

# DEFENSIBLE SPACE & FIREWISE TIPS

In August 2008 the City of Encinitas Fire Department was awarded a FEMA Fire Prevention and Safety Grant to develop a public education program to help Encinitas residents understand the importance of defensible space and how it can slow the spread of wildfires and save lives and homes.

The key elements of the project are two firewise gardens within the City of Encinitas; a defensible space miniature exhibit house and garden at San Diego Botanic Gardens and a firewise plant demonstration garden at Sun Vista Park.

This project was developed in partnership with San Diego Botanic Gardens and the Encinitas Parks and Recreation Department.

## SUN VISTA PARK, FIREWISE GARDEN

Located at 2011 Avenida La Posta, Sun Vista Park was selected for this project due to its proximity to Olivenhain which is an area that contains wildland/urban interface and its visibility from Rancho Santa Fe Road.

The park contains a firewise demonstration garden containing plants that are fire resistive. What is firewise?

Firewise plants:

- Are less likely to burn
- Or will burn less hot for less time
- Tend to be low maintenance, slow growth

Many of the plants in the firewise garden are also waterwise and California friendly, making them not only beautiful and safe but economical as well.

The following photos show Spring 2011 updates to the firewise garden at Sun Vista Park.



## SAN DIEGO BOTANIC GARDENS

The Defensible Space Exhibit House and Garden at San Diego Botanic Gardens is located adjacent to the existing firewise garden, just north of the Ecke Building. This unique project contains a miniature house that models fire resistive construction and the area around the house is landscaped with miniature plants to model good defensible space.

The miniature exhibit house is the cornerstone of the defensible space exhibit. It allows viewers to see the scale of defensible space needed around a home but it also models fire resistive construction.

San Diego Botanic Gardens is open daily, 9-5. Free admission is offered the first Tuesday of each month.

### FIRE RESISTIVE CONSTRUCTION

The main elements of fire resistive construction include:

- Class A (non-combustible roof) such as tile
- Boxed eaves with screens
- Metal screens on vents to prevent the intrusion of firebrands or embers
- Address numbers should be reflective and easily seen from the street
- Non combustible wall material such as stucco
- Dual pane or tempered glass windows
- Chimney covered with a spark arrestor
- Driveway should be wide enough for easy access by fire apparatus

The following photos show the development of the miniature exhibit house. The house is designed to withstand the elements as it will be in an outdoor environment. The house is made of construction grade materials and is expected to last for many years.



## DEFENSIBLE SPACE

The garden around the miniature house demonstrates the elements of defensible space within 100 feet of the home.

What is defensible space?

Defensible Space is the area around a structure where combustible vegetation that can spread fire has been cleared, reduced or replaced. This space acts as a barrier between a structure and an advancing fire. Defensible space provides room for firefighters to do their jobs. Your house is more likely to withstand a wildfire if grasses, brush, trees and other common forest fuels are managed to reduce a fire's intensity.

Immediate Zone (within 5 feet of your home)

- Clean roofs and gutters of dead leaves, debris and pine needles that could catch embers.
- Prune vegetation away from the roof, chimney and driveway.
- Move any flammable material away from wall exteriors – mulch, flammable plants, leaves and needles, firewood piles – anything that can burn. Remove anything stored underneath decks or porches

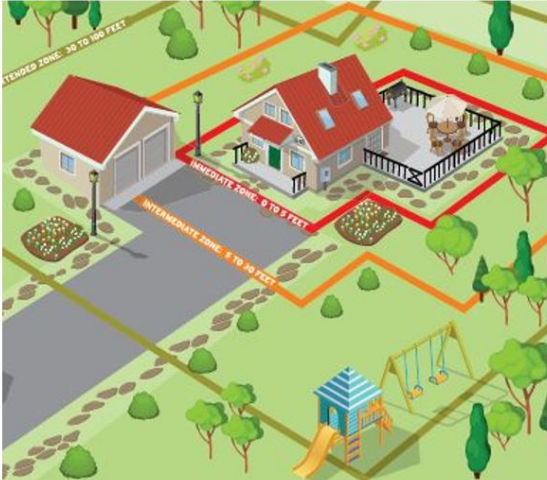
Intermediate Zone (5 to 30 feet of your home)

- Clear vegetation from under large stationary propane tanks.
- Create fuel breaks with driveways, walkways/paths, patios, and decks. Keep lawns and native grasses mowed to a height of four inches.
- Remove ladder fuels (vegetation under trees) so a surface fire cannot reach the crowns. Prune trees up to six to ten feet from the ground; for shorter trees do not exceed 1/3 of the overall tree height.
- Space trees to have a minimum of eighteen feet between crowns with the distance increasing with the percentage of slope.
- Tree placement should be planned to ensure the mature canopy is no closer than ten feet to the edge of the structure.
- Tree and shrubs in this zone should be limited to small clusters of a few each to break up the continuity of the vegetation across the landscape.

Extended Zone (30 to 100 feet from your home)

- Dispose of heavy accumulations of ground litter/debris.
- Remove dead plant and tree material.
- Remove small conifers growing between mature trees.
- Remove vegetation adjacent to storage sheds or other outbuildings within this area.
- Trees 30 to 60 feet from the home should have at least 12 feet between canopy tops.
- Trees 60 to 100 feet from the home should have at least 6 feet between the canopy tops.





This graphic provides a very simple illustration of how to create defensible space around your home through the use of management zones.

### Why create defensible space?

Proper management of defensible space dramatically increases the chance of a home surviving a wildfire and provides for firefighter safety as they defend structures.

The amount of defensible space around a home is directly related to a home's ability to survive wildfire.

### How do I create defensible space?

- Plant fire-resistant, irrigated landscaping in the first 30 feet of the 100 feet from your structure. These plants need to be maintained all year around.
- Keep natural vegetation in the remaining 50 feet of the 100 foot space. This would be the area furthest away from your structure. The plants need to be thinned and cut back to no more than 6 inches above the ground.
- You may need to do this several times a year since the plants grow back.
- Do not completely remove all vegetation which would leave the ground bare. Some vegetation is necessary to prevent erosion. When native vegetation is removed for fire control the bare soil is particularly vulnerable to soil erosion.
- Do not remove or disturb the existing plant root system to prevent any future erosion.
- Remove dead and dying vegetation.
- Trim trees that overhang or touch your structures.
- Properly irrigating plants will help prevent plants from igniting.

Trees and shrubs can be maintained by deep watering at least once a month for drought tolerant species and once a week for high water requiring plants.

Residents who live in the wildland urban interface are encouraged to visit the miniature exhibit house at Quail Botanical Gardens to see how defensible space can be created while maintaining an attractive garden.

