

TIBURON FIRE PROTECTION DISTRICT



Developed by: Marin County Fire
Prevention Officers

Approved by: *[Signature]*
Richard Pearce, Fire Chief

Fire Protection Standard 220

VEGETATION MANAGEMENT PLAN

Date: 8-21-2017

Revision: 10-05-2022

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PREFACE

Included in Standard 220, 220-A, and 220-B are the requirements for preparing and submitting a Vegetation Management Plan (VMP). Standard 220 has been developed collaboratively with Fire Departments and Fire Districts throughout Marin County with the intent of providing a comprehensive and consistent application of regulations outlined in the California Code of Regulations Title 24, Part 9 (California Fire Code), Government Code, Title 5, Division 1, Part 1, Chapter 6.8, Section 4290 and 4291 of the Public Resources Code, Appendix A of the International Wildland Interface Code and locally adopted ordinances.

Please contact the Fire Prevention Bureau if you have any questions or require clarification.

WHAT IS A VEGETATION MANAGEMENT PLAN?

A Vegetation Management Plan (VMP) is the assessment of your properties fire hazard related to topography, aspect and vegetation, a proposal for mitigation of those hazards, and a prescriptive plan for future maintenance and care of the area surrounding your home.

Components of your VMP may include, but not be limited to: identification of hazards, survey of vegetation, proposed modification of hazards and vegetation, reduction and/or removal of fuels, fire safe landscaping, creating defensible space, shaded fuel breaks, fire breaks, maintenance of access and egress components, and other prescriptive measures needed to mitigate the hazards of wildfire.

WHEN IS A VMP REQUIRED?

A Vegetation Management Plan (VMP) is required for all new homes and structures, subdivisions, and any buildings that are undergoing substantial remodel or modifying landscape including new plantings, modifications to existing plantings and/or excavation that are located within the Wildland-Urban Interface as defined by the Tiburon Fire Protection District.

ADJACENT PROPERTY

In the event minimum required defensible space crosses property lines, the property owner will be required to obtain a "defensible space easement" from the adjoining property owner. If this cannot be obtained, the proposed structure may be required to be re-sited or other feasible mitigation measures shall be required to reduce the risk of ignition or spread of wildfire to the structure(s).

For existing structures, additional fire protection measures may be required to mitigate a reduction in the required defensible space. To provide maximum wildfire protection for your home, a combination of near-home vegetation management, appropriate building materials, and related design features must be used.

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If the property for which the VMP is being prepared is adjacent to Open Space land owned publicly or privately, make note of this fact in the VMP. You may be required to submit the VMP to the owner for review. Any limitations set by the Public or Private land owner, shall be incorporated into your proposed VMP.

DEFINITIONS

Defensible Space

Defensible space is the buffer you create and maintain between buildings, structures of access points on you property and vegetation including grass, trees, and shrubs.

Home Ignition Zone

Another term used in the context of defensible space planning is the "Home Ignition Zone" or HIZ. The HIZ reduces a home's ignition potential based on the proximity to available fuel types within 100 feet or more from a home. <http://www.firesafemarin.org/defensible-space>.

Immediate Zone (ZONE 0): 0'-5' The Immediate Zone extends 0-5' from your house. It's the area closest to your house, including the structure itself, decks, outdoor furniture, and the outside walls and coverings. This area is most vulnerable, and should be most aggressively maintained for fire resistance.

Intermediate Zone (ZONE 1): 5'-30' The Intermediate Zone from 5' to 30' out from buildings, structures, decks, etc. Keep this area "Lean, Clean, and Green" and employ careful landscaping to create breaks that can help influence and decrease fire behavior.

Extended Zone (ZONE 2): 30'-100' The extended zone from 30' to 100' (up to 200 feet, if required due to steep slopes, nearby vegetation conditions, and/or your local fire department). The goal here is not to eliminate fire but to interrupt fire's path and keep flames smaller and on the ground.

Access Zone (Zone 3): 0'-10' The access zone extends 10 feet horizontally from the edge on either side of the road or driveway and shall not extend within the 15 foot vertical clearance above the surface of the roadway or driveway, as required for emergency access. All landscape shall meet the requirements for separation as stated in the Zone 1 above.

Fire Safe Landscaping

Fire safe landscaping uses fire-resistant designs and materials in conjunction with carefully selected plants, to strategically resist the spread of fire to your home. For more information please visit <http://firesafemarin.org/create-a-fire-smart-yard/>.

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WHAT IS REQUIRED TO BE INCLUDED IN THE VMP?

At a minimum, the VMP shall contain the information listed below:

SITE PLAN- The site plan shall include the following:

1. Site plans shall be drawn to a conventional scale.
2. The name, address, and phone number of the plan preparer shall be included on the plans.
3. A vicinity map shall be shown on the site plan that clearly shows the subject property and surrounding roads.
4. The site plan must show all existing and proposed lot lines, labeled with their metes and bounds, open space, and the boundaries of existing and proposed easements and rights of way.
5. The footprints of all existing and proposed structures and buildings on the subject property must be indicated and drawn to scale.
6. Their use, location, and setbacks to all property lines must be indicated.
7. The minimum setbacks from the exterior walls of the buildings to each HIZ must be dimensioned on the plans.
8. The footprint of existing structures on adjacent properties within the extended 100' HIZ (Zone 3) up to 200 feet, if required due to steep slopes, nearby vegetation conditions, and/or your local fire department.

NARRATIVE- Vegetation Management Plan "Narrative" shall describe:

1. The existing property conditions including existing plants/shrubs/trees and hardscape.
2. The proposed scope of the work.
3. A disclaimer for future plantings.
4. The description and requirements for all Home Ignition Zones (Zone 0 -Zone 3).
5. A description of long-term maintenance and safety practices.
6. (Please see Standard 220-A for example language).

GRAPHIC PLAN- The plan sets shall be required to include the following graphic detail:

1. All building(s), structure(s), property lines, and access/egress roads or driveways. The plan shall graphically indicate the extents of each home ignition zones (Zones 1,2 & 3).
2. The location and configuration of existing plants/shrubs/trees.
3. The location of the existing plants/shrubs/trees planned to be removed and/or modified.
4. The location and configuration of plants/shrubs/trees to be planted.
5. The location and type of mulches and ground cover material (organic and inorganic).
6. (Please see Standard 220-B for a plan example)

ADDITIONAL INFORMATION

1. The plan shall include a schedule/list of plants to be used and/or retained including their common and scientific name as well as the expected height and width for mature growth.
2. The plan shall include a schedule/list of fire prone plants. See Standard 220-B for an example

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of a plant list.

3. Irrigation details, if applicable. Remember, while all plants will eventually burn, healthy plants with high moisture content will be more difficult to ignite.

PERMIT APPLICATION & REVIEW

Please provide (3) complete plan sets. Plans shall be submitted to the Tiburon Fire Protection District for review. *Note, contact your local Fire Prevention Bureau to identify digital plan submittal requirements.*

Tiburon Fire Protection District permit application with required fees. Landscape plans will be deemed incomplete if they fail to meet the minimum submittal information required by this standard.

The VMP shall be submitted to the Fire Code Official for review prior to implementation. The VMP shall include line drawings and a text narrative describing specific and applicable contributing factors in the selection and design of the plan.

Once approved, the required VMP mitigation shall begin prior to construction. All work prescribed in the VMP shall be complete prior to the completion of the project and request for clearance of final fire holds.

Exceptions to requirements set forth in this Standard shall be at the discretion of the AHJ.

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The following information is provided to assist you in the evaluation of the vegetation on your property, and creating a vegetation management plan and narrative for plan submittal. Please note all properties are different and may require additional details or explanation. Please consult with you Fire Department or District to identify specific detail requirements for your property/project. See Standard 220 for requirements, intent, and definitions and Standard 220-B for an example VMP graphic plan.

REQUIREMENTS AND PRESCRIPTIONS PER ZONE

The following information will help identify prescriptive measures in each of the Home Ignition Zones. The VMP shall identify compliance with the requirements for each zone. Check with your local fire department or district for any additional defensible space or weed abatement requirements. FIRE SAFE MARIN and the NFPA Firewise USA Program are great resources for additional design information.

Immediate Zone (ZONE 0): 0'-5'

The Immediate Zone extends 0-5' from your house. ZONE 0 is the area closest to your house, including the structure itself, decks, outdoor furniture, and the outside walls and coverings. This area is most vulnerable, and should be most aggressively maintained for fire resistance.

- Remove any combustible outdoor furniture. Replace jute or fiber doormats with fire resistant materials.
- Remove or relocate all combustible materials, including garbage and recycling containers, lumber, trash, and patio accessories.
- Clean all fallen leaves and needles regularly. Repeat often during fire season.
- No vegetation of any kind is allowed within 5' of structures.
- Remove tree limbs that extend into this zone. Fire-prone tree varieties should be removed if they extend within 5' of structures.
- Do not store firewood, lumber, or combustibles here, even (especially) under decks or overhangs.
- Move stored combustibles inside, or at least 30' away from structures.
- Use only inorganic, non-combustible mulches such as stone or gravel within 5' of any structure.

Intermediate Zone (ZONE 1): 5'-30'

The Intermediate Zone from 5' to 30' out from buildings, structures, decks, etc. Keep ZONE 1

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"Lean, Clean, and Green" and employ careful landscaping to create breaks that can help influence and decrease fire behavior.

- Remove all dead plants, grass, and weeds (vegetation).
- Remove dead or dry leaves and pine needles from your yard, roof and rain gutters.
- Trim trees regularly to keep branches a minimum of 10 feet from other trees.
- Remove branches that hang over your roof and keep branches 10 feet away from your chimney.
- Cut and remove growth less than 3-inches in diameter, from the ground up to a height of 10 feet, provided that no crown shall be raised to a point so as to remove branches from more than the lower one-third of the tree's total height.
- When required by the Fire Code Official, cut and remove trees that are 6" of diameter or less at breast height, or four feet, six inches above ground, to achieve canopy separation within 30 feet of the structure.
- Remove vegetation and items that could catch fire from around and under decks.
- Create additional separation between trees, shrubs and items that could catch fire, such as patio furniture, wood piles, swing sets, etc. Provide adequate spacing between all plants. Ladder fuels shall be removed from within 30' of any structure.
- Remove fire-prone plants, and choose only fire-resistant varieties. Irrigate regularly.
- Use only fire resistant inorganic mulches. "Gorilla Hair" or similar shredded bark mulch shall be removed in this zone. Composted mulch and large bark and chips (greater than 1/2" diameter) may be OK.

Extended Zone (ZONE 2): 30'-100'

The extended zone from 30' to 100' (up to 200 feet, if required due to steep slopes, nearby vegetation conditions, and/or your local fire department). The goal here is not to eliminate fire but to interrupt fire's path and keep flames smaller and on the ground. This zone should include at a minimum:

- Cut or mow annual grass down to a maximum height of 4 inches.
- Create horizontal spacing between shrubs, trees and vertical spacing between grass, shrubs and trees.
- Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 3 inches if erosion control is an issue.

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Access Zone (ZONE 3): 0'-10'

Extends 10 feet horizontally from the edge on either side of the road or driveway.

- Within this zone, plantings shall be fire resistant and shall not extend within the 14 foot vertical.
- Clearance above the surface of the roadway or driveway, as required for emergency access.
- All landscape shall meet the requirements for separation as stated in the Zone 2 above.

VEGETATION MANAGEMENT PLAN: PLANT LIST

FIRESafe Marin maintains a list of approved fire resistant plants at www.firesafemarin.org/plants. Other plant species not listed or named shall require approval by the Fire Code Official. All VMP's shall include a legend/list of all plants that exist, plants that will be added, or will be removed as part of the VMP process.

EXAMPLE OF A PLANT LIST

Symbol	Common Name	Latin Name	QTY	Fire Resistant	Type	New or Existing	Remarks
DIE IRI	Fortnite Lily	<i>Dietes iridioides</i>	10	Yes	Perennia /	Existing	Prune
ECH SEC	Hen and Chicks	<i>Echevaria secunda</i>	25	Yes	Perennia /	New	Irrigated
Car Cal	Brush Anemone	<i>Carpenteria californica</i>	5	Yes	Shrub	New	Irrigated
Coy Bsh	Coyote Brush	<i>Baccharis spp</i>	10	No	Shrub	Existing	Remove
Bamb	Bamboo	<i>Bambusa spp</i>	20	No	Hedge	Existing	Remove
Jun	Juniper	<i>Juniperus communis</i>	10	No	Shrub	Existing	Remove
Cyp	Cypress species	<i>Cupressus</i>	5	No	Tree	Existing	Remove

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VEGETATION MANAGEMENT PLAN NARRATIVE

The following “example” narrative language is provided to illustrate typical language and details that shall be included in your plan. Please note all properties are different and may require additional details or explanation.

1. Existing Conditions

- a. There are currently mature coast live oaks, redwood trees, eucalyptus trees and a few other miscellaneous native shrub species located throughout the property.

2. Proposed Scope

- a. The intent of this plan is to properly maintain the mature live oak and redwood trees with selective pruning and removal of all dead material per Firewise standards. The eucalyptus trees will be removed. Fire prone species including scotch broom and juniper will be removed. The existing shrubs will be thinned or removed to provide a firebreak from 0’- 30’ from the home.

3. Future Planting

- a. Any future plantings throughout the site will include fire-resistant, irrigated shrubs, perennials, and ground covers as in the FIRESafe MARIN planting lists located at <https://firesafemarin.org/create-a-fire-smart-yard/plants/>

4. Long Term Maintenance Schedule and Safety Practices

- a. All fire prone fuels and dead material will be removed within 100’ of the home.
- b. Remove branches beneath large trees for a 6-foot minimum clearance.
- c. Needles and leaves and other combustible debris and litter shall be removed from roofs and gutter at minimum twice yearly.
- d. All weeds and grasses shall be cut regularly to a height of 4” or less.
- e. Vegetation shall be trimmed to within 10’ horizontally of roadways, and trees shall be trimmed as not to overhang roadways and provide 15’ of clearance vertically.
- f. All dead and dying vegetation shall be removed seasonally to reduce vegetation volume and ladder fuels.
- g. Coordinate with adjacent property owners to maintain tree canopies, vegetation and ladder fuels on an annual basis.
- h. No native grasses shall be planted within Home ignition zones 1 and 2.
- i. All planted areas inside Home ignition zones 1 and 2 shall be irrigated.

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- j. All plantings shall be selected in coordination with the FIRESafe MARIN planting list located at <https://firesafemarin.org/create-a-fire-smart-yard/plants/>. Other fire resistant plants can be utilized with prior approval of the Fire Code Official.
- k. Regardless of plant selection, shrubs shall be spaced so that no continuity exists between ground fuels and tree crowns, such that a ground fire will not extend into the tree canopy.
- l. Defensible space shall be maintained for the life of the property in accordance with the approved Vegetation Management Plan and shall be amended as changes occur based on local findings and/or state requirements. Any changes, additions, and/or modifications to the existing approved Vegetation Management Plan shall require resubmission and approval by the AHJ.

Design Information Resources

FIRESafe MARIN

FIRESafe MARIN (FSM) is Marin County's Fire Safe Council. FSM promotes public and private partnerships to enhance wildfire safety and build Firewise Communities. FSM is a nonprofit organization with the dual mission of reducing wildland fire hazards and improving fire-safety awareness in Marin County. FSM maintains a wealth of fire preparedness information including fire resistant plant listing, defensible space information, living with fire resources, emergency planning information, and home hardening tips. <https://www.firesafemarin.org/preparedness>

National Fire Protection Agency (NFPA), Firewise USA

NFPA's Firewise USA program teaches people how to adapt to living with wildfire and encourages neighbors to work together and take action now to prevent losses. Information includes details for homeowners to prepare their homes to withstand ember attacks and minimize the likelihood of flames or surface fire touching the home or any attachments. <https://www.nfpa.org/Public-Education/By-topic/Wildfire/Preparing-homes-for-wildfire>

VMP PLANT LIST

VEGETATION MANAGEMENT PLAN

Plant	Common Name	Latin Name	DBH	Height	Spread	Notes
Red Oak	Quercus rubra	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
White Oak	Quercus alba	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
Black Oak	Quercus nigra	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
Pin Oak	Quercus palustris	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
Live Oak	Quercus virginiana	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
Swamp White Oak	Quercus bicolor	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
Water Hickory	Cornus amomum	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
Black Gum	Nyssa sylvatica	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
Red Maple	Acer rubrum	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
White Maple	Acer saccharum	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
Black Maple	Acer nigrum	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
Red Maple	Acer rubrum	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
White Maple	Acer saccharum	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
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Red Maple	Acer rubrum	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
White Maple	Acer saccharum	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
Black Maple	Acer nigrum	12-14"	25-30'	20-25'	20-25'	Zone 1 (0-10')
Red Maple	Acer rubrum	12-14"	25			