

Using Fire-Resistant, Drought-Tolerant Landscaping to Reduce Wildfire Risk in Southern California

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Objectives

- Identify areas of high wildfire risk.
- Discuss landscaping solutions appropriate for these regions of risk.
- Provide recommendations to reduce fire risk while promoting sustainable land use, especially in new development areas.

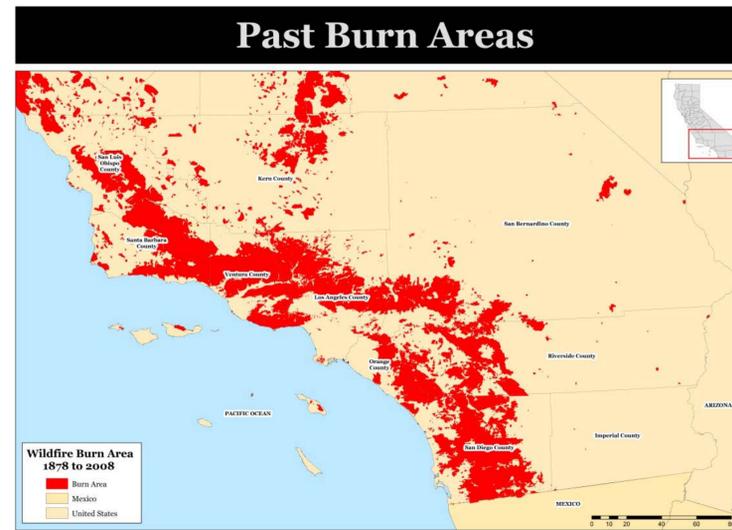
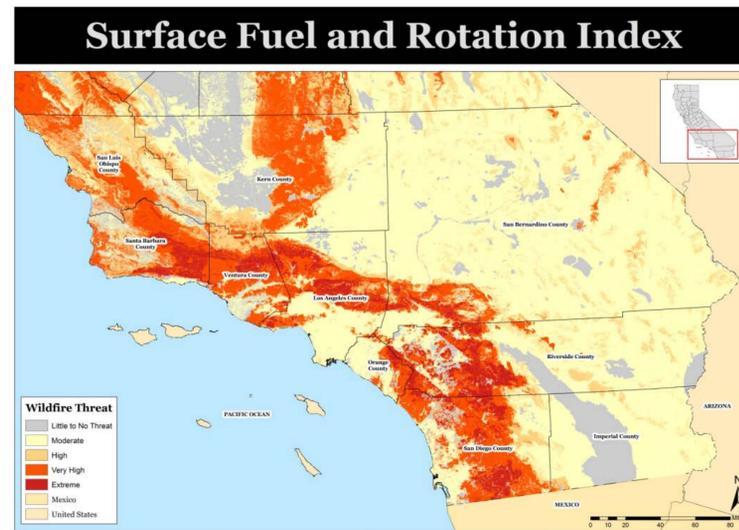
Background

- Wildfires are of particular concern in Southern California because of increases in their average size, frequency, and duration.
- Risk is accelerated due to growing development in the wildland-urban interface (WUI), the area where structures meet or intermingle with wildland.
- Changes in forest management and shifts in climate patterns have increased challenges in fighting wildfires.
- One means of reducing risk is to use fire-resistant landscaping, which includes plants that do not readily ignite or contribute to fire's intensity.
- Many fire-resistant plants are also drought-tolerant and native to Southern California, which promotes sustainability and environmental preservation.

Methods

- Data sources included: UCLA Mapshare; California Department of Forestry; U.S. Geological Survey; University of California; California Native Plant Society; Theodore Payne Foundation; and the U.S. Census TIGER/Line website.
- ArcInfo 10.3 were used to manage, process and analyzed spatial patterns between variables of interest; Excel was used to calculate and generate certain graphics.
- GIS data processing included: creating indices, aggregating attribute fields, selecting by attributes and locations, geoprocessing, and measurement.
- Literature search was used to obtain information on plant species.

Regions of Risk



Reducing Risk

Wildfire risk can be reduced by creating defensible space and hardening your home. SAFE (Sustainable and Fire Safe) landscapes use fire-resistant plants to reduce the spread of fire while conserving water, among numerous other benefits.

Groundcover



Ice Plant



Wild Strawberry



California Poppy

Shrubs



California Lilac



Monkeyflower



Sage

Trees



Coastal Live Oak



California Sycamore



Toyon

Results

- Most counties in Southern California have high to extreme wildfire threat with significant portions of each county burned by wildfire in the past century.
- Risk, however, can be decreased by creating defensible space and hardening the home with SAFE landscapes.
- SAFE landscapes use fire-resistant, drought-tolerant, native plants.
- Sustainable fire-safe, native plants grow slowly and maintain high levels of moisture.
- SAFE landscapes can increase property value through risk reduction and beautification while conserving water and providing habitat for wildlife.
- While SAFE landscapes reduce risk, nothing is fireproof, and "firescaping" should be used in combination with other preventive measure.

Discussion

- One means of reducing wildfire risk is to utilize fire-resistant landscaping, which includes plants that do not readily ignite and do not contribute significant fuel to a fire's intensity.
- A wide array of trees, shrubs, groundcover, and other plants are available to choose from that are both attractive and fire-resistant, such as California Poppy, California Lilac, and California Sycamore.
- Public education of the versatility of firescaping with SAFE plants is needed to help reduce wildfire risk.

References

- California Department of Forestry (2016). Prepare for wildfire. Available at: <http://www.readyforwildfire.org/get-ready/fire-safe-landscaping/>
- University of California Cooperative Extension (2009). S.A.F.E. Landscapes. Available at <http://ucanr.org/sites/safelandscapes/files/93415.pdf>
- The Metropolitan Water District of Southern California (2016). Fire-Resistant California-Friendly Plants. Available at: <http://www.bewaterwise.com/fire02.html>