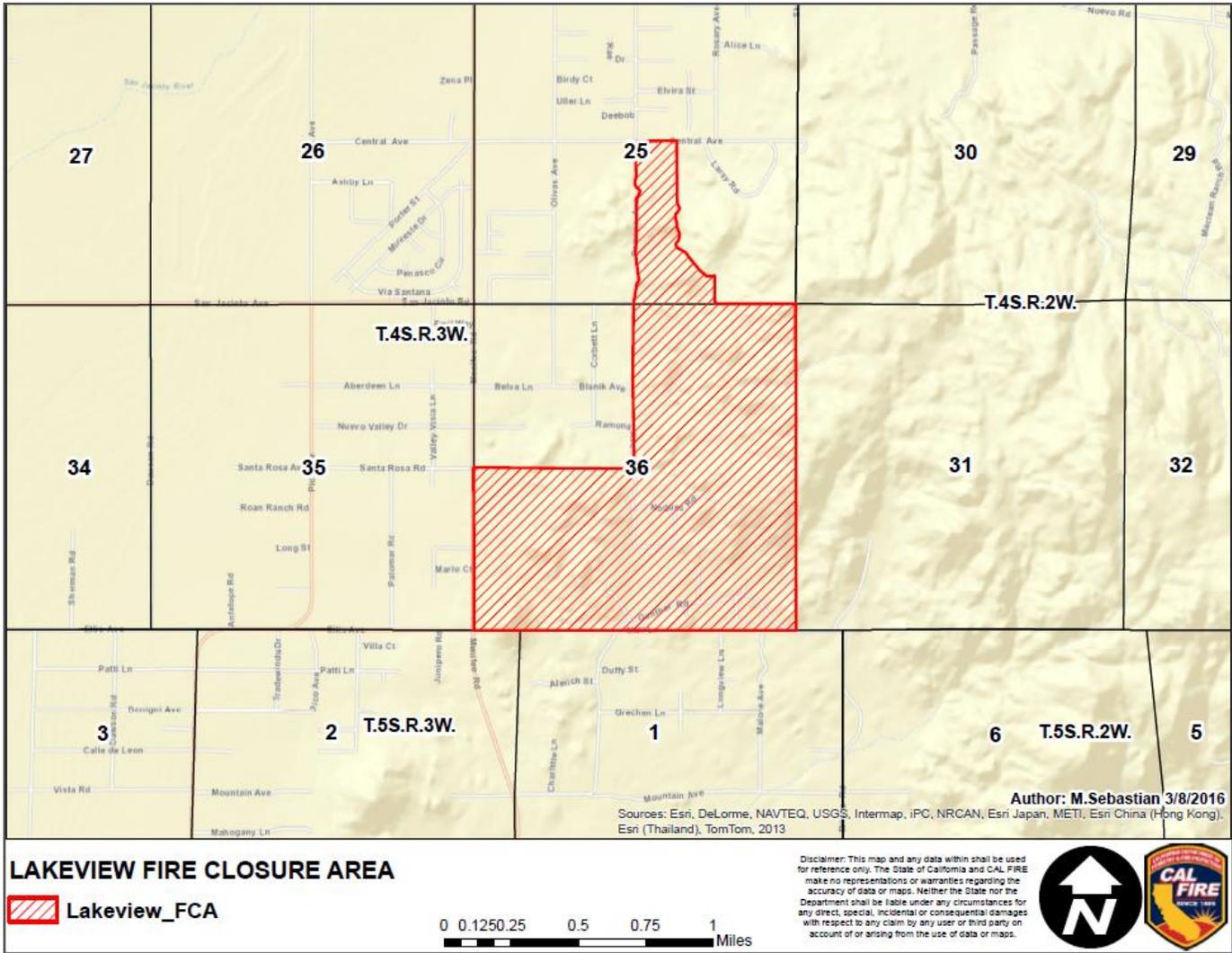
EXHIBITS: MAPs

Figure C: Unit Fire Closure Map/ Ramona Bowl- Bautista Canyon



EXHIBITS: MAPS

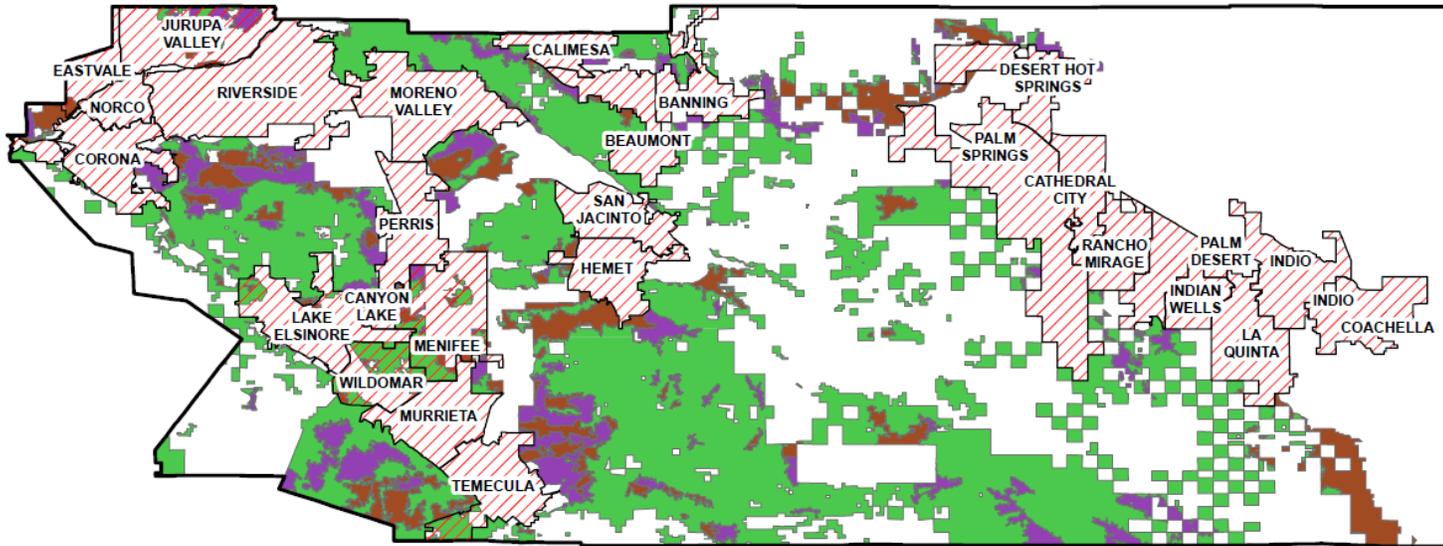
Figure E: Unit Fire Closure Map/ Lakeview



EXHIBITS: MAPS

Figure F: Unit FHSZ Map

RRU FIRE HAZARD SEVERITY ZONES AND INCORPORATED CITIES

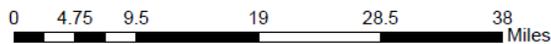


Author: M. Sebastian 3/8/2016

fhszs06_3_33

FHSZ HAZARD CLASS

-  High
-  Moderate
-  Very High

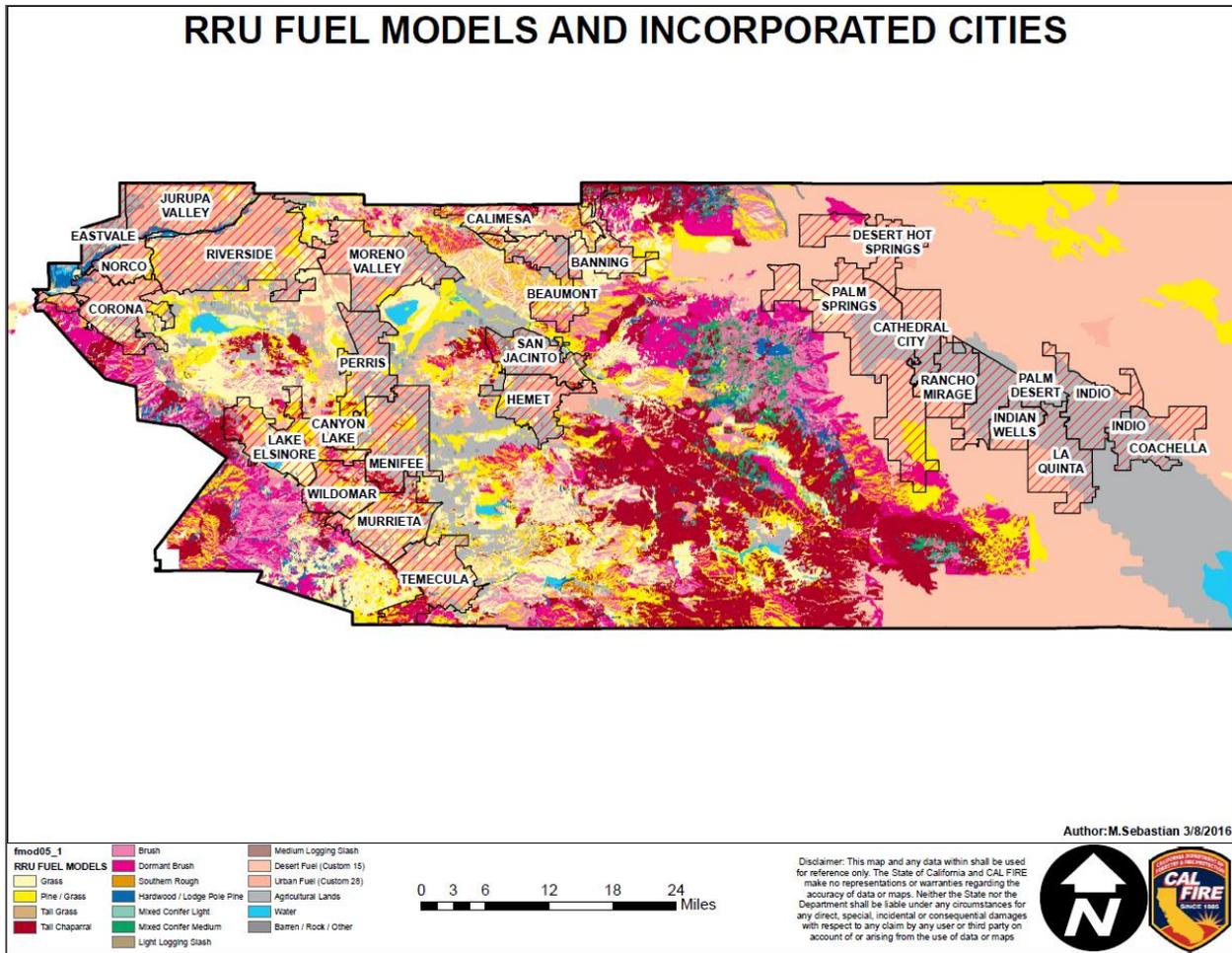


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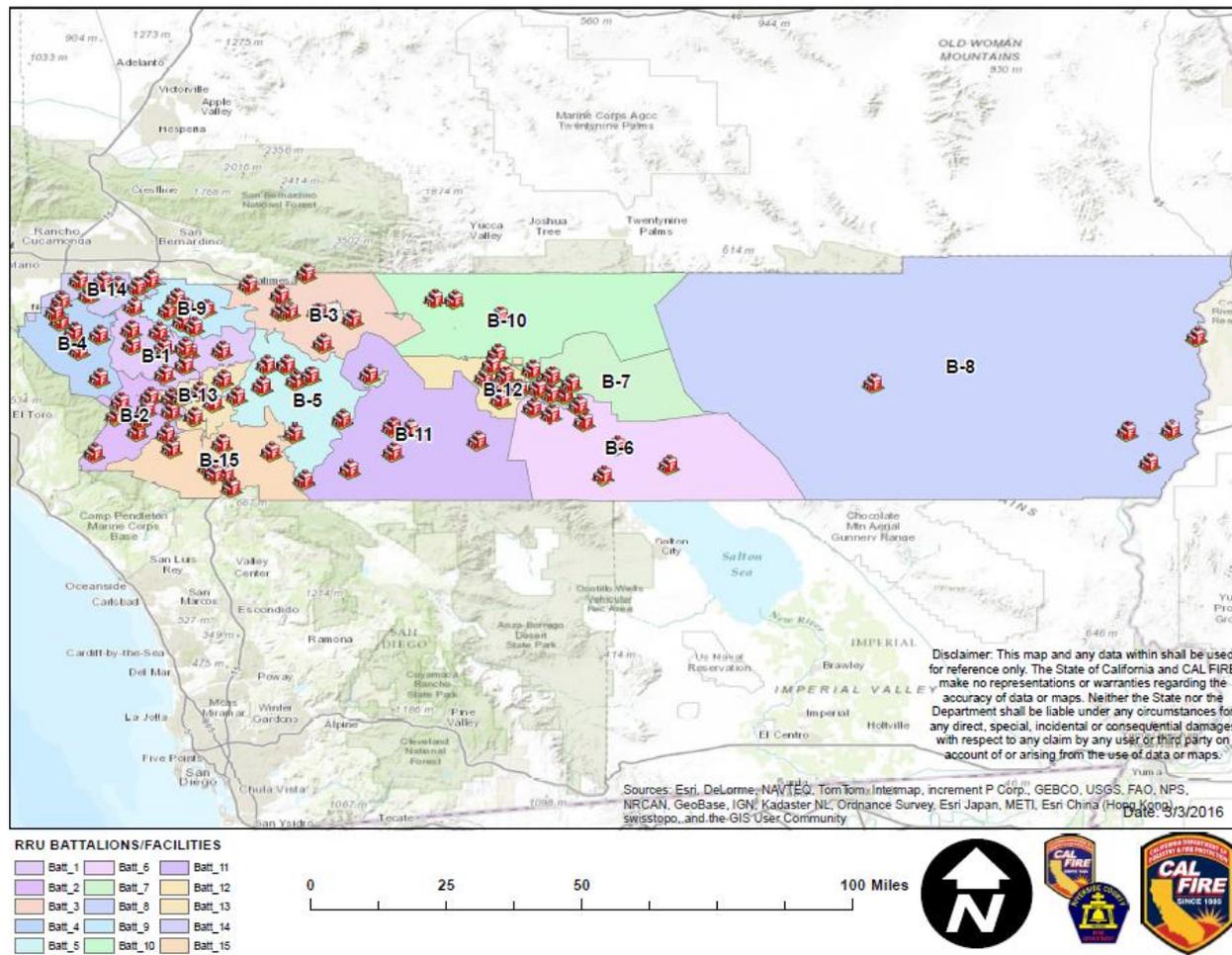
EXHIBITS: MAPS

Figure G: Unit Fuel Model Map

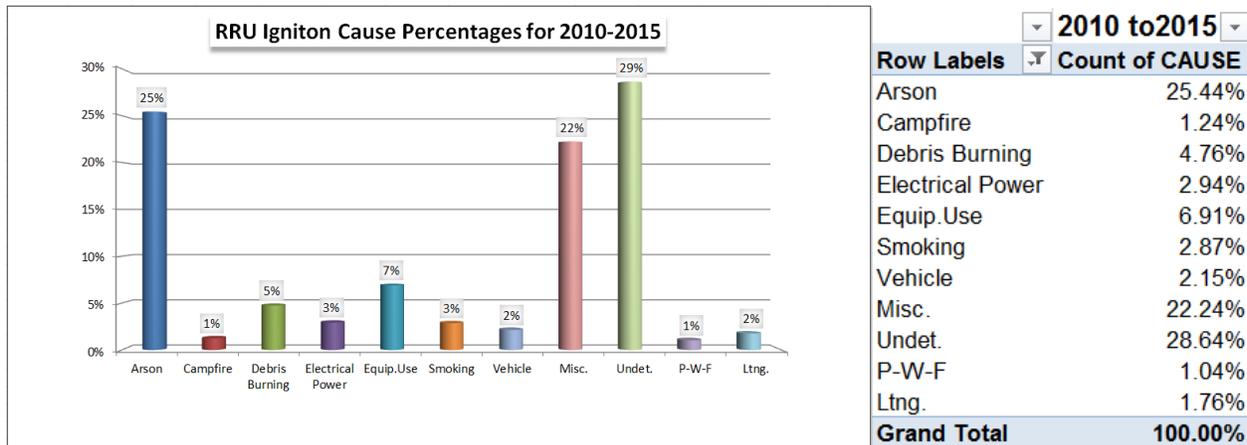


EXHIBITS: MAPS

Figure H: Unit Boundary/Battalions/Facilities



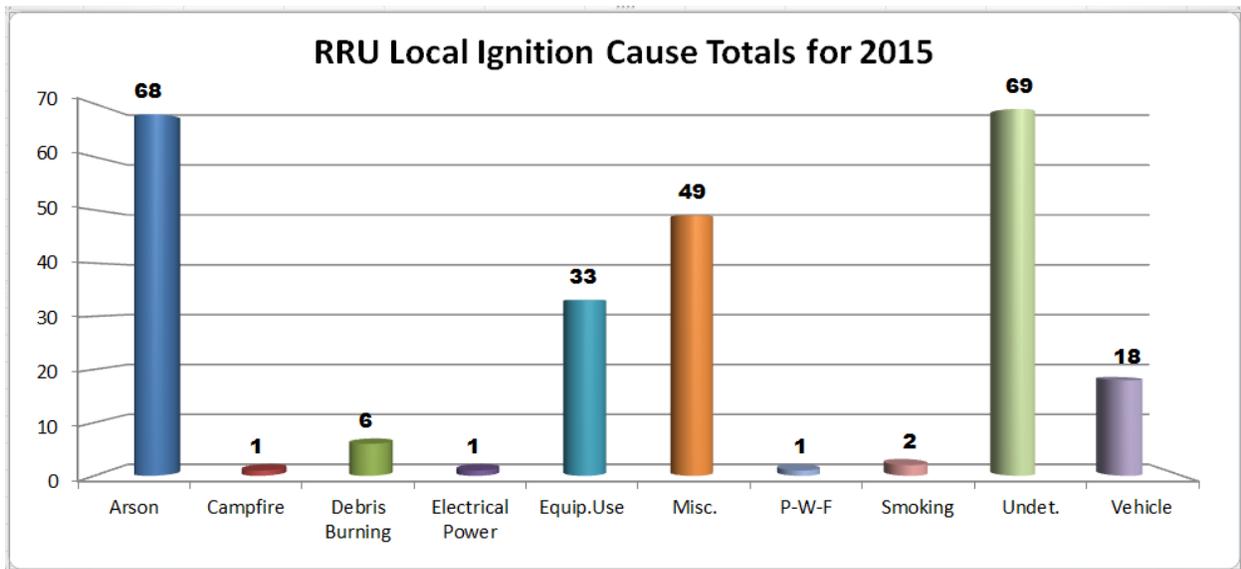
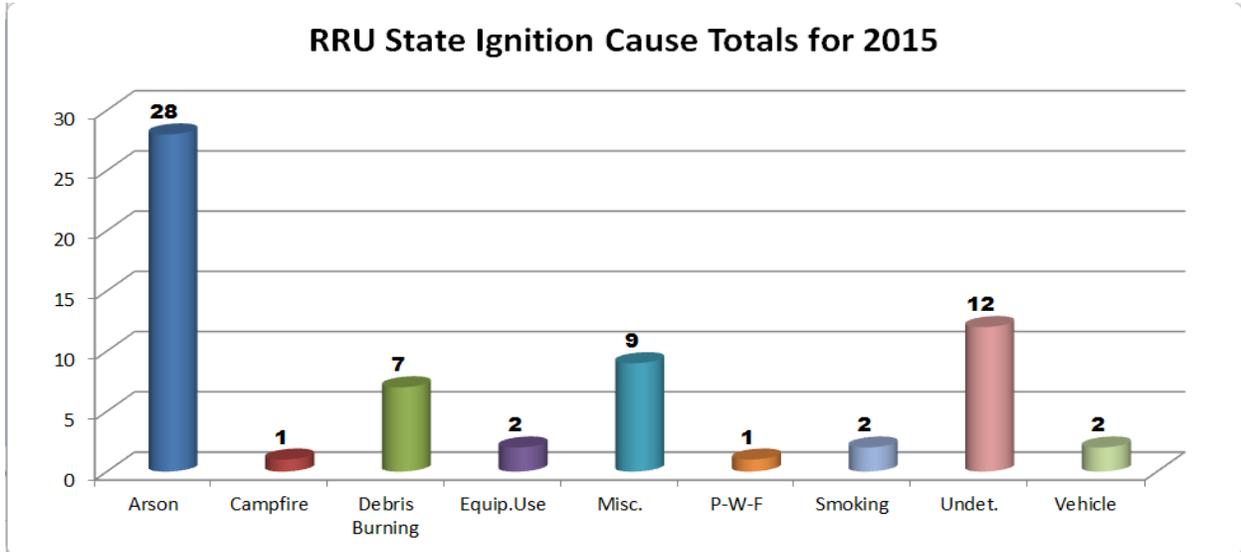
Riverside Unit Ignition Data



Ignition data for the Riverside Unit was analyzed for a 6 year period (2010-2015) to evaluate ignition trends and problems within the Unit. This dataset includes 1982 ignitions and includes an identification of fire cause. The table presents the ignition history between 2010 and 2015 classified by fire cause.

The 6-year ignition history for the Riverside Unit identifies trends in ignition type, with the majority of ignition causes classified as arson, miscellaneous or undetermined. Equipment use and debris burning also emerge as significant ignition sources within the Unit. Spatial analysis of ignition sources reveals a direct correlation between ignitions and roads/transportation corridors. High density of ignitions is also observable within and adjacent to urban areas. These concentrations of ignitions along transportation corridors and in urban areas emphasizes the importance of public education and fire prevention activities, including road-side fuel treatments and strategic management of flashy fuels (e.g. grasses) and WUI intermix areas.

Riverside Unit Ignition Data continued.



ANNUAL ACCOMPLISHMENTS REPORTING 2015

Fire Planning: *Priority fuels projects reflected in the Unit Fire Plan were identified and submitted, for Grant funding opportunities in which the Maxwell Fuel Break was funded through 2017. Tenaja and Rancho Carrillo Road Right of Way Hazardous Fuel Reduction are awaiting Funding.*

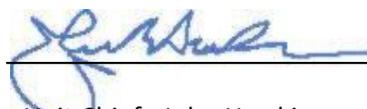
Wildland Fire Prevention Engineering: *The RRU Truck Trail Database was identified in need of complete editing and the process of updating GIS accuracy was initiated to a total of 175 truck trails. The North Mountain Truck Trail system was surveyed and road repair and vegetation clearing on the Poppet Flats Truck Trail was completed on 4.8 miles under a Fire Prevention Fee Grant.*

Education and Information: *“Public Information and Fire Safety Education: The CAL FIRE/Riverside County Fire Department Public Affairs Bureau continues to meet the demands of the ever-evolving social media culture. In December, 2015, the Department’s “Twitter” social media site increased from 9,000 followers in 2013 to over 14,500 followers. Relevant and daily fire safety messages are posted to raise awareness in hopes of being “retweeted” and increase following. This will be particularly important as we enter the 2016 fire season. Incident call volume has grown to well over 400 calls per day; and increasing the number of Significant Incident Fact Sheets that are posted and updated on the www.rvcfire.org website 24 hours a day, seven days a week. Nearly 18,000 Fire Prevention/Fire Safety Education contacts were made by Department Personnel in 2015. The bureau’s County-funded Fire Captain Position was unfunded due to budget constraints and is now filled and funded by utilization of the State Fire Prevention Fee. SRA funding was approved for mass printing of “Ready, Set, Go!” handouts as well approval to erect nearly 20 road signs with the “Ready, Set, Go!” fire safety message. These signs will be strategically placed throughout SRA and WUI areas within Riverside County.”*

Vegetation Management: *Fuels treatments continued in Battalions 2, 15 and 11, including Camp Maranatha, Dark Canyon and Stone Creek State Park. Community Chipping Programs continued throughout the Unit providing landowners brush disposal in the communities of Tenaja, La Cresta, El Cariso, Poppet Flats, Silent Valley and Pinyon.*

Fire Hazard Severity Mapping and Mitigation: *GSOB control continued throughout the year with 105 GSOB confirmed Black Oak trees identified and/or removed and transferred to the grinding facility in Idyllwild and Romoland. In cooperation with the University of California Riverside Extension biologists, a collaborative effort is underway involving, hatching studies, identification, ground and aerial mapping, removal and spraying application efficacy.*

Other Fire Prevention Projects in SRA: *Three SRA/FPF Projects were completed in 2015, The El Potrero GSC Project removed dead and down vegetation on 68 acres in the Community of Morrell Canyon, The RRU Cistern Rehabilitation Project provided funding to remove hazardous vegetation around the cisterns, locate and dig out valve boxes for access and identify repair needs with was accomplished at the Unit level, lastly the RRU Fire Preparedness Community Sign Project provided funding to construct and install public information signage at numerous communities in the WUI*



Unit Chief: John Hawkins

4/11/2016

Date

ANNUAL ACCOMPLISHMENTS REPORTING 2014

Fire Planning: *Priority fuels projects reflected in the Unit Fire Plan were identified and submitted, for Grant funding opportunities in which the Maxwell Fuel Break was funded through 2017. This project is, and continues to be a high priority to the Unit and the citizens and communities of Idyllwild and Pine Cove.*

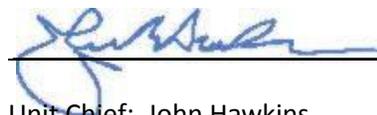
Wildland Fire Prevention Engineering: *A focused Unit wide SRA Review was conducted again this year resulting in the addition of nearly 8,000 acres of LRA lands reverting back to SRA. The State of California Facilities data layer was reviewed and corrections made at the Unit level for FRAP.*

Education and Information: *“Public Information and Fire Safety Education: The CAL FIRE/Riverside County Fire Department Public Affairs Bureau continues to meet the demands of the ever-evolving social media culture. In December, 2014, the Department’s “Twitter” social media site increased from 9,000 followers in 2013 to over 11,000 followers. Relevant and daily fire safety messages are posted to raise awareness in hopes of being “retweeted” and increase following. This will be particularly important as we enter the 2015 fire season. Incident call volume has grown to well over 400 calls per day; and increasing the number of Significant Incident Fact Sheets that are posted and updated on the www.rvcfire.org website 24 hours a day, seven days a week. During recent years, the bureau’s County-funded Fire Captain Position was unfunded due to budget constraints and is now filled and funded by utilization of the State Fire Prevention Fee. SRA funding was approved for mass printing of “Ready, Set, Go!” handouts as well approval to erect nearly 20 road signs with the “Ready, Set, Go!” fire safety message. These signs will be strategically placed throughout SRA and WUI areas within Riverside County.”*

Vegetation Management: *Fuels treatments continued in Battalions 2, 15 and 11, including Camp Maranatha, Dark Canyon and Stone Creek State Park. Community Chipping Programs continued throughout the Unit providing landowners brush disposal in the communities of Tenaja, La Cresta, El Cariso, Poppet Flats, Silent Valley and Pinyon.*

Fire Hazard Severity Mapping and Mitigation: *GSOB control continued throughout the year with 62 GSOB confirmed Black Oak trees identified and/or removed and transferred to the grinding facility in Idyllwild and Romoland. In cooperation with the University of California Riverside Extension biologists, a collaborative effort is underway involving, hatching studies, identification, ground and aerial mapping, removal and spraying application efficacy.*

Other Fire Prevention Projects in SRA: *Two Fire Prevention Fee funded fuels reduction projects were completed. The El Cariso Hazardous Fuel Reduction Project was a 42 acre fuel break completely surrounding the community of El Cariso. The other was the Red Hill North Fuel Reduction Project; this was a 41 acre shaded fuel break buffering Highway 243 protecting the western edge of the community of Pine Cove.*



Unit Chief: John Hawkins

4/30/2015

Date

ANNUAL ACCOMPLISHMENTS REPORTING 2013

Fire Planning: *Instituted a Battalion Chief SRA/CalMapper training and reporting program, a major component of this program is the establishment of a tracked Fuels Project submission process from Operations through Resource Management. Began a re-write of the 2012 Fire Plan which will reflect the many operational and administrative changes and improvements within the Riverside Unit.*

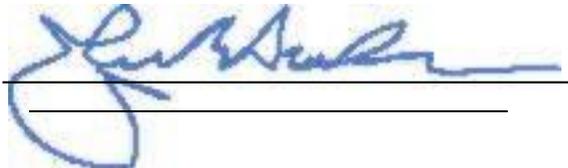
Wildland Fire Prevention Engineering: *Updated Geodatabase file management at the Mountain Resource Center. Quarterly CalMapper updates were submitted to FRAP*

Education and Information: *Since February 2011, when CAL FIRE/Riverside Unit implemented a “Twitter” social networking account that now has nearly 9,000 followers in 2013. The site is used to post relevant fire safety information, community events and serves as a conduit that links the “follower” back to our website to be informed of significant incidents that may affect the follower’s community – always with an attached safety message regarding wildland fire preparedness, evacuation information, brush clearance requirements, hazard mitigation information, or a myriad other regional or seasonal messages.*

Vegetation Management: *Fuels treatments continued in the San Jacinto Range completing the Astro Camp and Upper Dry Creek projects. The Clay Hill Plot on the Santa Rosa Ecological Preserve was successfully burned in conjunction with the Cal Fire Intermediate Firing Class. Mountain Fire, damaged tree removal completed in the SRA portions of the Bonita Vista community of Apple Canyon.*

Fire Hazard Severity Mapping and Mitigation: *GSOB control continued throughout the year with 30 GSOB confirmed Black Oak trees removed and transferred to the grinding facility in Idyllwild.*

Other Fire Prevention Projects in SRA: *Continued fuel reduction and pile burning in cooperation with California State Parks on the Stone Creek project within the San Jacinto Range.*



4/30/2014

Unit Chief

Date

John Hawkins

Supplement: 2012

Annual Report of Unit Accomplishments

The Riverside Unit Strategic Fire Plan sets forth a vision to identify and evaluate Wildland fire hazards and recognize life, property and natural resources at risk, including watershed, habitat, social and other values of functioning ecosystems. In 2012, the Riverside Unit made great strides in fostering inter- agency relations, collaboration, and abiding by the goals and objectives set forth in the Strategic Fire Plan for California

In 2012, the Riverside Battalions were successful in providing 4291 Public Resource Code inspections, fire prevention and fuel reduction education to communities. The Battalions collectively completed 11,213 LE-100 inspections, with 1,638 Violations. The engine companies completed 2,123 Fire Prevention public contacts with a total of 558 Prevention hours.

As part of the collaborative California Cooperative Wildland Fire Management and Stafford Act Response Agreement (CFMA) process, the 2012 review identified that a Direct Protection (DPA) adjustment was necessary to re-align the DPA to the mission of each agency. The mission of the Federal agencies is to manage and protect national forest and public lands and to protect lands under cooperative agreement with other wild land fire agencies. The mission of CAL FIRE is to protect the state, private and federal lands under the cooperative agreement and, where appropriate, provide local government fire protection services. As a result of this review, CAL FIRE Riverside Unit assumed DPA for 25,690 acres in the San Jacinto mountain area. This additional acreage was assumed in the Riverside Unit without additional budget/staffing increase. The re-alignment of the DPA will not impact the level of response to Wildland fires. The response to Wildland fires will continue to be immediate, decisive and aggressive.

Resource Management continues to make progress in fuel reduction in the Riverside Unit, utilizing the Healthy Forest Treatment 1 and 2 grant funded programs. Additionally, the Forest Care program, which is funded through a cooperative grant of the USDA Forest Service, successfully completed, 240 single tree removals covering 201 acres. The Riverside Unit conducted a number of Vegetation Management burns totaling 280 acres in cooperation with Federal, State and Local land managers.

CO-OP: is a joint program with the Mountain Communities Fire Safe Council (MCFSC) in which county grant funds are used to perform abatement work (PRC 4291) within 100 feet of structures in the mountain communities. The program spent \$221,315, treated 81.4 acres, and produced 343.1 tons of biomass, while servicing 101 landowners.

Time and Material: is a fuel reduction program based on the lowest cost bidder's rates for their equipment and labor. This program allows for a broader type of fuel reduction that single tree removal does not. It covers fuel brake re-habilitation, log and slash pile removal, protection of

evacuation routes, brush removal, and proper clearing of shelter-in-place areas. This program spent \$168,922, treated 80 acres, and produced 299.75 tons of biomass that was safely disposed of. There were 20 projects completed, helping 12 landowners.

The new Department resource, Cal Mapper, has been instrumental in collecting data, tracking, fiscal reporting, emergency response, planning, and assessment, for fuel reduction projects in the Riverside Unit. In the Riverside Unit a total of 17 projects with 39 treatments areas are either active, in maintenance, or completed.

The CAL FIRE Riverside Unit is collaboratively working with communities and stakeholders to stop the movement of the Gold Spotted Oak Borer (GSOB) through firewood transportation. The gold spotted oak borer (GSOB) has been detected in recently-killed California black oak trees in the Riverside County mountain community of Idyllwild. This new detection of GSOB represents the first long-distance movement of the borer from its known area of infestation in San Diego County, 40 miles to the south. It is believed to have made the jump from San Diego to Idyllwild through the movement of infested firewood. The Riverside Unit is actively engaged in the education of various local mountain community volunteer groups, Fire Safe Councils and the MAST (Mountain Area Safety Taskforce) members to help in the identification of affected trees.

SUPPLEMENT: 2012

Annual Report of Unit Accomplishments

Unit Accomplishments for 2011

- Completed CWPP for the Southwest Fire Safe Council
- Completed approximately 662 acres of broadcast burning
- Completed approximately 15 acres of pile burning
- Completed approximately 46 acres of fuel reduction
- Completed approximately 18 acres of fuel reduction for repeater sites
- Completed 2 new VMPs
- Remove many tons of hazardous fuels from the communities of Pinyon, Poppet Flats and the Southwest Fire Safe Council area through the community chipping program.
- Treated 25 parcels for 19.5 acres and 103 tons of bio mass removed in the San Jacinto Mountain area with the CO-OP project between the Mountain Communities Fire Safe Council and Cal Fire/Riverside County Fire.
- Conducted live wildland fire training for Anaheim City, the City of Orange and Orange County Fire Authority at Clark Training Center.
- Single tree contract: removed 71 trees, treating 51 acres.
- Time and materials contract: removed 276 tons biomass, treating 47 acres.