



Appendix E: Valley's Edge Oak Woodland Mitigation and Management Plan

Appendix E - Oak Woodland Mitigation and Management Plan

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E.1 Introduction

A foundational element of the Valley's Edge Specific Plan (VESP) vision is the preservation and protection of Oak Woodlands. The preservation, conservation, and incorporation of Oak Woodlands enhances the scenic beauty of the Plan Area, as well as encourages quality and thoughtful site design, prevents soil erosion and counteracts pollution in the air, while maintaining the climatic balance and biodiversity of the City and its surrounding area. Conservation of Oak Woodlands in Valley's Edge extends beyond the City's Tree Preservation Regulations (Chico Municipal Code [CMC] Section 16.66). The VESP Oak Woodland Mitigation and Management Plan (Plan) provides the framework for conservation, surveying, management, education, care and maintenance, replacement, and regeneration. In establishing these regulations, it is the intent of the Valley's Edge Specific Plan (VESP) to preserve the maximum number of trees possible, with the reasonable use and enjoyment of private property, and to provide for a healthy urban forest that will absorb carbon dioxide, helping reduce urban impacts on global warming.



On-site Heritage Oak Woodland to be designated

Because of this, the Project has been designed to first; avoid approximately 80 percent of the estimated 5,500 trees within the VESP area as identified in the Oak Woodland survey, and second: to preserve those trees by incorporating them into permanent, connected open space by the Project Land Use Plan (Figure 4.1). The remaining 20 percent of the existing trees, 'living environment trees', are accommodated in the Plan Area by being incorporated into parks, common areas, neighborhoods and the built environment or mitigated. Further, programs implemented after occupancy include providing opportunities to educate residents with interpretive panels at key gathering spots, trail heads, and other focal points or open space areas.

The Homeowner Association (HOA) will own and be responsible for the maintenance of the creekside greenway, linear and neighborhood parks and other open space areas. As such, the HOA will play a leading role in the maintenance and management of the Oak Woodlands, while also facilitating the collection and germination of new oak trees and educating residents and property owners on how to maintain and care for the tree resources.

E.2 Valley's Edge Oak Woodland Mitigation and Management Plan

The VESP Oak Woodland Mitigation and Management Plan (Plan) provides additional framework for the conservation of Oak Woodlands within the Plan Area beyond the City's Tree Preservation Regulations (CMC Section 16.66). By design, the VESP Land Use Plan preserves roughly 80 percent of the Oak Woodlands in permanent open space, enabling the HOA to implement programs for ongoing maintenance, acorn harvesting, and tree replacement and mitigation, as well as leading the educational programs related to tree care. This also includes participation in the CMC pertaining to designated Heritage Trees.



The VESP Oak Woodland Mitigation and Management Plan incorporates most all applicable elements from the existing regulations found in CMC Section 16.66 and expands upon and clarifies such requirements in a manner tailored to the VESP's natural landscape.

E.3 Applicability

This Plan shall apply to all planning entitlements and initial development of principal structures through the first certificate of occupancy on each parcel within the VESP area . Each phase of the project shall demonstrate compliance as incremental development occurs. Plans for each phase shall include the following:

1. All trees within 50 feet of the limits of grading, staging, or other ground disturbance for subdivisions and other land use entitlements affecting one acre or more.
2. For linear projects, such as a roadway, all trees within a half-width of the right-of-way on each side of the roadway.
3. All trees within 25 feet of development areas which are less than one acre in size, such as building permits for single-family homes.
4. A brief statement of the reason for removal.
5. A tree removal permit fee in amount established by resolution by the City Council to cover the cost of permit administration. An additional deposit may be required by the Director to retain a Certified Arborist or Registered Professional Forester to assist the City in assessing the condition of the tree(s).
6. After initial development and establishment of permanent uses, the HOA will assume the responsibility for tree management in open space areas, private landowners will manage their trees with HOA oversight, and the HOA will manage private street trees with oversight by City Public Works.

E.4 Exemptions

The following shall be exempt from the Plan:

1. Fire Safe Activities: Tree removal by Valley's Edge Home Owners Association, subject to approval of the Community Development Director of the City of Chico, or the Department of Forestry and Fire Protection (Cal Fire) or other public agency to reduce wildfire risks.
2. Emergency Operations: Any tree removal associated with emergency response operations.
3. Dead, Dying, At Risk, and/or Diseased Oak Trees. Individual tree(s) are exempt from mitigation and replanting requirements when a tree is determined to be dead, or a tree is determined to be dying or diseased in conjunction with exhibiting a high failure potential, as documented in writing by a Certified Arborist or Registered Professional Forester. Project plans shall show these trees with exemption notations, subject to final approval by the relevant review authority.
4. Open space areas, for the purpose of providing of trail access, trailhead signage/kiosks, benches or seating areas, coordinated with the Community Development Director of the City of Chico.



E.5 Definitions

For the purposes of the Valley's Edge Oak Woodland Mitigation and Management Plan:

Arborist. A Certified Arborist is registered with the International Society of Arboriculture, or a member in good standing with the American Society of Consulting Arborists.

Critical Root Zone. Critical Root Zone or "CRZ" means a circle on the ground that corresponds to the dripline of the tree canopy, which can be irregular in shape.

Damage. Damage means:

1. **Minimal Damage:** means any intentional action or gross negligence which causes injury to or disfigurement of a tree that will not result in the destruction of the tree, as certified by the urban forest manager or an arborist.
2. **Major Damage:** means any intentional action or gross negligence which causes injury to, disfigurement, destruction, or effective removal of a tree as certified by the urban forest manager or an arborist.

Development. Any improvement of real property which requires the approval of grading permits, building permits, encroachment permits, parcel or tentative subdivision maps, planned development permits, or use permits.

Diameter at breast height. Diameter at breast height or "DBH" is the diameter of a tree at four and one-half feet above adjacent ground.

Director. Director is the director of the Community Development Department or their designee.

Drip line. The area within a circle defined by a radius measured from the trunk to the outermost branch, plus an additional 10 feet.

Effectively remove. Includes, but is not limited to, any extreme pruning that is not consistent with standard arboriculture practices for a healthy tree and that results in the tree's permanent disfigurement, destruction, or removal pursuant to this chapter.

Fire Safe Activities. Fire Safe Activities include fire prevention strategies and pre-fire management activities include establishing fuel breaks, fire safe landscaping, forest health treatment, removal of hazardous vegetation, inspections for fire safe clearance around homes and roadways, and post fire structure assessments.

International Society of Arboriculture (ISA). The ISA is a credentialing organization that promotes the professional practice of arboriculture and who have adopted standards and practices for tree care and maintenance.



Protect. The protection of an existing tree from damage and stress such that the tree is likely to survive and continue to grow normally in a healthy condition, through measures that avoid or minimize damage to branches, canopy, trunk, and roots of the tree. Such measures may include, but are not limited to, installation of tree protective fencing, mulching and watering of roots, supervision of work by an arborist, installation of aeration or drainage systems, root pruning, and use of nondestructive excavation techniques.

Remove / Removal. The cutting of a tree to the ground, extraction of a tree, or killing of a tree by spraying, girdling, damaging the roots of a tree, or any other means.

Tree. Tree or “trees” means any of the following:

- a. Any live woody plant having a single perennial stem of 18 inches or more in diameter, or multi-stemmed perennial plant greater than 15 feet in height having an aggregate circumference of 40 inches or more, measured at four feet six inches above adjacent ground;
- b. Any tree that meets the following criteria:

12-inch DBH or greater	6-inch DBH or greater
All Oaks (<i>Quercus</i>)	Blue oak (<i>Q. douglassii</i>)
Sycamores (<i>Platanus racemose</i>)	Canyon live oak (<i>Q. chrysolepsis</i>)
Oregon ash (<i>Fraxinum latifolia</i>)	Interior live oak (<i>Q. wislizenii</i>)
Big leaf maple (<i>Acer macrophyllum</i>)	California buckeye (<i>Aesculus californica</i>)
	Madrone (<i>Arbutus menziessii</i>)
	Toyon (<i>Heteromeles arbutifolia</i>)
	Redbud (<i>Cercis occidentalis</i>)
	California bay (<i>Umbellularia californica</i>)
	Pacific dogwood (<i>Cornus nuttallii</i>)

- c. Any tree or trees required to be preserved as part of an approved building permit, grading permit, demolition permit, encroachment permit, use permit, tentative or final subdivision map; or
- d. Any tree or trees required to be planted as a replacement for an unlawfully removed tree or trees.
- e. Tree or “trees” does not include the following tree species: Ailanthus, Chinese Tallow, Fremont Cottonwood or Poplar, Privet, Box Elder, Silver Wattle, Black Acacia, English Hawthorn, Russian Olive, Olive, Red Gum, Tasmanian Blue Gum, Edible Fig, English Holly, Cherry Plum, Black Locust, Peruvian Peppertree, Brazilian Peppertree, Western Catalpa, Chinese Elm or Winged Elm; or the following fruit and nut trees: Almonds, Apples, Apricots, Avocados, Cherries, Chestnuts, Mandarins, Nectarines, Olives, Oranges, Peaches, Pears, Pecans, Persimmons, Pistachios, Plums or English Walnuts.



E.6 Application

Prior to issuance of permits, the developer/applicant will prepare a Tree Protection Plan which will include the following information.

- 1. Tree Identification:** A plan identifying the trees to be removed and their location in relation to improvements shall be submitted. Trees within 50-feet of development and construction staging areas will be included on the Tree Protection Plan. The Tree Protection Plan will include a table that identifies the tree species, size, health, and any proposed removal or trimming associated with the proposed improvements.

Example Table:

Tree Number Description	Size and Type	Condition	Action	Reason for Removal
No. 1	14" - Blue Oak	Fair	Removal	Preservation of Rock Wall
No. 2	10" - Blue Oak	Fair	Trimming	Proximity of construction
No. 3	16" - Blue Oak	Good	Removal	Significant Reduction in Grading

- 2. Pre-Construction:** Prior to issuance of a grading permit, the contractor shall retain a Certified Arborist or qualified Forester and host an on-site pre-construction meeting. The meeting shall inform and educate all construction personal who are to be on-site of biological resources, including sensitive natural communities, protected trees that are to be retained and avoidance measures that are in place. Personal shall also be informed on the various construction techniques in place, such as construction barriers, avoidance and minimal compaction of root zones, and prevention of harming root systems, at a minimum. If new construction personnel are added to the Project, the contractor's superintendent will ensure that the personnel receive mandatory training before starting work.



On-site Heritage Oak Woodland to be designated

- 3. Construction:** Requirements below shall apply to development within the area. When grading and construction is to take place near trees that are proposed to be retained and incorporated into the built environment, the grading plan shall illustrate proposed grading standards, note any retaining walls, footings, locations of utilities, and/or other structures which could impact on-site trees. Preservation measures shall incorporate the following items, when appropriate:



- a. **Barriers:** When construction related activities are near a Critical Root Zone (CRZ) or a group of CRZs, a physical barrier or separation fencing shall be installed, such as construction fencing or hay bales. Such fencing will be brightly colored, sturdy and as far out from the trunk as possible to capture as much of the CRZ. Contractors shall be required to keep fencing intact and fenced areas shall remain clear of building materials, waste, and excess soil. If physical improvements and/or construction activities are proposed within the CRZ, a series of 2-inch x 4-inch lumber will be spaced around the tree trunk and secured with fencing to minimize trunk damage. If necessary, tree limbs will be trimmed and pruned from the trunk or crown in accordance to International Society of Arboriculture (ISA) standards so that branches are not unnecessarily damaged or broken during construction in a manner that could cause lingering issues for the tree.
 - b. **Compaction:** Compaction and changing of the existing grade should be avoided. If foot, vehicle traffic, and/or equipment activities cannot be kept out of the CRZ during construction, several actions shall be utilized, including:
 - Apply six (6) to 12 inches of chip mulch to the area of construction activity.
 - Laying a 3/4-inch thickness plywood or road mats with 4-inch thick layer of chip mulch.
 - Applying four (4) to six (6) inches of gravel over a taut, staked, geo-text fabric.
 - c. **Root Cutting:** A tree that is not slated for removal may have underground improvements near it. As such, tree roots may be exposed and may need to be removed or cut as part of the construction process. If underground improvements are necessary, they should first be designed as far away from the tree and the CRZ as feasible. When roots are discovered during excavation, the situation should be assessed to see if the root can be retained and the improvement installed. If a root must be cut, the cut should occur as far away from the canopy as possible and executed according with ISA standards. When encountering a root system that results in the removal of numerous large roots (typically two-inches in diameter or larger), retention of the tree should be re-evaluated.
 - d. **Drainage:** Oak trees are discouraged to be incorporated into landscaping that receives routine watering, such as lawn. When trees are incorporated into landscaping that receives frequent and routine watering; long, slow soaking over the entire root zone is preferred.
- 4. Removal:** At the time of application submittal for specific entitlements (discretionary or ministerial), the Community Development Director (Director) or their designee shall inspect the property and evaluate each application to determine the number of trees that are proposed to be removed from the given entitlement (subdivision, commercial, office etc. project) or improvement (roadway, bicycle path, park etc.). Approval to remove trees coincides with the approval of the entitlement, improvement or other application with no additional permitting process necessary. In the event that it becomes necessary to remove additional trees during development, the developer shall inform and obtain approval from the Director, and the associated number of replacement trees or other form of mitigation shall be adjusted accordingly.



5. Replacement: Mitigation to oak resources in the Plan Area shall be addressed with the following replacement options and shall occur at a ratio as identified in the table below.

- a. On-Site: For every six inches of DBH removed, a new planting shall be installed on site as noted at replacement ratio noted in the Oak Tree Replacement Quantities Table. Replacement trees shall be of similar species, unless otherwise approved by the Director or their designee, and shall be placed in areas dedicated for tree plantings such as open space corridors, gateway areas, center medians, parks, and recreational areas. New plantings' survival shall be ensured for three years after the date of planting and shall be verified by the applicant upon request by the Director. If any replacement trees die or fail within the first three years of their planting, then the applicant can either pay an in-lieu fee as established by a fee schedule adopted by the City Council, inquire with the Homeowner Association (HOA) to see if any regeneration tree credits are available, or provide a replanted tree in place of the dead or failed tree. Off-site. If it is not feasible or desirable to plant replacement trees on site, payment of an in-lieu fee as established by a fee schedule adopted by the City Council shall be required.
- b. Off-site. If it is not feasible or desirable to plant replacement trees on site, payment of an in-lieu fee as established by a fee schedule adopted by the City Council shall be required
- c. Regeneration Banking: The HOA will be responsible for harvesting acorns, germinating, and planting new Oak Woodland stock. This bank of new tree inventory will allow for required replacement trees to be credited for trees that do not survive their initial first three years.

Oak Tree Replacement Quantities Table:

Number of Trees Required Per 6-Inch of Trunk Diameter Removed	Replacement Tree Size	Years of Monitoring Required
9	Acorn (germinated)	10
1.5	5-Gallon	5
1	15-Gallon	3

- 6. Enhancement:** The VESP also details the enhancement of tree canopy through the incorporation of a Street Tree list (Appendix B, Table B1) that was developed and based upon the City's adopted Street Tree list. This tree list includes tree species that are better suited to survive and thrive within the soils and climate that the Project boundaries exhibits. The Street Tree list includes a range of large to small oak tree species. This tree list will be utilized for both private improvements (parking lots, landscaping requirements) and within the public right-of-way.
- 7. Appeals.** Any decision of the Director, pursuant to this Plan, may be appealed by the applicant to the City Council. Appeals shall be in writing, signed by the applicant, state the reasons the appeal is made, and be filed with the City Clerk within 10 calendar days of written notification for the decisions by the Director. Any appeal shall be accompanied by an appeal fee in the amount established by resolution of the council. Appeals shall be conducted in accordance with the procedures set forth in CMC. The decision of the council shall be final.



E.7 Heritage Trees

The purpose and intent of the Voluntary Heritage Tree Program is to identify, promote public awareness of, maintain, and protect designated trees within the City of Chico. This program acknowledges that Heritage Trees, whether located on public or private property, are distinct and unique living resources of the City of Chico.

Any person may submit an application on a form supplied by the Director and accompanied by the required fee, to designate a Heritage Tree. If an application is filed by a person other than the owner of the property on which the tree is located, then the application shall include the written and signed consent of the property owner and the property owner shall to the Bidwell Park and Playground Commission for review and recommendation to the City Council. The City Council may designate a tree as a Heritage Tree if it meets any of the following criteria:

1. Any native Oak (*Quercus*) species or Sycamore (*Platanus*) species, having a diameter at breast height of thirty-six (36) inches or greater when a single trunk, or a cumulative diameter of thirty-six (36) inches or greater when a multi-trunk, and with good health and structure; or
2. The tree is an outstanding specimen of a desirable species of good health and quality structure; or
3. The tree is of historical interest; or
4. The tree is an unusual species, is of distinctive form, is a part of a significant grove or is otherwise unique.

Once a tree is designated as a Heritage Tree, a Notice of Heritage Tree Designation shall be recorded against the property on which the tree is located. Heritage Trees located on public property are exempt from the recording requirement. Heritage Trees may only be removed pursuant to Chapter 16.66 of the Chico Municipal Code.

E.8 Homeowner's Association

The HOA plays a key role in the maintenance and management of the on-site Oak Woodlands, leads in the collection and germination of new oak trees, and educates residents, visitors, and property owners on maintenance and care. The HOA will be responsible for identifying and executing the intended programs to be implemented as part of this Plan, with the ability for the HOA to transition educational programs or change the maintenance responsibilities to respond to the community needs, trends, or demands.

E.8.1 Oak Tree Regeneration Program

This regeneration program will create a bank of trees that are native to the Plan Area and will be used for mitigation. This program will help offset in-lieu fees and supplement replacement tree requirements for individual development sites, where replacement may not be possible due to the proposed development or costs associated with replacement. The HOA will establish an inventory of replacement trees, subject to the review of the Urban Forester and will manage an acorn planting program, which will simultaneously be utilized for educational purposes for children's school programs. On-site open space and recreation areas shall be utilized for these planting areas.



E.8.2 Education and Management

Education from the HOA will feature outreach to residents and visitors on proper care for existing trees. This outreach will include best management practices as adopted by the ISA on how to prune trees, proper incorporation into landscape areas, how to obtain a tree removal permit from the City, and acorn harvesting. Enrichment activities for seniors and active adults will be available by volunteering to harvest acorns, replant and monitor new trees, and/or through children's school programs. Additional educational and outreach can come in the form of a welcome brochure, to new property owners within the Project. The brochure would outline the importance of the Oak Woodlands, tree care, and provide additional tree related resources. The HOA will continue to explore and improve upon educational, management, and outreach practices as new ideas and methods are brought forward or developed.

E.9 Enforcement and Violation

The Community Development Director or their designee shall be responsible for the enforcement of this Plan. The following penalties shall be applicable:

1. Any tree or trees required to be preserved as part of an approved building permit, grading permit, demolition permit, encroachment permit, use permit, tentative or final subdivision map; or
2. Any tree or trees required to be planted as a replacement for an unlawfully removed tree or trees.
3. Tree or "trees" does not include the following tree species: Ailanthus, Chinese Tallow, Fremont Cottonwood or Poplar, Privet, Box Elder, Silver Wattle, Black Acacia, English Hawthorn, Russian Olive, Olive, Red Gum, Tasmanian Blue Gum, Edible Fig, English Holly, Cherry Plum, Black Locust, Peruvian Peppertree, Brazilian Peppertree, Western Catalpa, Chinese Elm or Winged Elm; or the following fruit and nut trees: Almonds, Apples, Apricots, Avocados, Cherries, Chestnuts, Mandarins, Nectarines, Olives, Oranges, Peaches, Pears, Pecans, Persimmons, Pistachios, Plums or English Walnuts.