



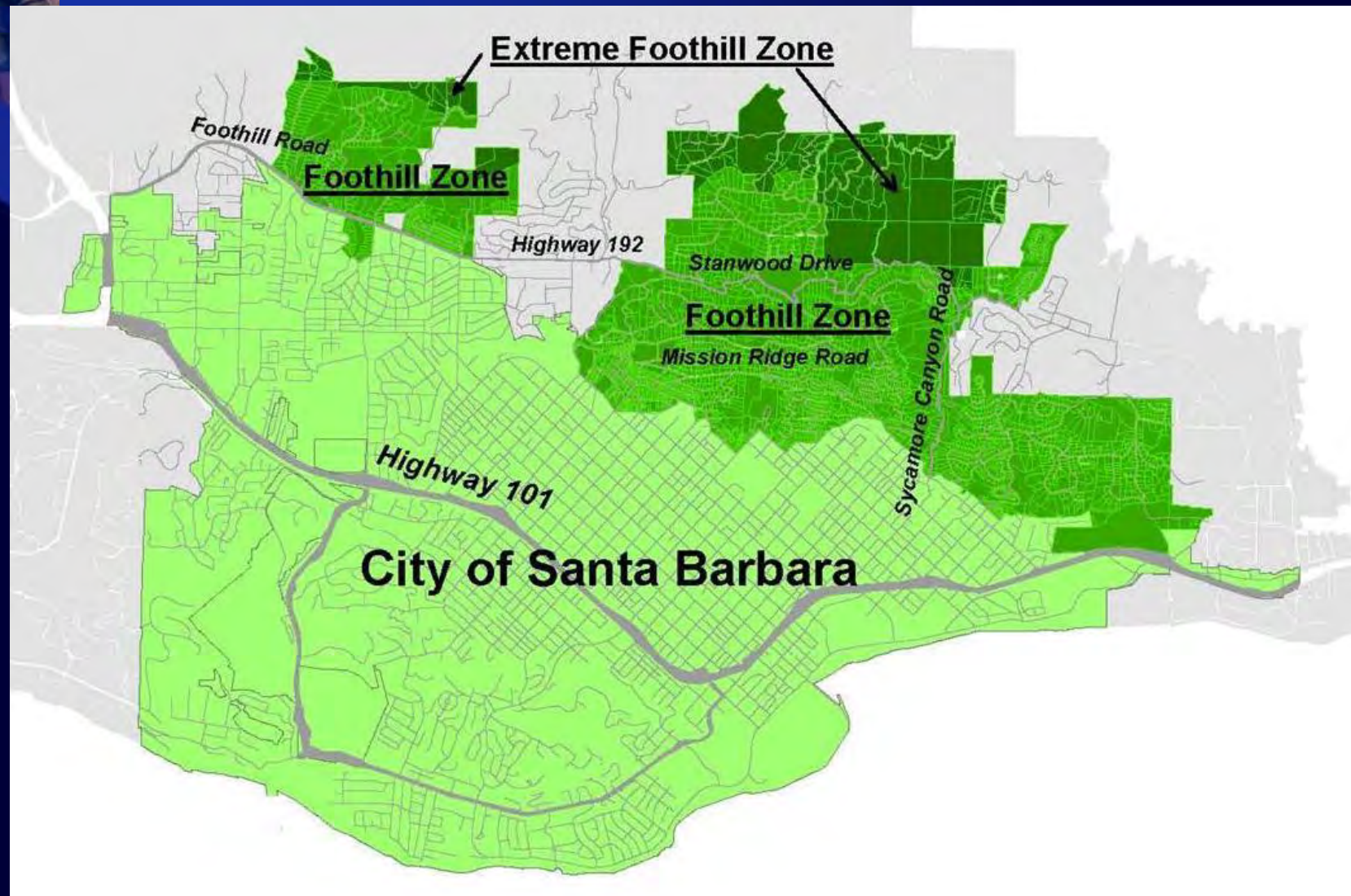
Wildland Fire Suppression Assessment District



History

- ◆ July 11, 2006 – City Council approved formation of Assessment District to fund specific services to reduce the impacts associated with wildfire
- ◆ Duration: One year
 - Allowing for an annual renewal

Assessment Area

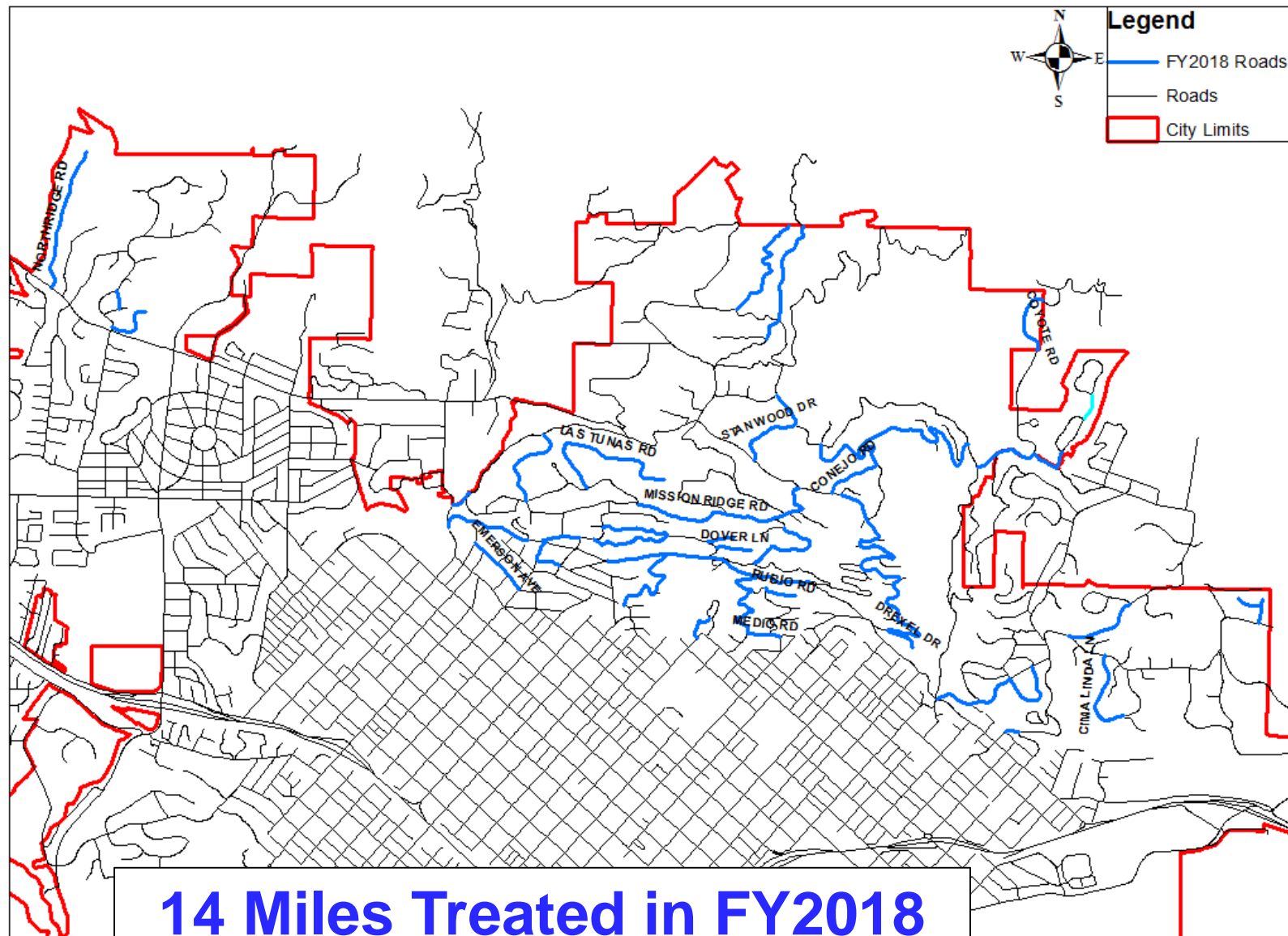




WFSAD Services

- ◆ Vegetation Road Clearance (Sept. – Jan.)
- ◆ Defensible Space Assistance
 - Voluntary Evaluations
 - Chipping Services (March-June)
- ◆ Vegetation Management
 - Community Fuels Treatment Network and Vegetation Management Units
 - Identified and prioritized in City Wildland Fire Plan

Vegetation Road Clearance



Chipping Services

- ◆ Encourages property owners to create defensible space
- ◆ Provides a cost effective way to dispose of material
- ◆ Over 300 tons of flammable vegetation removed in FY2018
- ◆ 3500 tons removed since 2008
- ◆ 100% of the chips recycled in FY2018



Chipping available to all
Assessment District residents

Chipping Services



Vegetation Management



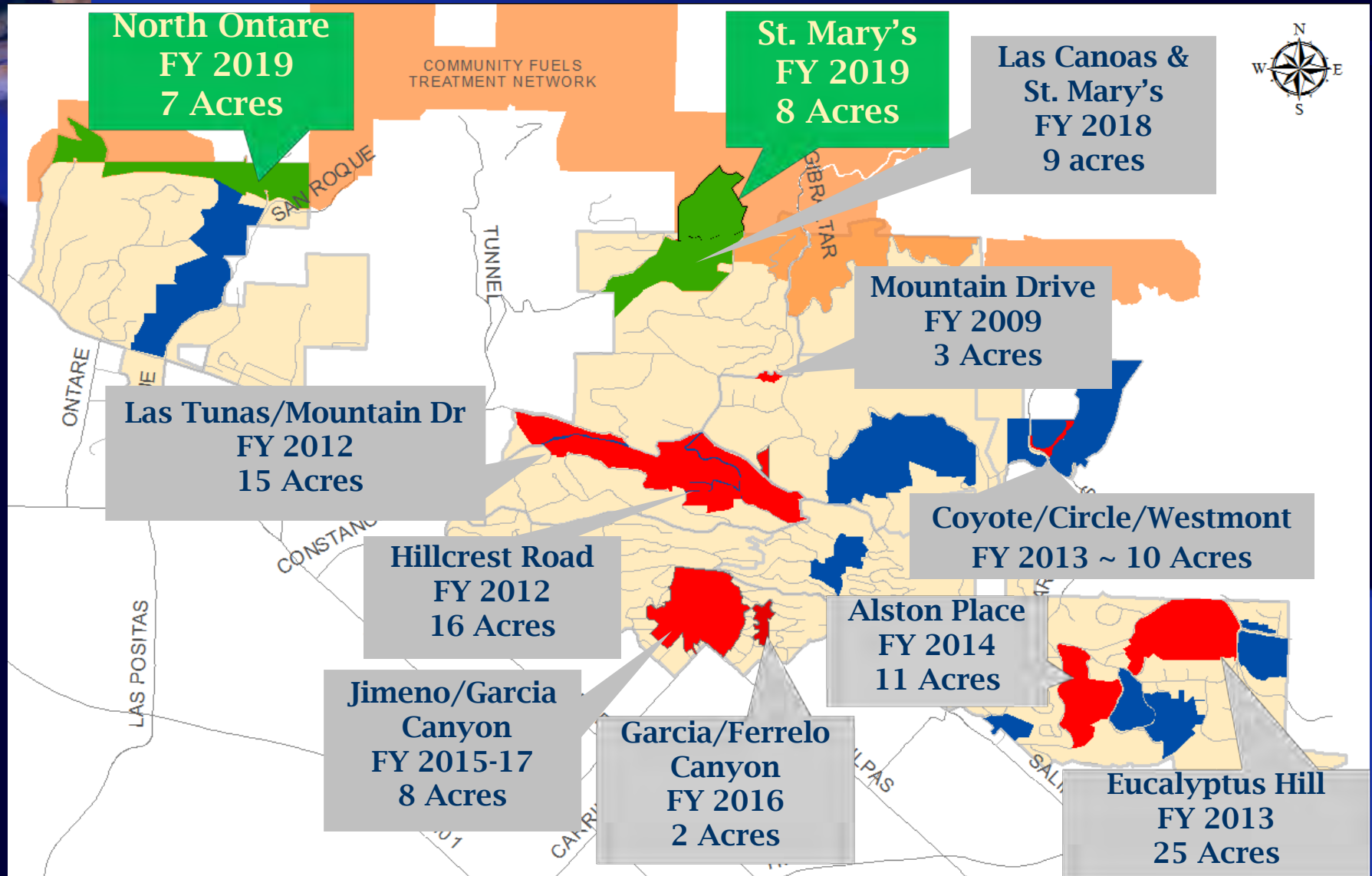
Challenges

- Biological Requirements
- Limited Access

- Remove Flammable Vegetation
- Remove Ladder Fuels
- Reduce Fuel Load 30-60%
- Remove Dead Vegetation
- Remove Exotic and Invasive Plant Species
- Protect natural resources, special status species (i.e. plants and animals)

Project Areas

FY 2018 - 2019



2018 Firesafe Grant

- City of Santa Barbara FY2018 Community Fuels Hazard Reduction Project
- \$17,500 with 100% match
- Added funding for vegetation management
- Focus on the Community Fuels Treatment Network
- Project work will be completed in FY2019





Wildland Program Funding

FY 2019

**General Fund
Appropriation
\$200,000**



**Wildland Fire
Suppression
Assessment Fund
\$272,404**

**Total Funding =
\$472,404**

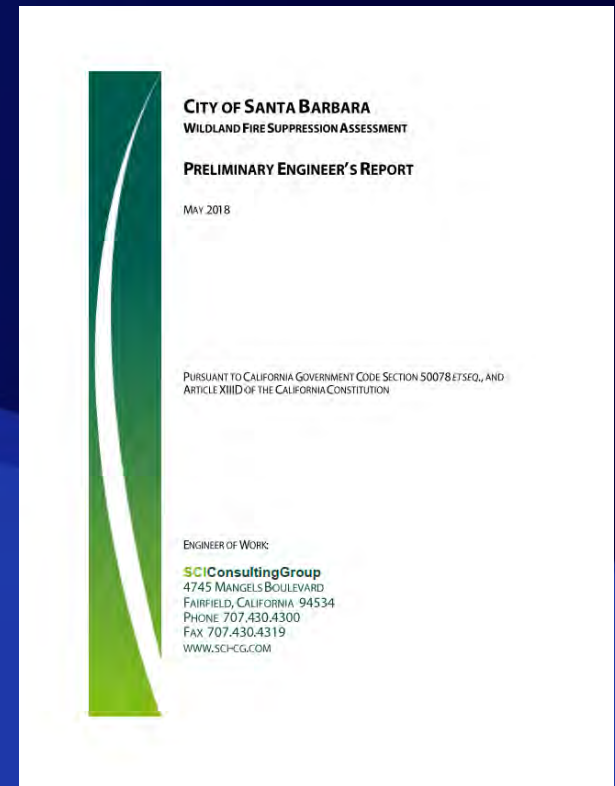
Renewal Process

- ◆ An Engineer's Report is required in the adopting resolution
- ◆ CPI Increase of 3.6%

Rate for 2018-2019:

\$82.20 per single family parcel-Foothill Zone

\$101.93 per single family parcel-Extreme Foothill





Projects

FY 2019

- Vegetation Road Clearance
- Chipping Services
- Voluntary Defensible Space Evaluations
- Complete Community Fuels Treatment Network vegetation management project




Assessing the Effectiveness of Fire Management Strategies in the Wildland Urban Interface: A City of Santa Barbara Case Study

A Group Project submitted in partial satisfaction of the requirements for the degree of Master of Environmental Science and Management for the Bren School of Environmental Science & Management

Prepared By: Nico Alegria, Juliana Matos and Sarah McCutcheon
Project Advisor: Dr. Sarah Anderson

April 2016



APPENDIX G – Letter and Brochure to California Association of Council of Governments

Implementing a Wildland Fire Suppression Assessment District

Dear California Association of Council of Governments,

As we enter our fifth year of the historic California drought, and with the fire season quickly approaching, it is necessary to take all precautions to protect the safety and wellbeing of your constituents. In an effort to protect your citizens, it may be in your city's best interest to implement a special assessment district that levies annual fees for enhanced and increased fire protection. The City of Santa Barbara is the first city in the country to implement such a district, and for the past nine years since voter approval it has shown great success. The fire department implements the district, and the funds raised from the district augment the yearly expenses, allowing for better fire protection of homes in the wildland urban interface. A multi-criteria analysis shows that your city would also benefit from a similar district due to its weather, topography, and demographics. For more general and Santa Barbara-specific information, please review the attached fact sheet.

Sincerely,

Nico Alegria, Juliana Matos, Sarah McCutcheon
Bren School of Environmental Science & Management

Assessing the effectiveness of fire mitigation strategies in the wildland urban interface

Group Members: Nico Alegria | Juliana Matos | Sarah McCutcheon Faculty Advisor: Dr. Sarah Anderson

Fire in California



While fires are a natural and necessary part of many healthy ecosystems, they can also be a destructive force when they impact human communities. Due to fire suppression, human disturbance, invasive pests, and climatic changes, fires in many areas now burn hotter and larger than they would have historically. Even fire-adapted ecosystems are threatened by the increasing fire intensity, and recent studies show that fire frequency and severity may increase with a warming climate.

Between 2004 and 2013, California experienced:
37,432 fires
1.6 million acres burned
\$4 billion lost from fires

City of Santa Barbara's Wildland Fire Suppression Assessment District

To mitigate the risks from wildland fire, the City of Santa Barbara Fire Department created a one-of-its-kind Wildland Fire Suppression Assessment District.

In exchange for a yearly fee of \$65, residents receive additional fire protection services, such as:

- Debris chipping
- Roadside clearance
- Defensible space inspections
- Vegetation management

Homes benefiting from the District fall within areas of high fire hazard.

FACT:

Defensible space is one of the top indicators for whether or not a home will survive a fire, making it an important service for residents to use.



Objectives

1. Determine the overall opinion of residents towards a fire mitigation special assessment district.
2. Assess the effectiveness of vegetation management methods.
3. Identify other cities that may benefit from a fire suppression district.

Determining Residents' Opinions

1

Approval of the District

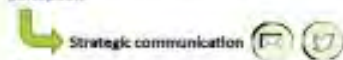
(Are you, as a resident of the District, in favor of the District?)



The resounding approval by residents of the special assessment district proves that there is vast potential for other cities to benefit from a similar fire mitigation program.

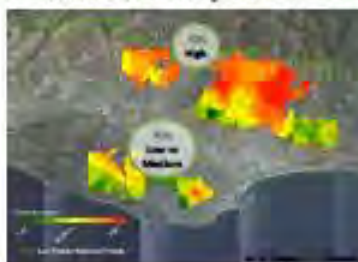
In fact, **72%** of survey respondents living within the District said that they believe the fire mitigation program creates a safer community.

We received survey responses from 480 residents in the District and 92 residents of the coastal areas. Both surveyed regions are classified as high fire hazard areas. 70% of residents in the District had high fire risk perception, while 70% of residents in the coastal areas had low or medium fire risk perception.



Strategic communication efforts such as mailings and social media outreach can help increase awareness of the true fire risks residents face while living in their neighborhoods.

Fire Risk Perception in High Fire Hazard Areas



2

Assessing Vegetation Management Effectiveness

Vegetation Management

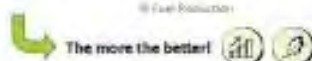
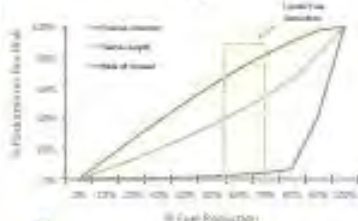


Flame Length (ft) Comparisons

| 5 mph (Standard winds) | | 60 mph (Santa Ana winds) | |
|------------------------|------|--------------------------|------|
| pre | post | pre | post |
| 17.5 | 9.6 | 50.2 | 17.2 |

Vegetation management reduces flame length even under Santa Ana conditions. Fuel removal returns flame length under Santa Ana conditions to baseline conditions pre-treatment, making firefighting efforts less challenging. This once again emphasizes the importance of defensible space around structures.

Relationship Between Fire Risk and Fuel Removal



The linearity of response to fuel removal indicates that more removal is better. In chaparral ecosystems, rate of spread is not affected until approximately 85% of fuel is removed. This highlights the importance of a quick response time by the fire department.

Finding Other Suitable Cities

3

Once we found that residents approve of the District and that it is successful in reducing fire risk, we conducted a **multi-criteria decision analysis** in ArcGIS to identify other cities that would benefit from a similar fire mitigation program. To do this, we used expert input to determine indicators that ensure suitability.

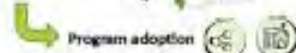
Indicators of Suitability:

- WUI - cities that fall within wildland urban interface
- Fire Frequency - cities with more frequent wildfire events
- Vegetation - cities with flammable vegetation
- Topography - cities with steep slopes
- LRAs - cities that are not a part of State Responsibility Areas to avoid double taxation



Top 10 most suitable cities:

1. Truckee
2. Mill Valley
3. Sonoma
4. Diamond Bar
5. San Luis Obispo
6. Fremont
7. San Diego
8. Chula Vista
9. Riverside
10. Oakland



Given the success of the unique Santa Barbara District, other cities should consider adopting Special Assessment Districts. The more cities that are protected, the better off California is.

Conclusions

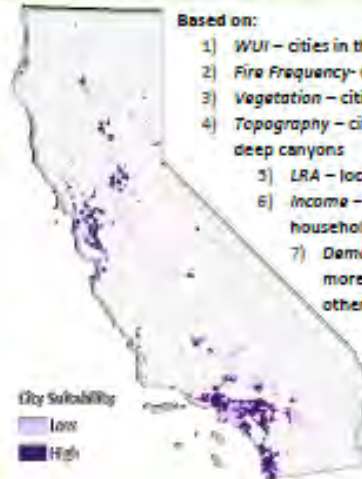
1. Effectively assessed the effectiveness of vegetation management methods.
2. Program that reduces fire risk and increases safety of residents.
3. Up to 80% reduction in fire risk and 80% reduction in fire risk.

Acknowledgements

We would like to thank the following people for making this project possible: Sarah Anderson, Ann Marx, Joe Poiré, Chris Braden, Pat McElroy, Bert Best, John Blum, John Ahlman and the Fire Safe Council.

Other Suitable Cities

| | |
|-----------------|---------------------|
| American Canyon | Napa |
| Anaheim | Novato |
| Antioch | Oakland |
| Azusa | Pacific |
| Brentwood | Palm Springs |
| Brisbane | Palmdale |
| Calistoga | Pasadena |
| Chico | Perris |
| Chino | Petaluma |
| Chula Vista | Pittsburg |
| Claremont | Pleasanton |
| Cloverdale | Rancho Cordova |
| Colton | Rialto |
| Concord | Richmond |
| Crescent City | Riverside |
| Cupertino | Sacramento |
| Diamond Bar | San Bernardino |
| Eastvale | San Diego |
| El Cerrito | San Francisco |
| Fairfield | San Jose |
| Fontana | San Luis Obispo |
| Fremont | San Rafael |
| Gilroy | Santa Barbara |
| Hayward | Santa Cruz |
| Heselsburg | Santa Rosa |
| Hercules | Saratoga |
| Jurupa Valley | Seaside |
| Lakeport | Sierra Madre |
| Lompoc | Sonoma |
| Los Angeles | South San Francisco |
| Los Gatos | St. Helena |
| Mammoth Lakes | Tracy |
| Marina | Truckee |
| Martinez | Union City |
| Mit Valley | Yacerville |
| Milpitas | Vallejo |
| Monrovia | Walnut |
| Monterey | Walnut Creek |
| Moreno Valley | Whittier |
| Morgan Hill | Windsor |
| Morro Bay | Woodside |



Based on:

- 1) *WUI* – cities in the wildland urban interface
- 2) *Fire Frequency* – cities with high wildfire events
- 3) *Vegetation* – cities with flammable vegetation
- 4) *Topography* – cities with steep slopes and deep canyons
- 5) *LRA* – local responsibility areas selected
- 6) *Income* – cities with >\$60,000 average household income
- 7) *Democratic leaning* – cities with more registered Democrats than other parties

IMPLEMENTING A FIRE MANAGEMENT DISTRICT

In compliance with Proposition 218, any new fee, assessment, levy, tax, etc. for a special assessment district must be approved by the constituents in the district. Unlike a tax, which requires two-thirds voter approval, only a majority vote, weighted proportionally for each property, is needed for a benefit assessment. To begin the process, a notice of the assessment is posted, and an assessment ballot is mailed to property owners within the district. There must be a 45-day return period, followed by a public hearing. If approved, the City Council takes action by a resolution to levy the assessment. After the initial vote, the City Council votes yearly for renewals. There must also be a public meeting to preliminarily approve a budget for the next year's costs and services, which are supported yearly by an engineer's report. The report must include the consumer price index adjustment, the new maximum authorized assessment rate, the yearly budget, and the amount to be charged to each parcel.

CONTACT INFORMATION

For more on the findings of this project, visit bren.ucsb.edu/~sbfire
 For more about Santa Barbara's Wildland Fire Suppression Assessment District, contact Chris Braden, 805-564-5737
 For more on how to get started on implementing a special assessment district, contact John Bliss, Vice President of SCI Consulting Group at 707-430-4300

**FIND YOUR CITY ON THIS LIST AND
 START THE JOURNEY TOWARD
 PROTECTING YOUR RESIDENTS
 FROM WILDFIRES!**

