Santa Barbara City Fire Department
121 West Carrillo Street
(805) 564-5702

City of Santa Barbara
Fire Prevention Bureau

High Fire Hazard Area Landscape Guidelines

Ordinance #5257

The following landscape guidelines should be utilized to incorporate fire resistant landscaping on all parcels within the High Fire Hazard area. The guidelines meet the requirements for the Fire Department "Minimum Brush Clearance Standards," per Appendix IIA of the California Fire Code (2001 Edition), as adopted by Ordinance #5257. These standards apply to all parcels within the High Fire Hazard area (See "Minimum Brush Clearance Standards" handout). Fire resistant landscaping with proper plant spacing and maintenance can impede the progress of a wildfire, reduce its intensity, and provide a safe buffer to protect a structure.

Incorporation of the High Fire Hazard Area Landscape Guidelines into the review process will assist the City in complying with existing regulations for vegetation modification, balance the aesthetic beauty of our area, protect our resources, and reduce the risk associated with wildfire and habitat resources.

Guidelines

Landscape plans submitted for review shall include the following:

- A vegetation plan that details existing native vegetation with species name and locations.
- Include on the vegetation plan which plants will be removed or retained.
- Include the method used to remove vegetation (for example: mechanical or hand cutting).
- Landscape plans should include new plantings with species name and specific location of plantings to scale.
- Recommendations for plant placement should be followed as outlined in Table 1.
- Landscape plans must delineate landscape zones around all structures for a distance of 100 feet as follows:

  Zone 1 - (0-30 feet from structure)
  Zone 2 - (30 to 50 feet from structure)
  Zone 3 - (50 to 70 feet from the structure)
  Zone 4 - (70 to 100 feet or greater from the structure)

All landscape plant species must be fire resistant (See enclosed Desirable Qualities for Fire Resistant Landscape Plants, Table 2). Certain plant species are considered to be undesirable in the High Fire Hazard area landscape. The enclosed list of Undesirable Plant Species (Table 3) should not be planted within 100 feet of any structure, unless listed otherwise.

Slopes over 20% are at increased risk from wildfire, therefore the Fire Department recommends additional vegetation modification for a total distance of 150-200 feet from any structure.

Many homes in the High Fire Hazard area do not have the space surrounding their property to obtain the 100-foot clearance. Using the above zone concept becomes critical on these properties.

Table 1: Recommendations for Plant Placement

ZONE 1 0 – 30 feet	This area is closest to a structure. It provides the best protection against the high radiant heat that result during a wildfire. Plants should be low growing, irrigated plants. Focus should be on ground covers not more than 12 inches in height or succulents. Use non-flammable materials for paths, patios, and mulch. Trees should not be planted closer than 15 feet from a structure.
ZONE 2 30 – 50 feet	Maintain a reasonably open character in this area. Plant low growing ground covers and succulents resistant to fire. Shrubs up to 3 feet can be planted but should have at least 18 feet spacing between other shrubs or other trees. Shrubs can be planted in clusters not more than 10 feet in diameter, but should have at least 18 feet between clusters. Do not plant shrubs underneath canopy of trees. Trees should be spaced at least 30 feet apart to prevent crowns from touching once fully grown.
ZONE 3 50 – 70 feet	This area should have native and Mediterranean plantings that require irrigation and should not be higher than 4 to 6 feet. Shrubs should be spaced at least 18 feet away from each other. Shrubs can be planted in clusters not more than 10 feet in diameter, but should have at least 18 feet between clusters. Trees should be spaced at least 30 feet apart to prevent crowns from touching once fully grown.
ZONE 4 70 – 100 feet or greater	This zone is furthest from the structure. Plantings once established need no irrigation. There is no limit to height. Shrubs planted in this area should have 18 feet spacing or be planted in clusters with at least 18 feet spacing. Trees can be planted in groups or with individual spacing at least 30 feet from other trees.
SLOPES > 20%	If additional vegetation modification is required on slopes over 20% vegetation should be reduced through thinning of existing plants, pruning, removal of dead material, and removal of fire ladders (Fire ladders exist if a fire's flames can spread from the ground into shrubs and trees up to a house).

TABLE 2 - Desirable Qualities for Fire Resistant Landscape Plants

Plant qualities that are desirable for fire resistant plants are:

- Ability to store water in leaves or stems.
- Produces limited dead and fine material.
- Extensive root systems for controlling erosion.
- Plant has high levels of salt or other non-resinous compounds within its tissues that can contribute to fire resistance.
- Ability to withstand drought.
- Plants that are low growing in form.
- Ability to withstand severe pruning.
- Low levels of volatile oils or resins.
- Ability to resprout after a fire.

Table 3: Undesirable Plant List

Certain plants are considered to be undesirable in the landscape due to characteristics that make them highly flammable. These characteristics can be either physical or chemical. Physical properties would include large amounts of dead material retained within the plant, rough or peeling bark, and the production of profuse amounts of litter. Chemical properties include the presence of volatile substances such as oils, resins, wax, and pitch. Certain native plants are notorious as species containing these volatile substances.

Plants with these characteristics should not be planted in High Fire Hazard areas. They are referred to as target species since their partial or complete removal is a critical part of hazard reduction. The following is a list of plants that should be avoided within the landscape zones defined in Table 1.

Undesirable Plant Species

Natives	Domestics
Adenostoma fasciculatum – Chamise	*Acacia* species
Adenostoma sparsifolium – *Red Shank*	*Casuarina* species - Beefwood
Artemesia californica – California Sagebrush	*Cortadera* species – Pampas Grass
Baccharis species (low growing form OK)	*Cupressus* species – Cypress
Eriogonum faciculatum – Common Buckwheat	*Eucalyptus* species – Eucalyptus
Olneya tesota - Iron wood	*Juniperous* species – Juniper (except species which grow less than 1 foot)
	Melaleuca species
	Pennisetum - Fountain Grass
	Pinus species – Pine
	Schinus molle – California pepper tree (within 50 feet of structure)

Other plants may be considered undesirable because of their ability to naturalize and become a pest. These types of plants should be avoided, especially in sensitive riparian or coastal areas where they could become established and compete with native vegetation.

On steep slopes care should be taken to avoid erosion problems created or enhanced by vegetation removal. Deep rooted ground covers and landscape plants should be utilized to hold soil in place. Avoid shallow rooted ground covers. For example, iceplant while an effective ground cover on flat surfaces would be undesirable on a steep slope because its shallow rooted nature may increase erosion when the root zone becomes saturated during heavy rains, exposing bare soil. In areas where target species compromise the total vegetation, partial removal is recommended to obtain Fire Department "Minimum Brush Clearance Requirements."