

ANNEX 15. SOUTH SKYLINE FIRESAFE COUNCIL

ORGANIZATION AND JURISDICTION

The South Skyline FireSafe Council (SSFSC) is a non-profit 501c3 all-volunteer organization started in 2008. Its programs protect thousands of residents and homes and bring together individuals, public and private agencies, and companies that share a common, vested interest in preventing and reducing losses from wildfires.

The SSFSC jurisdiction is centered about the junction of Santa Clara, San Mateo, and Santa Cruz Counties (located on Skyline Boulevard 2.7 miles north of Highway 9). It includes significant areas in all three counties. The boundaries extend surrounding Skyline Boulevard from Bear Creek Road at the south end to Old La Honda Road in San Mateo County at the north end, a distance of 23 miles, and typically 7 miles wide (Figure 15.1).

The SSFSC area is essentially all rated as a high fire danger area. While thinly populated, it includes the community of Las Cumbres with 120 homes. It is located along the west side of Skyline Boulevard 4 miles south of Highway 9. Skyline Boulevard is the county boundary between Santa Clara and Santa Cruz Counties and it is close to the Santa Clara County boundary with San Mateo County. Those two counties already have a combined Community Wildfire Protection Plan (CWPP). Skyline Boulevard is called out as an important fuel break in that document.

The SSFSC comprises a small group of very active volunteers. The SSFSC provides free chipping for defensible space to homeowners, now a \$10,000 program, and the group is actively engaged in the development of shaded fuel breaks along Skyline Boulevard, opening up overgrown California Department of Forestry and Fire Protection (CAL FIRE) truck trails, and clearing along private roads in an off-Skyline community. These efforts comprise almost 35 treated miles. Much of the work of the SSFSC is completed as low budget efforts, through fundraising from local donations. With the exception of the work along Skyline Boulevard, all other work has been in Santa Cruz and San Mateo Counties; however, the SSFSC are seeking to work more actively inside Santa Clara County. With a couple exceptions our projects have been done as low budget efforts. The SSFSC raises funds from local donations that understand the value of what council is accomplishing and grants that become available, minimizing the effort of writing extensive grant applications.

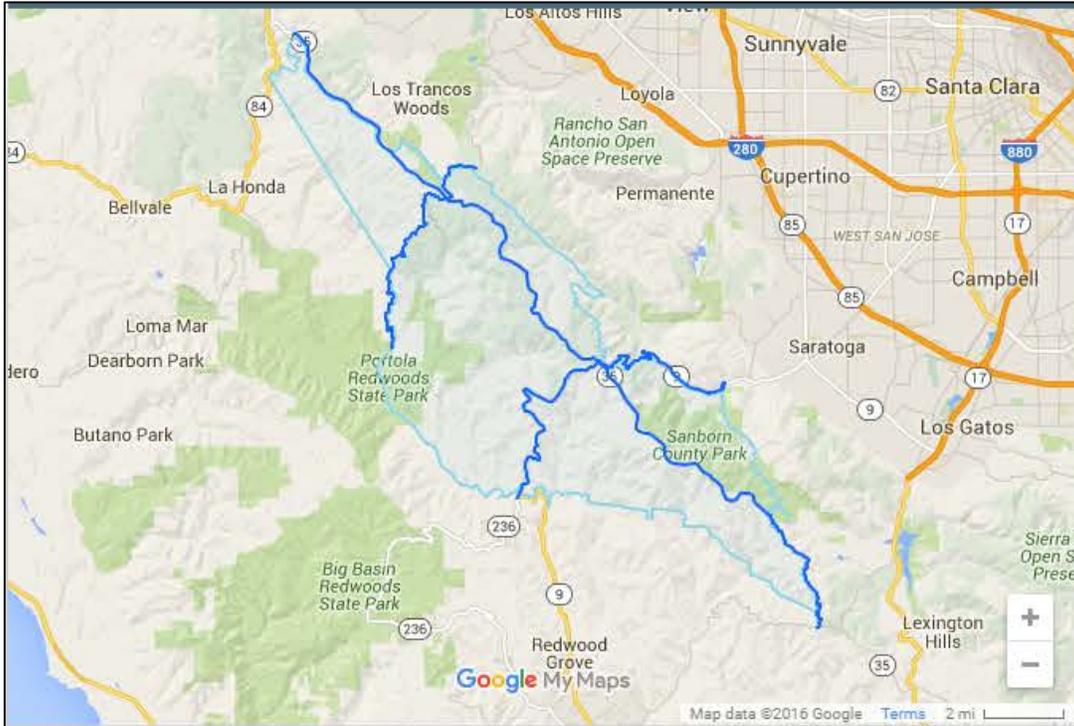


Figure 15.1. South Skyline FireSafe Council Boundary.

PLANNING TEAM PARTICIPATION

The SSFSC has been actively participating in the CWPP development through attendance at two rounds of community workshops and through providing project ideas and input to this annex.

SUMMARY

Public education/outreach and hazardous fuel reduction programs throughout the Skyline Boulevard area are the focus of the SSFSC. Several strategic goals outlined in the main countywide CWPP document fall under the purview of the SSFSC. All of the strategic goals are included.

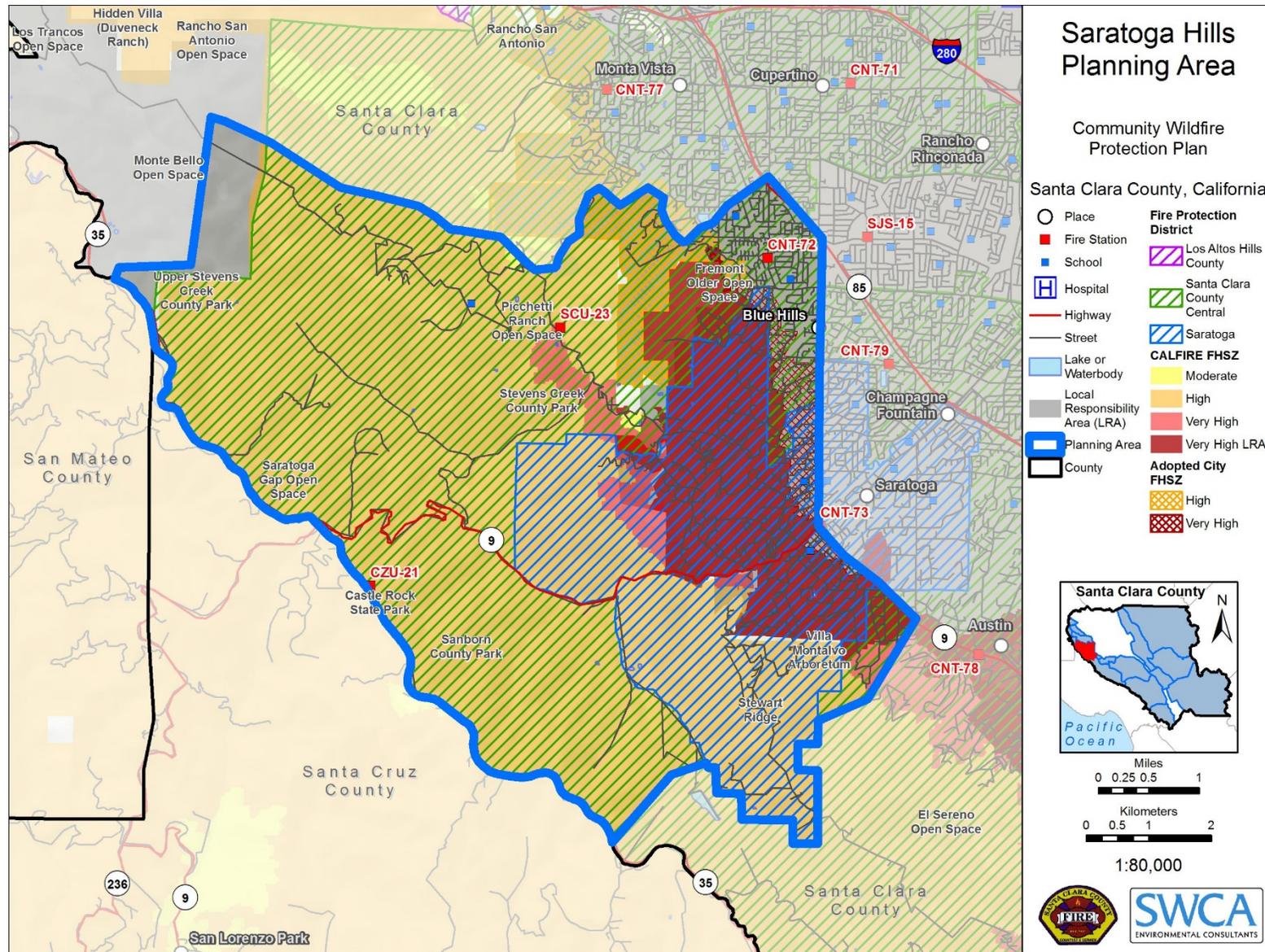
WILDLAND URBAN INTERFACE AREA DESCRIPTION

WILDLAND URBAN INTERFACE AREA DEFINED

The SSFSC jurisdiction (along Summit Road) falls within the Saratoga Hills (Figure 15.2) and Lexington Hills (Figure 15.3) planning areas and the Santa Clara County FireSafe Council (SCCFSC) Annex for this countywide CWPP. The reader is directed to the SCCFSC Annex (Annex 14), Saratoga FPD Annex (Annex 5), and Central Fire Protection District Annex – Chapter 1 Lexington Hills section (Annex 1) for more information on these planning areas.

FIRE HISTORY

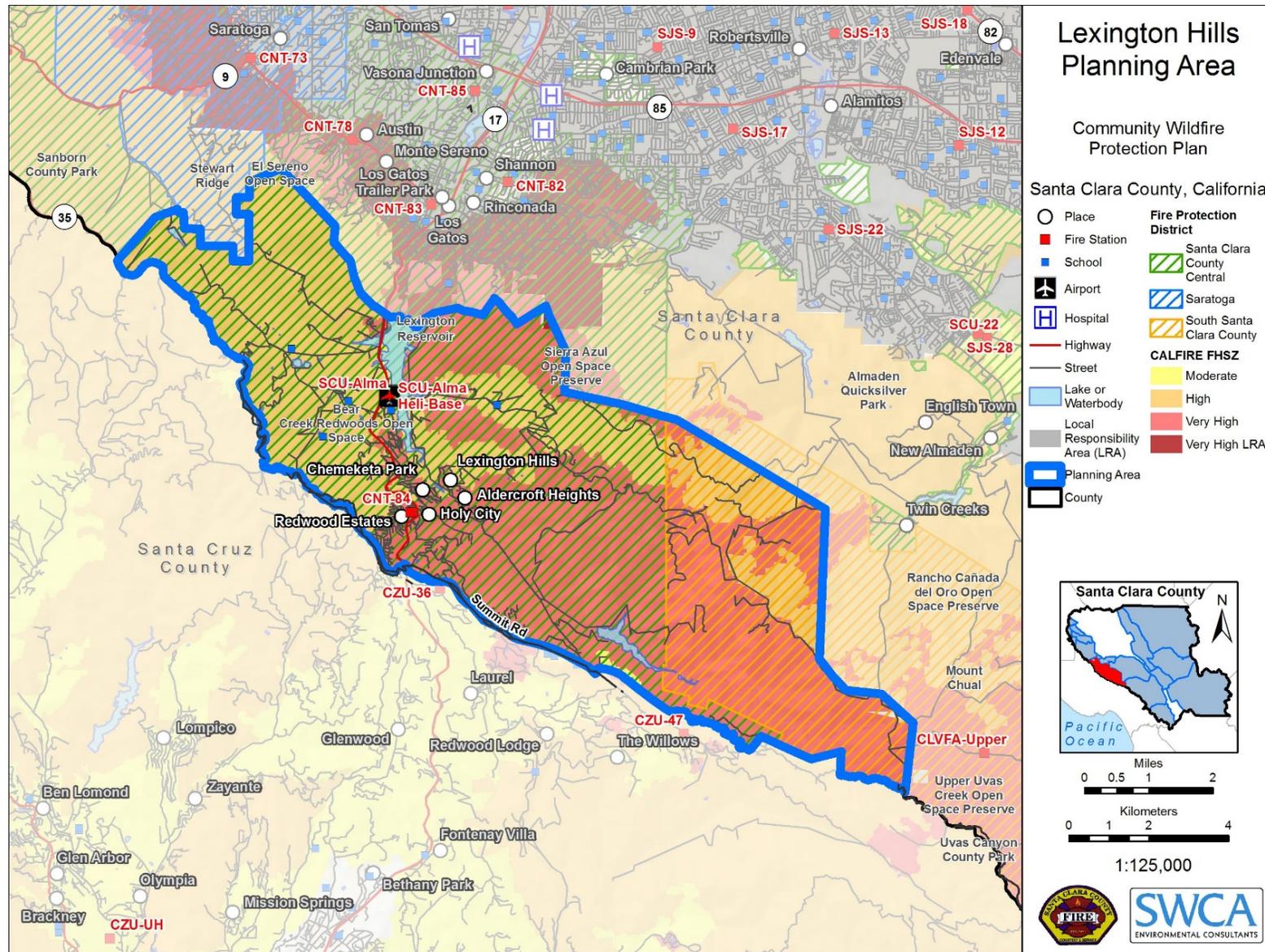
Fire history and ignitions in WUI planning area in show in Figure 15.4. For more fire history information, please see Figure 3.5 in the main Santa Clara County CWPP document.



Data Sources: ESRI ArcGIS Online World Ocean Basemap, CALFIRE-FRAP, & Santa Clara County. Accessed: May 2016. Map Created: 5/23/2016. Map Updated: 7/12/2016.

Figure 15.2. Saratoga Hills planning area.

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Data Sources: ESRI ArcGIS Online World Ocean Basemap, CALFIRE-FRAP, & Santa Clara County. Accessed: May 2016. Map Created: 5/23/2016. Map Updated: 7/12/2016.

Figure 15.3. Lexington Hills planning area.

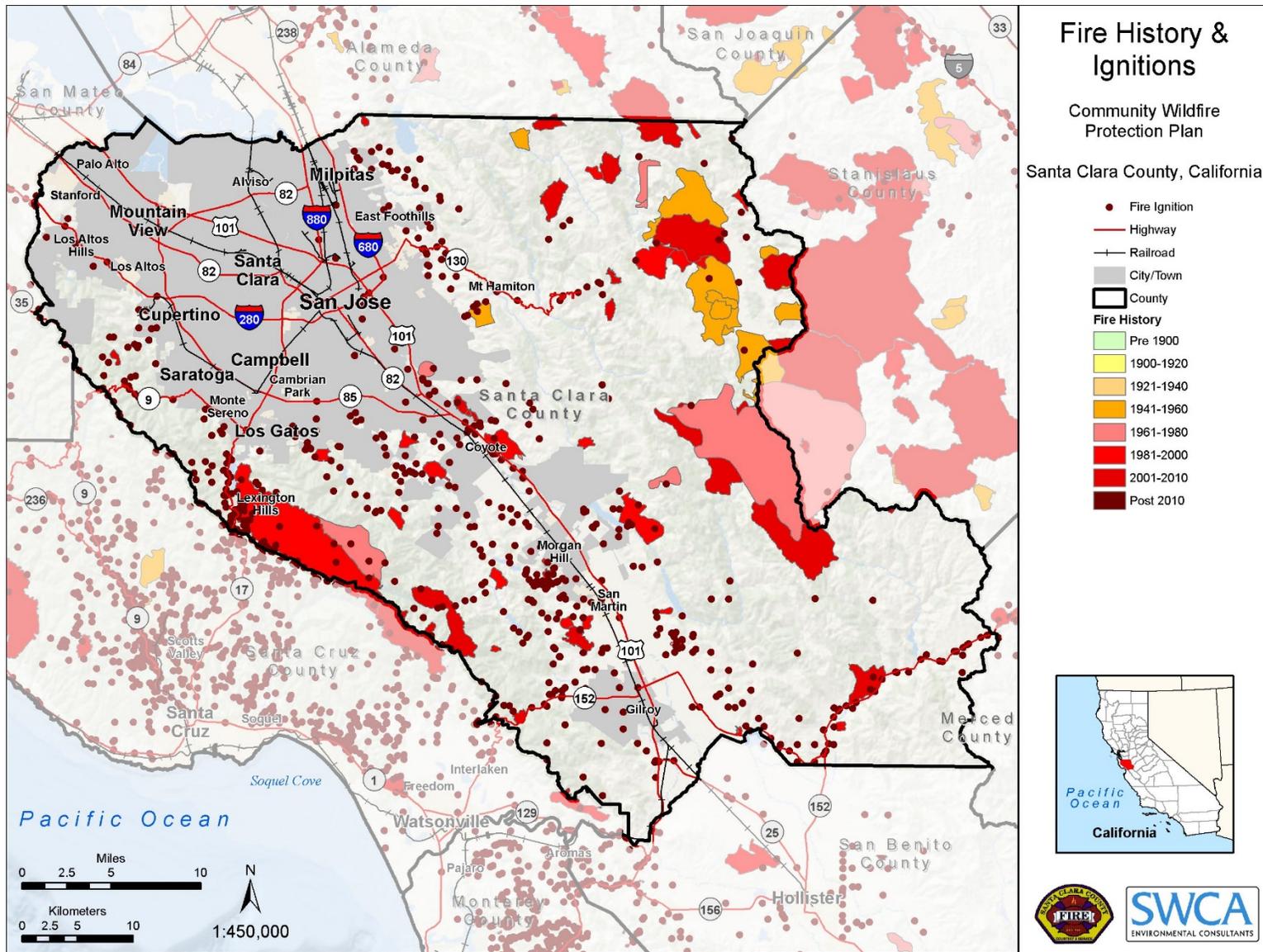


Figure 15.4. Fire history and ignitions in WUI planning area.

HAZARDOUS FUEL CHARACTERISTICS

The SSFSC wildland urban interface (WUI) includes a range of vegetation communities that differ depending upon elevation, precipitation, and slope. Chaparral vegetation is often found on south-facing slopes, where winter precipitation is relatively high, but dry summers are common. The chaparral will have long flame lengths under either moderate or extreme weather scenarios. The nature of these fuels is to burn quickly and intensely. Oak woodlands, comprised of a variety of oak species are also interspersed throughout, as well as mixed conifer comprising knob cone pine and gray pine. A fire in either the mixed conifer or hardwood would likely be a surface fire with patches of active behavior and fairly low rates of spread. However, active fire behavior is possible in this vegetation type under extreme weather conditions, especially where there is high surface loading. Coastal coniferous forest communities such as redwoods and Douglas-fir are located at lower elevations where precipitation is high, fog is common, and temperatures are moderate. Fire spread is generally limited in this fuel type; however, given the right combination of weather conditions, surface fire can be expected to burn uphill. Areas with increased fuel loading from dead and down materials may experience crowning under the right conditions. The varied vegetation composition result in a range of wildfire hazard.

For fuel model information, please refer to Section 4.6.3 and Figure 4.3 in Chapter 4 of the main countywide CWPP document.

NEIGHBORHOOD AND STRUCTURAL CHARACTERISTICS

Access: The SSFSC WUI areas are characterized by steep, windy, and narrow roads that pose potential ingress and egress problems for emergency response and evacuations. Some areas may be subject to slow response times for emergency response due to the distance from the nearest fire station and road conditions.

Some homes have minimal turnaround space, posing a concern to emergency responders due to potential entrapment. There are a number of dead end roads and narrow driveways.

Structural Characteristics: Most homes have moderate defensible space (at least 30 feet), but some homes do not meet the necessary 70- to 100-foot space recommendation. Homes may have non-combustible siding, but the majority have combustible decks and fencing that comes into contact with wildland fuels. Some homes have wood shake roofs, which put the property and neighborhood at extreme risk. Many subdivisions are managed by homeowner associations (HOAs) that provide a conduit for fire prevention and public education and outreach messages regarding structural ignitability and defensible space. A number of Building Code Chapter 7A compliant new build properties are interspersed with older properties.

Fuels: Many homes are located upslope from thick scrub fuels, with continuous canopies (Figure 15.5). Homes are located on steep slopes with often minimal setback from the slope. Topography is a concern due to the influence steep slopes have on potential fire behavior.

Water Supply: Water availability is a concern throughout the area with many residents dependent upon water from wells and storage tanks that may become depleted during periods of drought.



Figure 15.5. WUI showing variety of fuels and varied topography.

EMERGENCY RESPONSE CAPACITY

Fire suppression for the SSFSC WUI areas is provided by:

- Santa Clara County Central Fire Protection District (Local Responsibility Area [LRA])
- Santa Clara Unit CAL FIRE (State Responsibility Area [SRA])
- Santa Cruz Unit CAL FIRE (SRA)

PUBLIC EDUCATION AND OUTREACH PROGRAMS

The SSFSC is very active in public education and outreach. This organization provides information regarding chipping programs, defensible space mitigation, forest health issues, and much more. <http://www.southskylinefiresafe.org/Home>

IDENTIFY CRITICAL INFRASTRUCTURE AND COMMUNITY VALUES AT RISK

Critical utility infrastructure such as, electric power supply lines, substations, and natural gas lines are essential to supply residents and businesses with services that are in some cases critical to health and life safety. In many parts of the study area, electric power is needed to power pumps for the domestic water supply and to provide heating and lighting. Wildfire is a significant threat to the electric utility supply.

The county has several watersheds that are community values at risk. Watersheds need to be protected and maintained from catastrophic wildfire damage in order to prevent erosion, sedimentation and water contamination (Taylor et al. 1993). Long-term issues resulting from damage to watersheds would be increased runoff, poor soil retention, and decreased water quality.

Much of the planning area is comprised of Midpeninsula Regional Open Space Preserves, County Open Space Authority, County Parks, water purveyor watershed lands, and state parks. Great opportunity exists to coordinate these open space agencies to include fire department access and fire ignition risk reduction in their parks.

Other community values at risk include life safety, homes and property values, infrastructure, recreation and lifestyle, wildlife habitat, watershed protection, and environmental resources.

MITIGATION PROJECTS AND PRIORITIZATIONS

The following project matrixes have been developed by the community and Core Team to direct strategic countywide project implementation for all communities in the WUI. Many of these projects pertain to conditions and needed actions in the SSFSC jurisdiction and as such could be considered for future planning in the SSFSC jurisdiction. Following the project matrixes (Table 15.1–Table 15.5) are a list of specific projects identified by the SSFSC.

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Table 15.1. Recommended Fuel Reduction Projects

ID	Project Description	Location and Responsible Party	Method	Serves to:	Timeline for Action	Priority (1,2,3)	Monitoring	Resources/funding sources available
FR1	Incorporate single track trails into fire defense system where practical and effective.	Santa Clara County and other SF Bay area counties. MROSD; County Parks, County Open Space, CA State Parks, Palo Alto Parks, San Jose Parks, and other municipal park agencies	Strategic plan to incorporate fire defense improvements in the Bay Area Ridge Trail project. Detailed analysis would be needed in development of treatment location to ensure protection of natural resources. Should incorporate a map component and use the Earthquake Clearinghouse exchange core to facilitate project development.	Provide access when fires occur to reduce spread Enhance Community fire defense	Ongoing-long range	1	Regular monitoring to determine project success in reducing fuel loading and enhanced access.	Grants: SRA, CA FSC; CFIP; NRCS, FEMA, GHGRF Fund sustainability efforts through the property owner/manager, or local/state agency that is the responsible party.
FR2	Work with Park and Open space to have some road width trails for better access where appropriate.	County Open Space Authority, MROSD, State Parks, County Parks, Palo Alto Parks, San Jose Parks, and other municipal parks that bound up to the WUI	Maintain road width trails for fire and park patrol vehicles where possible to facilitate access. Use trails as fuel breaks. Should incorporate a map component and use the Earthquake Clearinghouse exchange core to facilitate project development.	Protect life and property by improving access for emergency vehicles to open space areas and WUI areas adjacent to open space.	Within 2 years	1	Regular maintenance schedule should be implemented to ensure clearance levels are maintained.	
FR3	Encourage continued grazing in parks and open space for grass/light fuel maintenance.	County Parks, MROSD, County Open Space, State Parks, water company/district properties	Utilize browsing as fuel reduction and maintenance technique, especially adjacent to WUI areas.	Reduce fuel loading of fine fuels that could increase wildfire spread to WUI areas.	Ongoing	2	Regular monitoring needed to ensure against environmental damage and invasive species.	Grants: SRA, CA FSC; CFIP; NRCS, FEMA, GHGRF

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ID	Project Description	Location and Responsible Party	Method	Serves to:	Timeline for Action	Priority (1,2,3)	Monitoring	Resources/funding sources available
FR4	Encourage use of prescribed fires where ecologically sound and feasible.	All jurisdictions where appropriate	Utilize prescribed burn planning that follows agency and regulator protocols. Closely follow plan prescriptions.	Reduce fuel loading of fine fuels and understory species to mitigate potential for intense fire behavior in the event of an unplanned ignition.	Ongoing	1	Regular monitoring needed to ensure against environmental damage and invasive species into burned areas.	Grants: CAL FIRE VMP program, SRA, CA FSC, CFIP, NRCS
FR5	Land management agencies partner for clarity of prescribed fire use that is complementary to Greenhouse Gas Reduction plan of CA Air Resources Board.	MROSD; County Parks, County Open Space, CA State Parks, Palo Alto Parks, San Jose Parks, and other municipal park agencies; private rangeland owners	Establish prescribed burning program in partnership with Bay Area Air Quality Management District. Develop prescribed burning community of interest/council.	Open dialogue with APCD. Educate public. Encourage landowners. Provide expertise.	Ongoing	3	Regular monitoring to determine project success in reducing fuel loading through prescribed burning.	Grants: CAL FIRE VMP program, SRA, CA FSC, CFIP, NRCS
FR6	Adopt common power line clearance standards for WUI in LRA and SRA.	County in conjunction with utility companies.	Compare power line clearance ordinances in all local WUI jurisdictions. Coordinate with power utility providers to understand impacts and legal pathways. Where necessary adopt local ordinances consistent with intent of CA Public Resources Code sections. Utilize EQ Clearing House exchange core to facilitate project development.	Reduce fuel loading around critical utility infrastructure. Reduce potential for fire starts from downed lines and line strikes.	Within 2 years	1	Regular maintenance schedule should be implemented to ensure clearance levels are maintained.	CA Public Resources Code and Office of Administrative Law for guidance. Funding needs to be determined after impact assessment

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ID	Project Description	Location and Responsible Party	Method	Serves to:	Timeline for Action	Priority (1,2,3)	Monitoring	Resources/funding sources available
FR7	Develop roadside fuel treatment program, including suite of methods available and sustainability mechanism.	All jurisdictions where appropriate; Caltrans, County and city road agencies; private road associations, PG&E, cable and phone companies	Determine suite of treatment methods allowed and restriction for roadside hazard reduction including mowing, mastication, chemical, plantings, mulching, etc. Develop treatment plan and rotation schedule for roadside treatments, focusing of primary evacuation or access/egress corridors. Track with the Earthquake Clearinghouse exchange core.	Reduce fuel loading around roads and highways to ensure safe passage of vehicles in event of evacuation and reduce unplanned ignitions from vehicles and highway users.	Within 2 years	1	Regular maintenance schedule should be implemented to ensure clearance levels are maintained. Develop standards for road crews.	Grants: SRA, CA FSC; CFIP; NRCS, FEMA, GHGRF
FR8	Develop list of fuel treatment methodologies with cost per acre/day/ (other metric) that can be used for hazardous fuel treatment.	FireSafe Council	Educational tool for land /property owners re: various methods, techniques, and cost for various fuel treatments. Cost estimator for project management and grant applications. Pros/cons/restrictions on use of various techniques.	Provide residents with a usable list that helps them to prioritize treatments and plan their defensible space projects.	Within 1 year	1	Monitor effectiveness of different treatment approaches and implement adaptive approach for updating the list depending on uptake of various methods.	NPS, U.S. Forest Service, CAL FIRE, PG&E resources of techniques in use and cost/benefit
FR9	Establish assistance program for hazardous fuel reduction for physically or fiscally challenged parcels.	Throughout all jurisdictions in the County	Identify barriers to achieving parcel level defensible space and establish assistance program of resources: education, consulting, guidance, people, funding. Establish subsidy or other assistance programs.	Ensure that individual properties with poor property hygiene do not put adjoining properties at risk in event of wildfire. For residents who are not capable of implementing good property hygiene.	Within 2 years	2	Establish levels of participation by assistance type	Grants: SRA, CA FSC; CFIP; NRCS, FEMA, GHGRF

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ID	Project Description	Location and Responsible Party	Method	Serves to:	Timeline for Action	Priority (1,2,3)	Monitoring	Resources/funding sources available
FR10	Develop agency partnership to establish creation of hand crew for fire hazard reduction-need not be a fire crew.	All agencies	Establish a local based crew for use in fire defense improvement work throughout the county. Can be through private resources, contract with CCC, or Sheriff.	Primary purpose is to carry out CWPP objectives.	Within 3 years	2	Monitor cost effectiveness through benefit cost ratio approach	Grants: SRA, CA FSC; CFIP; NRCS, FEMA, GHGRF
FR11	Create Sustainable programs for creating defensible space at the parcel level.	Homeowner, FireSafe Councils, HOAs, Local fire Departments, Administrators for SRA fee distributions, etc.	Example projects - Curbside green waste pickup programs, community chipping piles, drive-up chipping, on site chipping.	Ensure that defensible space actions are sustained in all communities.	Within 1 year	1	Regular maintenance schedule should be implemented to ensure clearance levels are maintained.	Grants: SRA, CA FSC; CFIP; NRCS, FEMA, GHGRF

Table 15.2. Recommended Public Education and Outreach Projects

ID	Project	Presented by	Target Date	Priority	Resources Needed	Serves to
EO1	Educate citizens on how to achieve contemporary WUI code compliance in retrofits/cost: benefit ratio. Provide workshops and/or demonstration site.	FireSafe Councils, County Fire, CAL FIRE	Within 2 years	1	<ul style="list-style-type: none"> • Workshop expenses, personnel • Workshop venues • Demonstration site • Strategize on avenues for engaging the public. Be opportunistic- engage residents following a local wildfire or at existing well-attended events- i.e. annual BBQ, Pancake Breakfasts, Open days offered by Fire Departments. 	<p>Increase compliance with County code.</p> <p>Reduce fire risk level for individual parcels and community as a whole.</p>
EO2	Analyze playing with fire ignitions and focus education programs at vicinity schools.	County Fire, CAL FIRE, municipal fire departments, FireSafe Council	Within 1 year	1	<ul style="list-style-type: none"> • School liaison • Materials for presentations • Personnel • Video processing, could utilize You Tube platform • Could be a college student project 	<p>Adds to existing programs provided by County Fire and FireSafe Council targeted at school age children.</p> <p>Reduces number of ignitions.</p>
EO3	Organize a community group made up of residents and agency personnel to develop materials and communicate relevant defensible space messages. Could coordinate with fire departments or Fire Safe Council. Possibility to coordinate actual implementation of defensible space and slash clear-up with the local Eagle Scout group or high school volunteers.	FireSafe Council, fire departments, local residents, Eagle Scouts, High School Community Volunteer Program	Within a year	1	<ul style="list-style-type: none"> • Funding to help cover costs of materials (green waste removal or chipper) and participation. • People trained in defensible space practices. 	<p>Engage diverse stakeholders in reaching out to community members and encourage defensible space practices.</p> <p>Empower homeowners to make affordable and effective changes to reduce the vulnerability of individual homes.</p>

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ID	Project	Presented by	Target Date	Priority	Resources Needed	Serves to
EO4	Media involvement. Develop a local newspaper column that provides fire safety information, promotional information for volunteer fire departments, fire announcements, and emergency planning.	Agency Public Information Officers, Emergency Manager, Commission	Within 1 year	1	<ul style="list-style-type: none"> Columns, information, and articles to be provided by fire departments, city, county, state representatives. 	Protect communities and infrastructure through increasing public awareness and providing a channel for information regarding emergency fire response.
EO5	Emergency preparedness meetings. Use American Red Cross volunteers and other preparedness experts. Attend community functions and hold special meetings to provide guidance for creating household emergency plans. Use Ready, Set, Go! program.	American Red Cross, city, county, state personnel, FireSafe Council	Within 1 year	1	<ul style="list-style-type: none"> Written materials- could use existing literature. 	Improve preparedness by facilitating the communication between family members and neighbors about what procedures to follow in the event of a wildfire.
EO6	Work with Caltrans to install or utilize existing electronic message signs on major highways to notify public of extreme fire danger.	County, Caltrans	Within 1 year	1	<ul style="list-style-type: none"> Funds for new sign installing and/or maintenance of existing signs. 	Inform residents, commuters and tourists of extreme fire danger in order to reduce accidental ignitions and encourage pre-planning.
EO7	Plan livestock evacuation routes and inform communities. Work with emergency management officials to plan evacuation routes for residents with livestock and then hold community meetings to disseminate to the public.	Emergency management officials, livestock agencies/ civic groups	Within 2 years	1	<ul style="list-style-type: none"> GIS software or maps- coordinate with EQ Clearing House- GIS sharing. 	Protect communities, livestock and infrastructure through increased awareness.

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ID	Project	Presented by	Target Date	Priority	Resources Needed	Serves to
EO8	Provide webinars for homeowners to learn about Fire Safe communities and property.	County Fire, CAL FIRE, municipal fire departments, Fire Safe Councils	Within 2 years	2	<ul style="list-style-type: none"> • Workshop expenses • Personnel • Workshop venues • Video processing • Could be a college student project 	<p>Increase reach for public education and outreach.</p> <p>Provide access to information to residents who don't typically attend in-person meetings or workshops.</p> <p>Provide a consistent and standard message to residents.</p> <p>Improve individual adoption of action sot reduce structural ignitability.</p>
EO9	<p>Targeted wildfire info workshops.</p> <p>Review existing programs (Ready, Set, Go!; Firewise) for suitability of existing fire prevention workshops and where necessary fund development of unique adapted presentations to highlight how a fire might affect particular groups in the community.</p>	Active local residents, Fire Safe Council	Within 1 year	1	<ul style="list-style-type: none"> • Funding for research, writing, and presentation of detailed information on how large-scale wildfire would affect the target audience and the measures that could be taken to reduce the threat. 	
EO9.1	<p>Targeted wildfire education materials.</p> <p>Review existing programs (Ready, Set, Go!; Firewise) for suitability of existing fire prevention materials and where necessary fund development of unique adapted materials to highlight how a fire might affect particular groups in the community.</p>	Active local residents, FireSafe Council	Within 1 year	1	<ul style="list-style-type: none"> • Flyers could be sent out with utility bills or other community mailings. • Consider "Simtable" use for visualizing various emergency scenarios for residents/HOA leaders and agency personnel. 	Deliver a clear and consistent message that impacts of wildfire are far-reaching and that it is in the best interest of a diverse set of stakeholders to become involved in planning and preparing for fire.

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ID	Project	Presented by	Target Date	Priority	Resources Needed	Serves to
EO10	<p>Insurance Service Office informational meetings:</p> <p>Invite Insurance Services Office representatives to speak to groups regarding ways to improve insurance ratings in the community.</p>	Insurance Services Office in conjunction with local volunteer fire departments	Within 2 years	2	<ul style="list-style-type: none"> Resources provided by Insurance Services Office. Venue provided by fire department. 	Communities can learn how to improve their insurance ratings, which will reduce insurance costs in their community by implementing wildfire prevention measures.
EO11	<p>Increase signage/replace or augment existing signage.</p> <p>Use existing signage to spread seasonally adjusted fire prevention message along highways and in public open space areas (trailheads, info kiosks) to reduce human ignitions.</p> <p>Promote the use of existing electronic signs at firehouses and other locales to display fire prevention information, safety messages, and fire danger rating linked to safety actions.</p>	County Fire	Within 2 years	2	<ul style="list-style-type: none"> Mostly existing signs and posting sites, people to post and update signs. Replace, or augment the existing Smokey Bear signs with electronic Fire Danger Warning Signs that are solar powered, LED displays (visible day & night), and accessible and programmable through an internet website. 	Protect communities and infrastructure by raising awareness of local citizens and those traveling in the area about actions that can prevent fire.
EO12	<p>Promote and increase the use of prescribed burning as a fuels reduction method.</p> <p>Gain public support for using prescribed burns to reduce fuel loads and to improve ecosystem health through a pilot burn project and demonstration site.</p> <p>Consider developing informational material for distribution at natural areas or via email distribution lists.</p>	CAL FIRE/ MROSD (through Board of Directors)/ Santa Clara Valley Open Space Authority	Within 2 years	2	<ul style="list-style-type: none"> Prescribed burn prescription, type-6 engines, hand crews, equipment. Research and costs of producing, printing, and distributing paper informational flyer. 	Protect communities and infrastructure by reducing fuel loads.

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ID	Project	Presented by	Target Date	Priority	Resources Needed	Serves to
EO13	<p>Implement Firewise Communities programs.</p> <p>Work with communities to participate in Firewise Communities and prepare for fire events. Hold Firewise booths at local events for example during the October Fire Awareness Week each year.</p>	Fire Safe Council, CAL FIRE, County Fire	Within 2 years	2	<ul style="list-style-type: none"> • Firewise Communities educational materials. 	Protect communities and infrastructure through increased awareness and defensible space.
EO14	<p>Fire agencies establish partnership with San Jose State University (or other colleges) for student intern programs for GIS, plans, weather, environmental reviews, etc.</p> <p>GIS work should be in conjunction with the EQ Clearinghouse and Exchange Core.</p>	County Fire Department	Within 2 years	3	<ul style="list-style-type: none"> • Admin costs • Liaison 	<p>Provides resources for agencies to implement projects in the CWPP.</p> <p>Improves technical capabilities of Agencies to run fire modelling programs and train staff in modelling protocols.</p> <p>Engages students in real-life training opportunities.</p>

Table 15.3. Recommended Firefighting Capability Projects

ID	Project Description	Fire Department/Agency	Benefits of the Project to the community	Timeline	Priority (1,2,3)	Resources/funding sources available
FC1	Require a minimum of 5,000 gallon of water storage at single parcel developments where no community water system exists. Incorporate map component and utilize EQ Clearing House GIS Exchange Core.	County Fire/CAL FIRE/FireSafe Councils/Municipal FDs	Alleviates public and agency concern for limited water supply in remote areas. Improve fire-fighting capability. Enhances firefighter safety. Enhances protection of life and property.	2 years	2	Requires local fire code and land development amendments
FC2	Define Safe Refuge Areas and establish maintenance program in WUI areas where fire behavior and evacuation timing is problematic. Incorporate map component and utilize EQ Clearing House GIS Exchange Core.	County Fire/CAL FIRE/FireSafe Councils/Municipal FDs, MERC and other groups that maintain evacuation centers.	Provides safety measure for residents of rural areas in event that evacuation is limited. Provides for firefighter safety by creating escape route.	2 year	1	Grants: SRA, FEMA, CA FSC, DHS
FC3	Identify carless population/evacuation assistance needed locations. Establish registry in cooperation with Emergency Management agencies. Incorporate map component and utilize EQ Clearing House GIS Exchange Core.	County Fire/CAL FIRE/FireSafe Councils/Municipal FDs Emergency Management Agencies	Aids in safe evacuation of residents, those with evacuation assistance needs	2 year	1	FEMA, DHS

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ID	Project Description	Fire Department/Agency	Benefits of the Project to the community	Timeline	Priority (1,2,3)	Resources/funding sources available
FC4	<p>Require evacuation time modeling for all WUI areas.</p> <p>Establish benchmark s time standard for evacuation.</p> <p>Requires amendment to planning conditions and/or Land Use Ordinances.</p>	County Fire/CAL FIRE/FireSafe Councils/Municipal FDs	<p>Helps fire response agencies pre-plan for evacuations.</p> <p>Helps identify areas where mitigation measures are needed to facilitate safe evacuation.</p>	1 year	1	Developers fund studies
FC5	Develop WUI preplans and accompanying Evac plans for all WUI areas in Santa Clara County using standardized format.	County Fire/CAL FIRE/FireSafe Councils/Municipal FDs	<p>Helps fire response agencies pre-plan for evacuations.</p> <p>Helps identify areas where mitigation measures are needed to facilitate safe evacuation.</p> <p>Helps establish consistent model across all agencies.</p>	1 year	1	Grants: SRA, FEMA, CA FSC, DHS
FC6	<p>Create secondary accesses in communities that have single access and poor road systems.</p> <p>Require major coordination with planning agencies and governing bodies for land use changes or retrofit requirements.</p>	<p>County Fire/CAL FIRE/FireSafe Councils/Municipal FDs</p> <p>Land Use Planning agencies</p> <p>Governing bodies</p>	<p>Alleviates evacuation concerns of residents living in areas with poor ingress/egress.</p> <p>Provides for improved response capabilities and reduces risk that responding emergency vehicles will conflict with evacuation of residents.</p>	2 years	1	Homeowner Associations, Road Associations, County Service Areas
FC7	Obtain additional helicopters / air resources for suppression.	County Fire/CAL FIRE/FireSafe Councils/Municipal FDs	<p>Provides back-up to on-the-ground resources.</p> <p>Improves suppression capabilities in inaccessible areas where use of ground resources would threaten firefighter safety.</p> <p>Improves response time to aid in protection of life and property.</p>	5 years	2	See Funding Appendix (D)

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ID	Project Description	Fire Department/Agency	Benefits of the Project to the community	Timeline	Priority (1,2,3)	Resources/funding sources available
FC8	Where road systems are antiquated and do not provide for proper evacuation or two way flow, require removal of obstructions or upgrade to minimum 2 lanes road system over time.	County Planning	Alleviates evacuation concerns of residents living in areas with poor ingress/egress. Provides for improved response capabilities and reduces risk that responding emergency vehicles will conflict with evacuation of residents.	2 years	1	Homeowner Associations, Road Associations, County Service Areas
FC9	Where possible encourage setting up water sources with multiple uses (e.g. fire suppression and wildlife water, cattle water, etc.).	FireSafe Councils working with communities.	Provides for use of livestock and wildlife water tanks that could be utilized for fire protection.	1 year	3	See Funding Appendix (D)
FC10	Investigate potential for use of drones to assess and monitor wildfire.	County Fire	Drones could be a useful tool for the monitoring of wildfire in areas with limited access but future research is needed to fully assess their utility and application. The fire departments could launch a pilot study to determine effectiveness of the tool.	Within 3 years	3	See Funding Appendix (D)
FC11	Investigate and potentially install Fire Detection Robots to alert departments of a fire start in remote areas.	County Fire	Uses technology for single-tree wildfire detection solution that help forestry agencies and fire protection professionals manage the risks of fire damage cost-effectively.	Within 2 years	1	Private companies provide robotic technology i.e.: Insight Robotics http://www.insightrobotics.com/solutions/wildfire-detection Wildland Detection Systems http://www.wildlandsystems.com/ Fire Alert MK1 http://vigilys.com/technology/firealert/

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ID	Project Description	Fire Department/Agency	Benefits of the Project to the community	Timeline	Priority (1,2,3)	Resources/funding sources available
FC12	Implement County wide program to replace existing house number markers with reflective markers that meet consistent standard.	County Fire	Improves fire response times and assists out-of-town responders who are not familiar with the local area, especially at night. Would need funding to implement program. Could consider private contributions.	Within 1 year	1	SCCFSC
FC13	Develop a coordinated approach between fire jurisdictions and water supply agencies to identify needed improvements to the water distribution system, initially focusing on areas of highest wildfire hazard.	County Fire, CAL FIRE, FireSafe Council, San Jose Water	Improve fire-fighting response if water is more readily available or closest locations could be identified on a GIS map on a tablet/computer.	Within 2 years	1	County Fire
FC14	Where possible encourage sharing of water sources in areas where residential water supplies may be low or non-existent during periods of drought or when wells/springs have run dry.	fire agencies, local community organizations, local water purveyors	Encouragement and assistance from FireSafe Council can provide a catalyst for action. Example: Loma Prieta Fire Department is providing small grants to homeowners to purchase and install additional water tanks on private residential lots where a reliable supply of water exists. These tanks then provide water for adjacent properties where a well or spring may be seasonal or dry	1-5 years	1	County Fire
FC15	Where Open Space and Park Agencies establish trail head parking areas, operating facilities such as horse stables and camping areas that will increase public access add large capacity water tanks and hydrants for wildfire protection	County Fire	Alleviates public and agency concern for limited water supply in remote areas.	Within 5 years	3	County Fire This could eventually be amended into the building code for Santa Clara County.

Table 15.4. Recommendations for Structural Ignitability Projects

ID	Project	Presented by	Programs Available	Description	Priority (1,2,3)	Timeline
SI1	Retrofit/Eliminate flammable roofs.	County Planning in conjunction with County Fire and municipalities	FEMA grants	Require elimination of all flammable roofs through attrition or time deadline	1	By 2030
SI2	Identify all WUI areas (including FHSZ VH, H, and M in LRA and SRA); standardize regulations/standards/codes in all WUI areas.	County Planning in conjunction with County Fire and municipalities		Make all WUI building codes, defensible space and other prevention regulations standard across all jurisdictions. Data Should be shared via the EQ Clearinghouse and Exchange Core	2	2020
SI3	Encourage/require retrofit to achieve contemporary WUI codes when remodeling beyond 50%.	County Planning in conjunction with County Fire and municipalities.		Require or encourage gradual updating of existing structures to the standards identified in the most contemporary WUI codes though remodels or owner interest Acknowledge that some codes cannot be met on existing parcels.	2	Adopt ordinances by 2020
SI4	Adopt common defensible space standards throughout the county.	County Fire, CAL FIRE, Municipal FDs		Make all WUI building codes, defensible space and other prevention regulations standard across all jurisdictions	1	Next 3 years
SI5	Adopt landscape standards for recommended plant landscape materials. Standards or Guidelines. Standards usually have force of law behind them.	FireSafe Councils to lead	Research Firewise plants suitable for the region. Develop plant list, poster materials and research demonstration site. Firewise Communities USA: www.firewise.org	Educate property owners, landscape firms and landscape architects in appropriate ornamental plantings, mulches, and landscape design/maintenance in WUI areas.	3	Next 2 years

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ID	Project	Presented by	Programs Available	Description	Priority (1,2,3)	Timeline
SI6	<p>Develop landscape contractor maintenance program for “Right Plant--Right Place” and maintenance.</p> <p>Consider consulting with the California Native Plant Society and wildlife biologists to create an area that is sensitive-plant and animal friendly. These practices include no heavy pesticide use, limiting soil erosion, and a focus on using native plants.</p>	FireSafe Councils to lead	Firewise Communities USA: www.firewise.org	Educate property owners, landscape firms and landscape architects in appropriate ornamental plantings, mulches, and landscape design/ maintenance in WUI areas.	2	Next 2 years
SI7	<p>Promote Firewise Community recognition program countywide; consider SCL amendments to Fire wise; partner with CERT and Neighborhood Watch.</p> <p>NOTE: Linked to EO 13</p>	FireSafe Councils to lead in conjunction with Santa Clara County Fire Department , Municipal FDs	Firewise Communities USA: www.firewise.org	Educate and outreach to bring communities into Firewise recognition programs	2	Next 3 years
SI8	Interactive tool for citizens to use on line, ID their property and what hazard/risks exist and mitigations they can apply to improve their survivability.	Santa Clara County Fire Department with revised Interra contract	Interra	<p>Pursue funding to increase contract provisions with Interra to provide public facing tool.</p> <p>Simplify tool and provide easy to follow instructions.</p> <p>Could develop You Tube informational video</p>	1	Next 3 years
SI9	<p>Create a countywide defensible space ordinance for parcels below certain size acreage (parcel size: i.e. 2 acres?), if not cleared by owner then county will clear.</p> <p>Could be tied to County weed abatement program.</p>	Santa Clara County Fire Department , Municipal FDs, CAL FIRE		<p>To assure defensible space in WUI will be maintained; require property clear or agencies will clear and assess property owner</p> <p>Link to enforcement of weed abatement</p>	1	Next 2 years

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ID	Project	Presented by	Programs Available	Description	Priority (1,2,3)	Timeline
SI10	Public education program for embers and problems associated with embers, property hygiene, defensible space.	County Fire, Municipal FDs, CAL FIRE, FireSafe Councils	Ready, Set, Go! Program: www.wildlandfirer.org . Institute for Business and Home Safety NFPA: www.nfpa.org , Fire Adapted Communities	Educate property owners on best methods to reduce ember intrusion Could utilize you tube informational video of college student project.	1	Next 2 years
SI11	Implement spring community yard clean-up days. In combination with FireSafe Council chipper program.	County Fire, Municipal FDs, CAL FIRE, FireSafe Councils	FireSafe Council chipping program Ready, Set, Go CAL FIRE	A community led day of yard clean-up with fire mitigation in mind would encourage large numbers within the community to carry-out mitigation measures and implementation of defensible space.	2	Next 2 years
SI12	Assess and improve accessibility to property. Weekend program to inform homeowners about emergency response access.	Fire departments, Fire Marshal		Inform homeowners about the importance of keeping driveways accessible to fire trucks and emergency responders.	1	Within 1 year

Table 15.5. Recommendations for General Planning Projects

ID	Project Description	Method	Timeline for Action	Priority (1,2,3)	Monitoring/Sustainability	Resources/Funding Sources Available
GP1	Ensure project sustainability.	<ul style="list-style-type: none"> - Have a target date for updating the datasets used in the risk assessment model and re-running the model. - Establish trigger points for updating CWPP. - Use Mello-Roos Community Facility Districts for new subdivision for sustainable hazardous fuel maintenance. 	Annually	1	Establish annual oversight of the CWPP and project status. Get buy-in from Core Team members for long term commitment to CWPP review.	Refer to Appendix D
GP2	Form a task force to do parcel level inspection work to enhance model; utilize portable data collection and ARCGIS as analysis tools.	<ul style="list-style-type: none"> - Must have agency link to be accepted by the public. Agency responsibility would fall to the County Fire Department. - Carryout parcel level assessments to enhance risk assessment model components at a finer scale. - Add data to model and re-run as necessary. 	2 years	1	Set target number of parcels to be assessed each year. Review number of parcels assessed each year at annual CWPP meeting.	Refer to Appendix D
GP3	Use a countywide standard and method for continued data gathering and risk analysis.	<ul style="list-style-type: none"> - Conduct funding to purchase a commercial application such as Fulcrum that provides a standard data collection platform that could be used on a smart phone. 	2 years	1	Annual review of progress as part of Core Team.	Refer to Appendix D

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ID	Project Description	Method	Timeline for Action	Priority (1,2,3)	Monitoring/Sustainability	Resources/Funding Sources Available
GP4	Improve partnerships across county boundaries.	<ul style="list-style-type: none"> - Work with adjacent counties where there are shared risks and shared resources to ensure defensible space requirements and egress routes are both implemented maintained on both sides of the county line. - Work with Santa Cruz County to establish a Santa Cruz County FireSafe Council. - Increase partnerships with Santa Cruz agencies and other adjacent county agencies, and use existing relationships with the Santa Clara County FireSafe Council. - Provide community workshops that address cross-jurisdictional boundary concerns. 	Next 2 years	1	Revisit success within a year by assessing project partnerships established across county boundaries	Refer to Appendix D
GP5	Add hyperspectral and LiDAR imaging to periodic aerial photography flights.	<ul style="list-style-type: none"> - Work in conjunction with the County Assessor or other agency that acquires aerial photography of county and add additional sensing cameras to flights to acquire analysis data. - Hyperspectral and LiDAR can provide in depth identification and analysis of hazards and risks. 	1–3 years	1	Periodic new flights to update data sets.	Grants: FEMA, Department of Homeland Security SRA, GHGR
GP6	Continue support for and possible expansion of the Early Warning Wildfire Detection Camera System.	<ul style="list-style-type: none"> - Review current established systems and assess public support. - Install additional systems as support increases. - Identify highest risk areas and most suitable vegetation and terrain for installation. 	1–5 years	1	The technology for early warning detection cameras is continually being developed. All future plans should be adjusted as appropriate based on planned improvements to the system.	Ongoing funding is available from Verizon, CAL FIRE in Sacramento (the Loma Prieta Tower), University of California Lick/Santa Cruz, and several local homeowner associations

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ID	Project Description	Method	Timeline for Action	Priority (1,2,3)	Monitoring/Sustainability	Resources/Funding Sources Available
GP7	The CWPP serves as the wildfire component of LHMP and General Plan Safety and other element amendments.	<ul style="list-style-type: none"> - Work with county and city planning to identify timeline for incorporation. - Aim to have the CWPP incorporated into the Safety Element of the General Plan when the safety element is next revised. Getting it into the General Plan is equivalent to getting the CWPP adopted. 	Next 5 years	2	The Core Group of stakeholders would need to ensure that the document is kept relevant in that time and position it for incorporation.	Refer to Appendix D

Proposed fuel breaks provided by the SSFSC – See associated map (Figure 15.6). Letters and numbers relate to mapped features.

A. Skyline Boulevard, Highway 35, from northern Santa Clara County line at Page Mill Road to Bear Creek Road, ~15 miles.

Severe fire weather (other than electrical storms) comes with low humidity and winds generally between north and northeast. Skyline Boulevard for the SSFSC section runs northwest to southeast, so these high danger winds generally blow 45 to 90 degrees to Skyline Boulevard. Also, nearly all the inhabitants in the SSFSC area live on the west side of Skyline Boulevard. Thus Skyline Boulevard is a critical shaded fuel break area. Approximately 6 years ago the SSFSC completed four shaded fuel break projects covering about 11 miles of Skyline Boulevard, including about 3 miles north into San Mateo County. These were all low budget projects using Caltrans and CAL FIRE inmate crews and some help from the MROSD. The SSFSC supplemented the inmate crews with some equipment (mainly power pole saws) and a couple volunteer sponsors each day for security and to assist with crew efficiency. Including the work up into San Mateo County approximately 70 days of crew time was used in this effort. The Palo Alto unit of the Santa Clara County (SCCFSC) used a contractor to increase the fuel break width for a couple miles of Skyline Boulevard. The regrowth in all areas is already significant.

A1. For the north 11 miles of Skyline Boulevard, Page Mill Road south to Black Road (MOST IMPORTANT): Caltrans has 100-foot-wide ownership. Some SSFSC projects have included clearing the shaded fuel break for the entire 100 feet of width. The SSFSC is planning to re-clear Skyline Boulevard as necessary and as funding allows. SSFSC have worked with all three Caltrans yards responsible for this part of Skyline Boulevard in SSFSC fuel break projects.

A2. South of Black Road the road narrows and has received very little improvement from the horse and buggy days. The easement off the road bed is not defined so fuel break permission must be obtained from each landowner. Only a small CAL FIRE shaded fuel break project (2009) touched a bit of the area and much remains to be done. The SCCFSC Lexington Hills area shares the southern 4 or 5 miles with the SSFSC, they the east side and the SSFSC the west (Santa Cruz County) side. Collaborative treatments in this area would ensure both sides of the road are treated.

B. Skyline Boulevard access roads to/from Santa Clara County valley, for safe travel in a fire:

B1. Page Mill Road (high priority) from Skyline Boulevard toward the Palo Alto - Los Altos city areas. Only the first mile or so is in SSFSC area. The first 3/4 mile off Skyline Boulevard is badly overgrown and is in urgent need of a major shaded fuel break treatment. The SSFSC is interested in performing this 3/4 mile project if funding could be obtained. There is funding coming from Palo Alto for clearing Page Mill Road that is working its way up Page Mill Road from the bottom but not yet near this area. For the next several miles beyond the first 3/4 mile section described here the road travels through grassland with varying amounts of brush on either side, meaning a modest fuel break would be insufficient. The MROSD owns one side

or both for the first several miles down Page Mill Road. They are expected to be willing partners in shaded fuel break work.

B2. State Highway 9, from Skyline Boulevard toward Saratoga. The SSFSC eastern boundary generally follows the southwest side of the highway to Sanborn Road. The SSFSC shares free chipping for home defensible space work here with the SCCFSC. No shaded fuel break work has been done along the highway and only emergency vegetation treatment is performed by Caltrans as they concentrate on repairing roadbed collapses (the San Andreas Fault crosses the highway at about post mile marker 3.5).

B3. Black Road, from Skyline Boulevard to Highway 17. This county road is equally important to the previous two access roads for Skyline residents to escape a fire into the Santa Clara County valley. The SSFSC shares the top mile with the SCCFSC Lexington Hills CWPP, the top mile being in Sanborn-Skyline Santa Clara County Park. A shaded fuel break is presently planned by SCCFSC for this section. Also important is the remainder of Black Road. An adjunct project to clearing along the upper part of Black Road is removing the trees in the adjacent overgrown, abandoned Christmas tree farm.

B4. Sanborn Road follows up Sanborn Creek from Highway 9 for several miles. It is not an access road off Skyline Boulevard but the one remaining public road in the SSFSC area, part of the boundary of the SSFSC area. This is an important escape route to Highway 9 for the residents along this road and for the visitors to the main recreational area of the Sanborn-Skyline County Park.

C. Private Roads to multiple homes

C1. Rosemary Lane, off Skyline Boulevard into Santa Clara County 2.6 miles north of Highway 9: This quarter-mile-long road has four homes on it plus three more homes backed up to it. The residents are capable of coordinating and cooperating with the SSFSC for a meaningful fuel break project clearing high fire danger brush on their north exposure. Significant defensible space clearing has been done at some of the homes resulting in multiple days of the SSFSC free chipping program.

C2. Heather Heights Road, off Highway 9 to the north, 1/4 mile from Skyline Boulevard: There are about seven homes on about 2 miles of road. The SSFSC has not had any participation from the residents in this area behind a locked gate so little is known of their needs. Their road is a boundary of the SSFSC but covers residents on both sides of their road. Their private land is surrounded by MROSD lands.

Other Shaded Fuel Breaks

D0. For reference here though a quarter mile outside our SSFSC area the Monte Bello Ridge shaded fuel break is probably an equally important fuel break to Skyline Boulevard. This fuel break starts at Page Mill Road and is on the Monte Bello ridge over Black Mountain to the top of the public Monte Bello Road. This road travels on down the ridge and ends at Stevens Canyon Road. This fuel break faithfully follows the ridge top through nearly all grass land, thus is an ideal fuel break. It is all on MROSD land and the fuel break is maintained by them.

This ridge runs nearly parallel to Skyline Boulevard, generally 1.5 airline miles between them. Thus it is the first line of defense for a wildland fire spreading in a generally southwest fashion from the Los Altos Hills area.

D1. Charcoal Road (from Skyline Boulevard) - Table Mountain - Canyon Trail (to Page Mill Road) shaded fuel break: The value in making this fuel break is to provide a fuel break “box” to contain (or exclude) a wildfire that starts in the extensive area of upper Stevens Creek valley. All of the land in the box is either in Santa Clara County’s Upper Stevens Creek Park or MROSD lands. These two groups are aware of this plan and believed to be in consort with it along with Santa Clara County CAL FIRE. The north and west sides of the “box” are provided by Page Mill Road and Skyline Boulevard. The south boundary is the locked off Charcoal Road. It is on a ridge, much of it probably the sharpest ridge off all Skyline Boulevard in the SSFSC area. The eastern boundary is of three parts. First is the continuation road onto Table Mountain where over the years an old Christmas tree plantation has been mostly removed. The second section will be continuing north 1/2 mile through woods with a shaded fuel break to the canyon bottom, across Stevens Creek, and connecting to the MROSD “Canyon Trail,” which is actually a dirt road. The final section of the eastern side of the box is 4 miles of Canyon Trail/road out to Page Mill Road. Probably a third of this road is in grassland and needs little shaded fuel break work. The Canyon Trail parallels Skyline Boulevard and Montebello Ridge and is connected by road through Grassland to Montebello Ridge. The value of this box is for stopping the spread of a fire starting in Stevens Creek Canyon or escaping into it. It is suggested that this is the best firefighting location for a fire spreading southeast until Highway 17 as the above access roads B2 and B3 are on side hills. Upslope from the Canyon Trail section to the Montebello Ridge fuel break is extensive grassland for containing a fire on the eastern slope of Stevens Creek Canyon.

