

**PRELIMINARY PLANTING PLAN  
FAIRFAX TIMBERLAND CONVERSION PROJECT  
ANNAPOLIS  
SONOMA COUNTY, CALIFORNIA**

**THP 1-09-058 SON**

**July 27, 2010**

**Prepared for**

**CAL FIRE**  
Department of Forestry & Protection  
135 Ridgway Ave.  
Santa Rosa, CA 95401

**Prepared by**

Monk & Associates, Inc.  
1136 Saranap Avenue, Suite Q  
Walnut Creek, California 94595  
Ph. (925) 947-4867  
Fax (925) 947-1165

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**TABLE OF CONTENTS**

1. INTRODUCTION ..... 1  
2. PROJECT DESCRIPTION ..... 1  
3. PROPERTY LOCATION AND SETTING ..... 2  
4. CHARACTERIZATION OF UPPER PATCHETT CREEK ..... 2  
    4.1 Topography and Hydrology ..... 2  
    4.2 Plant Communities ..... 3  
        4.2.1 RIPARIAN VEGETATION ..... 3  
        4.2.1 NORTHERN COASTAL GRASSLANDS ..... 3  
        4.2.2 SEASONAL WETLANDS ..... 3  
5. PLANTING PLAN ..... 4  
    5.1 Riparian Enhancement..... 4  
        5.1.1 CONTAINER SIZE AND PLANTING SCHEDULE..... 4  
        5.1.2 PLACEMENT AND SPACING OF MITIGATION PLANTS ..... 4  
        5.1.3 SITE PREPARATION ..... 4  
        5.1.4 TEMPORARY IRRIGATION SYSTEM ..... 5  
        5.1.5 PLANT PROTECTION ..... 5  
        5.1.6 WEED CONTROL..... 5  
        5.1.7 HYDROSEEDING OF DISTURBED AREAS ..... 6

**FIGURES**

(Under Tab at Back of Report)

Figure 1. Fairfax Timberland Conversion Project Site Regional Map.

Figure 2. Fairfax Timberland Conversion Project Site Location Map.

Figure 3. Vegetation Communities and Adjacent Land Uses on the Fairfax Timberland Conversion Project Site.

Figure 4. Riparian Planting Plan, Fairfax Timberland Conversion Project

**TABLES**

Table 1. Plant Species Observed on the Fairfax Timberland Conversion Project Site.

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## 1. INTRODUCTION

On behalf of the Artesa Winery (applicant), Monk & Associates Inc. (M&A) has prepared this preliminary riparian planting plan (planting plan) for CAL FIRE, to meet Recommendation 1.c of a California Department of Fish and Game (CDFG) Pre-Harvest Inspection Report (Fairfax Timberland Conversion Project (1-09-058 SON)). This recommendation was discussed with CAL FIRE and CDFG in a Timber Harvest Review team meeting at CAL FIRE on July 8, 2010.

The proposed Fairfax Timberland Conversion Project site (hereinafter the project site) is located on Annapolis Road, approximately 1 mile southeast of the town of Annapolis in northwest Sonoma County (Figures 1 and 2). Patchett Creek is a perennial creek that supports a weakly formed riparian canopy at its northern reach on the northeast side of the project site. CDFG's Recommendation 1.c. states that if riparian vegetation is lacking or sparse on stream banks, then native shrubs and trees should be planted to act as filter strips. This planting plan details how the applicant proposes to enhance the existing riparian habitat along the upper reaches of Patchett Creek on the project site.

## 2. PROJECT DESCRIPTION

The applicant proposes to develop a 186 acre vineyard project on their 324-acre property. Timber harvesting will remove all trees within the 167 acre conversion area. Eight vineyard units totaling 127 acres will be installed within the vineyard conversion area, surrounded by 19 acres of perimeter avenues for equipment access. A 9-acre sump pump/ reservoir system will be constructed on the slopes of the northern portion of the project site to capture surface runoff water for vineyard irrigation. Overflow from this structure will drain into the tributaries to the south. Two acres of driveways and roads will be constructed, as well as a 1-acre farm yard. A well will be dug to provide potable water for farm worker consumption, equipment cleanup and other domestic uses. This well will not be used for irrigation purposes.

The proposed project will preserve 138 acres of the 324-acre project site. Patchett Creek will be protected by a streamside conservation area that would be a minimum of 100 feet in width on either side of the creek as measured from the top of bank. Average buffer size is 208 feet from the top of bank. All other tributaries on site will be protected from vineyard disturbance by buffers that are 30 to 75 feet in width from the top of bank. These buffers meet and exceed all regulations requiring protected buffers along tributaries on the project site.

Three botanical preserves will be designated on the project site to protect thin-lobed *Horkelia* (*Horkelia tenuiloba*) and a hybrid Annapolis manzanita population (*Arctostaphylos manzanita* x *A. stanfordiana*) both considered special-status species. These preserves will be expanded in size specifically to include areas where compensatory mitigation wetlands can be constructed. Created wetlands will not impact either special-status plant. The preserves and streamside conservation areas will all be dedicated in permanent deed restrictions recorded on the title of the property. The preserve deed restrictions will run with the land in perpetuity.

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This planting plan details a California native species riparian planting plan that will be installed along the upper Patchett Creek banks within the preserved area of the project site. Species planting and monitoring requirements are detailed in the sections below.

### **3. PROPERTY LOCATION AND SETTING**

The 324-acre project site is located on Annapolis Road, approximately 1 mile southeast of the town of Annapolis in northwest Sonoma County (Figures 1 and 2). The project site is approximately 5 miles east of the Pacific Ocean. The dominant vegetation community on the project site is north coast coniferous forest, with coastal scrub, northern coastal grasslands, and riparian vegetation occupying smaller but significant proportions of the site. Topography ranges from mild slopes to steep ravines. Patchett Creek and numerous ephemeral tributaries drain the site. Patchett Creek is a perennial creek that runs north to south on the northeast side of the property. Seasonal wetlands and a man-made pond are also present onsite. There are no buildings or other structures on the site. Two dirt roads provide access from Annapolis Road through the project site to adjoining properties. The project site was completely logged over 40 years ago and was used for sheep production and apple orchards until the early 1960's. Several old apple trees remain in the grasslands in the northern portion of the project site.

Several single family homes and associated outbuildings are located to the north, south and west of the property boundary. Two historic sites, the Old Horicon School and the Annapolis Cemetery, are located immediately to the west of the project site. Starcross Monastic Community occupies property north of the project site. Other surrounding land uses include vineyards to the northeast, a county refuse transfer station to the south, and logging operations south and southwest of the project site. Figure 3 provides an aerial photograph that shows the project site features, vegetation communities, and the surrounding land use.

### **4. CHARACTERIZATION OF UPPER PATCHETT CREEK**

#### **4.1 Topography and Hydrology**

The topography of the project site ranges from gently sloping hills to steep ravines. Elevations range from approximately 520 to 850 feet above sea level. Patchett Creek, the only perennial creek onsite, runs north to south along the northeast side of the site, dropping in elevation into the forested lands to the south into a progressively more incised creekbed. The creek typically dries by June, with the exception of its southern reach, where numerous standing pools remain through the summer months.

Patchett Creek eventually drains into the Wheatfield fork of the Gualala River, approximately 2 miles south of the project site. The Wheatfield fork of the Gualala River flows from east to west, and is a tributary to the south fork of the Gualala River, approximately 5 miles downstream. The south fork of the Gualala River flows southeast to northwest along the San Andreas Fault, eventually emptying into the Pacific Ocean 11 miles downstream at the town of Gualala.

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## 4.2 Plant Communities

A complete list of plant species observed on the project site is presented in Table 1. Nomenclature used for plant names follows *The Jepson Manual* (Hickman 1993) and changes made to this manual are published on the Jepson Interchange Project website (<http://ucjeps.berkeley.edu/interchange/index.html>).

Three plant communities occur in the area of Patchett Creek proposed for planting (the planting area). Figure 4 illustrates the distribution of these plant communities in the planting area. Riparian vegetation grows along the banks of Patchett Creek and associated tributaries to Patchett Creek. Northern coastal grassland vegetation is found in patches between the riparian vegetation. Seasonal wetlands occur in swales northwest of Patchett Creek and along the banks of Patchett Creek. These three plant communities are discussed below.

### 4.2.1 RIPARIAN VEGETATION

Owing to past timber harvesting on the project site, riparian vegetation is not well developed on the project site. It is limited in distribution, and there are no well developed riparian canopies. The northern reach of Patchett Creek supports isolated patches of riparian vegetation. Dominant species along the northern reach of Patchett Creek include interior live oak (*Quercus wislizenii* var. *wislizenii*), California bay (*Umbellularia californica*), and poison oak (*Toxicodendron diversilobum*). Frequently occurring species include California hazelnut (*Corylus cornuta* var. *californica*), Himalayan blackberry (*Rubus discolor*) and California blackberry (*Rubus ursinus*).

### 4.2.1 NORTHERN COASTAL GRASSLANDS

A rich diversity of grasses occurs in the northern coastal grassland community onsite. Dominant grass species include the native leafy bent grass (*Agrostis pallens*), Pacific small-reedgrass (*Calamagrostis nutkaensis*), annual hairgrass (*Deschampsia danthonioides*) and western panicgrass (*Panicum acuminatum* var. *acuminatum*), as well as the non-native quaking grass (*Briza maxima*). Subdominant grasses found in the coastal grassland include native species such as California oatgrass (*Danthonia californica*), blue wildrye (*Elymus glaucus*), California fescue (*Festuca californica*) and creeping wildrye (*Leymus triticoides*). Non-native species include slender wild oat (*Avena barbata*), ripgut grass (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), common velvet grass (*Holcus lanatus*), medusa-head (*Taeniatherum caput-medusae*), and hedgehog dogtail (*Cynosurus echinatus*). Other non-grass species commonly found in this plant community include bracken fern, rough cat's-ear (*Hypochaeris radicata*), slender trefoil (*Lotus formosissimus*), English plantain (*Plantago lanceolata*), and blue-eyed grass (*Sisyrinchium bellum*).

### 4.2.2 SEASONAL WETLANDS

Seasonal wetlands occur along a swale northwest of Patchett Creek and along the banks of Patchett Creek. The swale wetlands are dominated by Baltic rush (*Juncus balticus*). Along the creek banks, wetland species include tall flatsedge (*Cyperus eragrostis*), small-fruit bulrush (*Schoenoplectus microcarpus*), slough sedge (*Carex obnupta*), creeping spikerush (*Eleocharis macrostachya*), field mint (*Mentha arvensis*), and common monkeyflower (*Mimulus guttatus*).

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## 5. PLANTING PLAN

As part of the implementation of the Timber Harvest Plan (THP), the applicant will implement a California native riparian planting plan to enhance the Patchett Creek riparian corridor, act as a filter for stormwater runoff from the proposed vineyards, and benefit biological resources along Patchett Creek.

### 5.1 Riparian Enhancement

The objective of the riparian planting plan is to create a continuous riparian canopy along Patchett Creek. Species to be planted were selected based upon the species that now characterize the upper reaches of Patchett Creek on the project site. Species to be planted include interior live oak (*Quercus wislizenii*) and California bay (*Umbellularia californica*). Figure 4 illustrates the location and spacing of the proposed plantings. Riparian planting will occur in gaps in the riparian canopy along Patchett Creek setbacks.

This planting plan can be implemented by the vineyard landscaper provided they have experience planting native California species. All plantings shall be performed by persons familiar with the planting of California native plants and under the supervision of a qualified planting foreman. The landscaper chosen to implement the planting plan shall follow the planting methods provided herein or provide substantive reason to diverge from the methods outlined herein.

#### 5.1.1 CONTAINER SIZE AND PLANTING SCHEDULE

Container size for installed interior live oak and California bay should be at least 5 gallon rooted buckets. All trees should be installed in the fall or early winter. Trees installed in the fall usually outperform those installed in the later winter, spring, or summer since fall planted trees become established during the rainy season. Until sufficient roots develop, newly installed trees will undergo transplant stress. Fall and winter weather allows for reduced transpiration and provides ample moisture for the roots while trees recover from transplant shock. Fall plantings will also require less water, which should reduce initial maintenance and irrigation requirements.

#### 5.1.2 PLACEMENT AND SPACING OF MITIGATION PLANTS

All plants shall be planted above top of bank. It is recommended that interior live oaks and California bay be planted with a minimum of 20 feet between centers on average. This will ensure that they receive adequate light, water, and soil nutrients the first few years until sufficiently established. Since the goal is to create a natural appearance to the planting area, spacing patterns between trees should appear random, but practical in design to accommodate an installed irrigation system. Plant spacing and locations may be adjusted in the field as necessary by the landscaper to account for topography, soils, existing vegetation, site accessibility, and water delivery system factors.

#### 5.1.3 SITE PREPARATION

Disturbance to existing soils and vegetation within the planting area should be kept to a minimum by the landscaper to the extent possible. Construction activities involving grading

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installation of irrigation lines, etc. should avoid unnecessary soil compaction and disturbance to existing topsoil.

#### 5.1.4 TEMPORARY IRRIGATION SYSTEM

All installed plants shall be supplied irrigation water routed from the vineyard irrigation system. Each system installed for the planted area shall be on its own system that is clock controlled. Irrigation lines shall be buried within the vineyard footprint, but may be installed above ground in the planted area which will minimize disturbance. If rodent damage to irrigation lines occurs in the establishment period, retroactive burying of irrigation lines may be necessary. Installing irrigation lines underground will ensure their protection from animals (raccoons, opossums, squirrels, etc.) that chew on irrigation lines for moisture, especially during the summer months.

After each species is planted, a 3-4-inch high water collection basin should be created. A drip emitter should be installed within the collection basin. Soils used for backfilling will be limited to native soils. Weed-free mulch, native slash or clean straw should be placed around the water basin of each tree to reduce evaporation around the root zone during the summer months.

The irrigation system will be clock activated to promote regular waterings. While soil types, temperature, humidity, and evapotranspiration rates are all variables, drip emitters delivering approximately 10 gallons per hour during peak moisture stress are recommended. The landscaper may modify this prescription for water delivery as required to meet the overall objective for keeping the plants alive through establishment. Frequent inspection of the planting during times of peak moisture stress will be critical to ensure that adequate water is being delivered. Based on field observations, watering rates can be adjusted accordingly. Infrequent, deep watering will benefit native plants and discourage weeds.

Plants will be irrigated regularly during dry months for a period of at least three years to ensure adequate establishment. By the third year after planting, if the plants have become satisfactorily established, the number of watering periods can be considerably reduced so that plants only receive water during the hottest periods of the summer. After three years, the root systems of the replacement plants should be of sufficient health and depth to survive without any further irrigation; however, irrigation systems will remain in place to provide water if necessary.

#### 5.1.5 PLANT PROTECTION

Trees and shrubs will be protected from deer and rodents by installation of protective collars such as Gro-Tubes, plastic collars, and/or wire cages. These protection barriers should extend approximately two feet above ground and approximately one to two inches below ground. These barriers can be removed once the threat from pest species has been sufficiently eliminated.

#### 5.1.6 WEED CONTROL

Weed competition can significantly inhibit the healthy establishment of the mitigation plants. Weed mats will be placed around each container plant to reduce weed competition. One square yard weed mats should be placed around each planted tree to reduce competition from weedy

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species. The weed mat must be anchored via landscape staples such that they are well anchored. After a few years, the weed mat, which is made of biodegradable material, will deteriorate.

#### 5.1.7 HYDROSEEDING OF DISTURBED AREAS

All areas that contain exposed disturbed ground resulting from the installation of the planting plan will be stabilized to prevent erosion or sediment transport into Patchett Creek. Stabilization will be achieved via spreading of hay mulch a minimum of 3 inches thick over disturbed soils. Prior to the spreading of hay mulch disturbed areas will be seeded with a native grass mix as derived from genetic stock from the region of the project site, or shall consist of the sterile wheat/tall wheat hybrid, Regreen©. Any disturbed areas on greater than 10 percent slopes shall be further stabilized by applying a layer of jute matting over the mulch/seeded area.

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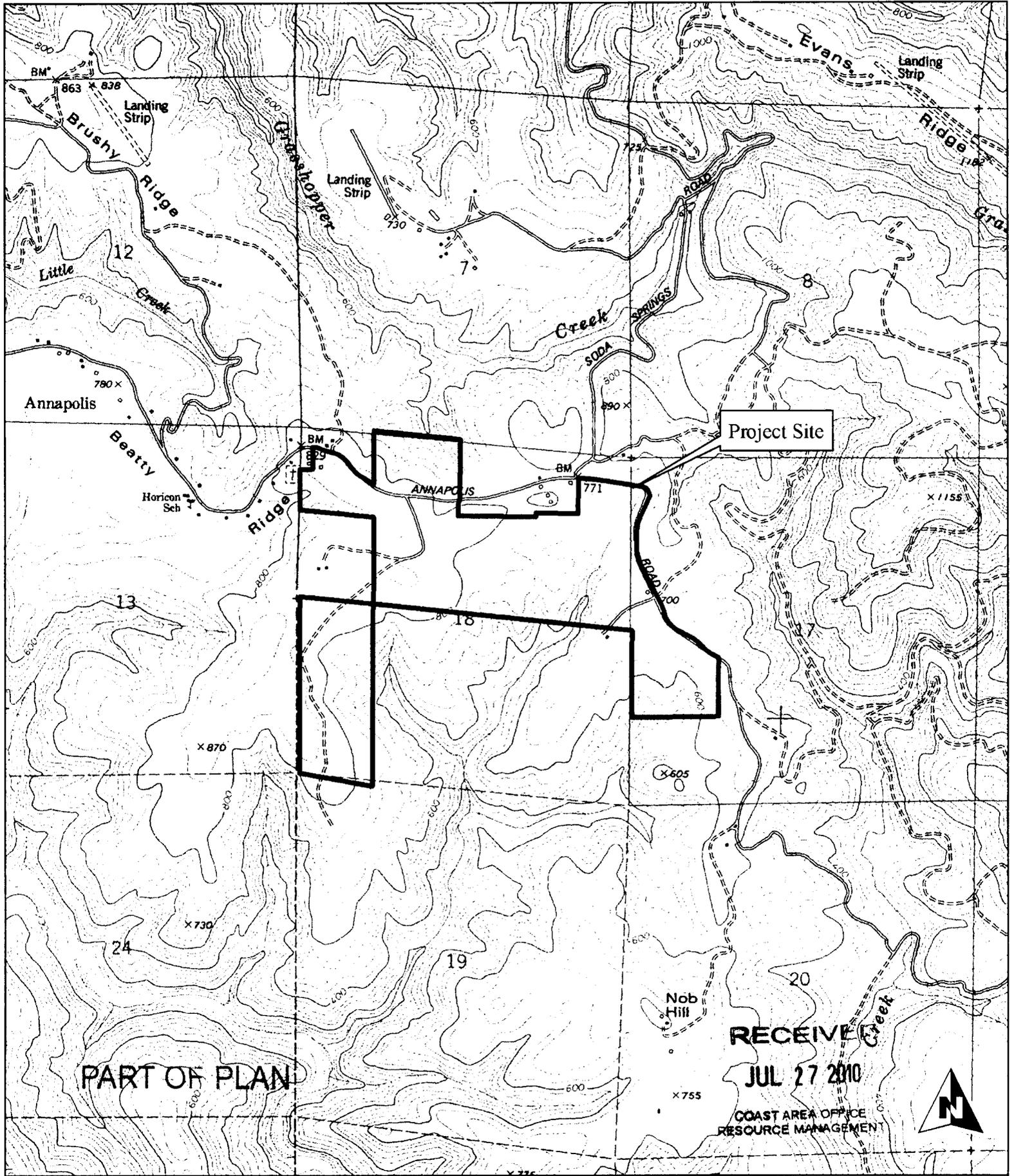
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Monk & Associates  
 Environmental Consultants  
 1136 Saranap Avenue, Suite 6  
 Walnut Creek, California 94597  
 (925) 947-4867

**Figure 1. Fairfax Timberland Conversion Project**  
**Regional Map**  
**Sonoma County, California**

E-160.9  
 County: Sonoma  
 Map Revision Date: July 26, 2010



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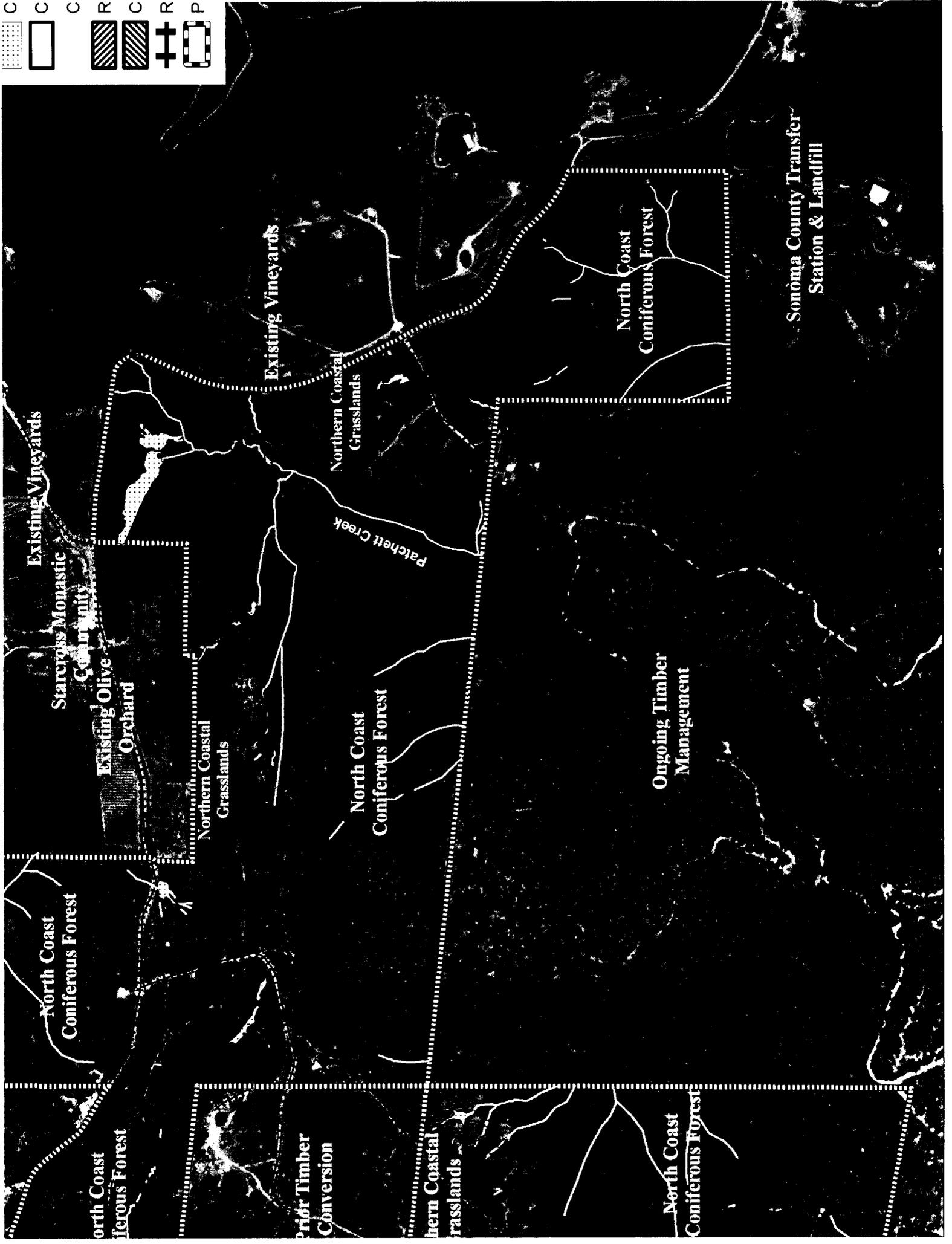
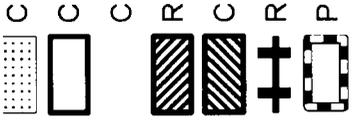


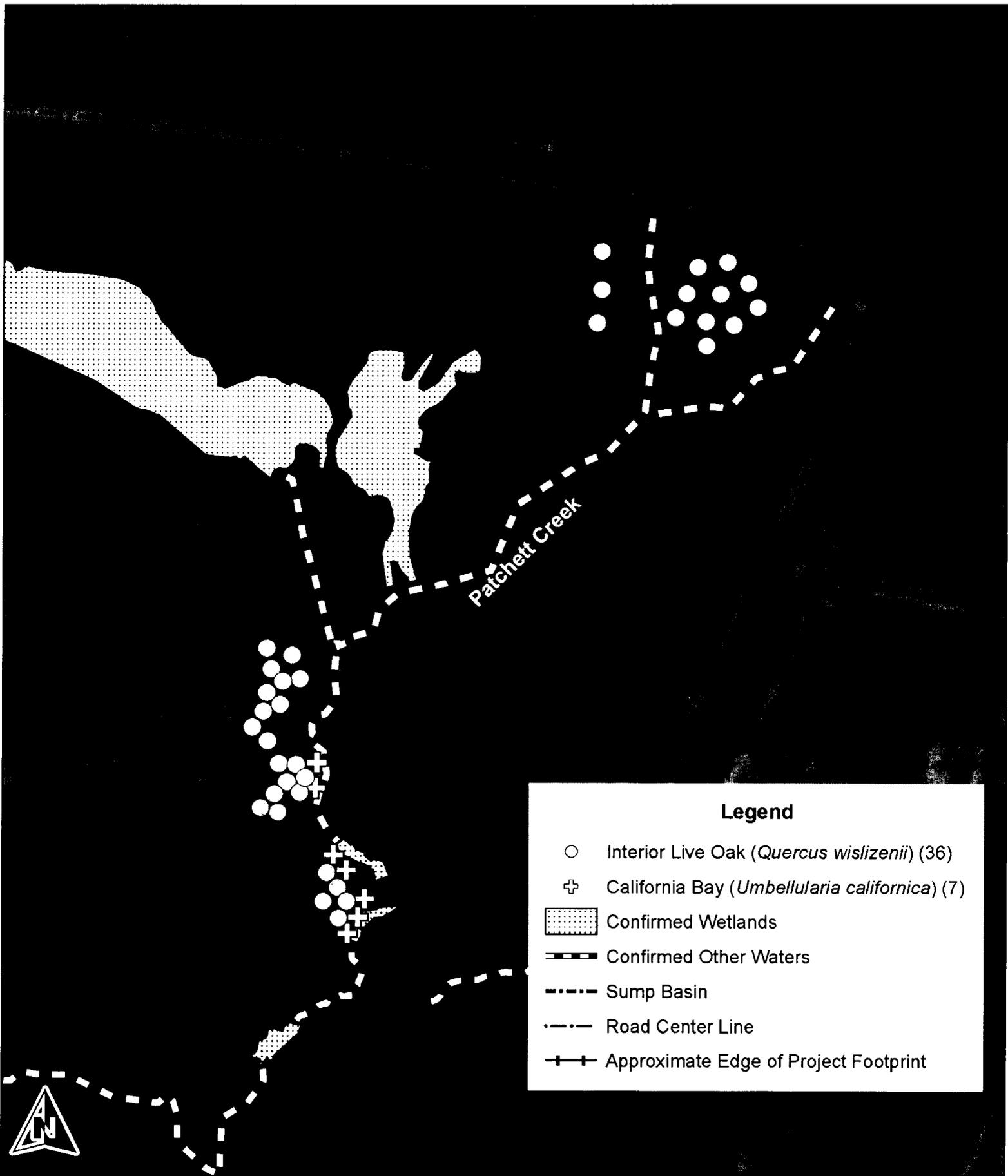
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Environmental Consultants  
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Walnut Creek, California 94595  
(925) 947-4867

Figure 2. Fairfax Timberland Conversion Project  
Location Map  
Sonoma County, California

E-160.10  
7.5-Minute Annapolis quadrangle  
Topography Source: <http://gis.ca.gov>  
Map Revision Date: July 26, 2010





**Legend**

- Interior Live Oak (*Quercus wislizenii*) (36)
- ⊕ California Bay (*Umbellularia californica*) (7)
- ▨ Confirmed Wetlands
- Confirmed Other Waters
- ..... Sump Basin
- Road Center Line
- +--+ Approximate Edge of Project Footprint

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 Environmental Consultants  
 1136 Saranap Avenue, Suite Q  
 Walnut Creek, California 94596  
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0 50 100 200 300 400 500 Feet

Figure 4. Riparian Planting Plan (43 Trees)

Fairfax Timberland Conversion Project

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E-160.12  
 Map Revision Date: July 26, 2010

Aerial Photograph Source: <http://www.atlas.ca.gov>

**Table 1**  
**Plant Species Observed on the Artesa Project Site**

**Ferns and Allies****Blechnaceae**

*Woodwardia fimbriata* Giant Chain Fern

**Dennstaedtiaceae**

*Pteridium aquilinum pubescens* Bracken fern

**Dryopteridaceae**

*Athyrium filix-femina cyclosorum* Western lady fern

*Polystichum munitum* Western sword fern

**Equisetaceae**

*Equisetum telemateia braunii* Giant horsetail

**Polypodiaceae**

*Polypodium californicum* California polypody

**Pteridaceae**

*Pentagramma triangularis triangularis* Goldback fern

**Gymnosperms****Pinaceae**

*Pinus lambertiana* Sugar pine

*Pseudotsuga menziesii menziesii* Douglas-fir

**Taxodiaceae**

*Sequoia sempervirens* Redwood

**Angiosperms - Dicots****Anacardiaceae**

*Toxicodendron diversilobum* Western poison-oak

**Apiaceae**

*Daucus pusillus* Rattlesnake weed

*Eryngium aristulatum aristulatum* California coyote-thistle

\**Foeniculum vulgare* sweet fennel

*Osmorhiza chilensis* Sweet cicely

*Sanicula bipinnatifida* Purple sanicle

*Sanicula crassicaulis* Gamble weed

\**Torilis arvensis* Torilis

**Asteraceae**

*Achillea millefolium* Yarrow

*Anaphalis margaritacea* Pearly everlasting

*Aster radulinus* Broad-leaf aster

*Baccharis pilularis* Coyote brush

\**Bellis perennis* English daisy

\**Carduus pycnocephalus* Italian thistle

\**Chamomilla suaveolens* Pineapple-weed

\**Chrysanthemum segetum* Corn chrysanthemum

\**Cirsium vulgare* bull thistle

\**Conyza bonariensis* Hairy fleabane

*Eriophyllum lanatum achillaeoides* Woolly sunflower

*Euthamia occidentalis* Western goldenrod

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\* Indicates a non-native species

Page 1 of 6

**Table 1**

**Plant Species Observed on the Artesa Project Site**

<i>*Filago gallica</i>	Narrow-leaved filago
<i>*Gnaphalium luteo-album</i>	Weedy cudweed
<i>Gnaphalium palustre</i>	Western marsh cudweed
<i>Gnaphalium purpureum</i>	Purple cudweed
<i>Hieracium albiflorum</i>	White hawkweed
<i>*Hypochaeris radicata</i>	rough cat's-ear
<i>*Leucanthemum vulgare</i>	Ox-eye daisy
<i>Madia gracilis</i>	Slender tarweed
<i>Malacothrix floccifera</i>	Woolly-tuft malacothrix
<i>Microseris paludosa</i>	Microseris
<i>Psilocarphus brevissimus brevissimus</i>	Dwarf woolly-heads
<i>Psilocarphus tenellus globiferus</i>	Round woolly-marbles
<i>Senecio aronicoides</i>	Butterweed
<i>*Silybum marianum</i>	Milk thistle
<i>*Soliva sessilis</i>	Soliva
<i>*Sonchus asper asper</i>	Prickly sow-thistle
<i>*Sonchus oleraceus</i>	common sow-thistle
<b>Betulaceae</b>	
<i>Corylus cornuta californica</i>	California hazelnut
<b>Boraginaceae</b>	
<i>*Myosotis discolor</i>	Yellow and blue forget-me-not
<i>Plagiobothrys undulatus</i>	Coast popcornflower
<b>Brassicaceae</b>	
<i>Cardamine californica sinuata</i>	Milk maids
<i>*Raphanus sativus</i>	Wild radish
<b>Callitrichaceae</b>	
<i>Callitriche trochlearis</i>	Wastewater, water-starwort
<b>Caprifoliaceae</b>	
<i>Lonicera hispidula vacillans</i>	California honeysuckle
<b>Caryophyllaceae</b>	
<i>*Cerastium glomeratum</i>	Mouse-ear chickweed
<i>*Moenchia erecta erecta</i>	Moenchia
<i>*Silene gallica</i>	Windmill-pink
<i>Spergularia marina</i>	Saltmarsh sand-spurrey
<b>Ericaceae</b>	
<i>Allotropa virgata</i>	Sugar stick
<i>Arbutus menziesii</i>	Madrone
<i>Arctostaphylos columbiana</i>	Hairy manzanita
<i>Arctostaphylos manzanita x stanfordiana</i>	Annapolis manzanita
<i>Pyrola picta</i>	White-veined wintergreen
<i>Rhododendron occidentale</i>	Western azalea
<i>Vaccinium ovatum</i>	California huckleberry
<b>Euphorbiaceae</b>	
<i>Eremocarpus setigerus</i>	Turkey mullein
<b>Fabaceae</b>	
<i>*Genista monspessulana</i>	French broom
<i>*Lathyrus tingitanus</i>	Tangier pea

\* Indicates a non-native species

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Table 1

## Plant Species Observed on the Artesa Project Site

* <i>Lotus angustissimus</i>	Lotus
<i>Lotus formosissimus</i>	Slender trefoil
<i>Lotus purshianus purshianus</i>	Spanish-clover
<i>Lotus wrangelianus</i>	Common trefoil
<i>Lupinus bicolor</i>	Miniature lupine
* <i>Medicago polymorpha</i>	California burclover
<i>Thermopsis macrophylla</i>	Santa Ynez false lupine
<i>Trifolium barbigerum andrewsii</i>	Gray's clover
<i>Trifolium depauperatum</i>	Dwarf sack clover
* <i>Trifolium dubium</i>	Little hop clover
* <i>Trifolium hirtum</i>	Rose clover
<i>Trifolium oliganthum</i>	Clover
* <i>Trifolium repens</i>	White clover
* <i>Trifolium subterraneum</i>	Subterranean clover
<i>Trifolium willdenovii</i>	Tomcat clover
* <i>Vicia sativa nigra</i>	Narrow-leaved vetch
<b>Fagaceae</b>	
<i>Lithocarpus densiflorus densiflorus</i>	Tanbark oak
<i>Quercus berberidifolia</i>	Scrub oak
<i>Quercus garryana garryana</i>	Garry oak
<i>Quercus wislizeni wislizeni</i>	Interior live oak
<b>Gentianaceae</b>	
<i>Centaurium davyi</i>	Conchalagua
<i>Cicendia quadrangularis</i>	Timwort
<b>Geraniaceae</b>	
* <i>Erodium botrys</i>	broad-leaf filaree
* <i>Geranium dissectum</i>	cut-leaf geranium
<b>Hydrophyllaceae</b>	
<i>Nemophila parviflora parviflora</i>	Nemophila
<b>Hypericaceae</b>	
* <i>Hypericum perforatum</i>	Klamathweed
<b>Lamiaceae</b>	
<i>Mentha arvensis</i>	Field mint
* <i>Mentha pulegium</i>	Pennyroyal
<i>Prunella vulgaris lanceolata</i>	Self-heal
<i>Satureja douglasii</i>	Yerba buena
<i>Stachys ajugoides rigida</i>	Rigid hedge-nettle
<b>Lauraceae</b>	
<i>Umbellularia californica</i>	California bay
<b>Linaceae</b>	
* <i>Linum bienne</i>	Flax
<b>Lythraceae</b>	
* <i>Lythrum hyssopifolium</i>	Hyssop loosestrife
<b>Myricaceae</b>	
<i>Myrica californica</i>	Pacific bayberry
<b>Onagraceae</b>	
<i>Camissonia ovata</i>	Sun cup

\* Indicates a non-native species

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Page 3 of 6

**Table 1****Plant Species Observed on the Artesa Project Site**

<i>Clarkia purpurea quadrivulnera</i>	Four spot
<b>Oxalidaceae</b>	
<i>Oxalis oregana</i>	Redwood sorrel
<b>Philadelphaceae</b>	
<i>Whipplea modesta</i>	Yerba de selva
<b>Plantaginaceae</b>	
* <i>Plantago lanceolata</i>	English plantain
<b>Polemoniaceae</b>	
<i>Navarretia intertexta intertexta</i>	Needle-leaved navarretia
<i>Navarretia squarrosa</i>	Skunkweed
<i>Navarretia viscidula</i>	Navarretia
<b>Polygalaceae</b>	
<i>Polygala californica</i>	California milkwort
<b>Polygonaceae</b>	
* <i>Polygonum arenastrum</i>	common knotweed
* <i>Rumex acetosella</i>	Sheep sorrel
* <i>Rumex crispus</i>	curly dock
<b>Portulacaceae</b>	
<i>Calandrinia ciliata</i>	Red maids
<i>Claytonia perfoliata</i>	Miner's lettuce
<i>Montia fontana</i>	Blinks
<b>Primulaceae</b>	
* <i>Anagallis arvensis</i>	Scarlet pimpernel
<i>Dodecatheon hendersonii</i>	Mosquito bills
<i>Trientalis latifolia</i>	Starflower
<b>Ranunculaceae</b>	
<i>Ranunculus californicus</i>	California buttercup
<b>Rhamnaceae</b>	
<i>Ceanothus foliosus foliosus</i>	California lilac
<i>Ceanothus incanus</i>	Coast whitethorn
<i>Ceanothus oliganthus soledadensis</i>	Jim brush
<i>Rhamnus californica californica</i>	California coffeeberry
<b>Rosaceae</b>	
* <i>Cotoneaster pannosa</i>	Cotoneaster
<i>Fragaria vesca</i>	Wood strawberry
<i>Heteromeles arbutifolia</i>	Toyon
<i>Holodiscus discolor</i>	Oceanspray
<i>Horkelia tenuiloba</i>	Thin-lobed horkelia
<i>Malus sp.</i>	Apple tree
<i>Rosa gymnocarpa</i>	Wood rose
<i>Rosa nutkana nutkana</i>	Nootka rose
<i>Rosa spithamea</i>	Wood rose
* <i>Rubus discolor</i>	Himalayan blackberry
<i>Rubus leucodermis</i>	Blackcap raspberry
<i>Rubus parviflorus</i>	Thimbleberry
<i>Rubus spectabilis</i>	Salmonberry
<i>Rubus ursinus</i>	California blackberry

\* Indicates a non-native species

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Page 4 of 6

**Table 1**  
**Plant Species Observed on the Artesa Project Site**

**Rubiaceae**

* <i>Galium aparine</i>	Goose grass
<i>Galium californicum californicum</i>	California bedstraw
* <i>Galium parisiense</i>	Wall bedstraw
* <i>Sherardia arvensis</i>	Field madder

**Salicaceae**

* <i>Salix babylonica</i>	Weeping willow
<i>Salix lasiolepis bigelovii</i>	Arroyo willow

**Saxifragaceae**

<i>Heuchera micrantha</i>	Alumroot
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**Scrophulariaceae**

<i>Mimulus guttatus</i>	Common monkeyflower
<i>Mimulus moschatus</i>	Musk monkeyflower
<i>Pedicularis densiflora</i>	Indian warrior
<i>Scrophularia californica</i>	California figwort
<i>Triphysaria eriantha rosea</i>	Butter-and-eggs
<i>Triphysaria pusilla</i>	Owl's-clover
<i>Triphysaria versicolor faucibarbata</i>	Triphysaria
* <i>Verbascum thapsus</i>	Woolly mullein
* <i>Verbascum virgatum</i>	Wand mullein

**Valerianaceae**

<i>Plectritis macrocera</i>	Short-spurred plectritis
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**Violaceae**

<i>Viola ocellata</i>	Western heart's ease
<i>Viola sempervirens</i>	Evergreen violet

**Angiosperms -Monocots****Cyperaceae**

<i>Carex echinata phyllomanica</i>	Stellate coastal sedge
<i>Carex obnupta</i>	Slough sedge
<i>Carex praegracilis</i>	Clustered field-sedge
<i>Cyperus eragrostis</i>	Tall flatsedge
<i>Eleocharis macrostachya</i>	creeping spikerush
<i>Schoenoplectus microcarpus</i>	Small-fruit bulrush

**Iridaceae**

<i>Iris douglasiana</i>	Douglas' iris
<i>Sisyrinchium bellum</i>	Blue-eyed grass

**Juncaceae**

<i>Juncus balticus</i>	Baltic rush
<i>Juncus bolanderi</i>	Bolander's rush
<i>Juncus bufonius</i>	toad rush
* <i>Juncus capitatus</i>	Capped rush
<i>Juncus covillei obtusatus</i>	Rush
<i>Juncus dubius</i>	Mariposa rush
<i>Juncus effusus brunneus</i>	Soft rush
<i>Juncus occidentalis</i>	Slender rush
<i>Luzula comosa</i>	Common wood-rush

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**Table 1**

**Plant Species Observed on the Artesa Project Site**

**Liliaceae**

<i>Brodiaea terrestris terrestris</i>	Brodiaea
<i>Calochortus tolmiei</i>	Pussy ears
<i>Chlorogalum pomeridianum pomeridianum</i>	Soap plant
<i>Dichelostemma capitatum capitatum</i>	Blue dicks
<i>Disporum hookeri</i>	Fairy bells
* <i>Narcissus sp.</i>	Daffodil
<i>Scoliopus bigelovii</i>	Scoliopus
<i>Smilacina stellata</i>	False Solomon's seal
<i>Trillium chloropetalum</i>	Giant trillium
<i>Triteleia hyacinthina</i>	White brodiaea
<i>Triteleia laxa</i>	Ithurial's spear

**Orchidaceae**

<i>Calypso bulbosa</i>	Fairy slipper
<i>Cephalanthera austiniiae</i>	Phantom orchid
<i>Piperia elongata</i>	Piperia

**Poaceae**

* <i>Agrostis capillaris</i>	Colonial bent
<i>Agrostis pallens</i>	Leafy bent
* <i>Aira caryophylla</i>	Silver European hairgrass
* <i>Avena barbata</i>	slender wild oat
* <i>Briza maxima</i>	Quaking grass
* <i>Briza minor</i>	Small quaking grass
* <i>Bromus diandrus</i>	ripgut grass
* <i>Bromus hordeaceus</i>	soft chess
* <i>Bromus tectorum</i>	Cheat grass
<i>Calamagrostis nutkaensis</i>	Pacific small-reedgrass
* <i>Cortaderia jubata</i>	Pampas grass
* <i>Cynosurus echinatus</i>	Hedgehog dogtail
* <i>Dactylis glomerata</i>	Orchard grass
<i>Danthonia californica americana</i>	California oatgrass
<i>Deschampsia danthonioides</i>	Annual hairgrass
<i>Elymus glaucus glaucus</i>	Blue wildrye
<i>Festuca californica</i>	California fescue
* <i>Gastridium ventricosum</i>	Nit grass
* <i>Holcus lanatus</i>	Common velvet grass
* <i>Hordeum marinum gussoneanum</i>	Mediterranean barley
<i>Leymus triticoides</i>	Creeping wildrye
<i>Panicum acuminatum acuminatum</i>	Western panicgrass
<i>Pleuropogon californicus</i>	Annual semaphore grass
* <i>Poa annua</i>	annual bluegrass
* <i>Poa pratensis pratensis</i>	Kentucky bluegrass
* <i>Taeniatherum caput-medusae</i>	Medusa-head
* <i>Vulpia myuros hirsuta</i>	Rat-tail fescue

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**NOTE**

Information concerning archeological sites has been removed from this THP **1-09-058 SON**, in accordance with the policy of the Office of Historic Preservation as adopted by the State Historical Resources Commission under the authority of Public Resources Code 5020.4.

Copies of the information have been sent to the following locations to facilitate review of the project:

1. CDF field unit – Santa Rosa
2. Reviewing Archeologist, Santa Rosa (Region Office)

The original copy of this material is maintained in a confidential file at CDF Northern Region Headquarters, 135 Ridgway Avenue, Santa Rosa, CA 95401.