

KJELDSSEN BIOLOGICAL CONSULTING
Chris K. Kjeldsen Ph.D., Botany
Daniel T. Kjeldsen B.S., Natural Resource Management
923 St. Helena Ave.
Santa Rosa, CA 95404

Date: October 14, 2009

Project: Edward P. Fitts
Lake Ridge Property
Proposed Winery Use Permit

Planning: Kelly J. Berryman
Berryman & Montalbano
P.O. Box 513
Calistoga, CA 94574

Re: **Preliminary Biological Site Review**
Fitts/Lake Ridge use permit application

INTRODUCTION

At the request of Kelly J. Berryman, Berryman & Montalbano, and the property owner an onsite biological review was conducted on the area proposed for development. The study areas consist of oak woodlands that interface with chaparral.

The study site is in Napa County, south of Lake Hennessey with access from State Highway 128 at 90 Long Ranch Long Ranch Road. The study site is within the Yountville Quadrangle. The project proposes the development of winery and infrastructure, waste disposal field, and cave. Plate I provides a site and location map of the property. Plate III shows the survey area.

PURPOSE

Our Preliminary Biological Assessment is being conducted to determine if the project (proposed winery, waste disposal field, and infrastructure) will have the potential to have a substantial adverse effect, either directly or through habitat modifications, on special-status species. Identify if the project will have an adverse effect on Riparian Habitat or Sensitive Natural Communities. Identify if the project will have a substantial adverse effect on federally protected wetlands as defined by section 404 of the Clean Water Act. Identify if the project will substantially interfere with native resident or migratory fish or wildlife species, or wildlife corridors within and across the property, and or native wildlife nursery sites.

METHODS

An on site introduction to the project was made by Kelly J. Berryman, Berryman & Montalbano, on July 29, and follow up surveys of the site were conducted on October 7, 2009. Our study was made by walking opportunistic transects through the project site, and the surrounding environment. Our fieldwork focused on locating target organisms or suitable habitat for target organisms or indications that such habitat exists on the site.

Plants were identified in the field or specimens were collected, when necessary, for laboratory examination with a binocular microscope. Typically blooming examples are required for identification however, it is not the only method for identifying the presence of, or excluding the possibility of rare plants. Vegetative morphology and dried flower or fruit morphology, which may persist long after the blooming period, may also be used. Skeletal remains from previous season's growth can also be used for identification. Some species do not flower each year or only flower at maturity and therefore must be identified from vegetative characteristics. Algae, fungi, mosses, lichens, ferns, lycophyta and sphenophyta have no flowers and there are representatives from these groups that are now considered to be special-status species which require non-blooming identification. For some plants unique features such as the aromatic oils present are key indicator. For some trees and shrubs with unique vegetative characteristics flowering is not needed for proper identification. The vegetative evaluation as a function of field experience can be used to identify species outside of the blooming period to verify or exclude the possibility of special-status plants in a study area. Habitat is also a key characteristic for consideration of special-status species in a study area.

Many special-status species are rare in nature because of their specific often very narrow habitat or environmental requirements. Their presence is limited by very specific environmental conditions such as: hydrology, microclimate, soils, nutrients, interspecific and intraspecific competition, and aspect or exposure. In some situations special-status species particularly annuals may not be present each year and in this case one has to rely on skeletal material from pervious years. A site evaluation based on habitat or environmental conditions is therefore, a reliable method for including or excluding the possibility of special-status species in an area.

All plants observed (living and or remains from last season's growth) were recorded in field notes and the results presented in Appendix A.

Animals were identified in the field by their sight, sign, or call. Our field techniques consisted of surveying the area with binoculars and walking the perimeter of the project site.

Trees were surveyed to determine whether occupied raptor nests were present within the proximity of the project site (i.e., within a minimum 500 feet of the areas to be disturbed). Surveys consisted of scanning the trees on the project site (500 ft +) with binoculars searching for nest or bird activity. Our search was conducted from the project area and by walking under existing trees looking for droppings or nest scatter from nests that may be present that were not observable by binoculars.

Potential bat breeding habitat was surveyed for within 200 feet of the proposed project, by looking for roosting habitat rock outcrops, crevasses, and evidence of roosting.

Aerial photos were reviewed to look at the habitat surrounding the site and the potential for wildlife movement for adjoining properties onto and through the site.

SPECIAL-STATUS SPECIES SCOPING

Special-status species scoping for the project site considered the following resources (see attachments):

- California Native Plant Society List of Special-status Plants for the Quadrangle and Surrounding Quadrangles,
- Department of Fish and Game (DFG) California Natural Diversity Data Base (CNDDB) List of Special-status species for the Quadrangle, and
- Federal Endangered and Threatened Species that occur in the U.S.G.S. 7 1/2 Minute Quadrangle.

FINDINGS

The winery and waste disposal field are located in an Oak Woodland and Chaparral habitat. Cave Spoils will be hauled off site or place in an area permitted for vineyards surveyed in the spring of 2008 by Kjeldsen Biological Consulting.



Photo1. View of Proposed Winery Site.



Photo2. View of area for proposed waste disposal field.

Habitat Types Present

Chaparral Chaparral habitat types are typically dominated by xerophytic shrub species with small-waxy leaves. Chaparral plants are usually found in areas with Mediterranean climate that have shallow-rocky, low-nutrient soils, steep slopes, and a high degree of solar exposure. This combination of physical factors results in xeric edaphic conditions. Chaparral plant communities are adapted to fire, with cycles as frequent as 10 to 40 years between fires. In fact, most species require fire for seed germination and stump sprouting. The dominant plant species that define the chaparral habitat sub-type will be dependent on the soil substrate, such as serpentinite or volcanic geologic formations. Chaparral habitat types tend to be low in biotic diversity, as they do not provide rich habitat value. Chaparral communities are found usually on south facing slopes or areas where water is not retained in the soil profile. The characteristic shrubs are: *Toxicodendron diversilobum*, *Baccharis pilularis*, *Chrysothamnus parryi* ssp. *laticolor*, *Arctostaphylos glandulosa* ssp. *glandulosa*, *Pickeringia montana*, *Quercus berberidifolia*, *Eriodictyon californicum*, *Ceanothus cuneatus* var. *cuneatus*, *Rhamnus californica*, *Rhamnus crocea*, *Adenostoma fasciculatum*, *Heteromeles arbutifolia*, and *Mimulus aurantiacus*. Habitat value is increased with factors such as: seed production, variety of nesting habitat, variety of plant habitat (grass, shrub, tree, etc.), and variety of vegetative cover. Grasses, forbs, and trees are minor components of chaparral habitats. Note: as listed in the appendix, not all elements of the Oak Woodland community are present on the project site.

Oak Woodland or Cismontane Woodland This habitat type is a transition with the chaparral of the region. This plant community is characterized by the following trees: *Quercus agrifolia*, *Quercus wislizeni*, *Arbutus menziesii*, *Umbellularia californica*, and *Pseudotsuga menziesii*. The shrubs of this community consist of *Arctostaphylos* ssp., *Ceanothus* ssp., and *Rosa californica*. The property also contains *Quercus douglasii* with scattered *Quercus kelloggii* and occasional *Pinus sabiniana*, which in some classifications are placed as a separate plant community. Note: as listed in the appendix, not all elements of the Oak Woodland community are present on the project site.

Special-status Species

Table I. Analysis of potential “target” special-status plant species. The taxa included in the table are selected based on the DFG CNDDDB Rare Find 3 records for occurrence within 5 miles of the project site (see Plate II) and potential local target species associated with the biotic community present.

| Common Name | Scientific Name | Plant Habitat Association | Obs. On Site | Habitat Present | Flower Period | Justification for Negative Occurrence |
|--------------------------------------|---|--|--------------|-----------------|---------------|---|
| Napa False Indigo | <i>Amorpha californica</i> var. <i>napensis</i> | Cismontane Woodland | No | No | April-July | Requisite habitat absent on the site or in the immediate vicinity. |
| *Clara Hunt’s Milk-Vetch | <i>Astragalus clarianus</i> | Cismontane Woodland, Valley and Foothill Grassland | No | No | March-April | Requisite micro-habitat, edaphic requirements, native vegetation associates and exposure not present. |
| *Narrow-anthered California Brodiaea | <i>Brodiaea californica</i> var. <i>leptandra</i> | Broadleaved upland forest, chaparral, | No | No | May-July | The density of the woodlands and chaparral reasonably preclude potential for presence. |
| *Small-flowered Calycandenia | <i>Calycandenia micrantha</i> | Cismontane Woodland, Valley/Foothill Grassland | No | No | June-Aug. | Requisite habitat and vegetation associates absent on the site or in the immediate vicinity. |
| Rincon Ridge Ceanothus | <i>Ceanothus confusus</i> | Chaparral | No | No | Feb.-March | The density of the woodlands and chaparral reasonably preclude potential for presence. |
| Calistoga Ceanothus | <i>Ceanothus divergens</i> | Chaparral serpentinite | No | No | Feb.-March | The density of the woodlands and chaparral reasonably preclude potential for presence. |
| *Holly-leaved Ceanothus | <i>Ceanothus purpureus</i> | Chaparral | No | No | Feb.-June | The density of the woodlands and chaparral reasonably preclude potential for presence. |

| Common Name | Scientific Name | Plant Habitat Association | Obs. On Site | Habitat Present | Flower Period | Justification for Negative Occurrence |
|-------------------------------|--|--|--------------|-----------------|---------------|--|
| Sonoma Ceanothus | <i>Ceanothus sonomensis</i> | Chaparral, Sandy Serpentinite or Volcanic | No | No | Feb.-April | The density of the woodlands and chaparral reasonably preclude potential for presence. |
| Pappose Tarplant | <i>Centromedia parryi</i> ssp. <i>rudis</i> | Grasslands | No | No | May-July | Requisite habitat and vegetation associates absent on the site or in the immediate vicinity. |
| *Greene's Narrow-leaved Daisy | <i>Erigeron greenei</i> | Chaparral Serpentinite | No | No | May-Sept. | Requisite slope exposure, edaphic habitat and vegetation associates absent on the site or in the immediate vicinity. |
| *Two-carpellate Western Flax | <i>Hesperolinon bicarpellatum</i> | Chaparral Serpentinite | No | No | May-July | Requisite edaphic habitat absent on the site or in the immediate vicinity precludes presence. |
| *Napa Western Flax | <i>Hesperolinon serpentinum</i> | Chaparral Serpentinite | No | No | May-July | Requisite edaphic habitat absent on the site precludes presence. |
| *Colusa Layia | <i>Layia septentrionalis</i> | Cismontane Woodland, Valley/Foothill Grassland, Serpentinite | No | No | April-May | Absence of edaphic conditions required for presence. |
| *Sebastopol Meadowfoam | <i>Limnanthes vincularis</i> | Meadows and Seeps, Valley and Foothill Grassland, Vernal Pools | No | No | April-May | Requisite mesic habitat absent on the site or in the immediate vicinity. |
| *Jepson's Leptosiphon | * <i>Leptosiphon jepsonii</i> = <i>Linanthus jepsonii</i> | Chaparral, Cismontane Woodland usually volcanic | No | No | April-May | The density of the woodlands and chaparral reasonably preclude potential for presence. |
| Cobb Mt. Lupine | <i>Lupinus sericatus</i> | Chaparral, Cismontane Woodland | No | No | March-June | The density of the woodlands and chaparral reasonably preclude potential for presence. |
| *Sonoma Beardtongue | <i>Penstemon newberryi</i> var. <i>sonomensis</i> | Cismontane Woodland | No | No | April-August | The density of the woodlands and chaparral reasonably preclude potential for presence. |

| Common Name | Scientific Name | Plant Habitat Association | Obs. On Site | Habitat Present | Flower Period | Justification for Negative Occurrence |
|----------------------|--|----------------------------------|--------------|-----------------|---------------|--|
| * Green Jewel-flower | <i>Streptanthus breweri</i> var. <i>hesperidis</i> | Chaparral Openings, Serpentinite | No | No | May-June | Absence of edaphic conditions required for presence. |

* Indicates taxa that are known to occur within five miles of the project site (see Plate II).

Table II. Analysis of potential “target” special-status plant species. The taxa included in the table are selected based on the DFG CNDDDB Rare Find 3 records for occurrence within 5 miles of the project site (see Plate II)

| Common Name | Scientific Name | Habitat | Potential for Project Site | Observed on or Around Project Site | Justification for Negative Findings |
|-----------------------------|------------------------------------|---|----------------------------|------------------------------------|---------------------------------------|
| Northwestern Pond Turtle | <i>Clemmys marmorata marmorata</i> | Slow moving water or ponds | No | No | Lack of habitat. |
| Pallid Bat | <i>Antrozous pallidus</i> | Roosts in Buildings and Overhangs | May fly over | No | Lack of habitat. |
| Great Egret | <i>Ardea alba</i> | Feeds in open areas. Nests in colonies. | No May fly over. | No | Lack of Suitable Habitat for Nesting. |
| Great Blue Heron | <i>Ardea herodias</i> | Feeds in open areas. Nests in colonies. | No May fly over. | No | Lack of Suitable Habitat for Nesting. |
| White-Tailed Kite | <i>Elanus leucurus</i> | Nests in tall trees near water | No May fly over | No | Lack of Suitable Habitat for Nesting. |
| Bald Eagle | <i>Haliaeetus leucocephalus</i> | Nests near Water | May fly over | No | Lack of habitat. |
| Double-crested Cormorant | <i>Phalacrocorax auritus</i> | Aquatic | No | No | Lack of habitat. |
| Foothill Yellow-legged Frog | <i>Rana boylii</i> | Aquatic | No | No | Lack of habitat. |

Known Special-status Species in the near vicinity of project are:

Holly-leaf Ceanothus (*Ceanothus purpureus*) is listed by the California Native Plant Society as a List 1B plant = Plants Rare, threatened, or endangered in California and elsewhere. The taxon does not have State or Federal listing. It is a localized endemic found on chaparral hillsides in Sonoma,

Napa and Solano Counties. We found no evidence for the presence of this plant on or near the project site.

Napa Western Flax (*Hesperolinon serpentinum*) is listed by the California Native Plant Society as a List 1B plant = Plants Rare, threatened, or endangered in California and elsewhere. The taxon does not have State or Federal listing. This plant is known from property to the south of the project site. We found no evidence for the presence of this plant on or near the project site.

Napa Lomatium (*Lomatium repostum*) is currently listed by the California Native Plant Society as a list 4 plant = Plants of Limited Distribution – A Watch List. The taxon does not have State or Federal listing. We found no evidence for the presence of this plant on or near the project site

Unique or Sensitive Communities

Wetlands - No wetlands, vernal pools, or aquatic habitat were present on the proposed project site.

Tributaries to Waters of the U. S. - There are no Tributaries to Waters of the U. S. or drainages associated with the project site. There are no Napa County defined drainages on the project site. There is a “USGS Blue Line” creek below the project on the west side of the existing access road. This drainage below the property and off site would be a Napa County defined drainage.

Riparian Habitat - The project will not impact any riparian vegetation.

Trees – Oak trees will be removed. Oak replacement plantings on suitable areas of the property as replacement for the loss of Oak Woodland habitat should be considered.

Native Grassland - Indicators of native grassland are not present on the project site. Native bunchgrasses are found along the existing entrance road. The project will not impact any significant populations of native grasslands.

Wildlife

There are no identifiable wildlife corridors associated with the proposed project site. Wildlife will continue to move across and around the property. The project will not impact any migratory fish on or off site provided standard erosion control measures are implemented.

Very few burrows were observed, but small mammals and songbirds likely utilize habitats on the site for foraging and cover. No significant wildlife dens or burrows other than a pack rat nest were observed. No raptor nests were identified during our survey. We found no indications of nesting raptors on the site or in the near vicinity of the survey areas. We did not observe any nests, whitewash or nest droppings, perching or flying raptors in the area.

The project site does not contain any major natural roosting habitat for bat species i.e. mines, caves, riparian woodlands. There are no man-made structures that will be impacted by the proposed project that would contain roosting habitat. (i.e. bridges, barns, outbuildings.)

MITIGATION CONSIDERATIONS

Oak replacement plantings should be considered for reducing the impact to Oak Woodlands for removal of any oak trees greater than 6-inches. Three to one replacement plantings on suitable sites on the property of local genetic material is recommended.

It is recommended that a qualified biologist perform a raptor and nest search prior to any land clearing, tree removal or tree trimming if these activities occur between February 1 and July 31.

The construction phase of the project will require best management practices to prevent impacts of dust and erosion from the project.

SUMMARY

This preliminary Biological Site review did not find any evidence for special-status species known for the Quadrangle, surrounding Quadrangles, the property, or the region. The proposed project site does not contain vegetation associates, habitat or edaphic conditions, which would support special-status species. The project site does not contain any unique habitat, or unique plant populations.

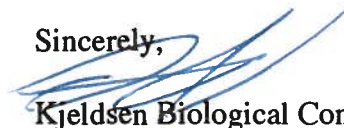
The project will not interfere with native resident or migratory fish or wildlife species, wildlife corridors, and or native wildlife nursery sites. There is no bat roosting/breeding habitat on the project site. No raptor nests were observed on or near the project site.

The project will not impact any sensitive habitat, riparian vegetation, and wetlands or significantly impact any biological resource on the property or the area.

The loss of habitat (Oak Woodlands and Chaparral) for local wildlife is incremental but on a regional or local scale will be less than significant. The flora and fauna observed during our study are attached.

Should you have any questions, please do not hesitate to contact us at: Telephone (707) 544-3091, Email kjeldsen@sonic.net, or Fax (707) 575-8030.

Sincerely,



Kjeldsen Biological Consulting

ATTACHMENTS

Plate I. Site and Location Map

Plate II. DFG CNDDDB Rare Find # Map

Plate III. Aerial Photo

Species Observed

DFG CNDDDB Listed Species for the Quadrangle and Surrounding Quadrangles

CNPS Listed Plant Species for the Quadrangle and Surrounding Quadrangles

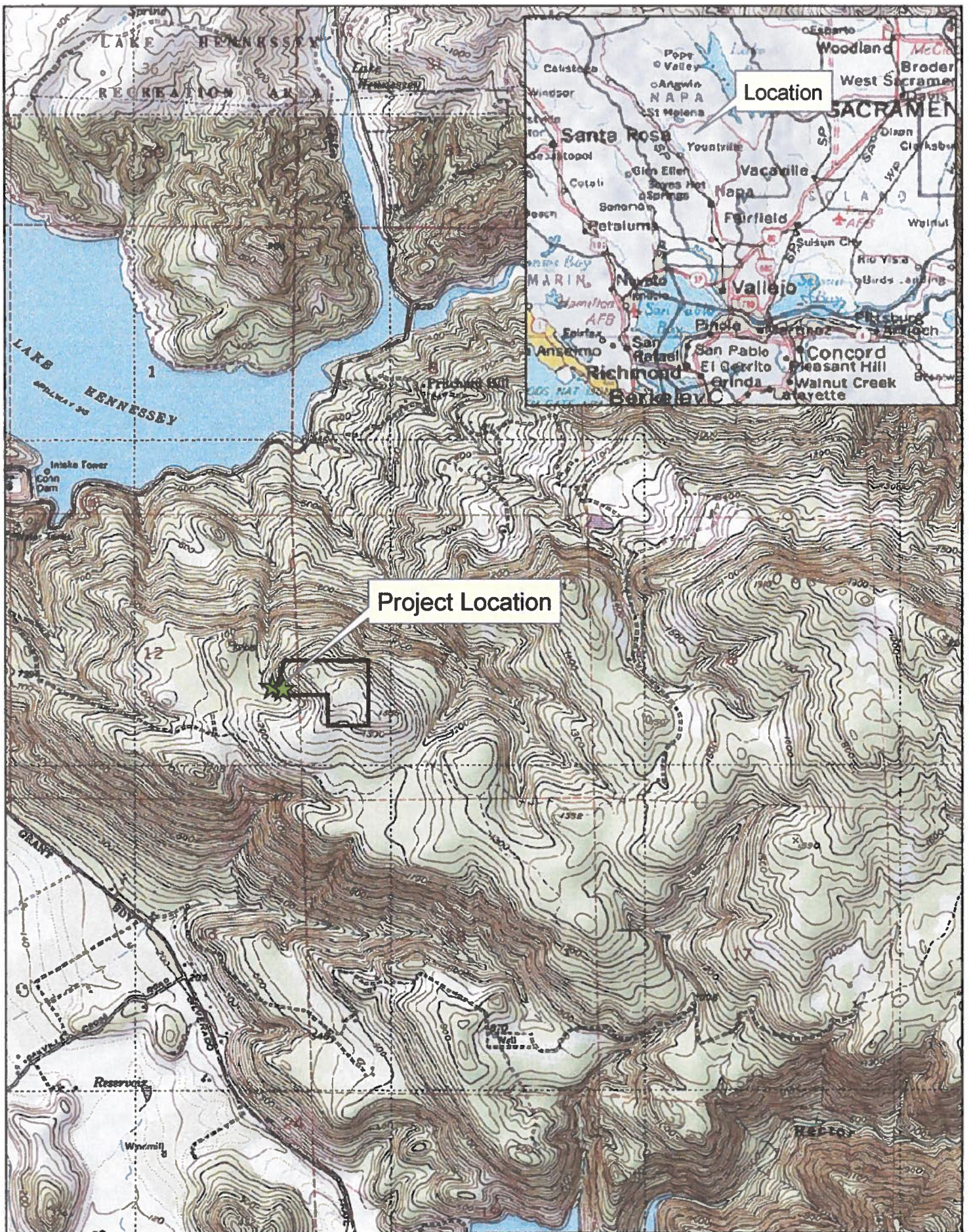


Plate I. Site / Location Map

Yountville Quadrangle



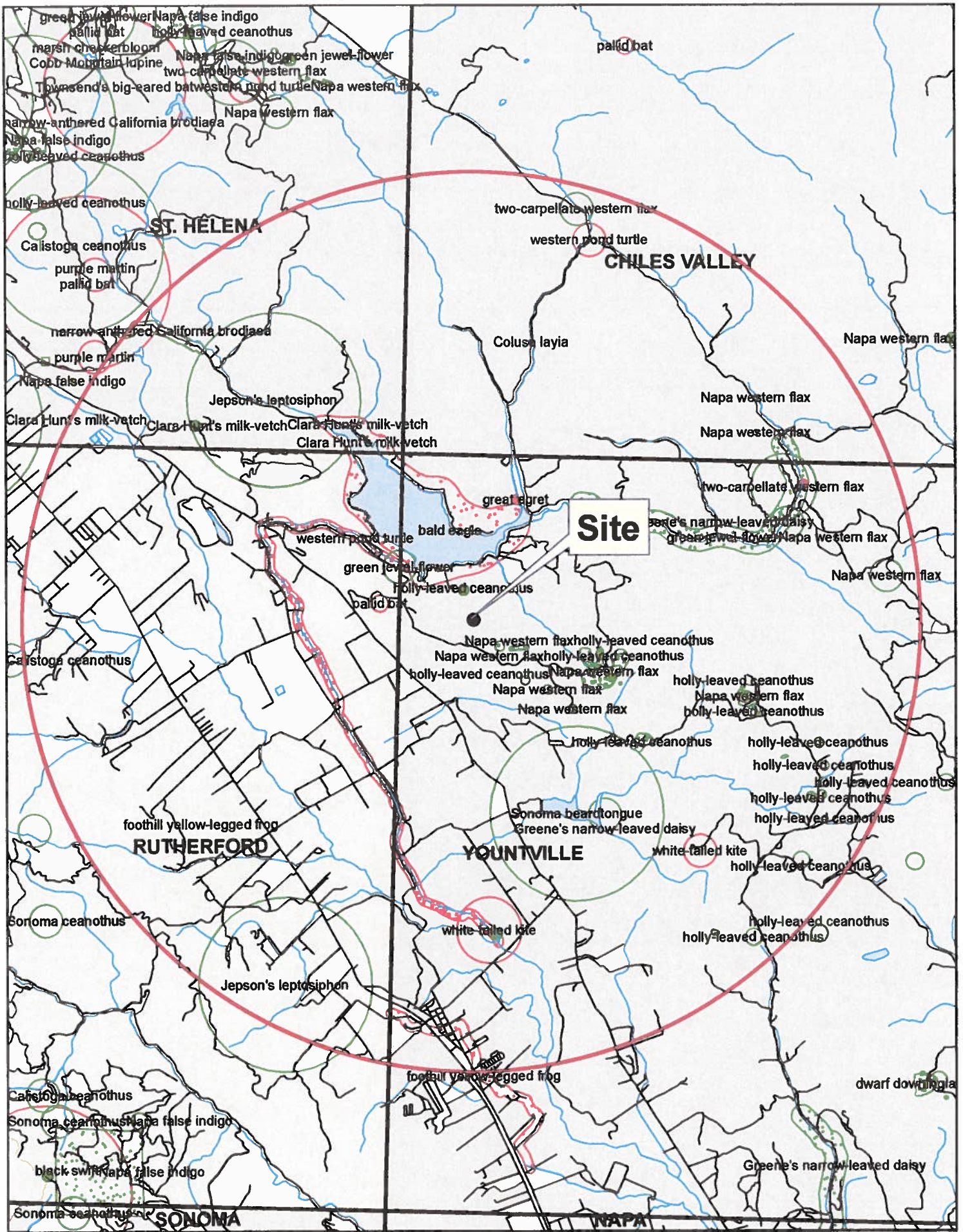


Plate II. CNDDDB Rare Find 3 5-Mile Search (Data Date October 2009)





Survey Area

Plate III. Aerial Photo / Survey Area



Plants Observed

The nomenclature for the list of plants found on the project study areas and the immediate vicinity follows: Brodo, Irwin M., Sylvia Duran Sharnoff and Stephen Sharnoff, 2001, for the lichens; Smith -1956, for the algae; Arora -1985, for the fungi; S Norris and Shevrock - 2004, for the mosses; Doyle and Stotler - 2006 for liverworts and hornworts and .Hickman-1993, for the vascular plants.

Habitat type indicates the general associated occurrence of the taxon on the project site or in nature.

Abundance refers to the relative number of individuals on the project site or in the region.

| MAJOR PLANT GROUP | | | |
|--------------------------|--------------|---------------------|------------------|
| Family | Genus | Habitat Type | Abundance |
| Common Name | | | |

NCN = No Common Name, * = Non-native, @= Voucher Specimen

FUNGI

Basidiomycota- Club Fungi

POLYPORACEAE

| | | |
|-------------------------|------------------------|--------|
| <i>Stereum hirsutum</i> | Woodlands on Dead Wood | Common |
| False Turkey Tail | | |

MOSSES

MINACEAE

| | | |
|--|-------------------------|--------|
| <i>Homalothecium nuttallii</i> | Epiphytic on Trees | Common |
| NCN | | |
| <i>Orthotrichum lyellii</i> Hook & Tayl. | Woodlands, Upper Canopy | Common |
| NCN | | |
| <i>Scleropodium touretii</i> (Brid.) L Koch. | Woodlands | Common |
| NCN | | |

LICHENS

FOLIOSE

| | | |
|---|---------|--------|
| <i>Flavoparmelia caperata</i> | On Oaks | Common |
| NCN | | |
| <i>Flavopunctilia flaventor</i> | On Oaks | Common |
| NCN | | |
| <i>Melanelixia glabera</i> = <i>Melanelia</i> | On Oaks | Common |
| California Camouflauge Lichen | | |
| <i>Parmelina coleae</i> = <i>Parmelina quercina</i> | On Oaks | Common |
| NCN | | |
| <i>Physcia adscendens</i> | On Oaks | Common |
| NCN | | |
| <i>Xanthoria polycarpa</i> | On Oaks | Common |
| NCN | | |

| MAJOR PLANT GROUP | | |
|--------------------------|---------------------|------------------|
| Family | | |
| Genus | Habitat Type | Abundance |
| Common Name | | |

NCN = No Common Name, * = Non-native, @= Voucher Specimen

FRUTICOSE

| | | |
|---|---------|--------|
| <i>Evernia prunastri</i> | On Oaks | Common |
| NCN | | |
| <i>Ramalina farinacea</i> | On Oaks | Common |
| NCN | | |
| <i>Ramalina menziesii</i> | On Oaks | Common |
| NCN | | |
| <i>Usnea intermedia</i> = <i>U. arizonica</i> | On Oaks | Common |
| NCN | | |

CRUSTOSE

| | | |
|---------------------------|---------|--------|
| <i>Pertusaria armaria</i> | On Oaks | Common |
| NCN | | |

VASCULAR PLANTS DIVISION PTEROPHYTA

PTERIDACEAE

| | | |
|---------------------------------|-----------------------------|------------|
| <i>Pentagramma triangularis</i> | Riparian or Shady Woodlands | Common |
| Goldback Fern | | |
| <i>Pellaea andromedifolia</i> | Woodlands | Occasional |
| Coffee Fern | | |

VASCULAR PLANTS DIVISION CONIFEROPHYTA--GYMNOSPERMS

PINACEAE

| | | |
|------------------------------------|------------|------------|
| <i>Pinus sabiniana</i> | Dry Ridges | Occasional |
| Digger Pine, Gray or Foothill Pine | | |

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS

CLASS--DICOTYLEDONAE- TREES

ERICACEAE

| | | |
|--------------------------|-----------|--------|
| <i>Arbutus menziesii</i> | Woodlands | Common |
| Madrone | | |

FAGACEAE

| | | |
|--------------------------|-----------|--------|
| <i>Quercus agrifolia</i> | Woodlands | Common |
| Live Oak | | |
| <i>Quercus douglasii</i> | Woodlands | Common |
| Blue Oak | | |
| <i>Quercus kelloggii</i> | Woodlands | Common |
| Black Oak | | |

HIPPOCASTANACEAE

| | | |
|-----------------------------|---------------------|--------|
| <i>Aesculus californica</i> | Woodlands, Riparian | Common |
| California Buckeye | | |

LAURACEAE

| | | |
|---------------------------------|-----------|--------|
| <i>Umbellularia californica</i> | Woodlands | Common |
| California Bay | | |

MAJOR PLANT GROUP**Family****Genus****Habitat Type****Abundance****Common Name**

NCN = No Common Name, * = Non-native, @= Voucher Specimen

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS**CLASS--DICOTYLEDONAE-SHRUBS AND WOODY VINES****ANACARDIACEAE**

| | | |
|-----------------------------------|-----------|--------|
| <i>Toxicodendron diversilobum</i> | Woodlands | Common |
| Poison Oak | | |

ASTERACEAE

| | | |
|----------------------------|-----------------------|--------|
| <i>Baccharis pilularis</i> | Woodlands, Grasslands | Common |
| Coyote Brush | | |

CAPRIFOLIACEAE

| | | |
|---|---------------------|------------|
| <i>Lonicera hispidula</i> var. <i>vacillans</i> | Woodlands, Riparian | Occasional |
| Honeysuckle | | |

ERICACEAE

| | | |
|---|-----------|--------|
| <i>Arctostaphylos manzanita</i> ssp. <i>manzanita</i> | Woodlands | Common |
| Common Manzanita | | |

ROSACEAE

| | | |
|--------------------------------|-------------|--------|
| <i>Adenostoma fasciculatum</i> | Shrub/Scrub | Common |
| Chamise | | |

| | | |
|--------------------------------|-------------|--------|
| <i>Heteromeles arbutifolia</i> | Shrub/Scrub | Common |
| Christmas Berry, Toyon | | |

SCROPHULARIACEAE

| | | |
|----------------------------|-----------|------------|
| <i>Mimulus aurantiacus</i> | Woodlands | Occasional |
| Bush Monkey Flower | | |

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS**CLASS--DICOTYLEDONAE-HERBS****APIACEAE**

| | | |
|---------------------------|----------------------|--------|
| * <i>Torilis arvensis</i> | Grasslands Woodlands | Common |
| Hedge-parsley | | |

ASTERACEAE

| | | |
|-----------------------------|-----------|------------|
| <i>Agoseris grandiflora</i> | Woodlands | Occasional |
| Grand Mountain Dandelion | | |

| | | |
|---------------------------------|---------------------|--------|
| * <i>Centaurea solstitialis</i> | Grasslands, Ruderal | Common |
| Yellow Star Thistle | | |

| | | |
|--|-----------|------------|
| <i>Grindelia camphorum</i> var. <i>camphorum</i> | Grassland | Occasional |
| Gum Plant | | |

| | | |
|---------------------------|---------|------------|
| * <i>Lactuca serriola</i> | Ruderal | Occasional |
| Prickly Lettuce | | |

| | | |
|-----------------------|-------------------|--------|
| <i>Wyethia glabra</i> | Edge of Woodlands | Common |
| Coast Mules Ears | | |

BRASSICACEAE

| | | |
|---|---------|--------|
| * <i>Hirschfeldia incana</i> (<i>B. geniculata</i>) | Ruderal | Common |
| Summer Mustard | | |

MAJOR PLANT GROUP**Family****Genus****Habitat Type****Abundance****Common Name**

NCN = No Common Name, * = Non-native, @= Voucher Specimen

EUPHORBIACEAE*Eremocarpus setigerus*

Ruderal

Common

Turkey Mullein, Dove Weed

FABACEAE**Trifolium hirtum*

Ruderal

Common

Rose Clover

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS**CLASS--MONOCOTYLEDONAE-GRASSES****POACEAE****Avena fatua*

Grasslands

Common

Wild Oat

**Bromus diandrus* =(B. rigidus)

Ruderal, Grasslands

Common

Ripgut Grass

Bromus laevipes

Conifer Forests

Common

Forest Brome

Elymus glaucus ssp. *glaucus*

Woodlands

Common

Blue Wildrye

Nassella lepida = (*Stipa lepida*)

Foothill Grasslands, Chaparral

Common

Foothill Needle Grass

VASCULAR PLANTS DIVISION ANTHOPHYTA --ANGIOSPERMS**CLASS--MONOCOTYLEDONAE-HERBS****IRIDACEAE***Iris* ssp.

Grasslands

Occasional

Long-tubed Iris

Fauna Species Observed in the Vicinity of the Project Site

The nomenclature for the animals found on the project site and in the immediate vicinity follows: Mc Ginnis –1984, for the fresh water fishes; Stebbins -1985, for the reptiles and amphibians; and Udvardy and Farrand – 1998, for the birds; and Jameson and Peeters -1988 for the mammals.

SOUAMATA

| | | |
|----------------------|--------------------------------|---|
| Western Fence Lizard | <i>Sceloporus occidentalis</i> | X |
|----------------------|--------------------------------|---|

MAMMALS

ORDER

| Common Name | Genus | Observed |
|-------------|-------|----------|
|-------------|-------|----------|

CARNIVORA

| | | |
|--------|----------------------|------|
| Coyote | <i>Canis latrans</i> | Skat |
|--------|----------------------|------|

CERVIDAE

| | | |
|-------------------|----------------------------|------|
| Black-tailed Deer | <i>Odocoileus hemionus</i> | Skat |
|-------------------|----------------------------|------|

INSECTIVORA

| | | |
|-------------------|---------------------------|----------|
| Broad-footed Mole | <i>Scapanus latimanus</i> | Workings |
|-------------------|---------------------------|----------|

RODENTIA

| | | |
|-----------------------|-------------------------|-----|
| Dusky-footed Wood Rat | <i>Neotoma fuscipes</i> | Den |
|-----------------------|-------------------------|-----|

**DFG CNDDDB Listed Species for the Quadrangle and
Surrounding Quadrangles**

**CNPS Listed Plant Species for the Quadrangle and Surrounding
Quadrangles**

Status: search results - Tue, Oct. 13, 2009 15:21 c

Your Quad Selection: **Yountville (500A) 3812243**, St. Helena (516C) 3812254, Chiles Valley (516D) 3812253, Capell Valley (499B) 3812242, Mount George (499C) 3812232, Lake Berryessa (515C) 3812252, Rutherford (500B) 3812244, Sonoma (500C) 3812234, Napa (500D) 3812233

| scientific | common | family | CNPS |
|---|--|----------------|--------------|
| <u>Allium peninsulare</u> var. <u>franciscanum</u> 📷 | Franciscan onion | Liliaceae | List 1B.2 |
| <u>Amorpha californica</u> var. <u>napensis</u> 📷 | Napa false indigo | Fabaceae | List 1B.2 |
| <u>Arctostaphylos bakeri</u> ssp. <u>bakeri</u> 📷 | Baker's manzanita | Ericaceae | List 1B.1 |
| <u>Arctostaphylos canescens</u> ssp. <u>sonomensis</u> 📷 | Sonoma canescent manzanita | Ericaceae | List 1B.2 |
| <u>Astragalus claranus</u> 📷 | Clara Hunt's milk-vetch | Fabaceae | List 1B.1 |
| <u>Astragalus tener</u> var. <u>tener</u> 📷 | alkali milk-vetch | Fabaceae | List 1B.2 |
| <u>Atriplex joaquiniana</u> 📷 | San Joaquin spearscale | Chenopodiaceae | List 1B.2 |
| <u>Balsamorhiza macrolepis</u> var. <u>macrolepis</u> 📷 | big-scale balsamroot | Asteraceae | List 1B.2 |
| <u>Blennosperma bakeri</u> 📷 | Sonoma sunshine | Asteraceae | List 1B.1 |
| <u>Brodiaea californica</u> var. <u>leptandra</u> 📷 | narrow-anthered California brodiaea | Liliaceae | List 1B.2 |
| <u>Calochortus pulchellus</u> 📷 | Mt. Diablo fairy-lantern | Liliaceae | List 1B.2 |

| | | | |
|--|-------------------------------|---------------|-----------|
| <u>Calycadenia micrantha</u> | small-flowered calycadenia | Asteraceae | List 1B.2 |
| <u>Ceanothus confusus</u> 🌿 | Rincon Ridge ceanothus | Rhamnaceae | List 1B.1 |
| <u>Ceanothus divergens</u> 🌿 | Calistoga ceanothus | Rhamnaceae | List 1B.2 |
| <u>Ceanothus purpureus</u> 🌿 | holly-leaved ceanothus | Rhamnaceae | List 1B.2 |
| <u>Ceanothus sonomensis</u> 🌿 | Sonoma ceanothus | Rhamnaceae | List 1B.2 |
| <u>Chorizanthe valida</u> 🌿 | Sonoma spineflower | Polygonaceae | List 1B.1 |
| <u>Cryptantha clevelandii</u> var. <u>dissita</u> | serpentine cryptantha | Boraginaceae | List 1B.1 |
| <u>Downingia pusilla</u> 🌿 | dwarf downingia | Campanulaceae | List 2.2 |
| <u>Erigeron biolettii</u> 🌿 | streamside daisy | Asteraceae | List 3 |
| <u>Erigeron greenei</u> | Greene's narrow-leaved daisy | Asteraceae | List 1B.2 |
| <u>Gilia capitata</u> ssp. <u>tomentosa</u> 🌿 | woolly-headed gilia | Polemoniaceae | List 1B.1 |
| <u>Hemizonia congesta</u> ssp. <u>congesta</u> 🌿 | pale yellow hayfield tarplant | Asteraceae | List 1B.2 |
| <u>Hesperolinon bicarpellatum</u> | two-carpellate western flax | Linaceae | List 1B.2 |
| <u>Hesperolinon breweri</u> 🌿 | Brewer's western flax | Linaceae | List 1B.2 |
| <u>Hesperolinon serpentinum</u> 🌿 | Napa western flax | Linaceae | List 1B.1 |
| <u>Horkelia tenuiloba</u> 🌿 | thin-lobed horkelia | Rosaceae | List 1B.2 |

| | | | |
|--|-------------------------------------|------------------|--------------|
| <u>Juglans hindsii</u> 🌿 | Northern California black walnut | Juglandaceae | List 1B.1 |
| <u>Lasthenia conjugens</u> 🌿 | Contra Costa goldfields | Asteraceae | List 1B.1 |
| <u>Lathyrus jepsonii</u> var. <u>jepsonii</u> 🌿 | Delta tule pea | Fabaceae | List 1B.2 |
| <u>Layia septentrionalis</u> 🌿 | Colusa layia | Asteraceae | List 1B.2 |
| <u>Leptosiphon jepsonii</u> 🌿 | Jepson's leptosiphon | Polemoniaceae | List 1B.2 |
| <u>Lilaeopsis masonii</u> 🌿 | Mason's lilaeopsis | Apiaceae | List 1B.1 |
| <u>Limnanthes vinculans</u> 🌿 | Sebastopol meadowfoam | Limnanthaceae | List 1B.1 |
| <u>Lupinus sericatus</u> 🌿 | Cobb Mountain lupine | Fabaceae | List 1B.2 |
| <u>Micropus amphibolus</u> 🌿 | Mt. Diablo cottonweed | Asteraceae | List 3.2 |
| <u>Monardella villosa</u> ssp. <u>globosa</u> 🌿 | robust monardella | Lamiaceae | List 1B.2 |
| <u>Navarretia leucocephala</u> ssp. <u>bakeri</u> 🌿 | Baker's navarretia | Polemoniaceae | List 1B.1 |
| <u>Navarretia leucocephala</u> ssp. <u>pauciflora</u> 🌿 | few-flowered navarretia | Polemoniaceae | List 1B.1 |
| <u>Navarretia rosulata</u> 🌿 | Marin County navarretia | Polemoniaceae | List 1B.2 |
| <u>Penstemon newberryi</u> var. <u>sonomensis</u> 🌿 | Sonoma beardtongue | Scrophulariaceae | List 1B.3 |
| <u>Rhynchospora californica</u> 🌿 | California beaked-rush | Cyperaceae | List 1B.1 |
| <u>Sidalcea hickmanii</u> ssp. | Napa checkerbloom | Malvaceae | List |

| | | | |
|---|----------------------|----------------|-----------|
| <u>napensis</u> | | | 1B.1 |
| <u>Sidalcea hickmanii</u> ssp. <u>viridis</u> 🌸 | Marin checkerbloom | Malvaceae | List 1B.3 |
| <u>Sidalcea oregana</u> ssp. <u>hydrophila</u> | marsh checkerbloom | Malvaceae | List 1B.2 |
| <u>Streptanthus breweri</u> var. <u>hesperidis</u> 🌸 | green jewel-flower | Brassicaceae | List 1B.2 |
| <u>Symphyotrichum lentum</u> 🌸 | Suisun Marsh aster | Asteraceae | List 1B.2 |
| <u>Trichostema ruygtii</u> 🌸 | Napa bluecurls | Lamiaceae | List 1B.2 |
| <u>Trifolium amoenum</u> 🌸 | two-fork clover | Fabaceae | List 1B.1 |
| <u>Trifolium depauperatum</u> var. <u>hydrophilum</u> 🌸 | saline clover | Fabaceae | List 1B.2 |
| <u>Viburnum ellipticum</u> 🌸 | oval-leaved viburnum | Caprifoliaceae | List 2.3 |

California Department of Fish and Game
 Natural Diversity Database
 Selected Elements by Scientific Name - Yountville Quadrangle and Surrounding Quadrangles

| Scientific Name/Common Name | Element Code | Federal Status | State Status | GRank | SRank | CDFG or CNPS |
|---|--------------|----------------|--------------|---------|--------|--------------|
| 1 <i>Actinemys marmorata</i> western pond turtle | ARAAD02030 | | | G3G4 | S3 | SC |
| 2 <i>Agelaius tricolor</i> tricolored blackbird | ABPBXB0020 | | | G2G3 | S2 | SC |
| 3 <i>Allium peninsulare</i> var. <i>franciscanum</i> Franciscan onion | PMLIL021R1 | | | G5T2 | S2.2 | 1B.2 |
| 4 <i>Amorpha californica</i> var. <i>napensis</i> Napa false indigo | PDFAB08012 | | | G4T2 | S2.2 | 1B.2 |
| 5 <i>Antrozous pallidus</i> pallid bat | AMACC10010 | | | G5 | S3 | SC |
| 6 <i>Aquila chrysaetos</i> golden eagle | ABNKC22010 | | | G5 | S3 | |
| 7 <i>Arctostaphylos canescens</i> ssp. <i>sonomensis</i> Sonoma canescent manzanita | PDERI04066 | | | G3G4T2 | S2.1 | 1B.2 |
| 8 <i>Ardea alba</i> great egret | ABNGA04040 | | | G5 | S4 | |
| 9 <i>Ardea herodias</i> great blue heron | ABNGA04010 | | | G5 | S4 | |
| 10 <i>Astragalus claranus</i> Clara Hunt's milk-vetch | PDFAB0F240 | Endangered | Threatened | G1 | S1.1 | 1B.1 |
| 11 <i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch | PDFAB0F8R1 | | | G1T1 | S1.1 | 1B.2 |
| 12 <i>Atriplex joaquiniana</i> San Joaquin spearscale | PDCHE041F3 | | | G2 | S2 | 1B.2 |
| 13 <i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i> big-scale balsamroot | PDAST11061 | | | G3G4T2 | S2.2 | 1B.2 |
| 14 <i>Blennosperma bakeri</i> Sonoma sunshine | PDAST1A010 | Endangered | Endangered | G1 | S1.2 | 1B.1 |
| 15 <i>Brodiaea californica</i> var. <i>leptandra</i> narrow-anthered California brodiaea | PMLIL0C022 | | | G4?T2T3 | S2S3.2 | 1B.2 |
| 16 <i>Calasellus californicus</i> An isopod | ICMAL34010 | | | G2G3 | S2S3 | |
| 17 <i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern | PMLIL0D160 | | | G2 | S2.1 | 1B.2 |
| 18 <i>Calycadenia micrantha</i> small-flowered calycadenia | PDAST1P0C0 | | | G2G3 | S2S3.2 | 1B.2 |
| 19 <i>Ceanothus confusus</i> Rincon Ridge ceanothus | PDRHA04220 | | | G2 | S2.2 | 1B.1 |
| 20 <i>Ceanothus divergens</i> Calistoga ceanothus | PDRHA04240 | | | G2 | S2.2 | 1B.2 |
| 21 <i>Ceanothus purpureus</i> holly-leaved ceanothus | PDRHA04160 | | | G2 | S2.2 | 1B.2 |
| 22 <i>Ceanothus sonomensis</i> Sonoma ceanothus | PDRHA04420 | | | G2 | S2.2 | 1B.2 |
| 23 <i>Corynorhinus townsendii</i> Townsend's big-eared bat | AMACC08010 | | | G4 | S2S3 | SC |

California Department of Fish and Game
 Natural Diversity Database
 Selected Elements by Scientific Name - Yountville Quadrangle and Surrounding Quadrangles

| Scientific Name/Common Name | Element Code | Federal Status | State Status | GRank | SRank | CDFG or CNPS |
|--|--------------|----------------|--------------|--------|-------|--------------|
| 24 <i>Cryptantha clevelandii</i> var. <i>dissita</i> serpentine cryptantha | PDBOR0A0H2 | | | G5T1 | S1.1 | 1B.1 |
| 25 <i>Cypseloides niger</i> black swift | ABNUA01010 | | | G4 | S2 | SC |
| 26 <i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle | IICOL48011 | Threatened | | G3T2 | S2 | |
| 27 <i>Downingia pusilla</i> dwarf downingia | PDCAM060C0 | | | G3 | S3.1 | 2.2 |
| 28 <i>Elanus leucurus</i> white-tailed kite | ABNKC06010 | | | G5 | S3 | |
| 29 <i>Erigeron greenii</i> Greene's narrow-leaved daisy | PDAST3M5G0 | | | G2 | S2 | 1B.2 |
| 30 <i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat | ABPBX1201A | | | G5T2 | S2 | SC |
| 31 <i>Haliaeetus leucocephalus</i> bald eagle | ABNKC10010 | Delisted | Endangered | G5 | S2 | |
| 32 <i>Hemizonia congesta</i> ssp. <i>congesta</i> seaside tarplant | PDAST4R065 | | | G5T2T3 | S2S3 | 1B.2 |
| 33 <i>Hesperolinon bicarpellatum</i> two-carpellate western flax | PDLIN01020 | | | G2 | S2.2 | 1B.2 |
| 34 <i>Hesperolinon breweri</i> Brewer's western flax | PDLIN01030 | | | G2 | S2.2 | 1B.2 |
| 35 <i>Hesperolinon</i> sp. nov. " <i>serpentinum</i> " Napa western flax | PDLIN010D0 | | | G2 | S2.1 | 1B.1 |
| 36 <i>Horkelia tenuiloba</i> thin-lobed horkelia | PDROS0W0E0 | | | G2 | S2.2 | 1B.2 |
| 37 <i>Juglans hindsii</i> Northern California black walnut | PDJUG02040 | | | G1 | S1.1 | 1B.1 |
| 38 <i>Lasthenia conjugens</i> Contra Costa goldfields | PDAST5L040 | Endangered | | G1 | S1.1 | 1B.1 |
| 39 <i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea | PDFAB250D2 | | | G5T2 | S2.2 | 1B.2 |
| 40 <i>Layia septentrionalis</i> Colusa layia | PDAST5N0F0 | | | G2 | S2.2 | 1B.2 |
| 41 <i>Leptosiphon jepsonii</i> Jepson's leptosiphon | PDPLM09140 | | | G2 | S2.2 | 1B.2 |
| 42 <i>Lilaeopsis masonii</i> Mason's lilaeopsis | PDAPI19030 | | Rare | G3 | S3.1 | 1B.1 |
| 43 <i>Limnanthes vinculans</i> Sebastopol meadowfoam | PDLIM02090 | Endangered | Endangered | G2 | S2.1 | 1B.1 |
| 44 <i>Lupinus sericatus</i> Cobb Mountain lupine | PDFAB2B3J0 | | | G2 | S2.2 | 1B.2 |
| 45 <i>Melospiza melodia samuelis</i> San Pablo song sparrow | ABPBXA301W | | | G5T2? | S2? | SC |
| 46 <i>Monardella villosa</i> ssp. <i>globosa</i> robust monardella | PDLAM180P7 | | | G5T2 | S2.2 | 1B.2 |

California Department of Fish and Game
 Natural Diversity Database
 Selected Elements by Scientific Name - Yountville Quadrangle and Surrounding Quadrangles

| Scientific Name/Common Name | Element Code | Federal Status | State Status | GRank | SRank | CDFG or CNPS |
|---|--------------|----------------|--------------|--------|-------|--------------|
| 47 <i>Myotis evotis</i> long-eared myotis | AMACC01070 | | | G5 | S4? | |
| 48 <i>Myotis yumanensis</i> Yuma myotis | AMACC01020 | | | G5 | S4? | |
| 49 <i>Navarretia leucocephala ssp. bakeri</i> Baker's navarretia | PDPLM0C0E1 | | | G4T2 | S2.1 | 1B.1 |
| 50 <i>Navarretia leucocephala ssp. pauciflora</i> few-flowered navarretia | PDPLM0C0E4 | Endangered | Threatened | G4T1 | S1.1 | 1B.1 |
| 51 <i>Navarretia rosulata</i> Marin County navarretia | PDPLM0C0Z0 | | | G2? | S2? | 1B.2 |
| 52 <i>Northern Vernal Pool</i> | CTT44100CA | | | G2 | S2.1 | |
| 53 <i>Oncorhynchus mykiss irideus</i> steelhead - central California coast ESU | AFCHA0209G | Threatened | | G5T2Q | S2 | |
| 54 <i>Penstemon newberryi var. sonomensis</i> Sonoma beardtongue | PDSCR1L483 | | | G4T1 | S1.3 | 1B.3 |
| 55 <i>Phalacrocorax auritus</i> double-crested cormorant | ABNFD01020 | | | G5 | S3 | |
| 56 <i>Progne subis</i> purple martin | ABPAU01010 | | | G5 | S3 | SC |
| 57 <i>Rana boylei</i> foothill yellow-legged frog | AAABH01050 | | | G3 | S2S3 | SC |
| 58 <i>Rana draytonii</i> California red-legged frog | AAABH01022 | Threatened | | G4T2T3 | S2S3 | SC |
| 59 <i>Rhynchospora californica</i> California beaked-rush | PMCYP0N060 | | | G1 | S1.1 | 1B.1 |
| 60 <i>Sidalcea hickmanii ssp. napensis</i> Napa checkerbloom | PDMAL110A6 | | | G1 | S1 | 1B.1 |
| 61 <i>Sidalcea oregana ssp. hydrophila</i> marsh checkerbloom | PDMAL110K2 | | | G5T2? | S2? | 1B.2 |
| 62 <i>Streptanthus breweri var. hesperidis</i> green jewel-flower | PDBRA2G092 | | | G5T2 | S2.2 | 1B.2 |
| 63 <i>Symphyotrichum lentum</i> Suisun Marsh aster | PDASTE8470 | | | G2 | S2 | 1B.2 |
| 64 <i>Syncaris pacifica</i> California freshwater shrimp | ICMAL27010 | Endangered | Endangered | G1 | S1 | |
| 65 <i>Taxidea taxus</i> American badger | AMAJF04010 | | | G5 | S4 | SC |
| 66 <i>Trifolium amoenum</i> showy rancheria clover | PDFAB40040 | Endangered | | G1 | S1.1 | 1B.1 |
| 67 <i>Trifolium depauperatum var. hydrophilum</i> saline clover | PDFAB400R5 | | | G5T2? | S2.2? | 1B.2 |
| 68 <i>Viburnum ellipticum</i> oval-leaved viburnum | PDCPR07080 | | | G5 | S2.3 | 2.3 |