
APPENDIXES

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**APPENDIX A.
COMMUNITY WORKSHOP NOTES**

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MORGAN HILLS COMMUNITY WORKSHOP- 2/17/16

STRUCTURAL IGNITABILITY

- Group responded they were not enthusiastic about an ordinance requiring retrofit of wooden roofs; however when asked if they would support it if there were grant dollars available they like the idea.

FIRE RESPONSE CAPABILITY

- City of Gilroy Fire Marshal is interested in becoming engaged in process
 - Area west of Gilroy near Gilroy Gardens amusement park is now annexed into Gilroy and has extensive WUI issues.
- Morgan Hill volunteer program that knows who has what skills, equipment, etc.
- In the case of a fire, the neighborhood program would know who is in each house and can assist in evacuation.

FUEL REDUCTION

- Dwight Good, Morgan Hill Fire Marshal and Chair of Northern California Fire Prevention Officers WUI Committee.
 - There is interested in adopting ordinances in LRA that mirror SRA ordinances, such as powerline clearance standards.
 - Conducting research into mulch fires and flammability of materials.
- Land ownership
 - Dealing with private lands, may run into problems, i.e. running fuel breaks that cross over multiple land ownerships
- Grants
 - Look at the available grants and their requirements
 - Grant source may condition what can be done and where it can be done
 - Federal grants cannot be spent on federal land
 - SRA grants can only be spent in the SRA (state responsibility area)
 - Greenhouse gas grant can be used anywhere
 - Must identify the project, method and conditions and then match it up with a grant source
 - What grants can be used in easements?
 - CWPP will be broad to allow for ideas that are developed as time progresses and will still fall under an existing grant
 - FEMA grants are for pre-disaster mitigation, but will fund wood shingle roof replacement
 - State clearinghouse grants will open up soon for about 45 days

- Make the project fit the grant

PUBLIC OUTREACH AND EDUCATION

- Jackson Oaks neighborhood is poised to be a Firewise Community, Holiday Lakes next door is also a good opportunity for Firewise.
- Member of Jackson Oaks neighborhood also expressed interest in becoming first Firewise Community in county.
- Critical assets, i.e. losing the only employer in the area.
- Livestock evacuation concerns. Representative from Map Your Neighborhood stated that Morgan Hill South County has animal evacuation group.
- Want to see protection of environmentally sensitive areas?
 - This is part of the planning process
 - Methods used will depend on the sensitivity of the areas
- Holiday Lakes neighborhood- older community, shake roofs, 20-30's cabins, old dying trees.

BERRYESSA COMMUNITY WORKSHOP- 2/18/16

STRUCTURAL IGNITABILITY

- What measures can be taken in new developments?
- Shake shingle roofs
 - Quite a lot of shake shingle roofs.
 - Grants are available for retrofit, but need a CWPP before eligible for a grant.
- Develop rules for new areas, so that new communities can be built to reduce fires. Area is east of cities of Milpitas and San Jose and includes many parks/open space lands there is a pretty distinct interface between housing and open space. Several areas where one side of road is intense urban development (50 x 00 foot residential lots) and across road is open space with for sale signs (which undoubtedly will be on path to become urbanized as soon as sale closes escrow. Urban sprawl)
- Close openings into buildings where embers can enter – big impact, low money
- Improve poor road networks – big money
- Gary Sanchez, Fire Safe Council is also a State Farm Insurance agent that says they are backing out of the WUI area fire insurance world to reduce their exposure to catastrophic losses. He himself has a property in town of Twain Harte that he has difficulty in selling and others can't buy because cannot get home through escrow due to lack of insurance availability.

FIRE RESPONSE CAPABILITY

- Jerry Spencer (Chief) and Rick Smith (Chair of Board of Directors of volunteers) from Spring Valley Volunteer Fire attended. Jerry is also President of Fire Safe Council. Close working relationship with San Jose, Cal Fire, Santa Clara County Fire, Milpitas, protect for protection area is about 200 square miles of unincorporated area east of the city of San Jose and Milpitas. They are an un-official non-government entity operating as a Volunteer Fire Company laws. Most of the area is under Santa Clara County Fire jurisdiction; some is Cal Fire (wildland fire during fire season only). Hold pancake breakfast as fundraiser in March. They asked for additional maps reflecting the area east of Ed Levine Park to Alameda County line and south to Alum Rock park.
- Small attendance, few citizens and San Jose Fire Division Chief and engine company from local fire station.
- Spring Valley Volunteer Fire has 2 facilities, one is off of Calaveras Road near Ed Levine Park (all resources are designated 902; Engine 902, Water Tender 902, etc.). Spring Valley's other location resources are designated 901.

FUEL REDUCTION

- Consider educating landscape contractors on proper methods, proper plants, all things that reduce exposure to ignitions
- Grazing has mutual benefit for landowners of reducing fine fuels.
- Prescribed burning could be used:
 - Air pollution component piece of it – could the community live with it?
 - Would City/County Ordinances even allow it?
- Ed Orre says that a new Forester position with CAL FIRE is being added to staff in Santa Clara Unit to coordinate regional CFIP (CA Forest improvement Program). There are considerable CFIP dollars (from Greenhouse Gas funds) available for grants to forest land owners but has not been utilized in Santa Clara much in past.
- Several areas of roadside in the east foothills area are treated with chemicals for fire hazard reduction. Not sure if this is sanctioned, or wildcard action by property owners. Ed Orre believes it is authorized.

PUBLIC OUTREACH AND EDUCATION (INCLUDING COMMUNITY VALUES AT RISK)

- Are there fire wise communities?
 - None in Santa Clara County
 - Insurance companies are starting to recognize fire wise communities, while at the same time refusing to write fire policies for WUI communities.
- No distinct neighborhood associations to use to develop common interest for neighborhood level interactions for Firewise or CERT.

- Sierra Vista park is SCL county open space day use area and they allow grazing and maintain some of their trails as 2 tracks for fire vehicle access and fuel breaks, trail system is part of BAY AREA RIM TRAIL and could be used as fire defense system.
- Joseph Grant Park is very large County park that includes historic ranch house and camping. Originally a Spanish Land Grant cattle ranch. They allow grazing and are open to prescribed burning.
- Grand View restaurant is an example of a local icon (famous favorite restaurant) located in the WUI. Losing it would be both an economic loss and loss of a region wide landmark/icon.
- Major concern: Lick Observatory on Mount Hamilton is a historic world class astrophysical research facility managed by Univ of CA –Santa Crus but has fallen into some disrepair due to lack of funds. Highly exposed in WUI area and is irreplaceable.
- Copernicus Peak (near Lick Observatory is a major mountaintop communications site).
- Alum Rock Park is a San Jose City Park that is one way in/out; significant day use.

CUPERTINO COMMUNITY WORKSHOP- 2/22/16

STRUCTURAL IGNITABILITY

- Group was supportive of replacing wood roofs by 2015 (in fact some said it ought to occur by 2025).
- Two Public Safety Commissioners from City of Cupertino discussed their interests after presentation. They are very interested in learning more about comparing fire regulations in city with those outside city.
- Attendees would be supportive of an ordinance requiring removal of flammable roofs.
- Attendees were also interested in Cupertino becoming a Firewise Community.
- Attendees want development restrictions in high hazard areas.

FIRE RESPONSE CAPABILITY

- Is there good water supply?
 - For some communities yes, other communities water supply problems will be identified in the CWPP.
 - This County is very fortunate to have robust aerial support- a CALFIRE helicopter.
- Fire-fighting capability- how robust are our emergency responders?
 - Dan- This County has great mutual aid plan for shared response.
- Why are the County Sheriff's not part of this process? Fire risk is influenced by heavy recreation, fireworks, lack of enforcement. The Sheriff's department can enforce these activities but the fire department cannot.

- Winds and fire behavior:
 - Diurnal winds- blow up drainage all day, switch at night.
 - Where the topography aligns, there is more of a north wind issue.

FUEL REDUCTION

- Tree surgeon- Does work in the Cupertino interface taking out large, dead trees and doing hazardous fuel reduction for private, commercial and municipalities. He has noticed a huge increase in the number of dead trees as a result of drought and insect/disease. Many of his clients don't have the finances to do the necessary tree removal work that is needed. Much of the work is complicated by proximity to homes and hazards in the removal of the trees. He asked if there were any funding sources to support this work for residents?
 - FEMA funds possible- if it fits their criteria
 - State Greenhouse Gas Reduction grants. Grant cycle begins in July. Several millions of dollars available. Would need a community/agency etc to be grant recipient, not for individual residents- potential to work with the Fire Safe Council's. Bring project ideas to them and they could assist with the grant application.
 - Local funds from municipalities may be available- approach the city/town and explain the concern, highlighting the public safety concerns of standing dead trees and potential failure onto properties, powerlines etc.
 - Powerline grants- removal of trees that would impact powerlines.
 - Check the www.fire.ca.gov website for list of grant opportunities.
 - Check California Tree Mortality Task Force. <http://www.fire.ca.gov/treetaskforce/>
- Mountain winery- flammable brush component above the winery. Fuel break will make a considerable difference in the mitigation of fire behavior in that area.
- Los Altos Hills County Fire District- do their own hazard tree removal and brush clearance.
- Cristo Rey Area-
 - Had fire 2 years ago. Grass fire- lots of fine fuels, potential for spread to wooded areas.
 - Rancho San Antonio Park- County Park- high grass fuels loads. Need County Parks to put in fuel break along boundary line to protect homes adjacent to park.

PUBLIC OUTREACH AND EDUCATION (INCLUDING COMMUNITY VALUES AT RISK)

- Putting more area into WUI maybe not the most effective approach. This puts restrictions on homeowners, they are required to follow more building codes, it impacts their insurance premiums, puts a financial burden on the homeowner, instead we should focus more on firefighting capabilities, water supply, local defensible space ordinances, restrictions on landscaping materials, good property hygiene.... etc?

- Dan- some areas are legally adopted as WUI others are not. The state might identify an area as WUI but local delineations may better represent the WUI. We want to make sure we are looking at this from a local level.
- A long-term resident of the Cupertino west foothills area- concern about development in the area, relating development to concerns of fire hazard and risk- He stated that lots were being broken up into smaller parcels and the density of the development could not be sustained with the available water supply. The resident stated that there should be development restrictions in high hazard areas.
- De Anza Oaks subdivision-
 - Gated town home subdivision in Cupertino- off of Stevens Creek Boulevard and Ridgeway Drive.
 - access issues- one way in and out.
 - 600+ residents
 - 211 units
 - Narrow single lane street
 - Interface area
 - Fire department are already visiting to meet residents and discuss concerns on March 3rd.
 - No safety zone
 - Pedestrian tunnel for ingress/egress but only one road in and out.
 - HOA
- Blackberry Park
 - Homes in interface with the east side of Blackberry Park
 - Homes right up against thick wildland fuels.
 - Lots of dead standing trees.
 - No treatments have been done.
 - Topography issues, steep slopes below homes.
- Canyon Vista
 - Gated community
 - Evacuation concerns,
 - Thick fuels.
- Community values at risk
 - Adobe Creek Lodge- retirement home
 - Horse Barn- Los Altos Hills – shelter in place
- Oak Valley
 - Lots of homes needing roof replacement.

LEXINGTON HILLS COMMUNITY WORKSHOP – 2/23/16

STRUCTURAL IGNITABILITY

- Develop and stage multi-use water tanks in the back country- for use by fire departments and wildlife.
- Wood shake roofs are the “biggest problem”.
- Information sought by residents on what plants to prioritize for treatment/removal. What plants are particularly flammable/volatile.
- Section in CWPP needs to address wiring, generators, propane, narrow roads- fire code enforcement needed.

FIRE RESPONSE CAPABILITY

- Ask CALTRAN to take their flares with them when they leave the accident scene.
- Some way to broadcast Reverse 911- i.e. sirens, early warning system.
- Interface with agencies for evacuation routes and evacuation drills.
- Fire Safe Councils role, during and after a fire, needs to be planned now during emergency and recovery from fire event.
- Where are CALTRAN? Why are they not at the table?
- Redwood Estates has good firefighting response capabilities due to location of resources in the community and the nearby CALFIRE heli base.
- Response times are a concern for some residents in the Lexington Basin- i.e. Gist Road/Black Road. Over 20 minutes response time.
- Water supply is a concern for homes along Summit Road. Some homes have ponds and tanks. Problem with the Fire Departments not having the correct fittings to be able to draft from tanks. More hydrants needed on Summit Road
- Need more hydrants on Summit Road.
- There are some residents on Summit Road who are willing to provide space for extra water storage.
- Mutual aid and coordination between fire agencies is far superior to what existed in 1985 during Lexington fire. Resources were bought in from all over the State during the fire, with structural crews fighting in the WUI with very little wildland experience.
- CWPP Team met for a pre-meeting with Santa Cruz county volunteer fire fighters regarding their experiences during the Lexington fires.
- Water supply was major complication during Lexington fire.

FUEL REDUCTION

- Ask/demand that the PGE Contractors who clear branches from PGE lines take all wood with them which they have cut.
- Moody Gulch: County of Santa Clara should be asked to chip all dead trees and brush from their land which abuts Lee Drive and Rose Court (Redwood Estates).
- Need additional road maintenance to enhance emergency access on private, dirt, steep, narrow roads. How to pay for costs? Road Associations?
- Drought induced mortality of trees a concern.
- Utilize CA Conservation Corp for fire mitigation and prevention work within community.
- Problems with medical marijuana groves in some areas- wildfire risk. Bear Canyon Fire 9/10/15- in grow area in Santa Cruz County.
- Fire Safe Council has a chipper program- residents have to fill out application. Residents would like to see improvements to the application program to include an acknowledgement that the application has been received and a target date for implementation. Resident was concerned that many people treat property and brush piles often sit on property for many weeks while they wait for the chipper.

PUBLIC OUTREACH AND EDUCATION (INCLUDING COMMUNITY VALUES AT RISK)

- Loma Prieta School- Is a Red Cross Evac Center and only school in the area- 40 acre site, water storage- but additional storage needed, beds and cots. Important to keep facility safe. Implement fuel break treatments on campus- possible CDCR crews.
- Escape route signage needed. Where are escape routes, need to analyze if they are sufficient, what are the fuel loads, are there locked gates, are there weight limits.
- Could implement an annual tour of evacuation routes and water supplies- i.e. community evacuation drill.
- Need to identify and protect environmentally sensitive areas.
- Recognition that there are many residents from Santa Cruz County present.
- Much concern about risk of ignitions along Highway 17 and concerns regarding evacuation in the event that Highway 17 is closed. Residents wrote a letter to the State and many agencies for the risk to be addressed. Concern that Highway 17 is flanked by lands with absentee landowners and treatments have not been carried out.
 - Santa Clara County Fire are aware of the concerns and it is being addressed. Patty from Fire Safe Council is point of contact, funding is being sought to carryout treatments along the corridor.
 - CWPP can identify the project in the plan.
 - Concern that CALTRAN are not actively engaged in this process. They have been invited to the Core Team.

- Suggested education needed for CALTRAN on appropriate treatment methods- i.e. mowing.
- Update and maintenance of the CWPP is important- 5 year update schedule, but have stakeholders meet every year to keep the plan active.
- The Lexington Basin CWPP will be folded into the County level plan.
- The Lexington Hills community should consider pursuit of Firewise Community certification.
- The 2009 CWPP – A lot of projects have been completed but the risk/hazard has not been altered significantly.
- Lots of neighborhood interaction and community level engagement happens across both sides of the ridge/county line.

MILPITAS COMMUNITY WORKSHOP- 5/2/16

STRUCTURAL IGNITABILITY

- Insurance companies are pulling out of many WUI areas, should trigger people to take action on defensible space and fire-safe retrofits.
- WUI pamphlets don't show what is really going on in the community, not really applicable to these communities. Need tailored literature.
- Enforcement of codes are needed, many people are doing whatever they want and there is no enforcement.
- More weed abatement measures are needed/more enforcement needed.
- People need to mow their properties more often.
- Lack of law enforcement in areas. Many burned out cars.
- Open space technicians- don't have fire equipment in their trucks to suppress fire starts.
- Lots of dilapidated properties. Why are they not torn down if they are against code? Codes are fire related but also could be covered by public nuisance code.
- Many residents know they are out of code but they don't care.
- Approach should be to file a complaint to the City/County, the jurisdictions will be held to doing something. If they don't then contact elected officials. Need a project to provide the approach that homeowners can take to enforce their neighbors to clean-up yards.

FIRE RESPONSE CAPABILITY

- Felter Road- narrow road, no trucks can access the area. One lane road and 4 x 4 only.
- Lack of funds to widen road.
- Access issues prevents further building and development.
- No patrolling by fire departments.

- No defensible space ordinance assessments. San Jose FD responsible for the assessments. Need to implement more and more frequently.
- CALFIRE are implementing inspections via seasonal staff this summer.
- Fire Safe Council can implement inspections. They can not provide enforcement but can provide education. FSC will need funding to be able to carry out those programs. Could identify as a project in the plan. Resident argued that enforcement is needed, without teeth people will not comply.
- Concerns regarding illegal occupation of derelict properties.
- Project idea to map stock ponds that could be used for fire suppression. KML with potential locations.
- Installation of dry hydrants needed.
- Pre attack plans needed to identify water sources. Tier from strategic goals.
- Need guidance on what is a good tank for drafting and for water storage.
- Need multiple use water supplies. Suppression tanks that double as wildlife troughs and cattle waterers. Need an alternative to metal water tanks and attachments due to liming problem with guzzler.

FUEL REDUCTION

- Homeowners along Felters Road and others have been doing their own spraying of roadsides to reduce fuel load.
- Mowing- short timeline – if too dry then is a risk of ignition, too wet too green.
- Long-term treatments are needed with more regular frequency.
- Grazing is effective and economical and can be more long lasting.
- Residents felt that there was an underappreciation of grazing on public lands. Resistance by open space jurisdictions to do enough grazing.
- KML added-Identified some evacuation routes where roadside treatments are needed to provide a safe buffer. – Cherry Flat Falls Road would be a potential evacuation route but it is in need of maintenance to make it useable. – Quimby Road as an alternative access route to Mt. Hamilton.
- KML added- Quimby Road- CVAR- utility lines, telecommunication lines.
- KML added- Staging Area- could be a staging area and communication site for incident command station- large open grazed field.
- Grazing has mutual benefit for landowners of reducing fine fuels.
- Prescribed burning should be encouraged.
- Poison oak disposal a problem. Patty provided a remedy, to leave to dry out 1st year after cutting and then the FSC will chip in the second year once dried out.

PUBLIC OUTREACH AND EDUCATION (INCLUDING COMMUNITY VALUES AT RISK)

- KML added- Camera installation encouraged to detect wildfire.
- Need better education for reducing vandalism- lack of rangers on open space properties to enforce fire safety. Needs to coincide with Sheriff's Department.
- Historical properties exist on Grant Ranch- irreplaceable.
- Water tank on Grant Ranch- needs to be protected and repaired.
- KML added – fireworks problem- identified location on Sierra Rd. Need signage and education.
- Need a one-stop-shop for fire preparedness information. Resident noted that they need to do a lot of research to find a full list of measures that the resident can take to reduce wildfire risk and hazard, would be good to have all that information in one place. Firesafe Council project?
- Resident raised concern about a lack of flexibility with building codes, putting restrictions on development- Could look into Alternative Means of Compliance.

MORGAN HILLS COMMUNITY WORKSHOP- 5/3/16

STRUCTURAL IGNITABILITY

- There are some adjacency concerns with small lots, increases structural ignitability.
- County Roads needs to be a partner in evacuation route maintenance and surfacing.
 - Priority should be given to identified evacuation routes, including surfacing but also maintenance of the ROW and brush clearing. Should consider maintenance frequency- current frequency may not be sufficient to maintain appropriate clearance for evacuation purposes.
 - Should look at usage as a way to prioritize road maintenance.
 - Review equipment for County Roads- is equipment creating effective fuel break width?
 - Identify a liaison for County Roads and Airports to attend FSC meetings on regular basis.
- Residents would like to see a checklist be developed that would identify actions residents can take to mitigate wildfire hazard and risk; should be tailored to the community.

FIRE RESPONSE CAPABILITY

- Water delivery distribution projects are needed.
- Thomas Grade- evacuation route- has been re-surfaced to make it useable.
- Pressure would build along E. Dunne during potential evacuation if an alternative evacuation route is not available. Need to identify alternative route for Jackson Oaks and

Holiday Lakes- potential to utilize trails through open space areas- identified via KML at meeting. Could tier from strategic goal for improvements to two track trails.

- Fire history- many fires in the eastern area of the County and few fire resources.
- Evacuation- need to consider the time it takes to evacuate from special population centers like a retirement home and from carless residents.
- Morgan Hill has a CALFIRE response plan (poster and public brochure) to inform the public as well as an evacuation plan brochure. Similar planning should be developed for all communities.

FUEL REDUCTION

- More vegetation management is needed in open space areas- fuel breaks could be funded by Park Charter funds.
- Master Plan for County Parks- when scheduled for revision- should acknowledge the fire risk to communities and identify WUI related fuel treatments. The Strategic Plan is in need of revision, could have a project idea to consider wildfire risk in the Master Plan.

PUBLIC OUTREACH AND EDUCATION

- Jackson Oaks neighborhood is poised to be a Firewise Community, Holiday Lakes next door is also a good opportunity for Firewise.
 - Jackson Oak has completed the following fire preparedness activities to date:
 - 2 educational fire preparedness events.
 - Videotaped HOA board meetings and the fire educational events and provided to community- lots of interest.
 - Working with Morgan Hill City to improve water delivery to the community.
 - Sought improvements to Thomas Grade as alternative evacuation route- road has already been re-surfaced.
 - Engaging local schools in a project to paint street signs with reflective paint for improved visibility.
 - Identified debris and leaf litter was gathering on river rock verges and creating a wildfire hazard, the community are working with street cleaning contractors to identify a solution for reducing accumulation of leaf litter along river rock verges.
 - Identified that there are a number of residents that would need assistance to complete and maintain sufficient defensible space. They will be holding a community event to help address those concerns.
 - Investigating the potential for development of a tree farm to be situated on site with the intent to grow low flammability trees to replace flammable species currently used in landscaping. Residents would be given two new low flammability trees in return for bringing in one dead tree.

- Implementing on-going chipper program.
- Jackson Oaks are actively pursuing Firewise status and are interested in becoming a demonstration community to surrounding areas to highlight the importance of being Firewise. They will embrace Firewise signposting and showcasing the community's achievements.

NEW ALMADEN

- Specific concerns relating to New Almaden:
 - Historic buildings and Nationally Registered Landmarks- irreplaceable community values at risk.
 - Restrictions on Firewise type retrofits because of historic status- i.e. wooden shiplap siding. The County are reasonable in their application of the guidelines however if the retrofit is for fire safety standards. Could utilize composite siding for example. Need an education component to educate homeowners in the community on how to be firesafe while still meeting the County standards.
 - Tree ordinance- protection of large trees- in some cases this creates a fire hazard. Need to look into easing of tree ordinance where removal could reduce wildfire risk.
 - More vegetation management is needed in open space areas.
 - Access is poor along Bertram Road- narrow road would be blocked by a fire truck. Need to consider ways to improve emergency access.
 - Community is surrounded by open space and contiguous fuels.
 - Could work with Valley Water to make a shaded fuel break along the Almaden-Callero Canal which backs to Bertram Road homes.
 - Community is active in wildfire preparedness through activity on the Fire Safe Council (FSC).
 - Annual chipping program through FSC.
 - Good water supply in the community.
 - Good fire response to community.
 - Falls within the SRA- have a 100ft defensible space mandate however structure separation makes 100ft defensible space difficult to implement.
 - Water District needs to be part of defensible space solution due to their adjacency to many private parcels.

LEXINGTON HILLS COMMUNITY WORKSHOP – 5/4/16

STRUCTURAL IGNITABILITY

- What to do about your neighbor who isn't doing fire mitigation on their property? Voiced by other residents- provide the recommended approach- file a complaint.....
 - Weed abatement program
 - Complaint to County

- Mid-Pen has a policy to allow adjacent land owners to enter property to carryout defensible space actions.
- Santa Clara Water District- friendly neighbor policy to do work to provide defensible space.
- County Parks- case-by-case basis for defensible space projects for adjacent structures.
- SRA fees being used to do fire prevention work.
- Public want a list of homeowner actions that they can do to reduce wildfire risk- refer to literature and the fire department. Also the CWPP will provide a list of actions.

FIRE RESPONSE CAPABILITY

- Highway 17 project will help provide evacuation route with moderated fuels.
- Concern still about CALTRANS involvement- CALTRANS are working with FSC on the Highway 17 project.
- Interface with agencies for evacuation routes and evacuation drills.
- Redwood Estates has good firefighting response capabilities due to location of resources in the community and the nearby CALFIRE heli base.
- Response times are a concern for some residents in the Lexington Basin.
- Water supply is a concern for homes along Summit Road. Some homes have ponds and tanks.

FUEL REDUCTION

- Highway 17 project.
- KMLs added during meeting.

PUBLIC OUTREACH AND EDUCATION (INCLUDING COMMUNITY VALUES AT RISK)

- Aldercroft Heights-
 - Access issues
 - Parking issues
 - CERT Team needed for the community to plan evacuation routes, with Road Association as leader. Residents need to be educated in evacuation so that they know what to expect from the fire department and sheriff's department.
 - 'Map your Neighborhood' - MYN provides a step-by-step process that neighbors work on together to prepare their neighborhoods for disasters. Neighborhood leaders or "organizers" complete a two hour FREE "Become a MYN Organizer" program that gives them the materials and skills to reach out into their neighborhoods and implement the MYN program- <http://cope-preparedness.org/map-your-neighborhood-myn>

- Lexington Hills- no unified evacuation planning has been done with all agencies. Part of the Highway 17 project is to set up a meeting with the unified agencies- element will include evacuation planning and signage.
- Evacuation of Santa Cruz residents should be included in this document. Address concerns of residents in the 95033 zip code.
- Identify a goal to expand upon the annex for Lexington Hills and Skyline areas to provide more detailed planning for Santa Cruz.
- Need to develop a Santa Cruz FSC.
- Soquel-San Jose Road (AKA Old San Jose Road) – evacuation concerns.

CUPERTINO COMMUNITY WORKSHOP- 5/9/16

STRUCTURAL IGNITABILITY

- New developments in the WUI a concern, especially related to evacuation and traffic concerns.
- County planning department have been made aware of the access concerns in many WUI communities. Difficulty with many roads being private.
- Fire Department inspections- could the fire department be used in education of public? They already do a lot of that- CALFIRE seasonal inspectors have been hired for summer inspections and could provide education element. The County does annual inspections- often during the day so their interaction with residents is limited.
- Community workshops on weekends or evenings can be a good way to reach the public about defensible space rules in the WUI. Up against problems of poor attendance.
- Resident offered to provide advice and instruction to her neighbors- could team with the FSC to carryout neighborhood level assessments and “teach your neighbor” type approach to education. Utilize the Firewise model of community engagement and education.
- Bohlman Road- isolated community- would be a good focus for neighborhood level education efforts.
- Fire Safe Council offer home assessments – have to find sustainable funding for the program. FSC almost exclusively grant funded.
- Question on funding and tax contributions- SRA fee can fund some fire preparedness activities in the SRA areas. Tax dollars pay for County Fire Prevention Division activities, including WUI defensible space assessments.
- Investigate a project to encourage undergrounding of utility lines in Saratoga- PG&E spend a lot of time and resources in tree trimming- investigate cost effectiveness of undergrounding lines to reduce the need to tree trim along the ROW.
 - Could target undergrounding to areas of high wind and high risk rated areas.

- Combine undergrounding with any road widening projects- more “bang for the buck”.

FIRE RESPONSE CAPABILITY

- Many private roads within Saratoga that need significant maintenance to make them suitable evacuation routes. Could there be a way to prioritize roads for transfer to public ownership- City or County?
- Problem of narrow access roads crossing private road. Minimal funds or commitment to maintain the road- i.e. exit to Montalvo crosses a private road portion. Could consider a Mello Roos district to fund road improvements. Need to encourage preventative proactive measures to avoid having to take reactive measures post fire.

PUBLIC OUTREACH AND EDUCATION (INCLUDING COMMUNITY VALUES AT RISK)

- Question of how to get projects in the matrix:
 - Public welcome to contribute project ideas, every reasonable and relevant project could be included.
 - Priority rating is based upon input from the Core Team and consideration of the impact of the project and the degree to which it could mitigate wildfire hazard for the largest portion of the community. FSC are contributing to this process through their knowledge of the community and involvement with the agencies in hazardous fuel reduction projects.
 - Public are invited to review the document during the public review period.
- Utilize NextDoor for announcing review period for the Draft and other CWPP announcements.

FUEL REDUCTION

- Need standards for fire resistance landscaping.
- Problem of tree ordinances and tree removal.
- Problem of Tree City USA- encouraging the planting of trees that may or may not be fire resistant. Need to develop a fire resistant vegetation list to landscapers and to the City.
 - ‘Selec Tree’ application which helps to identify appropriate trees for your region, weather and fire hazard. <https://selectree.calpoly.edu/>
 - Consider as an update to the Safety Element- a change to the tree ordinance that aligns more with fire safe practices.
- Provide homeowners with alternatives to fire prone landscaping- issue of mulch as ember receptor.
- Consider development of a demonstration site for fire safe landscaping that would be in-keeping with the Tree City USA program.

- Review and consider development of a tree list as developed by Diablo Fire Safe Council that would be appropriate for conditions in the County.
- Develop a fire safe education program for landscaping crews.
- Target the source- require fire safe tags for nursery trees and landscape vegetation.
- Encourage the use of prescribed fire on open space properties that meets multiple objectives- invasive species management, fuels reduction, wildlife habitat improvements.
- Implement public outreach program to educate the public on prescribed burning and smoke considerations.
- Develop a program to target removal of non-native species that increase fire risk and hazard- i.e. eucalyptus.

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**APPENDIX B.
SIGNATORY AND ADVISORY ORGANIZATIONS
AND CORE TEAM LIST**

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SIGNATORY ORGANIZATIONS

- **Santa Clara County FireSafe Council**
- **County of Santa Clara**
 - Central Fire Protection District/Santa Clara County Fire Department
 - South Santa Clara County Fire Protection District
- **State of California**
 - CAL FIRE
- **Town/Cities**
 - Palo Alto
 - Los Altos Hills
 - Cupertino
 - Saratoga
 - San Jose
 - Monte Sereno
 - Los Gatos
 - Morgan Hill
 - Gilroy
 - Milpitas
- **Independent Special Districts**
 - Saratoga Fire Protection District/Santa Clara County Fire
 - Midpeninsula Regional Open Space District

ADVISORY ORGANIZATIONS

- **County of Santa Clara**
 - County Parks
 - County Open Space Authority
- **State of California**
 - California Department of Parks and Recreation

PLANNING TEAM/CORE TEAM

The Core Team reflects the variety of stakeholders affected by wildfire. Members include:

- Ken Kehmna Fire Chief, Santa Clara County Fire Department
- John Justice Deputy Chief, Santa Clara County Fire Department
- Tom Lausten Area Superintendent, Midpeninsula Regional Open Space District
- Mark Roberts Fire Captain, San Jose Fire Department
- Doug Schenk GIS Analyst, Santa Clara County
- Ed Orre Unit Forester, CAL FIRE
- Anne Rosinski Senior Engineer Geologist, California Geological Survey
- Jim Wollbrinck Manager Security and Business Resiliency, San Jose Water Company
- Randy Houston Water Maintenance Manager, San Jose Water Company
- Gary Sanchez Director, Santa Clara FireSafe Council
- Patty Ciesla Programs Manager, Santa Clara FireSafe Council
- Derek Neumann Field Operation Manager, Open Space Authority
- Dwight Good Fire Marshal, CAL FIRE/Morgan Hill
- Rick Parfitt Resident, Lexington Hills
- Robert Durr Lieutenant, Santa Clara County Sheriff's Department
- Jeffrey McCoy Administrative Sergeant, Santa Clara County Sheriff's Department

**APPENDIX C.
FUNDING SOURCES**

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- **Federal or national organizations**
 - Bureau of Land Management
 - U.S. Fish and Wildlife Service
 - U.S. Forest Service
 - National Fire Plan via the California FireSafe Council Grants Clearinghouse.
 - Natural Resources Conservation Service
 - U.S. Department of Homeland Security
 - Federal Emergency Management Agency (FEMA)
 - National Fire Protection Association-Firewise Communities programs
- **State organizations**
 - CAL FIRE
 - California Air Resources Board
 - California Office of Emergency Services
 - California Department of Agriculture
 - California Natural Resources Agency
 - California Department of Water Resources
- **Local organizations that have provided funding:**
 - Santa Clara County Water District
 - Santa Clara County Fire District
 - San Jose Water Company
 - Pacific Gas & Electric
 - Aldercroft Heights Water District
 - State Farm Insurance
 - Cities of Saratoga and Palo Alto

The Santa Clara County FireSafe Council has agreements, contributions, and grants for defensible space chipping for eligible residents, as well as a Special Needs Assistance Program for seniors and/or others with physical and financial limitations to assist them with preparations for chipping.

For 2016, the eligible communities at risk from wildfire are Cupertino, East Foothills, Gilroy, Lexington Hills, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Palo Alto, San Jose, San Martin, Saratoga, Stanford, and adjacent WUI areas in the county. There are more wildfire risk reduction projects than there is the available funding to do them.

This CWPP can facilitate the identification of the highest priority countywide projects as developed by a broad stakeholder coalition, which increases the competitive strength of grant requests. Follow-up monitoring of the results of hazardous fuel reduction work can demonstrate to funding sources the value of such work, as well as to make the general case that project funding allocated to Santa Clara County is a good investment.

STATE AGENCY FUNDING

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CAL FIRE)

Forestry Assistance Programs

CAL FIRE administers several state and federal forestry assistance programs with the goal of reducing wildland fuel loads and improving the health and productivity of private forest lands and expanding and improving management of trees and related vegetation in urban communities across California. The **Forest Stewardship Program** and **California's Forest Improvement Program** (CFIP) offer cost-share opportunities to assist individual landowners with land management planning, conservation practices to enhance wildlife habitat, and practices to enhance the productivity of the land. The Urban Forestry Program provides technical expertise and grants to create and maintain sustainable urban forests. Utilizing experts in forest pests and diseases, the **Forest Health Management Program** provides information to landowners and makes recommendations to the Board of Forestry regarding the health of California's forests. The **L.A. Moran Reforestation Center** specializes in cone processing and seed storage providing a vital, long-term depository for private and corporate landowners for their future seedling needs.

Source: California Forest Improvement Program (CFIP)

Agency: California Department of Forestry and Fire Protection (CAL FIRE)

Website: http://calfire.ca.gov/resource_mgt/resource_mgt_forestryassistance_cfip

Qualifying organizations: Public and private forest landowners, especially forested watershed owners such as water purveyors and open space agencies.

Match requirement: Yes

Annual funding: FY 2016-- \$3,465,000 for CFIP cost share grants

Description: The purpose of the California Forest Improvement Program (CFIP) is to encourage private and public investment in, and improved management of, California forest lands and resources. This focus is to ensure adequate high quality timber supplies, related employment and other economic benefits, and the protection, maintenance, and enhancement of a productive and stable forest resource system for the benefit of present and future generations.

The program scope includes the improvement of all forest resources including fish and wildlife habitat, and soil and water quality. Cost-share assistance is provided to private and public ownerships containing 20 to 5,000 acres of forest land. Cost-shared activities include management planning, site preparation, tree purchase and planting, timber stand improvement, fish and wildlife habitat improvement, and land conservation practices.

Grants can fund the full-suite of CFIP activities: Plans, RPF supervision, site preparation, planting, pre-commercial thinning, pruning, follow-up, release and conservation practices; e.g. forest road repair and upgrading, if it protects, maintains, or enhances fish and wildlife habitat.

Source: Urban and Community Forestry
Agency: California Department of Forestry and Fire Protection (CAL FIRE)
Website: http://calfire.ca.gov/resource_mgt/resource_mgt_urbanforestry
Qualifying organizations: Public and private forest landowners, especially forested watershed owners such as water purveyors and open space agencies. Fire Safe Councils.
Match requirement: Yes
Annual funding: Funding through Greenhouse Gas Reduction Fund-AB32

Under the authority of the [Urban Forestry Act \(PRC 4799.06 - 4799.12\)](#) the Urban & Community Forestry Program works to expand and improve the management of trees and related vegetation in communities throughout California.

The mission of the California Department of Forestry and Fire Protection's Urban Forestry Program is to lead the effort to advance the development of sustainable urban and community forests in California. Trees provide energy conservation, reduction of storm-water runoff, extend the life of surface streets, improve local air, soil and water quality, reduce atmospheric carbon dioxide, improve public health, provide wildlife habitat and increase property values. In short, they improve the quality of life in urban environments which, increasingly, are where Californians live, work, and play.

Grants are offered for activities such as tree planting, municipal tree inventories and management plans, urban forest educational efforts, and innovative urban forestry projects. These grants can be utilized to assist communities throughout California advance their urban forestry efforts.

California's State Urban Forestry Program also works with CAL FIRE's Fire Prevention Program in advocating fire-safe landscaping for homeowners and communities. Landscape design, tree selection and especially maintenance are critical elements in reducing the spread of fire and the risk to adjacent buildings. Even well-designed landscapes can become hazardous if not properly maintained. The program encourages compliance with the 100-foot defensible space requirement for communities in the urban wildland interface areas (PRC 4291) and offers suggestions for types of trees, landscape designs and pruning methods to assist homeowners in meeting that standard.

Source: Pest Management Program
Agency: California Department of Forestry and Fire Protection (CAL FIRE)
Website: http://calfire.ca.gov/resource_mgt/resource_mgt_urbanforestry
Qualifying organizations: Public and private forest landowners, especially forested watershed owners such as water purveyors and open space agencies. Fire Safe Councils.
Match requirement: Yes
Annual funding: Funding through Greenhouse Gas Reduction Fund-AB32

Forest pests (insects and diseases) annually destroy 10 times the volume of timber lost due to forest fires. Native bark beetles took hold in Southern California forests following severe drought years and caused unprecedented tree mortality. The introduced Pitch Canker Disease has attacked Monterey pine along the central coast. Sudden Oak Death, caused by *Phytophthora ramorum*, has been found in 14 counties in California and has killed thousands

of oaks. CAL FIRE's forest pest specialists help protect the state's forest resources from native and introduced pests, conduct surveys and provide technical assistance to private forest landowners, and promote forest health on all forest lands.

Source: Forest Legacy Program

Agency: California Department of Forestry and Fire Protection (CAL FIRE)

Website:http://calfire.ca.gov/resource_mgt/resource_mgt_forestryassistance_legacy

Qualifying organizations: Public and private forest landowners, especially forested watershed owners such as water purveyors and open space agencies. Fire Safe Councils.

Match requirement: Yes

Annual funding: Funding through Greenhouse Gas Reduction Fund-AB32, gifts, donations, federal grants and loans, other appropriate funding sources.

The purpose of the Forest Legacy Program (FLP) is to protect environmentally important forestland threatened with conversion to non-forest uses, such as subdivision for residential or commercial development. Protecting forests will ensure California's forests continue to be a significant carbon storage "sink" by avoiding conversion to non-forest uses that will result in GHG emissions rather than carbon sequestration. To help maintain the integrity and traditional uses of private forestlands, the FLP promotes the use of permanent conservation easements. These easements provide a new approach, a new tool, with which the federal government, in cooperation with state and local agencies, private organizations, and individuals can preserve the rich heritage of private forests.

The "Legacy" program as administered by CAL FIRE is comprised of two separate but complementary programs: the Federal Forest Legacy Program and the California Forest Legacy Program. Below is a brief overview of the programs.

THE FEDERAL PROGRAM

The federal Forest Legacy (16 U.S.C. Sec. 2103c) program was part of the 1990 Federal Farm Bill. It recognized that private forestland owners were facing increased pressure due to greater population densities and users demands, to convert their forestlands to other uses, such as housing subdivisions, rural lots and vineyards. Furthermore, forestland provides a wide variety of products and services including fish and wildlife habitat, aesthetic qualities, timber and recreation opportunities. Good stewardship of privately held forest lands requires a long-term commitment that can be fostered through a partnership of local, state and Federal government efforts.

The objective of the Federal Forest Legacy Program is to identify and protect environmentally important forestlands that are threatened by present or future conversion to non-forest uses. Priority is to be given to lands that can be effectively protected and managed and that have important scenic, recreational, timber, riparian, fish and wildlife, threatened and endangered species, and other cultural and environmental values.

Project costs covered by the Federal Legacy grants include interests in lands (including actual purchase price), appraisals, land surveys, closing costs, establishing baseline information, title work, purchase of title insurance, conservation easement drafting and other real estate transaction expenses. Also included are funds expended to facilitate donations of land or

interests in lands to a qualified and willing done for Program purposes. For outright donations of a conservation easement or land, Federal funds may not be used to pay for an appraisal since the Forest Service does not need a determination of fair market value. **Federal funds are limited to 75% of the value of the conservation easement with the remaining portion contributed by non-federal matching funds. Landowner contributions may be part of the match.**

THE STATE PROGRAM

The Forest Legacy Program Act in 2000 and 2007 allowed the Department of Forestry and Fire Protection to accept lands and interests in lands and to encourage the long-term conservation of productive forest lands by providing an incentive to owners of private forest lands to prevent future conversions of forest land and forest resources through the use of conservation easements. Eligible properties may be "working forests," where forestland is managed for the production of forest products and traditional forest uses are maintained. These forest uses will include both commodity outputs and non-commodity values. The purpose of these easements is to maintain these forests intact to provide such traditional forest benefits as timber production, wildlife habitat, watershed protection and/or open space. These forests remain in private ownership, except for the restrictions on development or other uses conveyed by the conservation easement to the agency selected by the landowner.

In both programs the involvement by private landowners is voluntary. In 2000, the Governor signed into law SB1832, the California Forest Legacy Act. This law allows the California Department of Forestry and Fire Protection to acquire conservation easements, and permit Federal, State agencies, local governments and nonprofit land trust organizations to hold conservation easements acquired pursuant to the California Forest Legacy Program.

Source: CA Forest Stewardship Program

Agency: California Department of Forestry and Fire Protection (CAL FIRE)

Website: <http://calfire.ca.gov/foreststeward/>

Qualifying organizations: Public and private forest landowners, especially forested watershed owners such as water purveyors and open space agencies. Fire Safe Councils.

Match requirement: Yes

Annual funding: Funding through Greenhouse Gas Reduction Fund-AB32, gifts, donations, federal grants and loans, other appropriate funding sources.

The **California Forest Stewardship Program** was created to encourage good stewardship of California's private forestland. The program provides technical information and assistance to landowners to promote sound forest management, and assists communities in solving forest-related issues. The California Forest Stewardship Program is a collaborative project of the [California Department of Forestry & Fire Protection](#) (CAL FIRE) and [USDA Forest Service](#). The [Placer Resource Conservation District](#) (RCD), [UC Cooperative Extension Forestry](#), [Northern California Society for American Foresters](#), [Natural Resource Conservation Service \(NRCS\)](#), and many other organizations and agencies are partners in projects and programs sponsored and supported by the California Stewardship Program.

Source: Vegetation Management Program
Agency: California Department of Forestry and Fire Protection (CAL FIRE)
Website: http://calfire.ca.gov/resource_mgt/resource_mgt_vegetation
Qualifying organizations: Public and private forest landowners, especially forested watershed owners such as water purveyors and open space agencies. Fire Safe Councils.
Match requirement: Yes
Annual funding: Environmental License Plate Fund

The Vegetation Management Program (VMP) is a cost-sharing program that focuses on the use of prescribed fire, and some mechanical means, for addressing wildland fire fuel hazards and other resource management issues on State Responsibility Area (SRA) lands. The use of prescribed fire mimics natural processes, restores fire to its historic role in wildland ecosystems, and provides significant fire hazard reduction benefits that enhance public and firefighter safety.

VMP PROGRAM GOALS (Board of Forestry and Fire Protection)

The goal of the Chaparral Management Program is to reduce the chance of large, damaging wildfires by reducing fire hazards on wildland in California. This includes three broad goals:

1. Reduction of conflagration fires.
2. Optimization of soil and water productivity.
3. Protection and improvement of intrinsic floral and faunal values.

VMP allows private landowners to enter into a contract with CAL FIRE to use prescribed fire to accomplish a combination of fire protection and resource management goals. Implementation of VMP projects is by CAL FIRE Units. When approved as a VMP project, CAL FIRE assumes the liability for conducting the prescribed burn.

Source: Greenhouse Gas Reduction Fund (GGRF)
Agency: California Department of Forestry and Fire Protection (CAL FIRE)
Website: <http://www.fire.ca.gov/grants/grants>
Qualifying organizations: Public agencies, private landowners, not for profits, Fire Safe Councils.
Match requirement: Yes
Annual funding: Air Resources Board Cap and Trade Auction proceeds-AB 32

Assembly Bill 32 Overview

The passage of [AB 32](#), the California Global Warming Solutions Act of 2006, marked a watershed moment in California's history. By requiring in law a sharp reduction of greenhouse gas (GHG) emissions, California set the stage for its transition to a sustainable, low-carbon future. AB 32 was the first program in the country to take a comprehensive, long-term approach to addressing climate change, and does so in a way that aims to improve the environment and natural resources while maintaining a robust economy.

CAL FIRE has received funding from the Greenhouse Gas Reduction Fund (GGRF) for forestry projects which reduce or avoid GHG emissions. The funding is authorized by SB 862, Greenhouse gases: emissions reduction. Funds are available for projects to:

- Improve forest health
- Reduce wildfire vegetation (fuel) hazards
- Increase carbon sequestration in conifer forests and implement research projects on Demonstration State Forests
- Reforest degraded lands
- Establish and improve urban and community forests
- Conserve forestland by avoiding conversion to other uses
- Develop programmatic timberland environmental impact reports
- Utilize forest biomass

The goal for all projects is to ensure California's forests continue to be significant carbon storage "sinks" and to reduce or avoid GHG emissions due to pest damage, wildfires, and loss of forest tree cover from development to non-forest uses.

Applicants must demonstrate reduction of greenhouse gases as a result of implementing the proposed project.

To meet these goals, CAL FIRE will issue grants, cost share agreements, expand technical assistance, conduct research, and implement projects. Several Programs will be used to deliver funds for projects:

- Urban and Community Forestry
- Fuels Reduction
- Reforestation Services
- Forest legacy Program
- Forest Pest Control
- Forest Practice Program
- Demonstration and research forests

FIRE HAZARD REDUCTION

Source: State Responsibility Area Fire Prevention Fund (SRAFPF) Grant Program
Greenhouse Gas Reduction Fund (GGRF)

Agency: California Department of Forestry and Fire Protection (CAL FIRE)

Website: <http://www.fire.ca.gov/grants/grants>

Qualifying organizations: Public agencies, private landowners, not for profits, Fire Safe Councils.

Match requirement: Yes

Annual funding: Air Resources Board Cap and Trade Auction proceeds-AB 32

Description: The State Responsibility Area Fire Prevention Fund (SRAFPF) Grant Program has funds available for projects that reduce the wildfire threat to habitable structures in State Responsibility Areas (SRA). Projects funded by the SRAFPF will reduce the risk of fire ignition and spread in and adjacent to communities, educate owners of habitable structures about wildfire risks, or allow for strategic, long-term planning to reduce the risk of wildfire to communities in the SRA throughout the State.

Project Types and Activities - Qualifying projects and activities include those related to hazardous fuel reduction, fire prevention planning, fire prevention education and training that reduce the risk and potential impact of wildfire on habitable structures in the SRA.

FEDERAL AGENCY FUNDING

Source: California Grants Clearinghouse, CA Fire Safe Council

Agency: Principally USFS, administered by CA Fire Safe Council, Inc.

Website: <http://www.cafiresafecouncil.org/grants-clearinghouse/>

Qualifying organizations: Local Fire Safe Councils, public organizations, not for profits

Description: Federal funds grant administered by the CA Fire Safe Council with the purpose of reducing the risk of Wildland Urban Interface fires. Projects are limited to maximum of \$200,000. Organizations submit a project single application that is reviewed by federal agencies (USFS, BLM, FWS, etc.) for award consideration and funding.

USDA-Natural Resources Conservation Service

The [Agricultural Management Assistance](#) (AMA) helps agricultural producers use conservation to manage risk and solve natural resource issues through natural resources conservation. NRCS administers the AMA conservation provisions while the Agricultural Marketing Service and the Risk Management Agency implement other provisions under AMA.

The [Conservation Stewardship Program](#) (CSP) helps agricultural producers maintain and improve their existing conservation systems and adopt additional conservation activities to address priority resources concerns. Participants earn CSP payments for conservation performance—the higher the performance, the higher the payment.

Source: Conservation Innovation Grants (CIG)

Agency: National Resource Conservation Service

Website: <http://www.nm.nrcs.usda.gov/programs/cig/cig.html>

Qualifying organizations: Individuals, legal entities, Indian Tribes, or joint operations engaged in agricultural production on eligible land

Description: CIG State Component. CIG is a voluntary program intended to stimulate the development and adoption of innovative conservation approaches and technologies while leveraging federal investment in environmental enhancement and protection, in conjunction with agricultural production. Under CIG, Environmental Quality Incentives Program (EQIP) funds are used to award competitive grants to non-federal governmental or nongovernmental organizations, tribes, or individuals. CIG enables the Natural Resources Conservation Service (NRCS) to work with other public and private entities to accelerate technology transfer and

adoption of promising technologies and approaches to address some of the nation's most pressing natural resource concerns. CIG will benefit agricultural producers by providing more options for environmental enhancement and compliance with federal, state, and local regulations. The NRCS administers the CIG program. The CIG requires a 50/50 match between the agency and the applicant. The CIG has two funding components: national and state. Funding sources are available for water resources, soil resources, atmospheric resources, and grazing land and forest health.

The [Environmental Quality Incentives Program](#) (EQIP) provides financial and technical assistance to agricultural producers in order to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, reduced soil erosion and sedimentation or improved or created wildlife habitat.

Source: Air Quality Initiative

Agency: National Resource Conservation Service

Website: <http://www.nm.nrcs.usda.gov/programs/cig/cig.html>

Qualifying organizations: Individuals, legal entities, Indian Tribes, or joint operations engaged in agricultural production on eligible land

The NRCS Environmental Quality Incentives Program (EQIP) Air Quality Initiative provides financial assistance to implement conservation practices that address air resource issues for designated locations throughout the nation. Agricultural atmospheric related concerns include greenhouse gas emissions, ozone precursors, volatile organic compounds, airborne particulate matter, and some odor-related volatile compounds. For more information about agricultural air quality concerns, see the [Air Quality topic](#).

Source: National Air Quality Site Assessment Tool

Agency: National Resource Conservation Service

Website: <http://www.nm.nrcs.usda.gov/programs/cig/cig.html>

Qualifying organizations: Individuals, legal entities, Indian Tribes, or joint operations engaged in agricultural production on eligible land

The National Air Quality Site Assessment Tool (NAQSAT) has been developed for the voluntary use of livestock producers and their advisors or consultants. It is intended to provide assistance to livestock and poultry producers in determining the areas in their operations where there are opportunities to make changes that result in reduced air emissions. Air emissions research from livestock production systems is increasing every year. NAQSAT is based on the most accurate, credible data currently available regarding mitigation strategies for air emissions of ammonia, methane, volatile organic compounds, hydrogen sulfide, particulates, and odor.

USDA- Forest Service grants and agreements

Source: Landscape Scale Restoration, Western Forestry Leadership Coalition
Agency: USFS, administered by Western Forestry Leadership Coalition (WFLC)
Website: <http://wflcenter.org/documents/2016/04/western-lsr-guidance-fy2017.pdf>
Qualifying organizations: State foresters submit applications on behalf of local organizations in a competitive system

Description: Federal funds grant administered by the Western Forestry Leadership Coalition of the seventeen (17) western states with the purpose of restoring natural areas at the landscape scale. Projects are limited to maximum of \$300,000 and each state is limited to number of submittals. Local organizations submit their application to CAL FIRE who prioritizes them and submits as a state application to WFLC for award determination.

Source: Wildland Urban Interface Grants, Western Forestry Leadership Coalition
Agency: USFS, administered by Western Forestry Leadership Coalition
Website: <http://wflcenter.org/state-private-forestry/>
Qualifying organizations: State foresters submit applications on behalf of local organizations in a competitive system

Description: Federal funds grant administered by the Western Forestry Leadership Coalition of the seventeen (17) western states with the purpose of reducing the risk of Wildland Urban Interface. Projects are limited to maximum of \$300,000 and each state is limited to number of submittals. Local organizations submit their application to CAL FIRE who prioritizes them and submits as a state application to WFLC for award determination.

Source: Federal Excess Personal Property
Agency: USFS
Website: <http://www.fs.fed.us/fire/partners/fepp/>

Description: The Federal Excess Personal Property (FEPP) program refers to Forest Service-owned property that is on loan to State Foresters for the purpose of wildland and rural firefighting. Most of the property originally belonged to the Department of Defense (DoD). Once acquired by the Forest Service, it is loaned to State Cooperators for fire fighting purposes. The property is then loaned to the State Forester, who may then place it with local departments to improve local fire programs. State Foresters and the USDA Forest Service have mutually participated in the FEPP program since 1956.

Source: Title III Rural School Funds
Agency: USDA Forest Service
Website: <http://www.fs.usda.gov/main/pts/countyfunds>

Description: The Secure Rural Schools Act (SRS Act) was reauthorized by section 524 of P.L. 114-10 and signed into law by the President on April 16, 2015. This reauthorization extended the date by which title III projects must be initiated to September 30, 2017, and the date by which title III funds must be obligated to September 30, 2018. Counties seeking funding under Title III must use the funds to perform work under the Firewise Communities program.

Counties applying for Title III funds to implement Firewise activities can assist in all aspects of a community's recognition process, including conducting or assisting with community assessments, helping the community create an action plan, assisting with an annual Firewise Day, assisting with local wildfire mitigation projects, and communicating with the state liaison and the national program to ensure a smooth application process. Counties that previously used Title III funds for other wildfire preparation activities such as the Fire Safe Councils or similar would be able to carry out many of the same activities as they had before. However, with the new language, counties would be required to show that funds used for these activities were carried out under the Firewise Communities program.

Source: Volunteer Fire Assistance
Agency: U.S. Forest Service
Website: <http://www.fs.fed.us/fire/partners/vfa/>

Description: U.S. Forest Service funding will provide assistance, through the states, to volunteer fire departments to improve communication capabilities, increase wildland fire management training, and purchase protective fire clothing and firefighting equipment. For more information, contact your state representative; contact information can be found on the National Association of State Foresters website.

Source: The National Fire Plan (NFP)
Website: <http://www.forestsandrangelands.gov/>

Description: Many states are using funds from the NFP to provide funds through a cost-share with residents to help them reduce the wildfire risk to their private property. These actions are usually in the form of thinning or pruning trees, shrubs, and other vegetation and/or clearing the slash and debris from this kind of work. Opportunities are available for rural, state, and volunteer fire assistance.

US Department of Interior- Fish and Wildlife Service

Source: Rural Fire Assistance (RFA)
Agency: USDI – U.S. Fish and Wildlife Service
Website: <http://www.nifc.gov/rfa>

Description: The RFA program provides funds for RFDs that Protect rural, wildland-urban interface communities; play a substantial cooperative role in the protection of federal lands; are cooperators with the Department of the Interior (USDI) managed lands through cooperative agreements with the USDI, or their respective state, tribe or equivalent; are less than 10,000 in population. The required cost share amount for the recipient RFD will not exceed 10 percent of the amount awarded. The RFD must demonstrate the capability to meet cost share requirements. Cooperator contribution may be contributed as in-kind services. Cooperator contribution may exceed, but not amount to less than 10 percent. Examples of in-kind services may include but are not limited to: facility use incurred by and RFD for hosting training courses, travel and per diem costs incurred by an RFD when personnel attend training courses, and administration costs related to purchasing RFA equipment and supplies. Finding or in-kind resources may not be derived from other federal finding programs.

US Department of Homeland Security

Source: Fire Prevention and Safety Grants (FP&S)
Agency: DHS
Website: <http://www.firegrantsupport.com/fps/>

Description: The FP&S are part of the Assistance to Firefighters Grants and are under the purview of the Office of Grants and Training in the DHS. FP&S offers support to projects that enhance the safety of the public and firefighters who may be exposed to fire and related hazards. The primary goal is to target high risk populations and mitigate high incidences of death and injury. Examples of the types of projects supported by FP&S include fire-prevention and public-safety education campaigns, juvenile fire-setter interventions, media campaigns, and arson prevention and awareness programs. In fiscal year 2005, Congress reauthorized funding for FP&S and expanded the eligible uses of funds to include firefighter safety research and development.

Source: Staffing for Adequate Fire and Emergency Response (SAFER)
Agency: DHS
Website: <http://www.firegrantsupport.com/safer/>

Description: The purpose of SAFER grants is to help fire departments increase the number of frontline firefighters. The goal is for fire departments to increase their staffing and deployment capabilities and ultimately attain 24-hour staffing, thus ensuring that their communities have adequate protection from fire and fire-related hazards. The SAFER grants support two specific activities: (1) hiring of firefighters and (2) recruitment and retention of volunteer firefighters. The hiring of firefighters activity provides grants to pay for part of the salaries of newly hired firefighters over the five-year program. SAFER is part of the Assistance to Firefighters Grants and is under the purview of the Office of Grants and Training of the DHS.

Source: Funding for Fire Departments and First Responders
Agency: DHS, U.S. Fire Administration
Website: <http://www.usfa.dhs.gov/fireservice/grants/>

Description: Includes grants and general information on financial assistance for fire departments and first responders. Programs include the Assistance to Firefighters Grant Program, Reimbursement for Firefighting on Federal Property, State Fire Training Systems Grants, and National Fire Academy Training Assistance.

Source: Predisaster Mitigation Grant Program
Agency: Department of Homeland Security (DHS) Federal Emergency Management Agency (FEMA)
Website: <http://www.fema.gov/government/grant/pdm/index.shtm>

Description: The DHS includes FEMA and the U.S. Fire Administration. FEMA's Federal Mitigation and Insurance Administration is responsible for promoting predisaster activities that can reduce the likelihood or magnitude of loss of life and property from multiple hazards, including wildfire. The Disaster Mitigation Act of 2000 created a requirement for states and communities to develop predisaster mitigation plans and established funding to support the

development of the plans and to implement actions identified in the plans. This competitive grant program, known as PDM, has funds available to state entities, tribes, and local governments to help develop multihazard mitigation plans and to implement projects identified in those plans.

Private Organizations and Associations

Source: Firewise Communities
Agency: Multiple
Website: <http://www.firewise.org>

Description: The Wildland/Urban Interface Working Team (WUIWT) of the National Wildfire Coordinating Group is a consortium of wildland fire organizations and federal agencies responsible for wildland fire management in the United States. The WUIWT includes the U.S. Forest Service, Bureau of Indian Affairs, BLM, U.S. Fish and Wildlife Service, National Park Service, FEMA, U.S. Fire Administration, International Association of Fire Chiefs, National Association of State Fire Marshals, National Association of State Foresters, National Emergency Management Association, and National Fire Protection Association. Many different Firewise Communities activities are available help homes and whole neighborhoods become safer from wildfire without significant expense. Community cleanup days, awareness events, and other cooperative activities can often be successfully accomplished through partnerships among neighbors, local businesses, and local fire departments at little or no cost. The Firewise Communities recognition program page (<http://www.firewise.org/usa>) provides a number of excellent examples of these kinds of projects and programs.

The kind of help you need will depend on who you are, where you are, and what you want to do. Among the different activities individuals and neighborhoods can undertake, the following actions often benefit from some kind of seed funding or additional assistance from an outside source:

- Thinning/pruning/tree removal/clearing on private property—particularly on very large, densely wooded properties
- Retrofit of home roofing or siding to non-combustible materials
- Managing private forest
- Community slash pickup or chipping
- Creation or improvement of access/egress roads
- Improvement of water supply for firefighting
- Public education activities throughout the community or region

Some additional examples of what communities, counties, and states have done can be found in the National Database of State and Local Wildfire Hazard Mitigation Programs at <http://www.wildfireprograms.usda.gov>. You can search this database by keyword, state, jurisdiction, or program type to find information about wildfire mitigation education programs, grant programs, ordinances, and more. The database includes links to local websites and e-mail contacts.

Source: Ready-Set-Go Grants
Website: <http://www.wildlandfirersg.org/>

Description: Mitigation Grants: The grants are awarded in quantities of up to \$5,000 to assist departments and emergency service agencies in the purchase or rental of equipment or other costs to implement or enhance community fuels mitigation programs within their jurisdiction. Applications should be submitted by July 31, 2016.

Outreach Grants: The grants are awarded in quantities of up to \$1,000 to assist departments and emergency service agencies with the cost of outreach materials and events to promote community wildfire readiness and preparedness. Applications should be submitted by July 31, 2016.

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**APPENDIX D.
GENERAL PLAN POLICIES AND IMPLEMENTATION
GUIDELINES TO ADDRESS WILDFIRE HAZARD.**

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STANDARD PLANNING FRAMEWORK

The following information outlines the standard planning framework that most municipalities must adhere to for their General Plan and Municipal Codes.

*THE GENERAL PLAN*⁹

Counties and cities have the authority to determine land use development through state required land use General Plans that serve as their land use ordinance.

The General Plan is a community's blueprint for future development. It describes a community's development goals and policies. It also is the foundation for land use decisions made by the planning commission, city council, or board of supervisors. The General Plan is the basis for all local land use decisions. Zoning, subdivisions, and public works projects can only be approved when they are consistent with the General Plan. A General Plan consists of at least two parts. It must contain a written text describing the community's goals, objectives, and policies for development. It must also contain a map (or maps) and diagrams illustrating the generalized distribution of land uses, the road system, environmental hazard areas, the open space system, and other policy statements that can be illustrated (Government Code Section 65302). The maps and diagrams must work together with the written portions of the plan to establish a clear view of the community's future. The WUI fire problem and mitigation efforts to reduce injury and losses must be addressed when planning land development.

The General Plan must contain at least seven components (called *mandatory elements*) (Government Code Section 65302). Additional optional elements, may be adopted as well.

The Seven Mandatory Elements

1. **Land use element** designates the general location and density of housing, business, industry, open space, public buildings and grounds, waste disposal facilities, and other land uses.
2. **Circulation element** identifies the general location and extent of existing and proposed major roads, transit routes, terminals, and public utilities and facilities. It must correlate with the land use element.
3. **Housing element** assesses current and projected housing needs for all economic segments of the community and region. It identifies local housing policies and the programs that implement those policies.
4. **Conservation element** addresses the conservation, development, and use of natural resources, including water, forests, soils, rivers, and mineral deposits.
5. **Open space element** details plans and measures for preserving open space for natural resources, outdoor recreation, public health and safety, and agriculture.
6. **Noise element** identifies and appraises noise problems within the community and influences the distribution of land uses.
7. **Safety element** establishes policies to protect the community from natural and human-made hazards (e.g., seismic, geologic, flood, wildfire, and toxic materials hazards).

⁹ California Planning Guide: An Introduction to Planning in California. December 2005 Edition.

Other Components of Land Use Planning

Localized plans and processes that allow for more detail germane to the circumstances for a specific development support the General Plan. The local details must be consistent with the General Plans' overarching blueprint.

Community Plans

A community plan focuses planning efforts on a smaller area or neighborhood. A community plan is part of the local General Plan. It addresses issues pertinent to a particular area or community within the city or county and supplements the policies of the General Plan. Accordingly, it must be consistent with the General Plan in all respects.

Specific Plans

A specific plan implements, but is not technically a part of, the local General Plan. Specific plans describe allowable land uses, identify open space, and detail infrastructure availability and financing for a portion of the community. In some jurisdictions, specific plans also take the place of zoning. These specific plans must be consistent with the General Plan. In turn, zoning, subdivision, and public works decisions must comply with the provisions of the specific plan. Specific plans are adopted and amended in the same manner as General Plans.

ZONING

The distribution of residential, commercial, industrial, and other zones must be based on the pattern of land uses established by the community's General Plan. Zoning maps illustrate how all uses are distributed geographically. Zoning is adopted by ordinance and carries the weight of local law. The zoning ordinance regulates land uses within the community. It assigns each piece of property to a zone that describes the rules under which that land may be used. These classifications, such as "R-1" for single-family residences or "C-1" for neighborhood commercial uses, cover in specific terms the range of uses that are allowed in the General Plan.

Overlay Zones

Overlay zones provide an additional layer of standards. They are often set up to protect natural and cultural areas, such as historic districts, residential enclaves, wetlands, water fronts, and scenic views.

Subdivisions

In general, land cannot be subdivided in California without local government approval. Dividing land for sale, lease, or financing is regulated by local ordinances based on the state Subdivision Map Act (commencing at Government Code Section 66410). The local General Plan and the zoning, subdivision, and other ordinances govern the design of the subdivision, the size of its lots, and the types of improvements that will be required as conditions of approval.

Subdivision approval is conditioned upon the sub-divider providing public improvements, such as streets, drainage facilities, water supplies, or sewer lines to serve the subdivision. They may also be required to dedicate park land to the community. These improvements must be

installed or secured by bond before the city or county will grant final map approval and allow the subdivision to be recorded in the county recorder's office.

State legislation passed in 2012¹⁰ now requires mandatory findings be made before approval can be granted to a proposed subdivision in an area located within an SRA or a locally adopted very high FHSZ, specifically 1) that the design and location of the subdivision are consistent with applicable regulations adopted by the State Board of Forestry and Fire Protection pursuant to PRC Sections 4290 and 4291, 2) that structural fire protection and suppression services will be available for the subdivision, and 3) that, to the extent practicable, ingress and egress for the subdivision meet the regulations regarding road standards for fire equipment access adopted pursuant to PRC Section 4290 and any applicable local ordinance.

Community Facilities District Act (Mello-Roos Act)

Community facility districts are a form of financing used by cities, counties, and other similar districts in order to fund services or large-scale products in that district, such as provision of fire service, maintenance of facilities, or construction of schools or roads. In order to be able to use this kind of financing, the voters in the district must approve the formation of a Mello-Roos district by a vote (two-thirds must be in favor of the decision). Once the district has decided to become a Mello-Roos district, the money spent to finance these projects is repaid by the property owners through taxes.

Community facilities districts can be used to provide sustainable funding for hazardous fuel reduction projects or other community fire programs. The establishment of a community facility district can be a condition of the subdivision approval.

The processes above establish community infrastructure, open space, road networks, parcel layout and density, design standards, and other factors. Building and fire codes regulate the construction of the structures following compliance with the land use planning conditions.

Building and Fire Codes

California model building and fire codes have chapters that specifically address construction standards in the WUI. These more restrictive codes address building components that reduce the ignition vulnerability of structures.

Once an area is designated for development through the General Plan and specific plan processes, a property owner can apply for a building permit. At this point, fire agency input is restricted to the specific parcel being built and application of the current building and fire codes.

Sustainability of Wildland Urban Interface Defensible Space

State¹¹ and local laws provide standards for maintenance of defensible space around existing structures. Defensible space standards include reduction of flammable vegetation adjacent to structures.

¹⁰ 2012 Senate Bill 1241-Government Code 65040 and Public Resources Code 21083.01

¹¹ Public Resources Code 4291.

RURAL HILLSIDE ORDINANCE THAT RELATE TO DEVELOPMENT IN THE WILDLAND URBAN INTERFACE

Excerpts taken from the General Plan:

- R-HS 22 – Adequate access and water supplies for fire safety shall be required for all new development, including building sites, subdivisions, and clustered development.
- R-HS 23 – Areas for which inadequate access is a general concern, either due to lack of secondary access, dead-end roads of excessive length, and substandard road design or conditions, should be examined to determine if there are means by which to remedy the inadequacies. Such means may include:
 - a. specific local area circulation plans to establish alternative access;
 - b. specific roadway improvements to remedy hazardous situations, financed by those most benefited by the improvements; and
 - c. traffic routing and controls to discourage the use of such roads by non-residents.
- R-HS 24 – Dead-end roads shall not be extended unless in the judgment of the Fire Authority; such extensions will serve to reduce the risks from fire hazards in the affected area.
- R-HS 25 – High intensity uses, such as theaters, motels, restaurants, schools, etc., and uses requiring the handling, transfer, storage, or disposal of significant amounts of flammable or hazardous materials shall be allowed only in areas having year-round fire protection and adequate water supply systems.
- R-HS 26 – For communities in areas of high or extreme fire hazard that have developed under development densities greater than generally allowed under current General Plan policies, water systems with hydrants should be provided wherever feasible.
- R-HS 27 – Santa Clara County should encourage the use of fire-retardant building materials and landscaping not already required by Santa Clara County development and building codes when new development and rebuilding are proposed in areas of high or extreme fire hazard.
- R-HS 28 – Development projects shall be reviewed by the Santa Clara County Fire Marshal's Office for safety code compliance and should also be referred if necessary to the appropriate fire protection authority or district for further review and recommendations.

**APPENDIX E.
FIRE FIGHTING RESOURCES**

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AIR ATTACK RESOURCES

CAL FIRE staffs 12 air attack bases and 10 helitack bases throughout the state. Santa Clara County contains the CAL FIRE Alma Super Huey helitack base at Lexington Reservoir near Los Gatos. The closest air tankers are from the CAL FIRE air tanker base at the Hollister airport just south of the county line in San Benito County. There are two S2-T air tankers and an OV-10 Air Tactical Coordination aircraft assigned to the Hollister air base. Flight time after takeoff is 5 to 10 minutes to most areas in the county.

CAL FIRE's aviation fleet is composed of 23 S2-T 1,200-gallon air tankers, 12 Super Huey helicopters, and 15 OV-10 air tactical planes. The next closest air tankers to Santa Clara County are from CAL FIRE air bases in Columbia, Santa Rosa, Grass Valley, Fresno, and Paso Robles with flight times of 20 to 45 minutes. The fleet may be repositioned as fire activity and weather patterns change around the state.

Additional aviation resources may be provided by the federal government as fire activity and locations evolve during the fire season. As is the case with other types of suppression resources, competition for their use will occur during periods of widespread wildfire activity around the state.

HAND CREW RESOURCES

Within Santa Clara County, no jurisdiction contains hand crews such as Interagency Hotshot Crews, which are usually found within the federal fire agencies, such as the Bureau of Land Management and U.S. Forest Service. CAL FIRE does have access to state Type 1 fire hand crews based in Santa Cruz and Monterey Counties. These CAL FIRE hand crews comprise inmates from the California Department of Corrections and Rehabilitation. There are more than 200 CAL FIRE/ California Department of Corrections and Rehabilitation hand crews in California, which will respond as needed to Santa Clara County.

The California Conservation Corps (CCC) has a work center in Santa Clara County and receives partial funding from SRA fees. These are not fire going crews, but can be used for hazardous fuel reduction project work.

With state prison inmate realignment legislation, County Sheriff's across California are exploring cooperative agreements with fire agencies to utilize county jail inmates on hand crews for community benefit projects. Some of these agreements are with CAL FIRE and some are with other fire agencies.

There are private landscape maintenance crews available that can perform hazardous fuel reduction work.

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**APPENDIX F.
SANTA CLARA FUEL MODELS**

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Table F.1. Fuel Models Present in Santa Clara County

Fire Behavior Fuel Model	Corresponding fuel model number	Description
NB1	91	Urban
NB3	93	Agriculture
NB8	98	Water
NB9	99	Barren
GR1	101	Short, sparse dry climate grass is short, naturally or heavy grazing, predicted rate of fire spread and flame length low
GR2	102	Low load, dry climate grass primarily grass with some small amounts of fine, dead fuel, any shrubs do not affect fire behavior
GR3	103	Low load, very coarse, humid climate grass continuous, coarse humid climate grass, any shrubs do not affect fire behavior
GS1	121	Low load, dry climate grass-shrub shrub about 1 foot high, grass load low, spread rate moderate and flame length low
GS2	122	Moderate load, dry climate grass-shrub, shrubs are 1–3 feet high, grass load moderate, spread rate high, and flame length is moderate
SH1	141	Low load dry climate shrub, woody shrubs and shrub litter, fuelbed depth about 1 foot, may be some grass, spread rate and flame low
SH2	142	Moderate load dry climate shrub, woody shrubs and shrub litter, fuelbed depth about 1 foot, no grass, spread rate and flame low
SH3	143	Moderate load, humid climate shrub, woody shrubs and shrub litter, possible pine over story, fuel bed depth 2–3 feet, spread rate and flame low
SH5	145	High load, humid climate grass-shrub combined, heavy load with depth greater than 2 feet, spread rate and flame very high
SH6	146	Low load, humid climate shrub, woody shrubs and shrub litter, dense shrubs, little or no herbaceous fuel, depth about 2 feet, spread rate and flame high
SH7	147	Very high load, dry climate shrub, woody shrubs and shrub litter, very heavy shrub load, depth 4–6 feet, spread rate somewhat lower than SH6 and flame very high
TU1	161	Low load dry climate timber grass shrub, low load of grass and/or shrub with litter, spread rate and flame low
TU2	162	Moderate load, humid climate timber-shrub, moderate litter load with some shrub, spread rate moderate and flame low
TU5	165	Very high load, dry climate shrub, heavy forest litter with shrub or small tree understory, spread rate and flame moderate
TL1	181	Low load compact conifer litter, compact forest litter, light to moderate load, 1–2 inches deep, may represent a recent burn, spread rate and flame low
TL2	182	Low load broadleaf litter, broadleaf, hardwood litter, spread rate and flame low
TL3	183	Moderate load conifer litter, moderate load conifer litter, light load of coarse fuels, spread rate and flame low
TL4	184	Small downed logs moderate load of fine litter and coarse fuels, small diameter downed logs, spread rate and flame low
TL5	185	High load conifer litter, light slash or dead fuel, spread rate and flame low
TL6	186	Moderate load broadleaf litter, spread rate and flame moderate
TL7	187	Large downed logs, heavy load forest litter, larger diameter downed logs, spread rate and flame low
TL8	188	Long needle litter, moderate load long needle pine litter, may have small amounts of herbaceous fuel, spread rate moderate and flame low
TL9	189	Very high load broadleaf litter, may be heavy needle drape, spread rate and flame moderate
SB2	202	Moderate load activity fuel or low load blowdown, 7–12 trees/acre, 0- to 3-inch-diameter class, depth about 1 foot, blowdown scattered with many still standing, spread rate and flame low

Source: Scott and Burgan 2005; LANDFIRE 2012.

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**APPENDIX G.
NATIONAL FIRE PROTECTION ASSOCIATION 1144
WILDFIRE RISK AND HAZARD SEVERITY FORM**

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Means of Access							
Ingress and Egress		Points					
2 or more roads in and out	0						
One road in and out	7						
Road Width							
> 24 ft	0						
> 20 ft < 24 ft	2						
< 20 ft	4						
Road Conditions							
Surfaced road, grade < 5%	0						
Surfaced road, grade > 5%	2						
Non-surfaced road, grade < 5%	2						
Non-surfaced road, grade > 5%	5						
Other than all season	7						
Fire Access							
< 300 ft with turnaround	0						
> 300 ft with turnaround	2						
< 300 ft with no turnaround	4						
> 300 ft with no turnaround	5						
Street Signs							
Present – reflective	0						
Present – non-reflective	2						
Not present	5						
Vegetation (fuel models)							
Predominant veg							
Light – 1,2,3	5						
Medium – 5,6,7,8,9	10						
Heavy – 4,10	20						
Slash – 11,12,13	25						
Defensible Space							
> 100 ft around structure	1						
> 70 ft < 100 ft around structure	3						
> 30 ft < 70 ft around structure	10						
< 30 ft around structure	25						
Topography Within 300 ft of Structures							
Slope							
< 9%	1						
10% to 20%	4						
21% to 30%	7						
31% to 40%	8						
>41%	10						
Additional Rating Factors (rate all that apply)							
Additional Factors							
Topographic features	0-5						
History of high fire occurrence	0-5						
Severe fire weather potential	0-5						
Separation of adjacent structures	0-5						
Roofing Assembly							
Roofing							
Class A	0						
Class B	3						
Class C	15						
Unrated	25						

Building Construction						
Materials (predominant)						
Non-combustible siding, eaves, deck	0					
Non-combustible siding/combustible deck	5					
Combustible siding and deck	10					
Building Set-back						
> 30 ft to slope	1					
< 30 ft to slope	5					
Available Fire Protection						
Water Sources						
Hydrants 500 gpm < 1000 ft apart	0					
Hydrants 250 gpm < 1000 ft apart	1					
Non-pressurized > 250 gpm/2 hrs	3					
Non-pressurized < 250 gpm/2hrs	5					
Water unavailable	10					
Organized Response						
Station < 5 mi from structure	1					
Station > 5 mi from structure	3					
Fixed Fire Protection						
NFPA sprinkler system	0					
None	5					
Placement of Gas and Electric Utilities						
Utilities						
Both underground	0					
One above, one below	3					
Both above ground	5					
Totals for Home or Subdivision						

Hazard Rating Scale
< 40 Low
> 40 Moderate
> 70 High
> 112 Extreme

**APPENDIX H.
DESCRIPTION OF FACTORS INCLUDED IN THE
PARCEL LEVEL MODEL**

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The following are the map-able Santa Clara County risk factors. The description of each risk factor includes examples of how it can influence the possible damage from a WUI fire. The descriptions offer background so that a stakeholder can weigh the relative importance of each factor.

Certain factors are so critical (Category 1 factors) that the presence of that factor will automatically escalate the score to Extreme. An example of a Category 1 Extreme factor is a road network that has structures that are either inaccessible or has one lane (no passing roads). No other mitigations can offset this factor; only fixing the critical factor will remove the Category 1 score.

Fire Hazard Severity Zone – The FHSZ rating score (moderate, high, very high) for a community includes factors of vegetation fuel type and arrangement, weather, topography, crown fire, spotting distance, and probability of ignition. FHSZs are rated based on a “normally severe fire weather day,” which are conditions that routinely present for that community area. The higher the rating, the greater probability of a serious fire.

Fire history – Prior occurrence of serious fires in the past is an excellent indicator of potential of a repetitive fire.

Fire ignitions – The presence and frequency of fire ignitions in the area, including cause, are important to evaluating potential for ignition of a serious fire. Ignition type patterns may lead to mitigation strategies to reduce ignitions or consequences of those ignitions.

Fire behavior – Fire intensity is closely linked to damage because higher temperatures and length of time burning are more apt to ignite structures or become lethal to living things. Fast fire spread rates challenge fire containment. When fires “torch,” embers are produced, which may start new fires far ahead of the main fire challenging fire containment.

Extreme wind patterns – Wind is the single most important factor for fire spread. Winds stronger than 20 miles per hour significantly spread ground fires faster, cause ground fires to become crown fires, and/or cause windblown embers to ignite spot fires far out ahead of the main fire. Winds that routinely exceed 30 miles per hour assure windblown embers and fire behavior that is too intense for ground crews to attack and severely limit effectiveness of aircraft operations.

Vegetation types – Type of vegetation (natural and ornamental) influences fire behavior, since some types burn more quickly and/or hotter. Different vegetation types also are easy or hard to manage. Unmanaged vegetation is often more hazardous.

Slope/Aspect – Steeper slopes pose challenges for containment because firefighter access is difficult, and more preheating occurs with steeper slopes. The orientation of the slope to the sun also affects the fuel moisture and heat; western and southern aspects are generally hotter and drier.

Proximity to flammable wildland vegetation – Areas farther away from flammable vegetation are much less likely to incur damage, unless embers are part of the fire behavior

causing new spot fires to ignite. WUI communities with expanses of flammable vegetation between the parcels have greater probability of fire spread between buildings.

Community fire breaks – The presence of fire or fuel breaks (areas of no/thinned fuel) typically aids fire response by offering a safer location to position resources.

Property land use – Land uses of various types (infrastructure, residential, commercial, industrial, hazardous materials, or agriculture) present different consequences if burned. Some losses (e.g., critical infrastructure) may create widespread impacts even far outside the fire area. Hazardous materials facilities and critical infrastructure are Category 1 land uses.

Special adjustments – Certain properties are of such importance that loss is unacceptable: cultural icons, historical buildings, local feature not acceptable to lose, rare/endangered natural resources not fire adapted.

Road network – Road networks are essential to successful access and egress for responders entering the community while residents may be evacuating. Roads too narrow to allow two-way traffic can be disastrous. Steep, windy roads may be inaccessible to large fire equipment. Dead-end roads also present particular problems for fire responders and evacuees of getting cut off from the single escape route. Single lane roads with no passing or inaccessible roads are Category 1 factors.

Evacuation time to safe area – The amount of time required to get to a place of safety when evacuating an area is an important factor in citizen safety. Carless and non-ambulatory populations are Category 1 factors.

Parcel size – Parcels smaller than 0.25 acre present greater chances of fires spreading from building to building, rated at community average and individual parcel level.

Year built – The year of construction can influence the design and construction type of structures. Structures built prior to the passage of the 2007 California Building code generally have more features that make them easier to ignite: overhanging wood decks, single-paned windows, wood roofs, wood siding, unprotected eaves, and open vents, for example. This factor is rated at community on average age level and specific age at parcel level.

Building separation – When buildings are closer than 20 feet there is a high probability that radiant heat from a fire in an adjoining structure will ignite the neighboring building.

Roof material – This is one of the most important hazard factors. Wood roofs are associated with ignition, structure loss, and source of windblown embers, while structures with non-flammable roofs usually have higher survival rates during a wildfire. Wood roofs are a Category 1 factor.

Siding materials – Untreated wooden siding such as shingles or bare wood are more vulnerable to ignition than stucco or other ignition resistant material. Untreated wood siding is a Category 1 factor.

Window types – Double panes windows are more ignition resistant than single pane.

Venting systems – Embers can enter buildings and ignite contents through improper size screens in venting systems for attics, underfloor crawl space, and roof gable ends.

Deck materials – The flammability of deck materials, flammability of under deck storage, and ember resistance of deck enclosures, as well as flammability of deck/patio furniture and distance from building, can be a critical factor.

Ember beds adjacent to buildings – Presence of mulch beds can receive embers immediately adjacent or close proximity to buildings.

Defensible space – Having defensible space is usually associated with higher structure survival rates during a wildfire; this is rated at the community level and the individual parcel level. The quality and distances of defensible space from structures matters. Firefighters have more opportunities to fight fire around the structure and the heat from burning materials is reduced when defensible space is present. Lack of any defensible space is a Category 1 factor.

Property hygiene – The presence of flammable materials (wood piles, debris piles, abandoned vehicles, etc.) inside the defensible space zone may contribute to ignition from flying embers and spread of fire. This is rated at the community and parcel levels.

Homeowner participation in education/mitigation – Informed and involved homeowners typically are willing to manage their own properties to lower their risk due to their increased knowledge and heightened sense of responsibility. Community member participation in Santa Clara County FireSafe Council, community recognition as a Firewise Community or attendance at wildfire community education forums is an excellent indicator of citizens' WUI fire preparedness.

Water sources/hydrants – The use of water greatly aids the extinguishments of a fire, thereby containing it and limiting damage. The total abundance, accessibility, and proximity to the fire are important factors. Community water systems with fire hydrants versus individual water storage tanks at parcel level or scattered water tanks throughout community.

Response time – Shorter response times are associated with reduced damage because containment and suppression can start earlier when the fire is smaller.

Wildland pre-plan – Fire response may be more efficient in locations that have a pre-plan for wildfire due to increased knowledge regarding expected fire behavior, fire breaks, water sources, access, and communications.

Position of structure on slope – Because fires on the lower portions of a slope pre-heat fuels above it, structures on the top of slopes often ignite more easily than those at the bottom of a slope. Firefighter access is also influenced by a structure's position on the slope since structures at the top of a slope may be harder or take longer to reach.

Sensitivity to special/valued habitat – Fuel management may be restricted in areas requiring extra precautions that increase management costs. Or regulations may prohibit all work. Unmanaged fuels may be areas of increased fuel accumulation and hazard.

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**APPENDIX I.
DEFENSIBLE SPACE REQUIREMENTS IN THE
COUNTY ORDINANCE CODE**

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Sec. B7-13. - Chapter 49 Amendments.

Chapter 49 of the California Fire Code is amended as follows:

(a)

Section 4902 (Definitions) is amended to modify the definition of "Wildland-Urban Interface Fire Area" to read as follows:

Wildland-Urban Interface Fire Area is a geographical area identified by the state as a "Fire Hazard Severity Zone" in accordance with the Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189, and areas designated by the County to be at a significant risk from wildfires. The Wildland-Urban Interface Fire Area shall be defined as all unincorporated areas within the County of Santa Clara as set forth and delineated on the map entitled "Wildland-Urban Interface Fire Area" adopted by the Board of Supervisors, which map and all notations, references, data and other information shown thereon is hereby adopted and made part of this chapter. The map shall be on file in the Office of the Fire Marshal.

(b)

Section 4906.2 is amended to read as follows:

4906.2 Application. Buildings and structures located in the following areas shall maintain the required hazardous vegetation and fuel management:

1.

All unincorporated lands designated by the State Board of Forestry and Fire Protection as State Responsibility Areas (SRA) including:

1.1.

Moderate Fire Hazard Severity Zones

1.2.

High Fire Hazard Severity Zones

1.3.

Very-High Fire Hazard Severity Zones

2.

Land designated as a Very-High Fire Hazard Severity Zone or as a Wildland-Urban Interface Fire Area by the County.

(c)

Section 4907.1 is amended to read as follows:

4907.1 General. Defensible space shall be maintained around all buildings and structures in State Responsibility Area (SRA) as required in Public Resources Code 4290 and "SRA Fire Safe Regulations" California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 2, Section 1270 and this section.

Buildings and structures within the Very-High Fire Hazard Severity Zones of a Local Responsibility Area (LRA) shall maintain defensible space as outlined in Government Code sections 51175 to 51189 and this section.

Defensible space shall be provided around water tank structures, water supply pumps and pump houses.

Persons owning, leasing, controlling, operating or maintaining buildings or structures in the Wildland-Urban Interface Fire Area Zone and persons owning, leasing or controlling land adjacent to such buildings or structures, shall at all times:

1.

Maintain an effective defensible space by removing and clearing away flammable vegetation and combustible growth from areas within distances of such buildings or structures as outlined below:

Fire Hazard Severity Zone	Distance
Very High	50 feet
All others	30 feet

- *Exception:* Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided that they do not form a means of rapidly transmitting fire from the native growth to any structure.

2.

Maintain additional effective defensible space by removing brush, flammable vegetation and combustible growth located 30 feet to 100 feet (9,144 mm to 30,480 mm) when required by the fire code official due to steepness of terrain or other conditions that would cause a defensible space of only 30 feet (9,144 mm) to be insufficient.

Exception: Grass and other vegetation located more than 30 feet (9,144 mm) from buildings or structures and less than 18 inches (457 mm) in height above the ground need not be removed where necessary to stabilize the soil and prevent erosion.

3.

Remove portions of trees, which extend within 10 feet (3,048 mm) of the outlet of a chimney.

4.

Maintain trees adjacent to or overhanging a building free of deadwood; and

5.

Maintain the roof of a structure free of leaves, needles or other dead vegetative growth.

6.

Remove flammable vegetation a minimum of 10 feet around liquefied petroleum gas tanks/containers.

7.

Firewood and combustible materials shall not be stored in unenclosed spaces beneath buildings or structures, or on decks or under eaves, canopies or other projections or overhangs. The storage of firewood and combustible material within the defensible space shall be located a minimum of 30 feet (6,096 mm) from structures and separated from the crown of trees by a minimum horizontal distance of 15 feet (4,572 mm).

Exception: Firewood and combustible materials not for consumption on the premises shall be stored as approved by the fire code official.

8.

Clear areas within 10 feet (3,048 mm) of fire apparatus access roads and driveways to of non-fire-resistive vegetation growth.

Exception: Grass and other vegetation located more than 30 feet (9,144 mm) from buildings or structures and less than 18 inches (457 mm) in height above the ground need not be removed where necessary to stabilize the soil and prevent erosion.

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