

# DAVIDON HOMES

May 2, 2017

Planning Commission Mtg.

VIA EMAIL AND FEDERAL EXPRESS

MAY 03 2017

Agenda Item # 8B

Charlene Gallina  
Supervising Planner  
County of Napa  
1195 Third Street, Suite 210  
Napa, CA 94559

**Re: Truchard Family Winery Project Proposed Use Permit #P14-0033-1-UP, Variance #P14-00331-VAR, and Negative Declaration/Initial Study**

Dear Ms. Gallina:

I am writing on behalf of Davidon Homes, the immediate neighbor of the proposed Truchard Family Winery Project, to request that the Planning Commission hearing scheduled for May 3, 2017 be postponed to a date to be determined. As the enclosed comment letter demonstrates, the Negative Declaration/Initial Study for the Project does not meet CEQA requirements and an environmental impact report is required. In addition, the applicants have not satisfied the legal requirements to obtain the variance they seek. Davidon Homes requests that the Planning Commission's consideration of the Project await proper CEQA review because the environmental impacts of the Project with respect to biological resources, and potentially with respect to other resources, may affect the Davidon Homes property.

Thank you for your consideration of this request. You can reach me at the phone number provided below or at my mobile number, 925-260-4698.

Sincerely,  
DAVIDON HOMES



Steve B. Abbs  
Vice President

Enclosures

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May 2, 2017

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**Re: Truchard Family Winery Project Proposed Use Permit #P14-0033-1-UP,  
Variance #P14-00331-VAR, and Negative Declaration/Initial Study**

Dear Ms. Gallina:

We are writing on behalf of Davidon Homes to comment on the proposed Use Permit #P14-00330-UP, Variance #P14-00331-VAR, and Negative Declaration for the winery and associated well (collectively, the "Project") on the Truchard property in Napa County. We request you include this letter in the Project record and present it to the Planning Commission prior to any decision on the Project.

Davidon Homes owns an 80.63-acre site in the City of Napa, west of State Route 29 and south of Old Sonoma Road. The Davidon site has long been proposed for residential development and open space preserve, and is directly adjacent to the proposed winery and well site.

Based on our review of the available documents, we conclude that the Negative Declaration does not meet CEQA standards and that there is substantial evidence of a fair argument that the Project may cause significant environmental effects, so that an environmental impact report is required. In addition, it appears the applicants have not met one of the essential requirements under state and local law for the grant of a variance.

## **I. THE NEGATIVE DECLARATION**

A strong presumption in favor of requiring preparation of an environmental impact report is built into CEQA. This presumption is reflected in the "fair argument" standard, under which an agency must prepare an EIR whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. If substantial evidence supports a fair argument that a project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect. CEQA Guidelines section 15064(f)(1). As described below, in several respects the proposed Negative

Declaration for the Project does not actually analyze whether the Project may have a significant effect on the environment, and in other respects there is substantial evidence of a fair argument that the Project may have such effects. Accordingly, the Project is subject to the normal CEQA requirement that an EIR be prepared.

#### **A. Aesthetics**

The Initial Study concludes, without conducting an adequate analysis, that the Project would not have a substantial adverse effect on a scenic vista. The discussion does not mention that Old Sonoma Road, which borders the Project site, is designated in the Napa County General Plan as a scenic roadway, and asserts that the Project “will have a minimal visual impact from the road” because it is “set at a lower elevation and screened by natural vegetation.” However, the visual simulations included in the project materials show that the Project would not be screened at all, and would be visually prominent, from Camera View #1 on Old Sonoma Road. In addition, as described in the publicly available planning documents for Davidon’s property, Davidon proposes a public trail system on its property, from which the winery will be visible to the general public. The Draft EIR for the Project must include a full analysis of its aesthetic impacts.

#### **B. Air Quality**

The Initial Study’s discussion of air quality states that the Bay Area Air Quality Management District’s 2010/2011 CEQA thresholds of significance remain under review by the California Supreme Court. In fact, the Supreme Court decided that litigation in 2015. *California Building Industry Ass’n v. Bay Area Air Quality Mgt. Dist.*, 62 Cal. 4th 369 (2015). On remand, the First District Court of Appeal held in 2016 that BAAQMD’s thresholds of significance were invalid only to the extent that they purported to require analysis of the impacts of the existing environment on future project users. *California Building Industry Ass’n v. Bay Area Air Quality Mgt. Dist.*, 2 Cal. App. 5th 1067 (2016). Neither court criticized BAAQMD’s 2010/2011 CEQA thresholds of significance for a project’s impacts on the environment.

Nevertheless, the County has decided not to use BAAQMD’s 2010/2011 thresholds and instead uses BAAQMD’s 1999 thresholds of significance, which do not address effects such as health risk from construction emissions. This approach is not typical of the approach taken by other lead agencies within the Bay Area Air Basin. In addition, the County *has* decided to use BAAQMD’s 2010/2011 thresholds with respect to the Project’s greenhouse gas emissions (see Initial Study section VII and section E below). The Draft EIR for the Project should either use recent air quality thresholds or describe what substantial evidence supports use of BAAQMD’s 1999 thresholds in 2017.

## **C. Biological Resources**

The most serious defects in the Initial Study, and those that demonstrate most clearly that an EIR is required, are in the Biological Resources section. The Initial Study is internally inconsistent in its conclusions regarding special status species; makes factual statements that are contradicted by documents in the record and other readily available evidence; and improperly defers both CEQA analysis and the identification of potential mitigation measures to another agency.

### **1. Internal Inconsistency and Failure to Survey**

The Initial Study states, in section a/b on page 8, that “The project would not have a substantial adverse effect on any special status species, or species of particular concern, *as there are none identified in the project area.*” (Emphasis added.) On the same page, however, in section c/d/e, the Initial Study states that “*as conditioned* [by the California Department of Fish and Wildlife in a Lake and Streambed Alteration Agreement that does not yet exist] the potential for this project to have an impact on special status species is less than significant.” (Emphasis added.) Both of these sentences cannot be accurate; either special status species are not present in the project area, in which case no mitigation is required (section a/b) or they are or could be present, in which case mitigation is required (section c/d/e).

In fact, the Initial Study’s conclusion in section a/b that “no known candidate, sensitive, or special status species have been identified as occurring within the project boundaries” is not supported by substantial evidence. The fact that no “known” species in these categories are identified on Countywide maps is not evidence that they are not present on the Project site. The record includes no survey for candidate, sensitive or special status species, even though the Project site includes a stream with riparian habitat (and calls for work in the stream) and is adjacent to irrigation ponds. Such surveys must be conducted.

### **2. Substantial Evidence of Special-Status Species Impacts**

There is substantial evidence that special status species are present. For example, the western pond turtle is a federal and state species of special concern. As the Project applicants are aware, in February 2011, an expert herpetologist conducted site-specific surveys for the proposed Davidon Homes project, which is immediately adjacent to the Project’s proposed well and near the proposed winery construction. The expert reported that he “was able to observe (with binoculars) basking or swimming adult WPTs [western pond turtles] *in every irrigation pond adjacent to the property within a distance of about a quarter of a mile.*” (See enclosed Biological Assessment,

Attachment 8, July 2011 (emphasis added).) Although the expert found the Davidon Homes property to be totally unsuitable for WPT nesting or estivation, the risk that WPT might venture onto the property from the Truchard property ponds was sufficient for him to recommend mitigation on the Davidon site. *Id.* The fact that the winery Project would include construction in close proximity to ponds where WPT have been sighted is itself substantial evidence of a fair argument that the Project may have a significant impact on this special status species. *Id.*

In addition, contrary to the statement in section a/b of the Initial Study that there are no special status species identified in the Project area, the Project applicants reported the potential presence of WPT, as well as numerous other special-status species, in their Notification of Lake or Streambed Alteration submitted to the California Department of Fish and Wildlife, which is part of the record. Section 11.C of the supporting documents for the Notification states that the site of the bridge replacement has potential for occurrence of WPT, the pallid bat, and the California giant salamander, each of which is a species of special concern. Thus even without addressing the effects of Project construction beyond the bridge replacement, the Notification demonstrates that the Project may have a significant impact on special status species. Given that the Project includes not only work in and around the stream, but construction near ponds, and excavation/grading sufficient to generate 8,000 cubic yards of spoils to be off-hauled, the potential for a significant impact to special status species is evident.

### **3. Improper Deferral to California Department of Fish and Wildlife**

The Initial Study improperly transfers responsibility for both analysis and potential mitigation from the County, the CEQA lead agency, to the Department of Fish and Wildlife, which is responsible for the Lake and Streambed Alteration Agreement (LSAA) process. A CEQA lead agency (here the County) must first analyze impacts and then identify mitigation measures for any potentially significant impacts. The lead agency cannot avoid the first step by asserting that another agency will analyze the impacts. *See Banning Ranch Conservancy v. City of Newport Beach*, California Supreme Court Case No. S227473 (Mar. 30, 2017) and authorities cited therein (lead agency cannot defer analysis of potential environmentally sensitive habitat areas to subsequent Coastal Commission process). Here, the Initial Study defers both analysis and potential mitigation for impacts to biological resources, including special status species, to the California Department of Fish and Wildlife's consideration of an LSAA. The Initial Study anticipates that after the County has approved the Project, the LSAA process will result in plans to demonstrate that "the new bridge and associated construction will not cause harm to the creek environs and associated riparian plant and animal species." These measures are not part of the project; rather they are potential mitigation designed to reduce or eliminate disturbance to the creek environs and associated species

anticipated from the bridge replacement activity -- impacts that the County has not analyzed in its Initial Study. Because CEQA prohibits the process contemplated in the Initial Study and because substantial evidence supports a fair argument that the Project will cause significant impacts to biological resources, an EIR must be prepared before the County can consider the Project.

#### **4. Other Defects**

In section c/d/e, the Initial Study states that the irrigation pond on the Project site "is one of those features identified as artificially excavated freshwater ponds and are not considered natural habitat for species." Natural or not, the 2011 survey demonstrated that WPT were basking or swimming in all of these ponds.

Section c/d/e asserts that there will be no effect on a wildlife corridor, but does not analyze whether the stream where Project work will be performed is in fact a wildlife corridor. Nor does it analyze the potential for WPT to travel through the upland portions of the Project site where the winery facilities would be placed. The Draft EIR must address wildlife corridors rather than dismiss them from consideration based on conjecture.

Finally, the Draft EIR's project description should identify the location of the valet parking that the Project would use for large events. We have not discovered any discussion of where the Project would find parking for more than 65 vehicles for the largest winery events; the Draft EIR should disclose and analyze the proposed parking location, and describe what impacts may occur in habitat areas. In addition, if such parking occurs on a parcel other than the Project site, the Draft EIR should disclose and describe the potential impacts as well as analyze how such winery parking would be permissible on agriculturally zoned property under the County Code.

#### **D. Cultural Resources**

Where an existing structure will be demolished, a CEQA analysis should identify the age of the structure so that the need for a historic resource analysis can be determined. The Draft EIR for the Project should provide this information regarding the wooden bridge that would be replaced as part of the Project.

#### **E. Greenhouse Gases**

At page 13, the Initial Study asserts that the Project falls below the greenhouse gas emissions screening levels set forth in BAAQMD's 2011 CEQA Guidelines and therefore that GHG emissions will be less than significant. The Initial Study states:

“Using comparable land use categories as described in the Air Quality discussion, a project with 9,000 square feet of hospitality area or 121,000 square feet of barrel storage/production area would potentially generate more than 1,100 MTCO<sub>2</sub>e annually and would be considered to have a potentially significant impacts on the environment...” The Initial Study then asserts that because the Project’s hospitality area will comprise 8,960 rather than 9,000 square feet and the production area will comprise 24,018 square feet compared to 121,000 square feet, the Project would not have a significant greenhouse gas impact. This analysis is erroneous.

First, although it refers to the Initial Study’s Air Quality discussion for an explanation of the “comparable land use categories” as described in BAAQMD’s 2011 CEQA Guidelines, the Air Quality discussion includes no such explanation. As noted in section B above, the Air Quality discussion asserts that the 2010/2011 BAAQMD CEQA Guidelines do not apply to the Project and reverts to the 1999 BAAQMD CEQA Guidelines.

Second, a review of the 2011 BAAQMD CEQA Guidelines screening thresholds for operational GHGs demonstrates that the Initial Study misapplies those thresholds. The Initial Study appears to use the 9,000 square-foot “quality restaurant” threshold from the BAAQMD list for the Project’s hospitality area and the 121,000 square-foot “general light industry” threshold for the Project’s production area. The Initial Study then asserts that because viewed separately, neither element of the Project would exceed its individually applicable screening threshold, the Project as a whole falls below BAAQMD’s screening thresholds. Therefore, the Initial Study asserts, no GHG emissions quantification is required to establish that the Project would not cause a significant GHG impact. The BAAQMD screening thresholds do not, however, allow a project to be segmented in this way. If they did, a project such as the Project proposed here, which has one element that falls just below a screening threshold, could add many other elements that also fall below their respective thresholds, and no GHG analysis would be required. Such an approach is contrary to the BAAQMD CEQA Guidelines and contrary to CEQA, which prohibits segmenting a project into its individual elements and analyzing them separately so as to avoid a finding of a significant impact. The fact that the Project’s hospitality area falls 40 square feet short of one GHG screening threshold, and that the Project also includes more than 24,000 square feet of a light industrial use, constitutes substantial evidence of a fair argument that the Project as a whole would cause a significant GHG impact.

## **F. Hydrology**

The Initial Study states that water use for the Project would be less than existing groundwater recharge, but does not analyze the effect of reduced groundwater

recharge on aquifer volume, a lowering of the local groundwater table level, or effects on the production rate of pre-existing nearby wells. Instead, proposed Condition of Approval 4.9 contemplates analyzing the effects of the Project's increased groundwater usage after the Project is approved, constructed and operating. This is not permitted under CEQA. The Draft EIR for the Project must analyze the effects of the Project.

### **G. Mandatory Findings of Significance**

As described above, there is substantial evidence of a fair argument that the Project may "reduce the number or restrict the range" of animals, including the western pond turtle, thereby triggering a Mandatory Finding of Significance. In addition, the Initial Study does not analyze the cumulative impacts of the Project in combination with the Davidon Homes project, particularly with respect to biological resources. The Draft EIR for the Project must include a cumulative impacts analysis.

## **II. THE APPLICANTS HAVE NOT SHOWN THAT THE PROJECT IS ELIGIBLE FOR A VARIANCE.**

The Project's variance application does not provide an adequate basis for the County to grant the variance under state planning law or the County's zoning ordinance. Among other requirements, Government Code section 65906 states that variances can be granted "only when, because of special circumstances applicable to the property," the strict application of the zoning ordinance deprives such property of privileges enjoyed by other property in the vicinity and under identical zoning classification. The County zoning ordinance similarly requires finding that the "[g]rant of the variance is *necessary* for the preservation and enjoyment of substantial property rights."<sup>1</sup> Both the state law and local ordinance require that any variance granted to be "subject to such conditions as will assure that the adjustment thereby authorized shall not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zone in which such property is situated."<sup>2</sup>

The Project's variance application does not meet these requirements. The application requests a 178-foot encroachment into the required setback from Old Sonoma Road so that Truchard Family Winery may "enjoy the property right to have an agricultural processing facility to process their estate grown fruit."<sup>3</sup> The entire application is based on the premise that the *parcel* upon which the winery is proposed is too narrow to accommodate both a winery and the County's requirement for a 600-foot setback from

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<sup>1</sup> Napa Cty. Code § 18.128.060(A)(3) (emphasis added).

<sup>2</sup> Cal. Gov't Code § 65096; Napa Cty. Code § 18.128.050.

<sup>3</sup> Truchard Family Winery Variance Statement P14-00331 p. 2.

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Old Sonoma Road. But the applicants own every parcel that adjoins APN 043-040-001, the parcel where they propose to build their winery. Nothing in the record explains why the applicants could not simply obtain a lot line adjustment or voluntary merger with one of their adjoining parcels and then locate their winery so that it complies with the setback required by the Zoning Ordinance. (The cases cited by the applicants in their explanation for the need for a variance do not address this fact pattern.) The application thus fails to demonstrate that the application of the County's zoning requirements would deprive Truchard Family Winery of any substantial property rights. The issuance of a variance would grant this winery the special privilege of violating the setback requirement merely on the basis of the (adjustable) configuration of lot lines on parcels commonly owned by the applicants.

Very truly yours,



Julie Jones

Enclosure

cc: Steve Abbs

**BIOLOGICAL ASSESSMENT**

**NAPA OAKS PROJECT**

**NAPA, CALIFORNIA**

**Prepared for:**

DAVIDON HOMES  
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**Prepared by:**

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**July 2011**

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**ATTACHMENT 3. 2011 Botanical Survey, Napa Oaks Project, Napa, California. Prepared by Virginia Dains. July 2011.**

**ATTACHMENT 4. Revised Tree Report, Napa Oaks, Napa, California. Prepared by HortScience, Inc. July 2011.**

**ATTACHMENT 5. U.S. Fish and Wildlife Service, California Natural Diversity Data Base and California Native Plant Society Special Status Species Lists for the Project Area**

- ATTACHMENT 6. Habitat Assessment for the California Tiger Salamander on the Napa Oaks Project Site, Napa County, California. Prepared by Mark Jennings of Rana Resources, February 10, 2011.**
- ATTACHMENT 7. Habitat Assessment for the California Red-legged Frog on the Napa Oaks Project Site, Napa County, California. Prepared by Mark Jennings of Rana Resources, February 11, 2011.**
- ATTACHMENT 8. Letter Report on Western Pond Turtle, Napa Oaks Project Site, Napa County, California. Prepared by Mark Jennings of Rana Resources, February 12, 2011.**

This report should be cited as: *Biological Assessment for the Napa Oaks Project, Napa, California*. July 2011. San Rafael, California. 46 pp. plus attachments. Prepared for Davidon Homes, California.

## 1.0 INTRODUCTION

On behalf of our client, Davidon Homes, Huffman-Broadway Group, Inc. (HBG) has prepared a biological assessment of proposed development of an 80.64-acre site in Napa, California. The project site covers four assessor's parcels (#043-040-008, 043-040-010, 043-040-13 and 043-040-025). The proposed project includes development plans for 54 single family residential units. With the inclusion of a 0.3 acre area to accommodate an access easement from Old Sonoma Road, the site area totals 80.94 acres.

It is expected that this Biological Assessment report will be incorporated into an environmental document prepared by the City of Napa to satisfy requirements of the California Environmental Quality Act (CEQA). This report describes biological resources present on the property and ecological constraints to development of the site, including the presence of sensitive habitats and an evaluation of the potential for rare, threatened, or endangered species of flora and/or fauna to occur on site or in the project vicinity. It also evaluates environmental effects of the proposed project and provides mitigation recommendations.

Our analysis included a review of pertinent literature on habitat characteristics of the site, species of plants and animals expected to utilize the site, a review of planning documents referencing ecological aspects of the site, and field site surveys. HBG also has conducted a detailed delineation of wetlands and waters of the United States at the property according to criteria of the U.S. Army Corps of Engineers. The results of the wetland delineation are summarized herein. The California Natural Diversity Data Base (CNDDB) was consulted to determine if any populations of endangered, threatened, or rare species have occurred historically or currently are known to exist in the project vicinity.

The approximately 81-acre study site was surveyed by HBG biologists between January and June of 2011. Protocol rare plant surveys were conducted during the flowering period of target plants by Virginia Dains between March and July of 2011. Mark Jennings of Rana Resources conducted habitat assessments of the property for the federally-listed threatened California red-legged frog and California tiger salamander, and provided technical information related to other special status species. A separate Tree Report was prepared by HortScience and results are incorporated herein. These relevant technical reports are attached to this Biological Assessment report. The discussion in the Biological Assessment is based in part on the above-mentioned surveys and analyses. Biological studies were also conducted on the site by Zander Associates in 1998. Field surveys were conducted between January and April of 1998, and included California tiger salamander surveys, a general floristic survey and wetland delineation. Results of these evaluations are summarized in this report. These previous biological studies were to be incorporated into an Environmental Impact Report (EIR) at that time, but a formal Draft EIR was never prepared or circulated for review.

## **2.0 PROJECT DESCRIPTION**

### **2.1 Location of Project Site**

The 80.64 acre project site is bounded on the east by residential uses along Casswall Street, on the north by Old Sonoma Road and large residential parcels, and on the west and south by agricultural land planted in vineyard. Figure 1 shows the project site location. Figure 2 shows the property on a U.S.G.S. topographic map, and Figure 3 shows an aerial photograph of the project area. The project site covers four assessor's parcels (#043-040-008, 043-040-010, 043-040-13 and 043-040-025). Most of the property is oak woodland and grassland, but the northwestern portion of the property is developed with a house and several ranch structures including a corral and a couple of out-buildings.

### **2.2 Project Description**

The conceptual development plan for the project is shown in Figure 4. The proposed project includes development plans for 54 single family residential units. Of the 80.64 acres at the site, residential uses are proposed for 27.1 acres (34% of the land area of the site). Residential units are to be maintained by individual homeowners. A private roadway maintained by a Homeowner's Association will encompass 7.3 acres (9% of the site). Four separate parcels (Parcels A-D) totaling 46.2 acres (57% of the site) will be dedicated as open space managed by the Homeowner's Association. The site is currently zoned AR (Agricultural Resource) and RS-10 and the proposed zoning is PD-Planned Development. Water will be provided by the City of Napa Water Division and sewer will be provided by the Napa Sanitation District. For purposes of biological review the overall project site includes an additional 0.3-acre area in the northwest corner of the property to accommodate an access easement onto the property from Old Sonoma Road.

## **3.0 EXISTING SETTING**

### **3.1 Site Description**

Vegetation within the approximately 81-acre site consists of primarily non-native annual grassland and oak woodland with scattered wetlands. The site is within the Napa River Browns Valley Watershed as shown in Figure 5. No perennial, seasonal or ephemeral streams are present on the project site; the nearest named stream is Raynes Creek located about 0.25 miles from the southwest portion of the site. The site is currently used for cattle grazing. Elevations within the Napa Oaks property range from about 180 feet msl at the northeast corner to approximately 309 feet along the ridgeline at the southwest corner of the site. Slopes within the property range from flat topography at the tops of hills and along ridgelines and within lower valleys, to fairly steep slopes over much of the area. The project site is not subject to inundation by floodwaters and does not lie within the 100-year floodplain as shown in Figure 6. Figure 7 shows the location of historic marsh margin in the vicinity of Napa, and shows that the project site is not located within the historic margins of baylands.

A review of the Natural Resources Conservation Service (NRCS) (formerly Soil Conservation Service, SCS) Soil Survey maps for Napa County (USDA 1977) and shows that four soil types occur in within the project site. Soils within the southwest portion of the property are Bressa-Dibble complex, 30 to 50 percent slopes. Soils within a small area traversing the middle of the property are Forward gravelly loam, 9 to 30 percent slopes. Soils in the northeast corner of the property are Perkins gravelly loam, 5 to 9 percent slopes. The soils on the majority of the site are Forward-Kidd complex, 50 to 75 percent slopes. A soil map of the project site is shown in Figure 8. Field investigations on the project site confirmed that the NRCS soils mapping is reasonably accurate throughout the project area. Some earthwork has occurred on the property resulting in some areas of fill rather than natural soils.

### **3.2 Biological Setting**

#### **3.2.1 Plant Communities**

HBG biologists conducted field reconnaissance of the project site between January and June of 2011. All habitats on the project site were surveyed on foot and assessed for similarity to sites known to support special status species within the area. Qualitative information on the composition and distribution of plant species on the site was obtained during the site visits. Plant communities were identified on aerial photographs of the site. Botanical surveys were conducted by Virginia Dains and her botanical report related to the property is included in Attachment 3.

Vegetation communities are assemblages of plant species growing in an area of similar biological and environmental factors. Terrestrial vegetation community types discussed in this report are generally based on the classification described by Sawyer and Keeler-

Wolf (1995). According to this classification, the habitat types on site consist of annual grassland and Coast live oak woodland. The California Wildlife Habitat Relationships (WHR) System for habitat classifications (Mayer and Laudenslayer 1988) defines aquatic as well as terrestrial habitats, and is one of the few systems that include urban areas. The project site contains four habitat types according to the California Wildlife Habitat Relationships System: annual grassland (49.65 acres), valley foothill hardwood (Coast live oak woodland, 27.31 acres), fresh emergent marsh (1.21 acres) and Urban (2.77 acres). According to nomenclature from the *List of Natural Communities Recognized by the Natural Diversity Database* (1997) the three natural habitats would be classified as California Annual Grassland, Coast Live Oak Woodland and Valley Freshwater Marsh. Wetland habitats on-site were further classified using the U.S. Fish and Wildlife's Service's "Classification System for Wetland and Deepwater Habitats" (Cowardin et al. 1979); the wetlands at the property are defined as palustrine emergent wetlands according to the Cowardin et al criteria. Figure 9 shows the extent and distribution of vegetation types on the property using the WHR nomenclature to include wetland habitats and developed areas. A list of plant species identified on the property during surveys conducted by Virginia Dains is included in Attachment 2, Table 1.

### **Annual Grassland**

Annual grassland is the predominant habitat type on site, comprising 49.65 acres, or approximately 61% of the land area. The annual grassland found on the Napa Oaks property is comprised largely of non-native grasses and forage species such as soft chess (*Bromus hordeaceus*), subterranean clover (*Trifolium subterraneum*), rose clover (*T. hirtum*), ripgut brome (*B. diandrus*), wild oats (*Avena fatua*) and filaree (*Erodium botrys*). This community is grazed by cattle and the effects of this use are evident in the community structure and composition. Level and gently sloping areas of the grassland are more accessible to livestock and are more heavily used. Later in the spring, patches of unpalatable exotics such as yellow bartsia (*Parentucellia viscosa*) and purple star thistle (*Centaurea calcytrapa*) are present.

Despite this history of grazing, some portions of the annual grassland have assemblages of native species such as native perennial needlegrass (*Nasella pulchra*) and wildflowers including sun-cups (*Camissonia ovata*), purple owl's clover (*Castilleja exserta* ssp. *exserta*), orange-flowered Menzies' fiddleneck (*Amsinckia mesziesii* var. *intermedia*), California poppy (*Eschscholzia californica*) and blue-eyed grass (*Sisyrinchium bellum*).

### **Coast Live Oak Woodland**

The Coast live oak woodland is found on 27.31 acres, or 34% of the land area. Coastal live oak (*Quercus agrifolia*) is the woodland dominant of the valley and foothill hardwood woodland present on the property. Other tree species found as isolated individuals in the woodland at the site include California buckeye (*Aesculus californicus*) and Pacific madrone (*Arbutus menziesii*). Additional tree species such as valley oak (*Q. lobata*) and black oak (*Q. kelloggii*) are present, particularly along the eastern edge of the property. The understory of the onsite woodland is highly disturbed, consisting mostly

of non-native grassland species with few shrubs and saplings of young oaks. Where present, the herbaceous understory contains species such as poison oak (*Toxicodendron diversilobum*) and the noxious and invasive Italian thistle (*Carduus pycnocephalus*) and milk thistle (*Silybum marianum*). In disturbed areas, a dense canopy of young oak trees provides protected sites for chaparral shrubs such as coyote brush (*Baccharis pilularis*), toyon (*Heteromeles arbutifolia*), and horticultural escapes such as plum (*Prunus cerasifera*) and viburnum (*Viburnum tinus*). Open dry areas in the oak woodlands are covered with dogtail (*Cynosurus echinatus*).

A tree survey conducted on the site by HortScience (see Attachment 4) found 1,375 trees of 33 species (8 native species) present on the property. Native species constituted 94% of the trees and of these, 50% were young trees with diameters of less than 12 inches. The tree survey found Coast live oak as by far the most common tree on the property (86% of the trees); these trees were considered healthy with only 6% found to be in poor condition. Certain native species with at least one trunk of 12 inches or greater in diameter are regulated as Protected Native trees by ordinance of the City of Napa. By this definition, 622 trees (45% of the total number of trees) are considered Protected Native trees, including 102 with trunk diameters of 30 inches or greater. Detailed information regarding all trees on the property is included in the Tree Report (HortScience 2011, see Attachment 4), including information on species, size, condition, suitability for preservation and whether the tree is considered Native Protected by ordinance of the City of Napa.

The California Oak Woodlands Conservation Program recognizes oak woodlands as a vital statewide resource providing benefits including wildlife habitat, monetary and ecological value, and an ability to reduce soil erosion, enhance water quality and moderate temperatures.

### **Fresh Emergent Marsh**

Several small wetland areas (total of 1.21 acre) within the grassland support seasonally-saturated soils and growth of fresh emergent marsh vegetation such as species of rush (*Juncus* sp.), pennyroyal (*Mentha pulegium*), and curly dock (*Rumex crispus*), among others. The vegetation in the wetland areas has also been affected by the grazing by cattle. The wetlands in the southwestern portion of the property drain in the direction of Raynes Creek which is located south of the property.

### **3.2.2 Animal Populations**

The species discussed in this study are based on review of available literature from the CNDDB and habitat observations made during qualitative surveys on January 10 and May 9, 2011 conducted by HBG wildlife biologists. Species specific site assessments of the site have been conducted by Rana Resources for the federally-listed threatened California red-legged frog and California tiger salamander, and the results are included in Attachments 5 and 6, respectively.

A list of wildlife species observed on-site or expected to utilize the site was obtained through habitat reconnaissance, field observation, and literature sources. Supplemental information was obtained from the literature, particularly for wildlife taxa not observed during the surveys. A complete listing of the references from which information was compiled on the flora and fauna inhabiting the region is contained in the References section. Attachment 2, Table 2 provides species lists based on these reconnaissance level observations for reptiles, amphibians, birds and mammals. The table lists wildlife species observed or expected to occur on the project site. The table includes the scientific names of all species mentioned in the text.

The disturbed annual grassland, valley foothill hardwood and wetland habitats onsite support a variety of wildlife species. The complex of habitats includes the presence of standing water, on a seasonal basis, which can accommodate wildlife adapted to aquatic areas, and trees and shrubs which provide nesting and roosting sites for birds, in addition to foraging areas for species of mammals, reptiles, amphibians and birds.

A number of wildlife species were observed on the site during the winter season field review conducted by Gary Deghi of HBG on January 10, 2011. All species that were observed are common to abundant in the region and would be expected in the combination of disturbed grassland and woodland habitats present at the site. Raptors observed in the project area during this winter survey included turkey vulture, red-tailed hawk, Cooper's hawk and American kestrel. A sharp-shinned hawk was observed by Mark Jennings of Rana Resources on February 1, 2011. Additional birds documented within on-site grasslands during the winter survey by HBG included killdeer, mourning dove, black phoebe, Say's phoebe, American crow, Western bluebird, yellow-rumped warbler, lark sparrow, savannah sparrow, Western meadowlark, Brewer's blackbird, American goldfinch and lesser goldfinch. Birds observed primarily in oak woodlands included wild turkey (a flock of over 40 in the northeastern portion of the site), California quail, Northern flicker, acorn woodpecker, Nuttall's woodpecker, downy woodpecker, hairy woodpecker, Western scrub-jay, Stellar's jay, common raven, American robin, European starling, Northern mockingbird, oak titmouse, bushtit, white-breasted nuthatch, ruby-crowned kinglet, Hutton's vireo, orange-crowned warbler, California towhee, spotted towhee, white-crowned sparrow, golden-crowned sparrow, dark-eyed junco and house finch. A white-throated swift observed flying high over the ridge was unseasonal but not totally unexpected. The winter of 2010-2011 saw an incursion of evening grosbeaks into many residential areas in the Coast Range, including some within the City of Napa; so three seen flying over the ridge during the site survey were also not completely unexpected.

Mammals documented at the site included western gray squirrel, California ground squirrel (presence of dens), Botta's pocket gopher (burrows) and coyote (scats). Despite attempts at searching under boards and rocks, no reptiles or amphibians were observed during the January surveys.

While some of the bird species observed during the winter reconnaissance of the property by HBG would be expected only during the winter months (e.g., Say's phoebe, ruby-crowned kinglet, yellow-rumped warbler, golden crowned sparrow), most of the bird species observed are resident species that could be expected to nest in suitable grassland and oak woodland habitats at the site. Resident bird species expected in the winter that were observed at the site during a spring survey conducted on May 9, 2011 included red-tailed hawk, red-shouldered hawk, turkey vulture, killdeer, wild turkey (heard calling from adjacent property to the south), Anna's hummingbird, mourning dove, band-tailed pigeon, California quail, Northern flicker, acorn woodpecker, Nuttall's woodpecker, black phoebe, American crow, common raven, Western scrub-jay, Stellar's jay, American robin, European starling, Northern mockingbird, oak titmouse, bushtit, white-breasted nuthatch, Western bluebird, Hutton's vireo, California towhee, spotted towhee, song sparrow, dark-eyed junco, Brewer's blackbird, red-winged blackbird, lesser goldfinch and house finch. Additional neo-tropical migrants, some of which may nest at the site, that were observed during the spring survey included tree swallow, barn swallow, violet-green swallow, western kingbird, ash-throated flycatcher and Bullock's oriole. A red-tailed hawk nest was observed in a tree near the pond on the adjacent property to the south. The nest site is approximately 500 feet south of the Napa Oaks property boundary.

Mammals observed during the spring surveys of the site included California ground squirrel, western gray squirrel and black-tailed jackrabbit. Additional mammals that would be expected to occur at the site include deer mouse, Virginia opossum, raccoon, striped skunk, bobcat and mule deer. Western fence lizards were the only reptile observed during the May field review, and the only amphibian observed was an arboreal salamander found under a rotting log. Other expected amphibians and reptiles would include Pacific treefrog, California toad, Northern alligator lizard, gopher snake and western terrestrial garter snake.

### **3.2.3 Wetland Delineation**

#### **Definitions of Wetlands and Other Waters of the U.S.**

The Department of the Army, acting through the U.S. Army Corps of Engineers (Corps), has the authority to permit the discharge of dredge or fill material in waters of the U.S. under Section 404 of the Clean Water Act (CWA), and permit work and placement of structures in navigable waters of the U.S. under Section 10 of the Rivers and Harbors Act of 1899 (RHA). As described in the Corps/EPA Clean Water Act regulations (33 CFR § 328.3(a)), the term "waters of the United States" is defined as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce (excluding commerce associated with migratory birds), including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including

intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:

- i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
  - ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under the definition;
  5. Tributaries of waters identified in above paragraphs (1)-(4);
  6. The territorial seas; and
  7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in above paragraphs (1-6).

The Corps defines wetlands as: “sites that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” [(33 CFR § 328.3(b)]. Implicit in the definition is the need for a site to meet certain water, soil, and vegetation criteria to qualify as a jurisdictional wetland. These criteria and the methods used to determine whether they are met are described in the Corps’ 1987 wetland delineation manual.

Under Section 10 of the Rivers and Harbors Act of 1899, the Corps also regulates the construction of structures in, over, or under; excavation of material from; or deposition of material into navigable waters. Consistent with above paragraph (1), the Corps defines “navigable waters of the United States” as “those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce” (33 CFR § 329.4). A determination of navigability, once made by the Corps, applies laterally over the entire surface of the water body, and is not extinguished by later actions or events which impeded or destroy navigable capacity. Based on this provision, the Corps also has the discretion to regulate activities in historically navigable waters. Historically navigable waters are areas that were navigable in the past, but are no longer navigable as a result of artificial modifications, such as levees, dikes, and dams.

#### **Detailed Wetland Delineation-Methodology**

HBG conducted a detailed wetland delineation in accordance with Code of Federal Regulations (CFR) definitions of jurisdictional waters, the Corps’ 1987 *Wetlands Delineation Manual* (1987 Manual), the Corps’ 2006 *Interim Regional Supplement to Corps of Engineers Wetland Delineation Manual: Arid West* (Arid West Regional Supplement) and supporting guidance documents.. The 1987 Manual provides technical

guidance and procedures, from a national perspective, for indentifying and delineation wetlands that may be subject to Section 404 of the CWA. Pursuant to the 1987 Manual, key criteria for determining the presence of wetlands are: (a) the presence of inundated or saturated soil conditions resulting from permanent or periodic inundation by groundwater or surface water; and (b) a prevalence of vegetation typically adapted for life in saturated soil conditions (i.e., hydrophytic vegetation). Explicit in the definition is the consideration of three environmental parameters: hydrology, soil, and vegetation. The Arid West Regional Supplement presents wetland indicators, delineation guidance, and other information that is specific to the Arid West Region. The combined use of the 1987 Manual and Arid West Regional Supplement enhances the technical accuracy, consistency, and credibility of wetland determinations.

HBG conducted onsite evaluations of the geographic extent of wetlands and other waters of the U.S. potentially subject to Corps jurisdiction commencing in January 2011. Existing land forms, vegetation, hydrology, and soil conditions were studied to identify areas that would likely contain wetland and aquatic habitats. These areas were classified using the U.S. Fish and Wildlife Service's "Classification System for Wetland and Deepwater Habitats" (Cowardin *et al.* 1979). The landward extent or boundary of these areas was further defined using the methodology currently in use by the Corps, published Corps regulatory guidance letters, and San Francisco District regulatory policy.

A 2010 digital orthophoto National Agricultural Imagery Program color aerial photograph was obtained. The digital orthophoto was brought into GIS software and CAD contour data were overlaid on the aerial photo. A hand-held Trimble global positioning system (GPS) unit and a topographic survey map were used to locate the extent of potential waters of the U.S. subject to Corps jurisdiction. Representative sites were selected for detailed analysis of wetland indicators using a transect-based sampling approach. Site selection was based on an examination of sites that would likely pond, flood, or saturate based on their geographic position, soil permeability, and drainage characteristics in relationship to well-drained upland sites (as determined by NRCS soils data). Once field data collection was completed, HBG mapped the potential wetland locations on the aerial photograph as shown in Figure 10.

### **Detailed Wetland Delineation-Results**

Based on data obtained in the investigations, the geographic extent of wetlands and waters of the U.S. potentially subject to Corps jurisdiction under Clean Water Act Section 404 were delineated. Areas potentially subject to Corps jurisdiction on the project site are shown in Figure 10 and total 1.21 acres. The 1.21 acres consists of vegetated wetlands potentially subject to Corps jurisdiction. The 1.21 acres of potential wetlands are palustrine emergent seasonal wetlands according to Cowardin *et al.* (1979) criteria (equivalent to the area of fresh emergent marsh shown in Figure 9). The identified palustrine wetlands contained low chroma soils, evidence of wetland hydrology and vegetation adapted for life in saturated soil conditions. The 1.21 acres of wetlands and waters serve the functions of flood flow alteration, groundwater recharge, sediment

stabilization, sediment/toxicant retention, nutrient removal/ transformation, production export, and wildlife habitat.

Aquatic resources within the Study Area and adjacent to the Study Area were examined with respect to the SWANNC exclusion from Clean Water Act regulation. No areas were found that could either potentially be exempted or excluded from regulation in accordance with SWANNC. A review of the wetlands with respect to the *Rapanos v. United States* and *Carabell v. United States* significant nexus evaluation by HBG is ongoing as of this writing. Results of this evaluation will be contained within a detailed wetland delineation report to be submitted to the San Francisco District U.S. Army Corps of Engineers.

### 3.2.4 Special Status Species

Rare, endangered, or threatened species as well as species that are proposed for listing or candidates for listing are afforded various levels of protection under the federal Endangered Species Act of 1973 (16 USC § 1531 *et seq.* and rules there under, i.e., 50 CFR § 17.11 and 17.12), the California Native Plant Protection Act of 1977 (California Fish & Game (CFG) Code § 1900 *et seq.*), and the California Endangered Species Act of 1970 (CFG Code § 2050 *et seq.* and rules there under, i.e., Title 14, California Code of Regulations (CCR) Sections 670.2 and 670.51). The California Environmental Quality Act (CEQA) (January 1984) requires that the California Department of Fish and Game (CDFG) be consulted during the CEQA review process as to the impact of proposed projects on endangered and threatened species, and regulations provide additional protection for unlisted species that meet the "rare" or "endangered" criteria.

The CDFG maintains records for the distribution and known occurrences of sensitive species and habitats in the California Natural Diversity Database (CNDDDB). Sensitive species include those species listed by the federal and state governments as endangered, threatened, or rare or candidate species for these lists. The CNDDDB also included species that are included within the U.S. Fish and Wildlife Service (USFWS) category of "species of special concern." This is an informal term that refers to those species which the USFWS believes might be declining or in need of concentrated conservation actions to prevent decline. These species receive no legal protection under the federal Endangered Species Act. The CNDDDB also includes state species of special concern designated by the CDFG because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as "species of special concern" is to halt or reverse their decline by calling attention to their plight and address the issues of concern early enough to secure their long term viability. Not all "species of special concern" have declined equally; some species may be just starting to decline, while others may have already reached the point where they meet the criteria for listing as a "Threatened" or "Endangered" species under the state and/or federal Endangered Species Acts, but are not listed.

The CNDDDB is organized into map areas based on 7.5 minute topographic maps

produced by the U.S. Geological Survey. All known occurrences of sensitive species and important natural communities are mapped onto the quadrangle map. The database gives further detailed information on each occurrence, including specific location of the individual, population, or habitat (if possible) and the presumed current state of the population or habitat. The project site is located on the Napa 7.5-minute quadrangle; the relevant adjacent quads are the Rutherford, Yountville, Capell Valley, Mt. George, Cordelia, Cuttings Wharf, Sears Point and Sonoma quadrangles. A search of the CNDDDB records of occurrence for special status animals and plants and natural communities within these quadrangles indicated that none of the special status species or natural communities is known to occur on the project site itself. However, even the absence of a special animal, plant, or natural community from the report does not necessarily mean they are absent from the area in question, but only that no occurrence data have been entered for that species or natural community in the CNDDDB inventory. The occurrence of special status plant and animal species in the vicinity of the project area may be an indication that they also could occur in the project area. Therefore, occurrences of special status species throughout the quadrangles mentioned above were noted in considering the potential presence of these species on the project site.

The U.S. Fish and Wildlife Service was consulted for their list of species listed as endangered or threatened under the Endangered Species Act within an area encompassing nine USGS quadrangles around the project area, and this list is included in Attachment 5. In addition, a list of special status plant species found within the nine-quad area in habitats similar to those found on the project site was obtained from the California Native Plant Society (CNPS), and this list is also included in Attachment 5.

Table 1 presents a list of special status plant species that have been reported in the vicinity of the project site. The special status plant species listed in Table 1 include all species mentioned in the CNDDDB and occurring within 10 miles of the project site. Table 4 presents a list of special status animals that have been reported in the project vicinity. The special status animal species listed in Table 4 include those noted in the CNDDDB as occurring within 10 miles of the site, the federally listed species from a nine-quad area highlighted by the USFWS in their list in Attachment 5, and those that are known to occur in the general vicinity based on the knowledge of HBG biologists.

#### **3.2.4.1 Special Status Plant Species**

Special-status plant species include species listed as Threatened or Endangered under provisions of the federal Endangered Species Act (ESA) of 1973 (16 USC 1531 et. seq., as amended) (U.S. Fish and Wildlife Service [USFWS] 2007a); and species listed as Rare, Threatened, or Endangered by the state of California under provisions of the 1984 California Endangered Species Act (CESA) and the 1977 Native Plant Protection Act (NPPA) (California Department of Fish and Game [CDFG] 2007). Plant species formally proposed for federal listing by the U.S. Fish and Wildlife Service (taxa for which a proposed rule has been published in the Federal Register; USFWS 2007b) are afforded limited legal protection under ESA, and federal Candidate species (USFWS

2007c) are also considered special-status species, although they are not specifically protected under the ESA. The Wildlife Branch of CDFG administers the state rare species program and maintains the list of designated Endangered, Threatened, and Rare species.

Other special-status plant species are those on List 1A (Plants Presumed Extinct in California), List 1B (Plants Rare, Threatened, or Endangered in California and Elsewhere), or List 2 (Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere) of the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Vascular Plants of California* (Tibor 2001; CNPS 2007). These species are subject to state regulatory authority under the California Environmental Quality Act (CEQA) Guidelines. Also considered as special-status plant species are those included on List 3 (Plants About Which We Need More Information—A Review List) and List 4 (Plants of Limited Distribution—A Watch List) of the CNPS *Inventory*. These plant species are considered to be of lower sensitivity, and generally do not fall under specific state or federal regulatory authority. Specific mitigation considerations are generally not required for species in these categories.

A target list of special status plants found within 10 miles of the site (Table 1), and additional species mentioned in the CNPS inventory search for the nine quad area (Attachment 5) were used to schedule survey dates during flowering periods of target species. The surveys are summarized in the Botanical Survey report included in Attachment 4. The property does not represent high quality habitat for special status plants. Cattle grazing over a long period of time has altered habitats and made them less likely to support rare species. The impact of grazing and shading of cattle under the oak canopy has left an understory largely dominated by the noxious and invasive Italian thistle or milk thistle. Wooded areas with dense canopy cover on shaded north slopes are largely unvegetated but with soil churned by cattle. Also, earthwork and loss of natural soils have also affected the habitat suitability for special status plants and left a soil surface of broken rocky substrates.

Most of the plant species mentioned in Table 1 require habitat conditions that are not found at the site (see Table 1 for scientific names of all species mentioned). For instance, many of the species are found only in salt marsh or brackish marsh conditions that do not occur at the project site. Such plants include Pappose tarplant, soft bird's-beak, Suisun marsh aster, Delta tule pea and Mason's lilaeopsis. Others found strictly in vernal pool wetlands such as Sonoma sunshine, Sebastopol meadowfoam, dwarf downingia, Contra Costa goldfields, saline clover, and few-flowered navarretia would not be likely due to the lack of vernal pool wetland habitats at the project site. Others found only in alkaline soils such as San Joaquin spearscale would also not be found. Special status plants found only in chaparral such as holly-leaved ceanothus, Sonoma ceanothus, Greene's narrow-leaved daisy and Marin checkerbloom would also not find suitable conditions at the site. Other plants such as Tiburon Indian paintbrush are strictly limited to serpentine soils and would, therefore, not be expected. Some target species are restricted to riparian

situations, like California black walnut, and would not be present. Narrow-anthered California brodiaea, which is limited to broadleafed upland forest, chaparral or lower montane coniferous forest, would also not find suitable conditions. Field surveys conducted by Zander Associates in 1998 for Sebastopol meadowfoam, Sonoma sunshine, Contra Costa goldfields and dwarf downingia were negative.

Although some of the remaining plants are sometimes found in serpentine, they are not strictly limited to serpentine soils, and their habitat requirements could be satisfied by conditions found at the project site. These plants, along with their flowering periods (Munz and Keck 1973) include: Franciscan onion (March to June), Napa false indigo (May to July), Clara Hunt's milk-vetch (April to May), big-scale balsamroot (March to June), seaside tarplant (May to October), Cobb Mountain lupine (April to May), Napa bluecurls (June to October), showy Indian clover (April to June), and oval-leaved viburnum (May to June).

Systematic protocol surveys were scheduled to coincide with the flowering periods of these species. Field surveys of the Napa Oaks property were conducted by Virginia Dains on March 29, April 28, and June 15, 2011. Special status plants were sought in all habitats but special attention was given to those few areas such as protected rocky outcrops, thin soils or steeper slopes, or areas supporting groups of native plants where grazing pressure was reduced or special habitats existed. The entire site was surveyed by walking meandering transects through individual patches of habitat.

No special status plant species were observed at the property during floristic surveys conducted from March to June of 2011 (See botanical report in Attachment 3).

#### **3.2.4.2 Special Status Animal Species**

The special status animal species evaluated in Table 4 include those noted in the CNDDDB as occurring within 10 miles of the site, the federally listed species from a nine-quad area highlighted by the USFWS in their list in Attachment 5, and those that are known to occur in the general vicinity based on the knowledge of HBG biologists. Key species are either known to occur in the vicinity of the property or with a potential to occur at the site, or that require specific study to determine presence/absence, are discussed below.

##### **Steelhead Trout**

Central California populations of steelhead trout (*Oncorhynchus mykiss*) were federally listed as threatened in August 1997. Steelhead have been divided into ESUs, all of which were listed as threatened under the Federal Endangered Species Act in August 1997. Steelhead in the Central Coast ESU occur from the Russian River south to Soquel Creek and to, but not including, the Pajaro River, and including San Francisco and San Pablo Bays. Steelhead require well-oxygenated streams with riffles and loose, silt-free gravel substrate for spawning.

Juvenile steelhead require a period of residency in a stream before migrating downstream to the ocean. The length of freshwater residency may vary from one to three years or more depending on the living conditions in the stream. The major downstream migration of juvenile steelhead occurs during the period from February through June, depending on the water year and pattern of winter-spring runoff. Fish habitat is physically reduced to a minimum during the low-flow period of July through October. In the Napa River and its tributaries, adult steelhead begin their upstream migration during the first heavy rains of November and December and continue their upstream migration into March and April. Salmonid smolts migrate downstream to the Napa River and the Pacific Ocean during the winter and spring with fish movements tapering off in the middle of May.

Steelhead are known to occur in the Napa River and some tributaries; the sightings documented in the CNDDDB nearest to the project site are from Highway 121 crossing of Huichica Creek, about four miles southwest of Napa. Steelhead would not be expected to occur within the Napa Oaks project site due to the lack of perennial streams traversing the site. Steelhead in the Napa River or its tributaries could only be affected by downstream changes in water quality. Water quality controls as described in Section 4.4 will prevent impacts to aquatic resources and populations of fish.

### **California Tiger Salamander**

Distinct population segments of the California tiger salamander (*Ambystoma californiense*) in Sonoma and Santa Barbara Counties were listed as federally endangered on July 22, 2002. On August 4, 2004 the California tiger salamander was listed as a threatened species throughout its range, at which time the Sonoma and Santa Barbara County populations were also downgraded to threatened status. On August 19, 2005, a U.S. District Court reinstated the Service's listing of the Sonoma and Santa Barbara populations, and these populations are currently federally-listed as endangered. This species is also a California species of special concern.

California tiger salamander (CTS) occurs in central California from the central Sacramento Valley to the central San Joaquin Valley and surrounding foothills of both the Coast Range and the Sierra Nevada. The species also has been recorded in the San Francisco Bay area, the Monterey Bay area, and valleys and foothills in San Luis Obispo and Santa Barbara Counties. The actual occurrence of the species within this range is restricted to locations where breeding ponds are surrounded by suitable upland habitat. Adult CTS inhabit grassland, savanna, or deciduous oak woodland habitats that contain natural ponds, vernal pools, intermittent streams, or stock ponds. They usually are not found unless there is this combination of ponded water for breeding and surrounding upland, with a predominant ground cover of grazed or ungrazed grassland. They spend the majority of their time below ground, in rodent burrows, or other natural crevices. The major threat to the CTS is the loss of breeding pools and ponds and the conversion of upland habitat for agriculture and urban development.

California tiger salamanders spend most of the year underground in the burrows of

California ground squirrels and pocket gophers, feeding on insects (Loredo, *et al.* 1996). Following heavy winter rains (normally December-March) adults emerge briefly to lay their eggs in ponds. California tiger salamanders are known to travel large distances from breeding ponds or pools into upland habitats. Upland terrestrial habitat for Ambystomids is usually within 300 meters (984 feet) of aquatic breeding sites, but movements have been reported as far away as 800 meters (2,246 feet) (Trenham 2001). California tiger salamanders in Santa Barbara County have been recorded to disperse 1.3 miles from breeding ponds (Sweet, *in litt.* 1998). Breeding habitat is considered suitable if water is present at a minimum of 12 inches for a minimum period of 4 months. Terrestrial habitat is considered suitable if small mammals are present and the site has not been disturbed from previous activities, such as road construction or other ground disturbing activities, such as grading or excavation.

According to the CNDDDB, no documented sightings of CTS are known within 10 miles of the Napa Oaks project site. The closest known historic populations are located approximately 18 miles to the southeast of the site in the vicinity of Fairfield (near Travis Air Force Base) in Solano County, and 19 miles to the northwest at the southern edge of the Santa Rosa Plain (near Cotati and Rohnert Park) in Sonoma County. Spotlight surveys for CTS were conducted by Zander Associates on two rainy nights during the winter of 1998. Although these surveys do not comply with current protocol, results were negative

Wetlands found at the proposed site do not have inundation characteristics that would enable breeding by CTS. However, stock ponds that could provide breeding habitat for the species are located to the south and west of the Napa Oaks property at a distance that is within the migration distance for CTS, and ground squirrel burrows found in several locations at the site provide suitable refugial habitats. Because of the above factors, a Phase 1 Habitat Assessment for California tiger salamander was prepared by Dr. Mark Jennings of Rana Resources.

Results of the Habitat Assessment showed that the site is outside of the known native range for CTS, it is not within any of the USFWS critical habitat areas designated for the species, and it lacks suitable breeding habitat for CTS. Although the numerous irrigation ponds within the vineyards adjacent to the site are potentially suitable for CTS breeding, CTS would not be found there due to the presence of introduced western mosquitofish (*Gambusia affinis*), which was observed in the pond closest to the property, and introduced bullfrogs (*Rana catesbeiana*) that are known to be abundant in aquatic habitats within the Napa area. These negative factors, coupled with the lack of CNDDDB records for CTS within any part of Napa County suggest that CTS do not inhabit the area. In-between the project site and the closest known populations are extensive areas of natural waterways (including rivers), mountain ranges, urbanization, freeways, and agricultural areas that would prevent movement of CTS to the project area.

The habitat assessment report for the California tiger salamander is included as

## Attachment 6.

### **California Red-legged Frog**

The California red-legged frog (CRLF, *Rana draytonii*) is a federally-listed threatened species and California species of special concern. The historical range of the California red-legged frog extended from the vicinity of Point Reyes National Seashore in Marin County southward to northwestern Baja California, Mexico and inland to approximately Redding in Shasta County (61 Federal Register 25813). The frog has sustained a 70 percent reduction in its geographic range. The project area is not part of the critical habitat designated under the Endangered Species Act for the CRLF.

California red-legged frogs have been observed in a number of aquatic and terrestrial habitats, including marshes, streams, lakes, reservoirs, ponds and other permanent, or near permanent, sources of water. Although they occur in ephemeral streams or ponds, CRLF are expected to thrive in permanent deep-water pools with dense stands of overhanging willows (*Salix* spp.) and emergent vegetation. However, they have been observed in a variety of aquatic environments, including stock ponds and artificial pools with little to no vegetation. California red-legged frogs usually are observed near water, but can move long distances over land between water sources during the rainy season.

The nearest location to the project site where CRLF is known to occur is approximately 8 miles to the south-southeast of the site in the hills in the vicinity of Napa Junction, Napa County. In addition, there are two historic 1912 museum records for two miles southwest of the City. Wetlands found at the proposed site do not have inundation characteristics that would enable breeding by CRLF. However, stock ponds that could provide breeding habitat for the species are located to the south and west of the Napa Oaks property at a distance that is within the migration distance for CRLF. Uplands and wetlands immediately adjacent to an offsite stock pond along the southern border of the property and ground squirrel burrows at more distant locations at the site could provide suitable refugial habitat. Because of the above factors, a Phase 1 Habitat Assessment for the CRLF was conducted by Dr. Mark Jennings of Rana Resources.

Results of the Habitat Assessment showed that although the site lies within the native range for this species, it is currently not within any of the USFWS critical habitat areas designated for CRLF, and it lacks any suitable breeding habitat for CRLF. Although there are a number of adjacent vineyard irrigation ponds in the vicinity of the site, none of these water bodies appear to harbor CRLF due to the presence of dense populations of introduced bullfrogs and introduced predatory fishes. The high summer and fall air temperatures of the vicinity make the local aquatic habitats optimal for bullfrog reproduction and growth, which has presumably resulted in the localized extinction of CRLF in the vicinity of Napa. In-between the project site and the closest known population 8 miles away are extensive areas of natural waterways (including the Napa River), urbanization, freeways, and agricultural areas that, along with the climatic factors, would prevent movement of CRLF to the project site.

The habitat assessment report for the California red-legged frog is included as Attachment 7.

### **Western Pond Turtle**

The western pond turtle (*Actinemys marmorata*) is both a federal and state species of special concern. It occupies ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. The western pond turtle is associated with permanent or nearly permanent water in a wide variety of habitat types. Individuals normally are associated with permanent ponds, lakes, streams, irrigation ditches or permanent pools along intermittent streams. They rely on suitable upland areas of scrub and woodlands for estival refugia. The species currently is known to occur broadly throughout the state.

The nearest location for western pond turtle noted in the CNDDDB is at a duck pond at the south end of the City of Napa about 2 miles southeast of the project site. Suitable habitat for breeding by western pond turtle does not occur at the project site due to the lack of aquatic areas of sufficient inundation to support the species. However, Mark Jennings of Rana Resources surveyed the site on February 1, 2011, and observed (with binoculars) basking or swimming adult western pond turtles in every irrigation pond adjacent to the property within a distance of about a quarter of a mile. Although the project site is totally unsuitable for western pond turtle nesting and estivation due to the rocky nature of the soil, the very close proximity of one of these irrigation ponds to the southern boundary of the site makes it likely that western pond turtle could move across a small part of the property near its southern boundary.

A technical letter report related to potential presence of the western pond turtle at the site is included in Attachment 8.

### **Western Burrowing Owl**

Western Burrowing Owl (*Athene cunicularia*) is a BLM sensitive species, US Fish and Wildlife Service bird of conservation concern, and a California species of special concern. Burrowing owls are small terrestrial owls commonly found in open grassland topography ranging from western Canada to portions of South America. Burrowing Owl habitat can be found in annual and perennial grasslands, deserts, and scrublands characterized by low-growing vegetation (Zarn 1974). In California, burrowing owls most commonly inhabit ground squirrel burrows (Thomsen 1971), but they also may use manmade structures, such as concrete culverts; concrete, asphalt, or wood debris piles; or openings beneath concrete or asphalt pavement. Burrowing Owls exhibit high site fidelity, reusing burrows year after year (Rich 1984, Feeney 1992). Burrowing Owls may use a site for breeding, wintering, foraging, and/or migration stopovers during migration. Occupancy of suitable burrowing owl habitat can be verified at a site by an observation of at least one burrowing owl, or, alternatively, its molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance.

The California Department of Fish and Game has adopted survey protocol and mitigation guidelines as described in an October 17, 1995, Staff Report (CDFG 1995). The guidelines adopted by CDFG provide information on the conduct of burrowing owl surveys. If possible, the nesting season survey should be conducted during the peak of the breeding season, between April 15 and July 15. Winter surveys should be conducted between December 1 and January 31, during the period when wintering owls are most likely to be present. The CDFG guidelines assume that a site is occupied if at least one Burrowing Owl has been observed occupying a burrow there within the last 3 years. CDFG states that the following should be considered impacts to the species: (1) disturbance within 50 meters (approximately 160 feet) which may result in harassment of owls at occupied burrows; (2) destruction of natural and artificial burrows (culverts, concrete slabs and debris piles that provide shelter to burrowing owls); and (3) destruction and/or degradation of foraging habitat adjacent (within 100 meters) of an occupied burrow(s). Mitigation measures, if necessary, are intended to "avoid and minimize impacts to burrowing owls at a project site and preserve habitat that will support viable owl populations." The guidelines stipulate that "mitigation actions should be carried out from September 1 to January 31 which is prior to the nesting season."

The nearest documented occurrence of burrowing owl in the CNDDDB is on Skaggs Island, over 8 miles from the project site. The presence of California ground squirrel burrows at the project site and grasslands suitable as foraging habitat for the species makes the project site suitable to support nesting or wintering individuals of this species. No burrowing owls were observed at the site during winter surveys conducted in January of 2011 or spring surveys conducted in May of 2011. A definitive determination of the presence or absence of burrowing owl at the site would require that protocol wintering and nesting surveys be conducted. Preconstruction surveys to ensure that burrowing owl is not present at the site during construction are warranted. Any owls found to occur in construction areas would need to be relocated out of harm's way.

### **California Horned Lark**

The California horned lark (*Eremophila alpestris actia*) is a California species of special concern. California horned lark is a common to abundant resident in open, level or rolling short-grass prairies, plains, and meadows. Grasslands and open habitat with low, sparse vegetation and surface irregularities, such as rocks, litter, and clods of soil, which provide cover, are preferred habitat for the California Horned Lark. Suitable foraging and nesting habitat for this species occurs in the grasslands on the project site. Individuals of this species were not observed during surveys conducted in January or May of 2011.

### **Loggerhead Shrike**

Loggerhead shrike (*Lanius ludovicianus*) is a state species of special concern. Loggerhead shrikes are resident and winter visitors in lowlands and foothills throughout California, and are rare along the coast in winter north to Mendocino County. Preferred habitat includes open areas such as desert, grasslands, and savannah. Loggerhead shrikes

nest in thickly foliated trees or tall shrubs, and forage in open habitats which contain trees, fence posts, utility poles, and other perches. Loggerhead shrikes are usually solitary birds. They feed on insects, reptiles, and small mammals, which they frequently impale on thorns and barbed wire after capturing. Suitable foraging habitat for loggerhead shrike occurs in the grassland habitats of the project site, and suitable habitat for nesting is present in woodlands. Individuals of this species were not observed during surveys conducted in January or May of 2011.

### **Pallid Bat**

Seven species of bats that are California species of special concern, or are recognized as having conservation priority by the Western Bat Working Group, the Bureau of Land Management, or the U.S. Forest Service have potential to occur within the project boundaries. These include pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), Western red bat (*Lasiurus blossevillei*), long-eared myotis (*Myotis evotis*), fringed myotis (*Myotis thysanodes*), Yuma myotis (*Myotis yumanensis*), and Western mastiff bat (*Eumops peroti*). These seven species have potential to occur in Napa County (Pierson et al. 2006, Western Bat Working Group Website 2007). The study site provides potential foraging habitat for all seven bat species. Roosting habitat, a more critical resource for California bat species, includes bridges, large trees, and buildings. The residential structures and outbuildings in the project area may provide summer or winter (hibernacula) roosting sites. Six of the seven bat species sometimes roost in buildings. Construction in or demolition of barns or stables may result in destruction of maternity roosts, hibernacula, day roosts, and/or night roosts of bats. During an HBG site visit in January 2011, no obvious signs of bat usage (staining, guano) were observed but bats may still have been present.

A roost site supporting three species of bat was present at a site along Shrevelevand Lane in Napa as recently as 2004. This historic site contained thousands of Brazilian free-tailed bats and Yuma myotis and approximately 150 pallid bat females (a California Species of Special Concern) and their young. The bats were using a barn that was removed to accommodate development of a housing project in 2004, and all bats roosting there were extirpated. This rural residential site was vegetated by grazed non-native grassland with oaks, bay laurel, and some non-native trees which provided excellent foraging habitat for the bats. After development the site contained residential structures and non-native plantings. The site was known to researchers for many years and studied prior to development.

The historic bat roost on Sheveland Lane was located less than one mile from the Napa Oaks project site. Although the barn providing the roosting habitat for the bats was destroyed, the bats would have survived and have undoubtedly taken up residence in abandoned buildings in the vicinity. An unoccupied house and several ranch buildings in the northern portion of the project site nearest to Old Sonoma Road could serve as suitable bat roosts and very likely could support some of the bats extirpated from the historic roost site on Sheveland Lane. The habitat conditions at the project site are

similar to those at the above referenced site; surrounding oak woodlands and grasslands provide suitable foraging habitats for bats. It is possible that there could be roosting bats, including species of special concern (pallid bats), and Yuma myotis, Brazilian free-tailed bats, or even other bat species, in structures located at the northern end of the site. These structures will be demolished prior to development of the site for residential uses. Bat surveys would be necessary to determine if bats are present in these structures prior to their demolition.

## 4.0 REGULATORY AGENCIES AND POLICIES

The following is a description of federal, state, and local environmental laws and policies that are relevant to the California Environmental Quality Act (CEQA) review process.

### FEDERAL

#### Clean Water Act-Section 404

The U.S. Army Corps of Engineers regulates discharges of dredged or fill material into Waters of the United States under Section 404 of the Clean Water Act (CWA). “Discharge of fill material” is defined as the addition of fill material into Waters of the U.S., including but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and sub-aqueous utility lines (33 C.F.R. §328.2(f)). In addition, Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

The U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency are responsible for implementing the Section 404 program. Section 404(a) authorizes the Corps to issue permits, after notice and opportunity for comment, for discharges of dredged or fill material into waters of United States. Section 404(b) requires that the Corps issue permits in compliance with EPA guidelines, which are known as the Section 404(b)(1) Guidelines. Specifically, the Section 404(b) (1) guidelines require that the Corps only authorize the “least environmentally damaging practicable alternative” (LEDPA) and include all practicable measures to avoid and minimize impacts to the aquatic ecosystem. The guidelines also prohibit discharges that would cause significant degradation of the aquatic environment or violate state water quality standards.

Waters of the U.S. include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 C.F.R. §328.3(b)).

Furthermore, Jurisdictional Waters of the U.S. can be defined by exhibiting a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the Corps as “that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris,

or other appropriate means that consider the characteristics of the surrounding areas” (33 C.F.R. §328.3(e)).

Tidal waters are also under the jurisdiction of the Corps. The landward limits of jurisdiction in tidal waters extend to the high tide line . . . “or, when adjacent non-tidal waters of the United States are present, to the limits of jurisdiction for such non-tidal waters” (33 C.F.R. §328.4(b)). High tide is further defined to include the line reached by spring high tides and other high tides that occur with periodic frequency (33 C.F.R. §328.3(d)).

All wetlands in the area of study were reviewed to determine if they could be disclaimed from Corps jurisdiction as isolated wetlands following two recent US Supreme Court decisions. In *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers (SWANCC)*, No. 99-1178 (2001), some isolated wetlands may be excluded from the Corps’ Section 404 jurisdiction because they are (1) non-tidal, (2) non-navigable, (3) not hydrologically connected to navigable waters or adjacent to such waters, and (4) not subject to foreign or interstate commerce.

Subsequent to SWANCC, the U.S. Supreme Court decided on *Rapanos v. United States* and *Carabell v. United States*, 126 U.S. 2208 (2006) (herein referred to as Rapanos). In 2007, guidance was given to EPA regions and Corps districts to implement the Supreme Court’s decision which addresses the jurisdiction over waters of the U.S. under the Clean Water Act. The Rapanos guidance requires the Corps to conduct detailed analysis of the functions and values of wetlands and other waters of the U.S. potentially onsite and in some cases offsite, determine if there is a nexus to traditional navigable waters and the significance of the nexus to the traditional navigable water. Neither the Court nor the recently-issued guidance draw a clear line with regard to the geographic reach of jurisdiction, particularly in drainages where flows are ephemeral and where wetlands are adjacent to but not directly abutting relatively permanent water, such as the wetlands delineated on the study site.

The guidance includes requirements for additional documentation, particularly with regard to whether or not there is a “significant nexus” to a traditionally-navigable water (TNW). For water bodies that are traditionally navigable (and their adjacent wetlands), and for tributaries that are “relatively permanent waters” (RPW’s: streams that are not perennial but that flow for 3 months or more annually, and their adjacent wetlands that directly abut the RPW’s), the Corps and EPA will assert jurisdiction under the Clean Water Act, without the need for any exhaustive documentation of “significant nexus.” There is no dispute that Clean Water Act jurisdiction encompasses traditionally-navigable waters and their perennial and relatively-permanent tributaries. Activities that result in discharges of pollutants into these waters can adversely affect the physical, chemical, and biological integrity of navigable waters.

For wetlands adjacent to but not directly abutting a RPW, jurisdiction may be asserted under the Clean Water Act if there is a “significant nexus” and for tributaries that typically do not flow more 3 months or more annually, and if there adjacent wetlands associated with these non-relatively permanent waters (non-RPW’s), jurisdiction may be asserted under the Clean Water Act if there is a “significant nexus.” A significant nexus analysis, using the Corps’ approved jurisdictional determination form, “will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW.” These factors include (a) the capacity to carry pollutants or flood water into a TNW; (b) the capacity to provide habitat for species that are present in the downstream TNW; (c) the capacity of transferring nutrients and organic carbon to a TNW; or (d) other “relationships to the physical, chemical, or biological integrity of the TNW.

### ***Clean Water Act-NPDES Requirements***

In 1972, the Clean Water Act was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollution Discharge Elimination System (NPDES) permit. The 1987 amendments established a framework for regulating municipal, industrial, and construction-related storm water discharges under the NPDES Program. On November 16, 1990, the U.S. Environmental Protection Agency (USEPA) published final regulations that establish storm water permit application requirements for specified categories of industries. The regulations provide that discharges of storm water from construction projects that encompass one or more acres of soil disturbance are effectively prohibited unless the discharge is in compliance with an NPDES Permit. The California State Water Resource Control Board has developed a general construction storm water permit to implement this requirement.

### ***Federal Endangered Species Act***

The United States Congress passed the Federal Endangered Species Act (FESA) in 1973 to protect those species that are endangered or threatened with extinction. The FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend. The FESA establishes an official listing process for plants and animals considered to be in danger of extinction; requires development of specific plans of action for the recovery of listed species; and restricts activities perceived to harm or kill listed species or affect critical habitat (16 USC 1532, 1536).

The FESA prohibits the “take” of endangered or threatened wildlife species. “Take” is defined as harassing, harming (including significantly modifying or degrading habitat), pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species, or any attempt to engage in such conduct (16 USC 1532, 50 CFR 17.3) Taking can result in civil or criminal penalties. Federal regulation 50 CFR 17.3 further defines the term harm in the take definition to mean any act that actually kills or injures a

federally listed species, including significant habitat modification or degradation. Additionally, FESA prohibits the destruction or adverse modification of designated critical habitat. In the Service's regulations at 50 CFR 402.2, destruction or adverse modification is defined as a "direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species.

The ESA also requires federal agencies to ensure that their actions do not jeopardize the continued existence of listed species or adversely modify critical habitat (16 USC 1536). Therefore, the ESA is invoked when the property contains a federally listed threatened or endangered species that may be affected by a permit decision. In the event that listed species are involved and a Corps permit is required for impacts to jurisdictional waters, the Corps must initiate consultation with USFWS (or the National Marine Fisheries Service, NMFS) pursuant to Section 7 of the ESA (16 USC 1536; 40 CFR § 402). If formal consultation is required, USFWS or NMFS will issue a biological opinion stating whether the permit action is likely to jeopardize the continued existence of the listed species, recommending reasonable and prudent measures to ensure the continued existence of the species, establishing terms and conditions under which the project may proceed, and authorizing incidental take of the species.

### ***Migratory Bird Treaty Act***

The federal Migratory Bird Treaty Act is administered by the USFWS. The Act provides that it is unlawful to: pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product unless permitted by regulations. Most bird species within California fall under the provisions of the Act. Excluded species include nonnative species such as house sparrow, starling, and ring-necked pheasant and native game species such as quail.

### ***Fish and Wildlife Coordination Act***

The USFWS also has responsibility for project review under the Fish and Wildlife Coordination Act. This statute requires that all federal agencies consult with USFWS, NMFS, and the state's wildlife agency (California Department of Fish and Game, CDFG) for activities that affect, control, or modify streams and other water bodies. Under the authority of the Fish and Wildlife Coordination Act, USFWS, NMFS, and CDFG review applications for permits issued under Section 404 and provide comments to the Corps about potential environmental impacts.

## **STATE**

### ***California Endangered Species Act***

The State of California enacted the California Endangered Species Act (CESA) in 1984. The CESA is similar to the FESA but pertains to state-listed endangered and threatened species. CESA requires state agencies to consult with the California Department of Fish and Game (CDFG) when preparing California Environmental Quality Act (CEQA)

documents to ensure that the state lead agency actions do not jeopardize the existence of listed species. CESA directs agencies to consult with CDFG on projects or actions that could affect listed species, directs CDFG to determine whether jeopardy would occur, and allows CDFG to identify “reasonable and prudent alternatives” to the project consistent with conserving the species. Agencies can approve a project that affects a listed species if they determine that “overriding considerations” exist; however, the agencies are prohibited from approving projects that would result in the extinction of a listed species.

The CESA prohibits the taking of state-listed endangered or threatened plant and wildlife species. CDFG exercises authority over mitigation projects involving state-listed species, including those resulting from CEQA mitigation requirements. CDFG may authorize taking if an approved habitat management plan or management agreement that avoids or compensates for possible jeopardy is implemented. CDFG requires preparation of mitigation plans in accordance with published guidelines.

### ***Section 401 of the Federal Clean Water Act/Porter Cologne Water Quality Act***

Pursuant to section 401 of the Federal Clean Water Act, projects that require a Corps permit for the discharge of dredge or fill material must obtain water quality certification that confirms a project complies with state water quality standards before the Corps permit is valid. State water quality is regulated/administered by the State Water Resources Control Board and its nine Regional Water Quality Control Boards (RWQCB). The state also maintains independent regulatory authority over the placement of waste, including fill, into waters of the State under the Porter-Cologne Act.

The California State Water Resource Control Board has developed a general construction storm water permit to implement the requirements for the federal National Pollution Discharge Elimination System (NPDES) permit. The permit requires submittal of a Notice of Intent to comply, fees, and the implementation of a Storm Water Pollution Prevention Plan.

### ***CDFG Species of Special Concern***

CDFG tracks species in California whose numbers, reproductive success, or habitat may be threatened. Even though not formally listed under FESA or CESA, such plant and wildlife species receive additional consideration during the CEQA process. Species that may be considered for review are included on a list of “Species of Special Concern” developed by the CDFG. CDFG has also designated special-status natural communities which are considered rare in the region, support special status species or otherwise receive some form of regulatory protection. Documentation pertaining to these communities, as well as special status species (including species of special concern), is kept by CDFG as part of the California Natural Diversity Data Base (CNDDB).

### ***Natural Community Conservation Planning Act***

The Natural Communities Conservation Planning Act (NCCP) program, which began in 1991 under the California Natural Community Conservation Planning Act, is broader in its orientation and objectives than CESA and ESA; these laws are designed to identify and protect individual species that are already listed as threatened or endangered and their habitats. The primary objective of the NCCP program is to conserve natural communities at the ecosystem scale while accommodating compatible land use (CDFG 2003).

### ***California Department of Fish and Game-Streambed Alteration Agreement***

Section 1602 of the California Fish and Game Code requires any person, governmental agency, or public utility proposing any activity that will divert or obstruct the natural flow or change the bed, channel or bank of any river, stream, or lake, or proposing to use any material from a streambed, to first notify CDFG of such proposed activity. CDFG may propose reasonable modifications, based on the information contained in the notification form and a possible field inspection, CDFG may propose reasonable modifications in the proposed construction as would allow for the protection of fish and wildlife resources. Upon request, the parties may meet to discuss the modifications. If the parties cannot agree and execute a Lake and Streambed Alteration Agreement, then the matter may be referred to arbitration.

### ***California Department of Fish and Game Fish and Game Code 3503 and 3503.5***

Section 3503 of the Fish and Game Code makes it unlawful to take, possess, or needlessly destroy the nests or eggs of any bird. Section 3503.5 makes it unlawful to take or possess birds of prey (hawks, eagles, vultures, owls) or destroy their nests or eggs.

### ***California Department of Fish and Game Fully Protected Species***

Species classified as Fully Protected Species by the California Department of Fish and Game may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

### ***Public Resources Code Section 21084.4 for Oak Woodlands Conservation***

As of January 2005, Public Resources Code Section 21083.4 requires California Counties acting as Lead Agencies under CEQA to determine whether a project “may result in a conversion of oak woodlands that will have a significant effect on the environment.” If individual or cumulative impacts to oak woodlands are identified, the law requires that the impacts be mitigated. Acceptable mitigation measures include, but are not limited to, conservation of other oak woodlands through the use of conservation easements, planting replacement trees which must be maintained for seven years, contribution to the Oak Woodland Conservation Fund established under Section 1363(a) of the Fish and Game Code, or other measures.

## **LOCAL**

### ***Napa County General Plan***

In addition to federal and state regulations, the development of the property must be accomplished consistent with the land use designations and natural resource and other policies of the Napa County General Plan.

## **OTHER STATUTES, CODES, AND POLICIES AFFORDING LIMITED PROTECTION**

### ***California Native Plant Society***

The California Native Plant Society (CNPS) maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Plants of California (Tibor2001). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review. The following identifies the definitions of the CNPS listings:

- |          |                                                                                    |
|----------|------------------------------------------------------------------------------------|
| List 1A: | Plants believed extinct.                                                           |
| List 1B: | Plants rare, threatened, or endangered in California and elsewhere.                |
| List 2:  | Plants rare, threatened, or endangered in California, but more numerous elsewhere. |
| List 3:  | Plants about which we need more information – a review list.                       |
| List 4:  | Plants of limited distribution – a watch list.                                     |

## **5.0 IMPACTS AND MITIGATION MEASURES**

### **5.1 Standards of Significance**

The project would be considered to have a significant impact on biological resources if it would:

- (a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- (b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service.
- (c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- (d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- (e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- (f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

### **5.2 Relevant Project Characteristics**

The proposed project includes development plans for 54 single family residential units. Of the 80.94 acres at the site, residential uses are proposed for 27.1 acres (34% of the land area of the site). Residential units are to be maintained by individual homeowners. A private roadway maintained by a Homeowner's Association will encompass 7.3 acres (9% of the site). Four separate parcels (Parcels A-D) totaling 46.2 acres (57% of the site) will be dedicated as open space managed by the Homeowner's Association.

### **5.3 Impacts and Mitigation Measures**

#### **5.3.1 Plant Communities and Vegetation**

Impacts to biological resources will result from vegetation removal due to the conversion

of upland areas composed of annual grassland, and valley foothill hardwood habitat, and due to the filling of wetland areas to accommodate the proposed development. The acreage of each of the vegetation communities found on the property, and impacts resulting from site development as planned are shown in Table A. Figure 11 shows the development footprint as an overlay of the vegetation communities found on the project site. The grading footprint for the proposed project would total approximately 37.53 acres (46% of the site). At some proposed residential units, grading for building pads and ancillary facilities would not require grading over the entire lot. Ungraded areas within proposed residential lots totals 3.85 acres. In these ungraded areas it was assumed that trees would not be removed, but that impacts to biological resources would result as these areas would serve as rear yards for residents and could be converted to landscaping or other uses. The impact acreage in Table 1 reflects the total area of impact including graded footprint and the impacted area extending to the edge of each residential lot.

**TABLE A. IMPACTS TO VEGETATION COMMUNITIES**

| Habitat Type                | Existing Acreage in Overall Study Area (acres) | Impacted Acreage (acres) |
|-----------------------------|------------------------------------------------|--------------------------|
| California Annual Grassland | 49.65                                          | 25.93                    |
| Coast live oak woodland     | 27.31                                          | 12.52                    |
| Freshwater marsh            | 1.21                                           | 0.36                     |
| Urban                       | 2.77                                           | 2.57                     |
| <b>TOTAL</b>                | <b>80.94</b>                                   | <b>41.38</b>             |

### **5.3.2 Wetlands and Waters of the U.S.**

Wetlands and waters of the U.S. are regulated by state and federal agencies and would be considered sensitive natural communities as defined by CEQA. Impacts to waters of the U.S. would be potentially significant if appropriate mitigation was not implemented for all regulated wetlands as required by state and federal regulations.

The ecological constraints to development at the site include approximately 1.21 acres of wetlands and waters of the U.S. potentially subject to Corps jurisdiction pursuant to Section 404 of the Federal Clean Water Act as shown in Figure 10. As the palustrine emergent wetlands are scattered throughout the project area, complete avoidance of seasonal wetlands would not be possible. Impacts to wetlands and waters of the U.S. potentially subject to Corps jurisdiction are shown in Figure 12. The development plan for the site would permanently impact 0.36 acres of palustrine emergent wetlands located on the site that are potentially under the jurisdiction of the Corps under Clean Water Act Section 404. Installation of a stormwater pipeline within 0.006 acres of jurisdictional wetlands would be considered a temporary impact; the pipeline would be installed in a trench that would be backfilled to original grade allowing wetlands to reform in that area. Approximately 30% of the wetlands on the property would be impacted by the proposed

project, with the remaining 70% of the wetlands not subject to impacts and preserved within an open space area of approximately 46 acres managed by the Homeowner's Association. Without mitigation, project impacts to wetlands or waters of the U.S. would be significant.

**Impact 1:** Direct (fill) impacts to 0.36 acres of waters of the U.S. would result from implementation of the proposed site plan.

**Mitigation Measure 1-1:** The developer will submit applications for a Nationwide permit from the Corps of Engineers (see Section 4.5, Permit Requirements), and Section 401 water quality certification from the San Francisco Bay Regional Water Quality Control Board (RWQCB), required for the Corps permit to be valid. Appropriate wetland mitigation would be required by the Corps and RWQCB for impacts to the 0.36 acres of seasonal wetlands located at the site, and a wetland mitigation plan to mitigate impacts to jurisdictional areas would need to be developed as part of the Corps and RWQCB permit process. Corps jurisdictional areas must be replaced at a minimum 1:1 ratio through wetland creation (preferably on-site) to ensure that no net loss of acreage or functions and values to these areas occurs. The required ratio of replacement acreage to impacted acreage will be decided by regulatory agencies on a site-specific basis based on the functions and values present on the project site, but requirement for a mitigation ratio of 2:1 would be likely. Mitigation wetlands totaling approximately 0.72 acres would be created within the onsite open space preserve. A detailed mitigation plan would need to be prepared that includes monitoring and reporting requirements, responsibilities, performance success criteria, reporting procedures, and contingency requirements.

Approximately 0.85 acres of wetlands would be preserved within an onsite open space preserve along with an additional acreage of created onsite mitigation wetlands. The proposed open space area would consist of approximately 46 acres of grasslands, Coast live oak woodlands and wetlands. During construction of the project, use of development setbacks, construction fencing and other barriers may be necessary to prevent unintended impacts to preserved sensitive habitats within the open space area. In the long term, these preserved sensitive habitats could experience indirect impacts from disturbances associated with residential projects such as from residents, vehicles and pets, or from introductions of invasive vegetation. Over the long term, fencing or signage may be required to restrict access to preserved sensitive areas, and means to lessen intrusion of pets (e.g., enforcement of leash laws) may be necessary. Vegetation management to control invasive vegetation may necessary as well. Long term management of the open space area by the Homeowner's Association will need to occur pursuant to a management plan with identified goals and a monitoring plan with management inspections and maintenance actions.

**Impact 2:** Preserved wetlands within the proposed open space preserve could be subject to indirect impacts during construction if not protected.

**Mitigation Measure 2-1:** During construction and prior to any clearing, grading, or construction activities, temporary barriers should be placed around all wetlands that are to be avoided by the development plan. These barricades should create at least a 20-foot buffer area around these areas. No clearing, operation of heavy equipment, or storage of construction materials should be permitted within this area.

**Impact 3:** Without long term management, preserved sensitive habitats, including mitigation wetlands, could experience indirect impacts from disturbances associated with residential projects such as from residents, vehicles, and domestic pets, introduction of invasive species, or other factors.

**Mitigation Measure 3-1:** Prior to construction, the applicant should prepare a management plan for the onsite open space preserve with habitat goals and objectives and a monitoring plan that provides for management inspections and maintenance actions. The monitoring plan must include monitoring and reporting requirements, responsibilities, performance success criteria, reporting procedures and contingency requirements. A long-term protection plan for the open space should be included in the management plan through use of a deed restriction and management of the preserve area into perpetuity by the Homeowner's Association. The management plan should include measures such as fencing or signage to restrict access to preserved sensitive areas, and means to lessen intrusion of pets (e.g., enforcement of leash laws). Vegetation management practices should also be included in the management plan (see Mitigation Measure 5-1).

### **5.3.3 Oak Woodlands**

Project construction would result in the loss of approximately 12.52 acres (46% of the valley foothill hardwood or Coast live oak woodland) habitat on the site (see Figure 10). Tree removal and impact to oak woodland habitat was assumed within the graded footprint of the project. Ungraded portions of yards within each residential lot were included within the calculated acreage of impact to oak woodland habitat.

HortScience (see Attachment 4) calculated that the project would require the removal of 620 trees, including 200 Native Protected trees. A total of 392 trees would be impacted by lot grading, 158 by road grading, 60 by slope and swale grading, 26 by construction of the detention pond, 8 by construction of new entry onto Old Sonoma Road, and 4 by installation of retaining walls. Implementation of the proposed project would allow for preservation of 755 trees, including 422 Native Protected trees.

Oaks woodlands provide significant wildlife habitat value. Oak woodlands are protected by the California Department of Fish and Game, State of California regulations including Public Resources Code Section 21083.4, policies of the City of Napa. Although 14.79

acres of oak woodland would be protected within an open space preserve managed by the Homeowner's Association, the loss of just over 12.52 acres of oak woodland as a result of the project is significant. Public Resources Code Section 21083.4 directs Counties to mitigate significant effects of oak woodland conversion, and would not apply to a project reviewed by the City of Napa as a CEQA Lead Agency. However, the impact evaluation and development of mitigation measures recommended herein are intended to be consistent with the Public Resource Code as if this were a project proposed in an unincorporated area.

Indirect project impacts on oak trees not directly affected could occur unless appropriate precautions are taken. The impacts could result from increased soil compaction in the root zone of the trees, summer watering within the root zone, and excessive pruning to allow development of structures and open up views. Death of oak trees could result from oak root fungus (*Armillaria mellea*) resulting from operation of landscape irrigation systems in developed areas up slope from the native oak trees. Movement of heavy construction vehicles and equipment could cause impacts such as broken branches, compaction of soils within root zones, etc. which could result in a weakening and eventual death of the tree. The response of individual trees will depend on the amount of excavation and grading, the care with which demolition is undertaken and the construction methods. A tree protection plan will be developed to mitigate these indirect impacts, and will include recommendations prepared by the arborist as part of the tree survey (see Attachment 4). All landscape plans will be reviewed by the arborist as well.

**Impact 4:** The project would require construction within 12.52 acres of valley foothill hardwood (Coast live oak woodland) habitat, the direct removal of a large number of mature trees, and could result in indirect project impacts on trees not directly affected, unless appropriate precautions are taken.

**Mitigation Measure 4-1:** The applicant should establish oak woodland preserves totaling 37.56 acres to mitigate the loss of oak woodlands due to construction of the project at a mitigation ratio of 3:1. Approximately 14.79 acres of oak woodlands could be preserved within the onsite open space preserve subject to deed restriction and managed by the HOA (see mitigation measure 3-1), with the remainder (22.77 acres) preserved in an offsite preserve protected by conservation easement.

**Mitigation Measure 4-2:** Removal of oak trees will require the implementation of a tree replacement plan, and work in the vicinity of oak woodlands will require preparation of a tree protection plan. An Oak Woodland Mitigation Plan would contain tree replacement and protection activities as follows:

- The applicant should prepare and implement a Tree Replacement Plan including: (i) replacement of trees at ratios prescribed by the City of Napa; (ii) the specific location of the tree planting, (including a map and planting

plan); (iii) schedules and methodologies for maintaining and monitoring the success of the Plan; and (iv) performance standards.

- The applicant must follow Tree Preservation Guidelines that include construction guidelines and measures to maintain long-term tree health (Tree Preservation Guidelines are detailed on pages 19 and 20 in the Tree Survey report by HortScience; see Attachment 4). These guidelines include design recommendations, preconstruction treatments and recommendations, and recommendations for tree protection during construction. Included in the guidelines is the establishment of Tree Protection Zones around each preserved tree. Tree Protection Zones will be marked with fencing and within these zones no grading, excavation (including for underground services such as utilities or sub-drains), or storage of materials or dumping of materials can occur without consultations with the project arborist.
- The City of Napa should review final project grading and construction plans to minimize encroachment within the drip line of any trees not eliminated as part of site grading. This review should include assurances that the design of roads, utilities, slope stabilization work, subdrains, and other types of infrastructure avoid the area within the dripline of native trees where possible; and that all grading is designed to drain water away from the base of trees so as not to create areas of ponding within the dripline.

### **5.3.4 Landscaping/Invasive Species**

Invasive, exotic weeds compete with native vegetation and can degrade the quality of wildlife habitats. Project landscaping and construction activity has the potential to introduce invasive, exotic, non-native vegetation, some of which may not now exist in the area. Also, highways and various construction projects provide a pathway for dispersal of invasive plants. Invasive plant species include those designated as noxious weeds by the U.S. Department of Agriculture, problem species listed by the California Department of Food and Agriculture, and other invasive plants designated by the California Invasive Plant Council. Where appropriate, vegetation removed as a result of project activities should be replaced with native species which are of value to local wildlife. Native plants generally are more valuable as wildlife food sources and require less irrigation, fertilizers, and pesticides than exotic species.

**Impact 5:** Project landscaping is expected to introduce exotic, non-native vegetation, some of which may not exist in the area.

**Mitigation Measure 5-1:** Landscaping should be designed to enhance the wildlife value and aesthetic quality of undeveloped portions of the project site. Where appropriate, vegetation removed as a result of project activities should be

replaced with native species which are of value to local wildlife, and native vegetation should be retained. Weed management practices may be warranted, including identification and removal of infestations of noxious weeds prior to construction, use of construction equipment and materials such as fill and erosion control devices that are known to be weed-free, and removal of invasive species from areas within the project boundary set aside for conservation purposes as part of project mitigation.

### **5.3.5 Animal Species**

Loss of vegetation associated with the habitats on site will disrupt and displace existing wildlife. Some bird roosting, nesting, and foraging areas will be eliminated. Reptiles, amphibians, and small mammals that utilize these areas will be displaced to remaining undisturbed areas. Open space areas near the project area should be capable of accommodating these species. Animal species that have adapted to living in close association with human disturbance can be expected to increase after the proposed project. These species include mammals such as raccoon, California ground squirrel, deer mouse, and house mouse, and birds such as rock dove, mourning dove, American robin, European starling, house sparrow, Brewer's blackbird and brown-headed cowbird.

Grading, placement of fill material and other ground-disturbing activities could promote erosion and allow elevated levels of sediment to wash into downstream creeks, where potential impacts to fish and wildlife species would be possible. In the absence of water quality controls, indirect impacts to animal populations in wetlands and other aquatic habitats could result from the proposed project due to elevated contaminants in stormwater runoff. However, the requirement for the implementation of a Stormwater Pollution Prevention Plan (SWPPP), with identification of proper construction techniques and Best Management Practices (BMPs) will minimize adverse effects associated with these activities. Furthermore, standard techniques to control contaminants in stormwater such as oil and grease traps will be employed to mitigate water quality concerns.

Nesting bird species protected by the federal Migratory Bird Treaty Act that could be impacted during project construction. The removal of trees and shrubs during the February 1 to August 1 breeding season could result in mortality of nesting avian species if they are present. Many species of raptors (birds of prey) are sensitive to human incursion and construction activities, and it is necessary to ensure that nesting raptor species are not present in the vicinity of construction sites. During the spring survey of the Napa Oaks property, a red-tailed hawk nest was observed on adjacent property over 500 feet away from the property boundary for the project site. If this nest were active during construction of the Napa Oaks project, the nest would be sufficient distance from construction operations that disruptions to nesting birds would not occur. The presence of both red-tailed hawks and red-shouldered hawks on the project site in May of 2011, indicates that these species may nest somewhere on the property as well. Therefore, mitigation measures are recommended below.

**Impact 6:** The removal of trees and shrubs during the February 1 to August 1 breeding season could result in mortality of nesting avian species if they are present.

**Mitigation Measure 6-1:** If feasible, construction work should take place outside of the February 1 to August 1 breeding window for nesting birds. If construction is to be conducted during the breeding season, a qualified biologist should conduct a pre-construction breeding bird survey in areas of suitable habitat within 30 days prior to the onset of construction activity. If bird nests are found, appropriate buffer zones should be established around all active nests to protect nesting adults and their young from construction disturbance. Size of buffer zones should be determined in consultation with wildlife agency staff based on site conditions and species involved.

**Mitigation Measure 6-2:** Pre-construction surveys should include surveys for nesting by raptors generally expected to nest in the region including tree nesting species such as red-tailed, red-shouldered, Cooper's and Sharp-shinned hawk, white-tailed kite, great horned owl and American kestrel, and ground nesting species such as burrowing owl, short-eared owl and Northern harrier. If nesting raptors are found during pre-construction surveys, construction activity in the vicinity of the nest should be delayed until after young have fledged (usually by August), or buffer zones around nest sites of at least 200 feet should be established when construction equipment is present.

**Impact 7:** Placement of fill and other ground disturbing activities could prompt erosion and allow elevated levels of sediment to wash into downstream riparian areas.

**Mitigation Measure 7-1:** During construction, vegetation should only be cleared from the permitted construction footprint. Areas cleared of vegetation, pavement, or other substrates should be stabilized as quickly as possible to prevent erosion and runoff. Best Management Practices and all requirements as detailed in the Stormwater Pollution Prevention Plan shall be implemented to control erosion and migration of sediments offsite.

### **5.3.6 Special Status Animal Species**

A review of habitat requirements of sensitive animal species documented by the CNDDDB as occurring in the project vicinity, and sensitive animal species known to occur in the general vicinity, was conducted by HBG and Rana Resources biologists. Animal species of special concern are present or possible as described below.

Breeding habitat for California red-legged frog (CRLF) and California tiger salamander (CTS) does not occur on the Napa Oaks project site. However, artificial ponds located in the vicinity of the site display the inundation characteristics necessary for them to serve as breeding sites for either species if they were to occur in the area. If breeding by either species were to occur in these ponds, the project site could serve as refugial habitat for

these species. Results of the Habitat Assessment for CTS (Attachment 6) showed that the site is outside the known native range of the species. Results of the Habitat Assessment for CRLF (Attachment 7) showed that although the site lies within the native range for this species, high summer and fall air temperatures make the local aquatic habitats optimal for bullfrog reproduction and growth, which has presumably resulted in the localized extinction of CRLF in the vicinity of Napa. Although there are a number of adjacent vineyard irrigation ponds in the vicinity of the site, none of these water bodies appear to harbor CTS or CRLF due to the presence of dense populations of introduced bullfrogs and introduced predatory fishes. As neither CTS nor CRLF would be expected to occur at or near the site, impacts to these species are not anticipated due to construction of the proposed project.

Although the project site is unsuitable for western pond turtle nesting and estivation, the species was observed in irrigation ponds in the project vicinity by Rana Resources (see technical report related to this species in Attachment 8). As one of these irrigation ponds harboring the species occurs along the southern boundary of the site, it is possible that a western pond turtle could move across a small part of the property and be impacted during construction operations (e.g., could be crushed by construction vehicles). To avoid any potential negative effects to western pond turtle, mitigation measures are recommended below.

**Impact 8:** Construction operations could impact western pond turtles that have been observed in the adjacent irrigation pond and that could possibly move across the southern portion of the property.

**Mitigation Measure 8-1:** Establish a setback of at least 200-feet between the southern grading limits of the project and the high water edge of the irrigation pond;

**Mitigation Measure 8-2:** Install silt fencing at the southern edge of the development area during all construction operations to prevent western pond turtle from potentially entering the construction area. The fence could be examined by a qualified biologist on a regular basis during the construction period to make sure that it is functioning properly.

The State of California designates several raptor species with a potential to occur on the site as species of special concern based on the presence of nesting habitat. These species include burrowing owl (species of federal and state concern), white-tailed kite and Cooper's hawk. Preconstruction surveys for tree-nesting species (e.g., white-tailed kite, Cooper's hawk) will be necessary if tree removal occurs during the February 1 to August 1 nesting season. If an active raptor nest is identified, appropriate mitigation measures shall be developed and implemented in consultation with CDFG. Mitigation would include development of a construction plan that establishes of buffer zones around active nests during construction activity and/or until young have fledged.

**Impact 9:** Construction during the nesting season could impact any of three raptor species of special concern, Cooper's hawk, white-tailed kite or burrowing owl.

**Mitigation Measure 9-1:** Preconstruction surveys for tree-nesting species (e.g., white-tailed kite, Cooper's hawk) will be necessary if tree removal occurs during the February 1 to August 1 nesting season. If an active raptor nest is identified, appropriate mitigation measures shall be developed and implemented in consultation with CDFG. Mitigation would include development of a construction plan that establishes buffer zones around active nests during construction activity and/or until young have fledged.

**Mitigation Measure 9-2:** A preconstruction survey for burrowing owl should be conducted to ensure impacts to burrowing owls, if present in the construction area, do not occur to nesting or wintering burrowing owls. Preconstruction surveys should be conducted within 30 days of initiation of construction activity. If any burrowing owls are detected during the preconstruction surveys, all appropriate mitigation recommended by the Burrowing Owl Consortium and CDFG will be adopted.

Four raptor species that could occur are designated as state species of special concern based on presence of wintering habitat (ferruginous hawk, golden eagle, sharp-shinned hawk, and merlin). One of these species (sharp-shinned hawk) was identified at the site during winter surveys conducted in 2011. These species are wide-ranging species often wintering over a broad area, and incidental use of the site by any these species in winter is certainly possible. The site, however, contains no unique habitat features that would highlight the importance of the site as a wintering location for any of these species.

Two other avian species of special concern are possible on the site: California horned lark (state species of special concern) and loggerhead shrike (a species of both federal and state special concern). As potentially suitable nesting habitat is present for either species, preconstruction surveys should be conducted of the development area to determine if nesting is occurring. If nests of either species are found, a construction plan would need to be developed that would allow successful nesting (fledging of young birds).

**Impact 10:** Construction during the nesting season could impact California horned lark and/or loggerhead shrike.

**Mitigation Measure 10-1:** Preconstruction surveys should be conducted of the development area to determine if nesting by either California horned lark or loggerhead shrike is occurring. If nests of either species are found, a construction plan would need to be developed that would allow successful nesting (fledging of young birds).

Seven species of bats that are California species of special concern, or are recognized as having conservation priority by the Western Bat Working Group, the Bureau of Land Management, or the U.S. Forest Service have potential to occur within the project boundaries, including the pallid bat, which is a designated species of special concern and for which roost sites have occurred in the project vicinity. The project area provides potential foraging and roosting habitat for these species. The residential structures and outbuildings in the project area may provide summer or winter (hibernacula) roosting sites. Construction in or demolition of barns or stables may result in destruction of maternity roosts, hibernacula, day roosts, and/or night roosts of bat species, including the pallid bat. Depending on the design of existing structures and the time of year demolition of structures take place, bat surveys and implementation of additional mitigation measures may be warranted.

**Impact 11:** Construction in or demolition of buildings could result in destruction of maternity roosts, hibernacula, day roosts, and/or night roosts of bat species, including pallid bat.

**Mitigation Measure 11-1:** Generalized preconstruction bat surveys should be conducted prior to building demolition. Exclusion devices should be employed to prevent impacts to bats if surveys demonstrate presence of bats. The surveys should be conducted no earlier than 45 days and no later than 20 days prior to any activity within 200 feet of the structures. If it is determined that threatened, endangered, or sensitive bat species are present within structures, an appropriate bat exclusion specialist should be consulted. The bat exclusion specialist should be licensed by the State of California. If breeding special status bat species are present, exclusion may only be conducted before May 1 or after August 31 to avoid separating mothers from pups. Exclusion devices can include one-way netting, plastic sheeting, or tubes, and must remain in place for at least 5 to 7 days prior to activity. After that, if demolition is not to occur immediately, exclusion points must be sealed. Ultrasonic devices, chemical repellents, and smoke may not be used for exclusion.

## 6.0 AGENCY PERMIT REQUIREMENTS

Any potential impacts to jurisdictional wetlands or waters of the U.S. at the site will require authorization from the Army Corps of Engineers pursuant to Section 404 of the Clean Water Act. NWP 39 authorizes “discharges of dredged or fill material into non-tidal waters of the U.S., excluding non-tidal wetlands adjacent to tidal waters, for the construction or expansion of residential, commercial, and institutional building foundations and building pads and attendant features that are necessary for the use and maintenance of the structures” provided the activities meet the following criteria:

- The discharge does not cause the loss of greater than 0.5-acre of non-tidal waters of the U.S.;
- The discharge does not cause the loss of greater than 300 linear feet of a stream bed (unless the criterion is waived by the District Engineer);
- The discharge is part of a single and complete project;
- The permittee avoids and minimizes discharges into waters of the U.S. to the maximum extent practicable;
- The discharge does not cause more than minimal degradation of water quality or more than minimal changes to stream flow characteristics; and
- The permittee establishes and maintains vegetated buffers next to open water to the maximum extent practicable.

As the 0.36 acres of seasonal wetlands are scattered throughout the site and avoidance of these wetlands would be problematic with any layout of land uses, a permit from the Corps is a certainty for development at this site. Wetland impacts would not exceed the 0.5 acre limit of Nationwide Permit 39, therefore the Corps would determine that the proposed project would qualify for a Nationwide Permit 39, and an Individual Permit would not be required. A wetland mitigation plan describing procedures to mitigate impacts to jurisdictional areas would need to be developed as part of the Corps permit process. The applicant would need to demonstrate that wetlands have been avoided to the extent possible and provide documentation of how the project has been minimized to reduce onsite impacts.

The requirement for a Clean Water Act Section 404 Nationwide permit means that any development project at this site will also require Section 401 water quality certification from the San Francisco Bay Regional Water Quality Control Board (RWQCB) for the Corps permit to be valid. Prior to issuance of the water quality certification, RWQCB will require the applicant to demonstrate that requirements of the City of Napa pursuant to the California Environmental Quality Act (CEQA) have been satisfied. Mitigation of wetlands will be required to obtain Corps and RWQCB approval.

If detailed studies to be conducted in 2011 reveal the presence of a federally-listed species, a Section 7 consultation with USFWS may be required.

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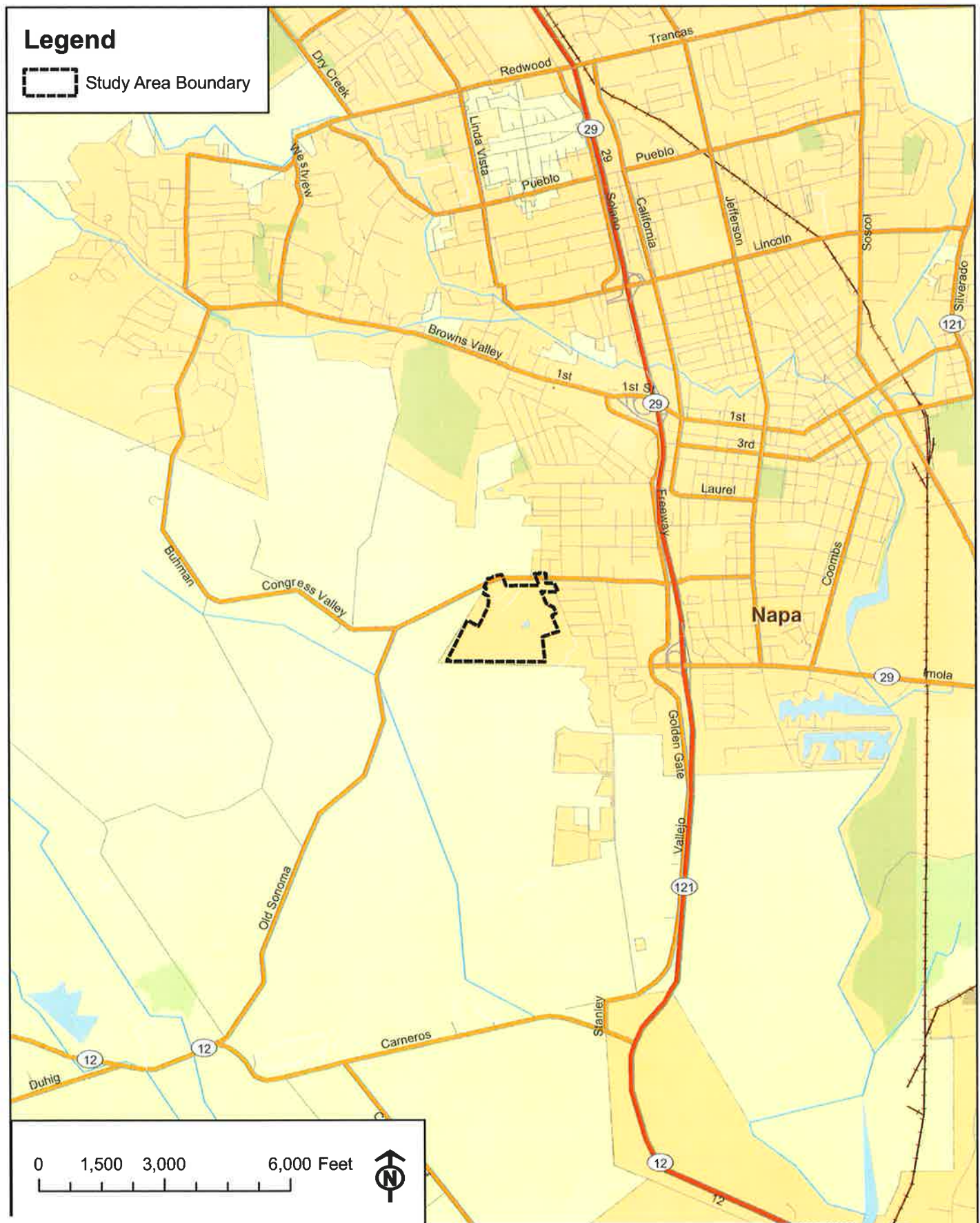
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## **ATTACHMENT 1.**

### **Figures**

- Figure 1. Location of the Project Site
- Figure 2. U.S.G.S Map of the Project Site
- Figure 3. Aerial Photograph of the Project Site
- Figure 4. Napa Oaks Project Conceptual Plan
- Figure 5. Watershed Map of the Project Area
- Figure 6. FEMA Map for the Project Vicinity
- Figure 7. Historic Marsh Margins near Napa
- Figure 8. Soil Map of the Project Area
- Figure 9. Map of Plant Communities at the Project Site
- Figure 10. Wetlands and Waters of the U.S. Potentially Subject to Corps Jurisdiction
- Figure 11. Impacts to Vegetation Communities Occurring on the Project Site
- Figure 12. Impacts to Wetlands and Water of the U.S. Potentially Subject to Corps Jurisdiction

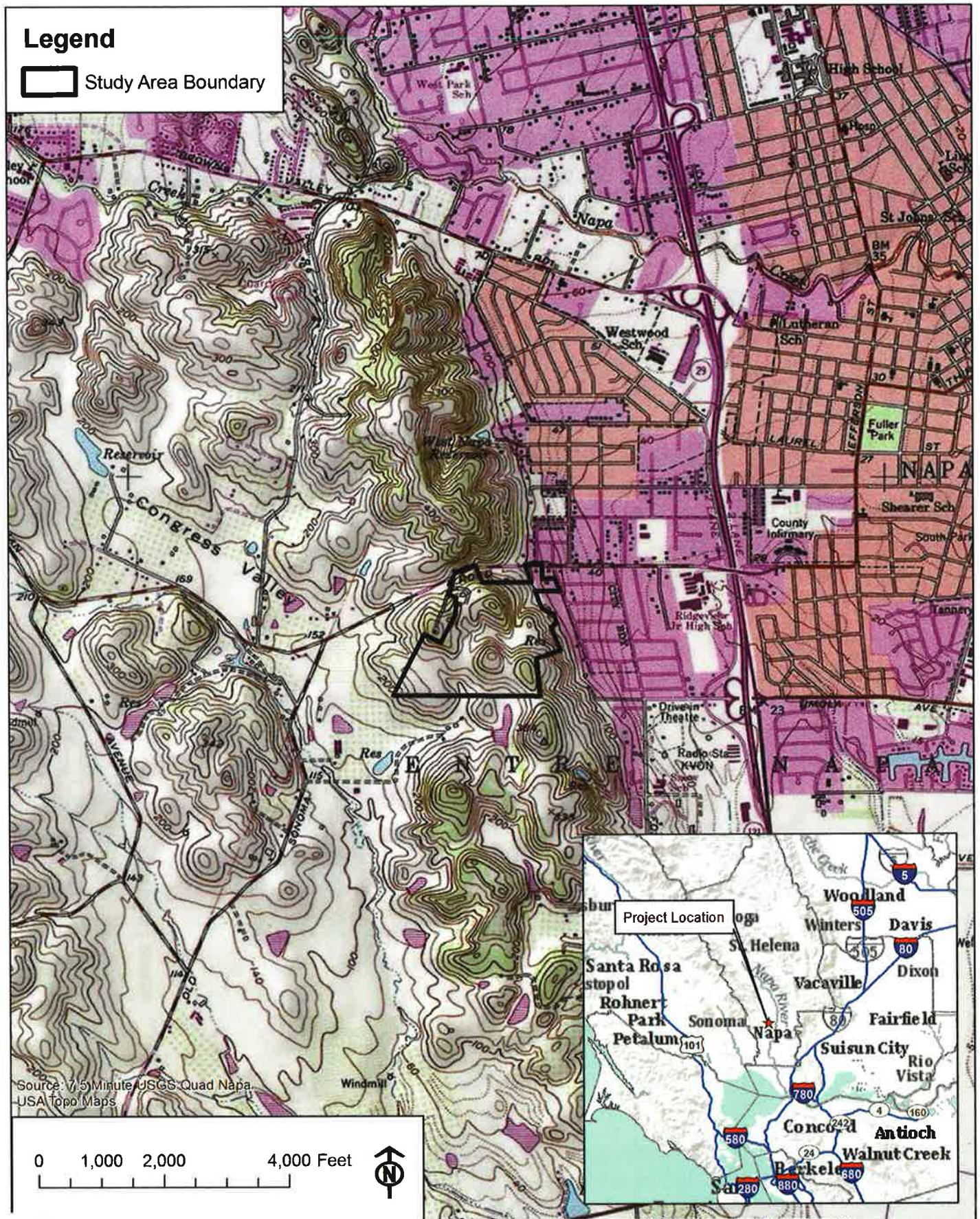


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### Figure 1. Project Area Location Map

Napa Oaks Project

City of Napa, Napa County, California



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**Figure 2. USGS Map of the Project Site**

Napa Oaks Project

City of Napa, Napa County, California

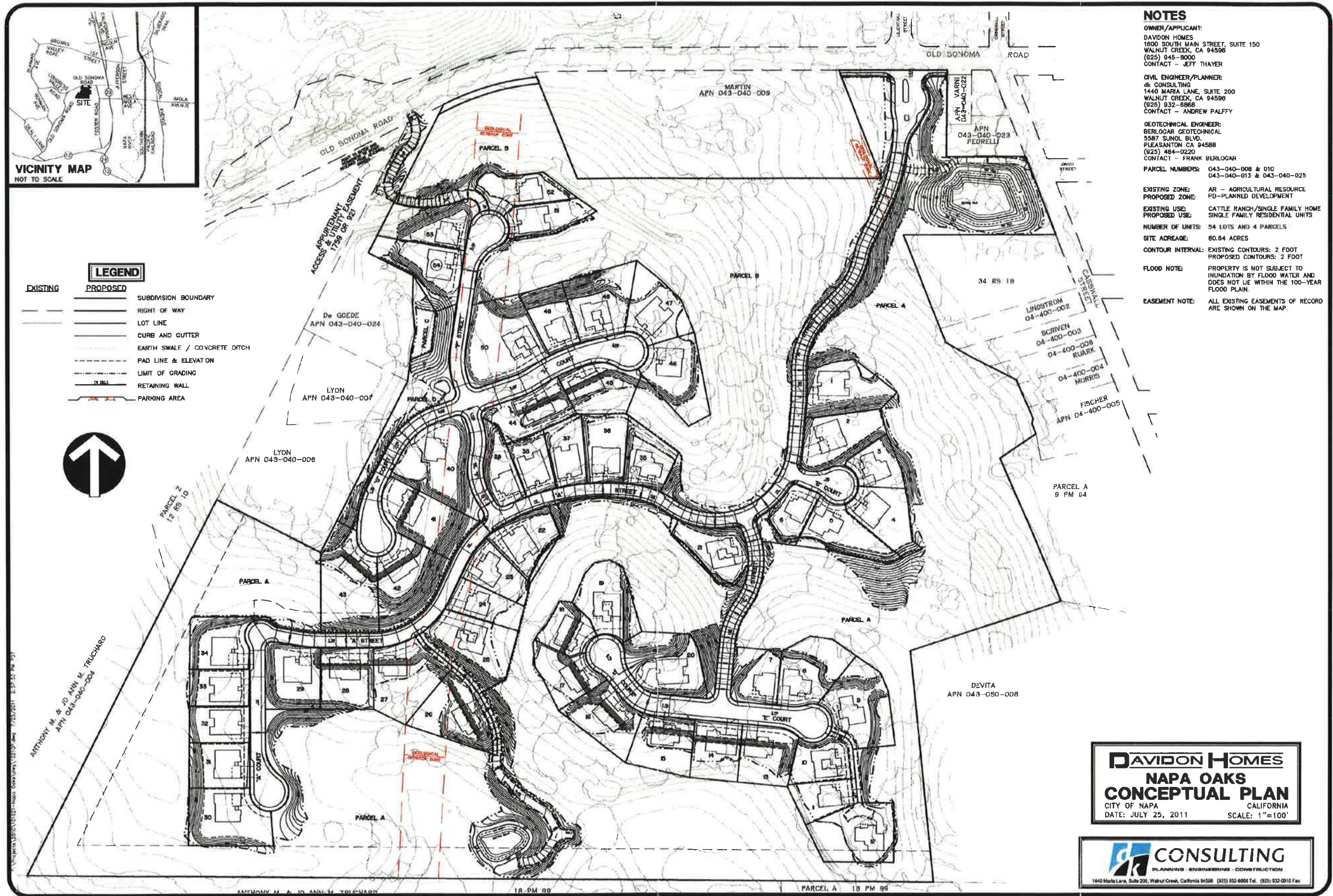


Source of Aerial Photograph: NAIP  
Dated: 2010

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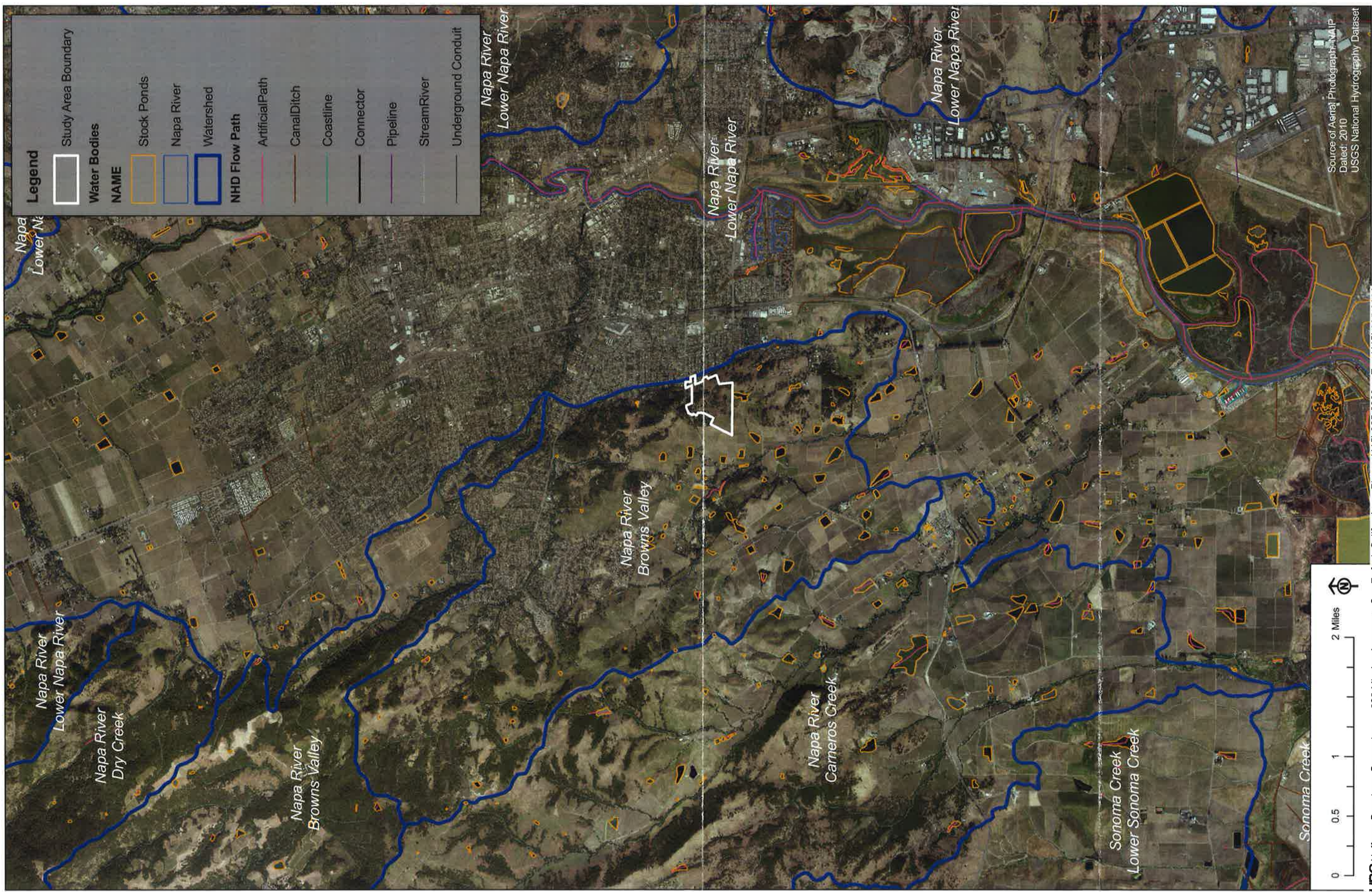
**Figure 3. Aerial Photograph of Project Site**

Napa Oaks Project  
City of Napa, Napa County, California



**Figure 4. Napa Oaks Project Conceptual Plan**

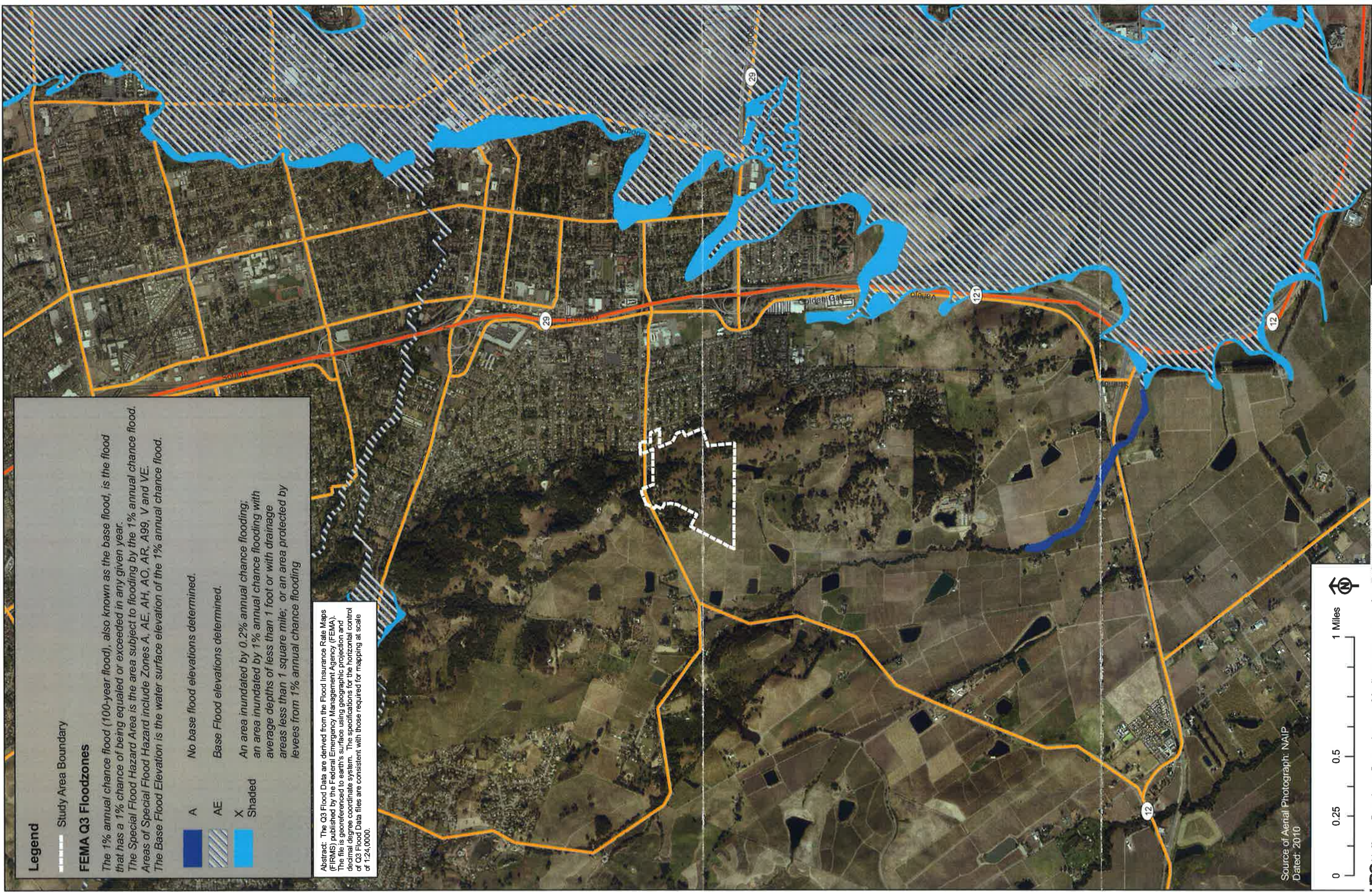
Napa Oaks Project  
City of Napa, Napa County, California



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**Figure 5. Watershed Map of the Project Area**

Napa Oaks Project  
City of Napa, Napa County, California



# Legend

Study Area Boundary

## FEMA Q3 Floodzones

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.

A No base flood elevations determined.

AE Base Flood elevations determined.

X Shaded  
An area inundated by 0.2% annual chance flooding.  
an area inundated by 1% annual chance flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile; or an area protected by levees from 1% annual chance flooding

Abstract: The Q3 Flood Data are derived from the Flood Insurance Rate Maps (FIRMS) published by the Federal Emergency Management Agency (FEMA). The file is georeferenced to earth's surface using geographic projection and decimal degree coordinate system. The specifications for the horizontal control of Q3 Flood Data files are consistent with those required for mapping at scale of 1:24,000.

Source of Aerial Photograph: NAIP  
Dated: 2010

0 0.25 0.5 1 Miles

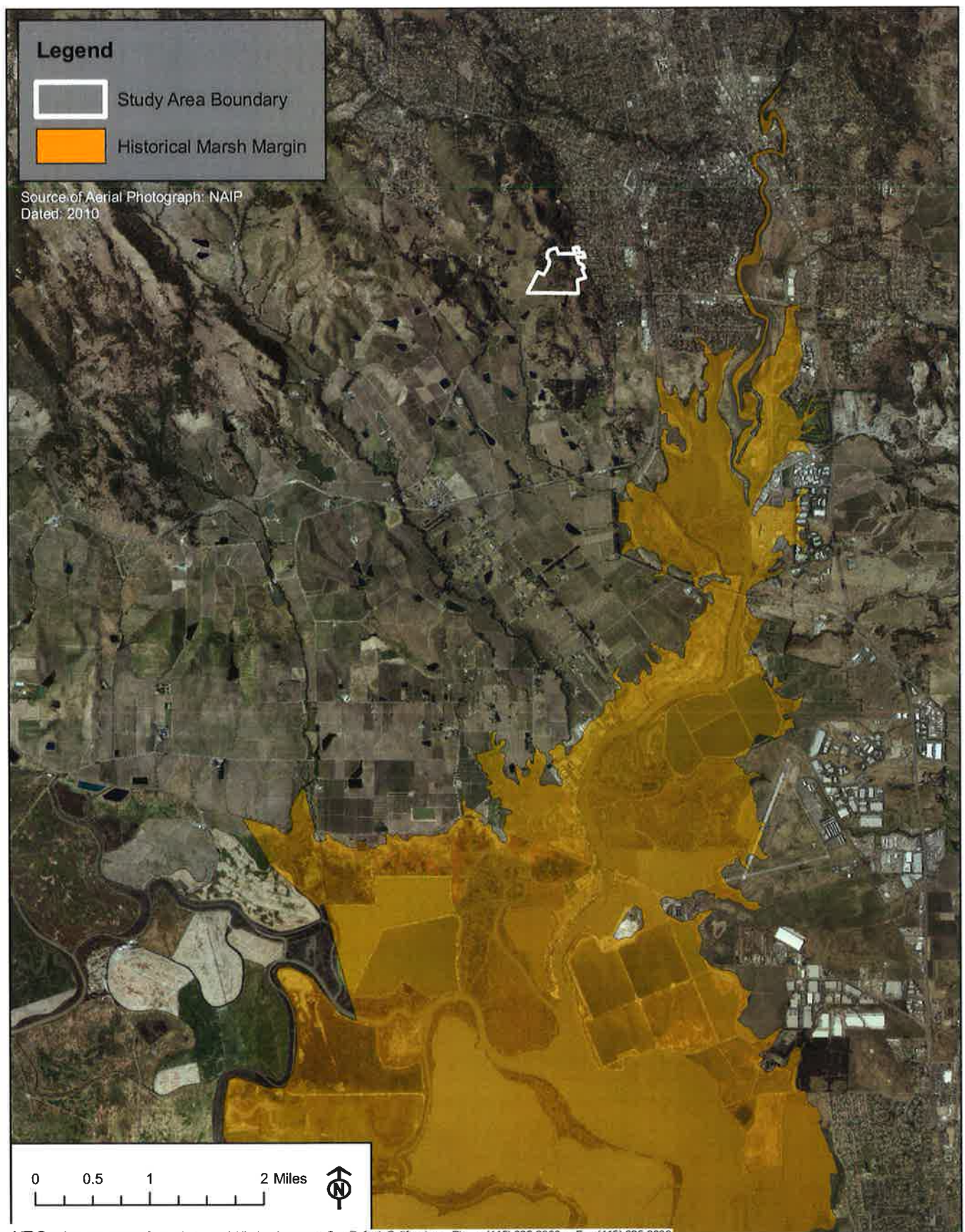


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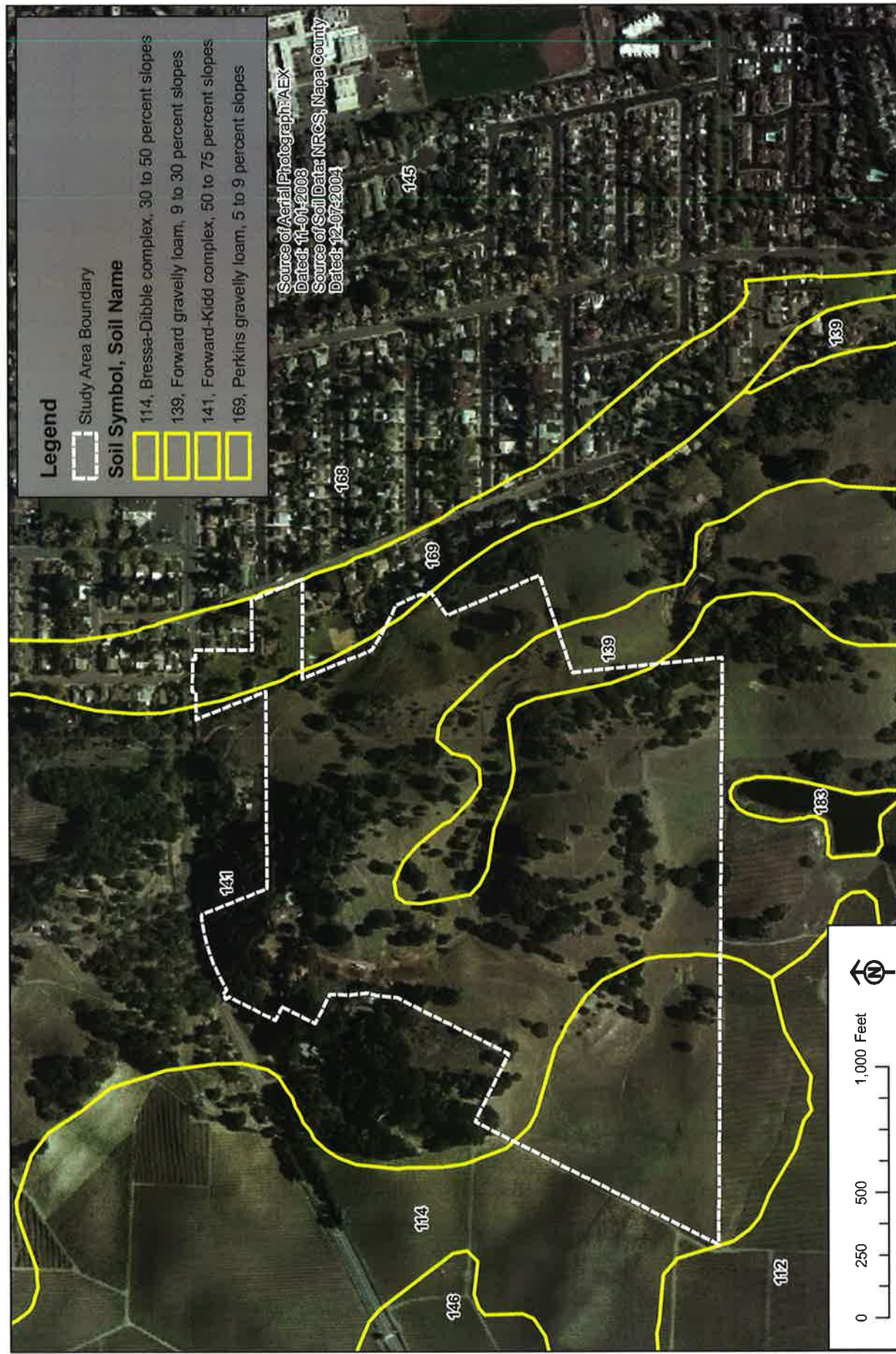
Figure 6. Fema Map for the Project Vicinity

Napa Oaks Project

City of Napa, Napa County, California



**Figure 7. Historic Marsh Margins near Napa**  
Napa Oaks Project  
City of Napa, Napa County, California



**Figure 8. Soil Map of the Project Area**

Napa Oaks Project  
 City of Napa, Napa County, California



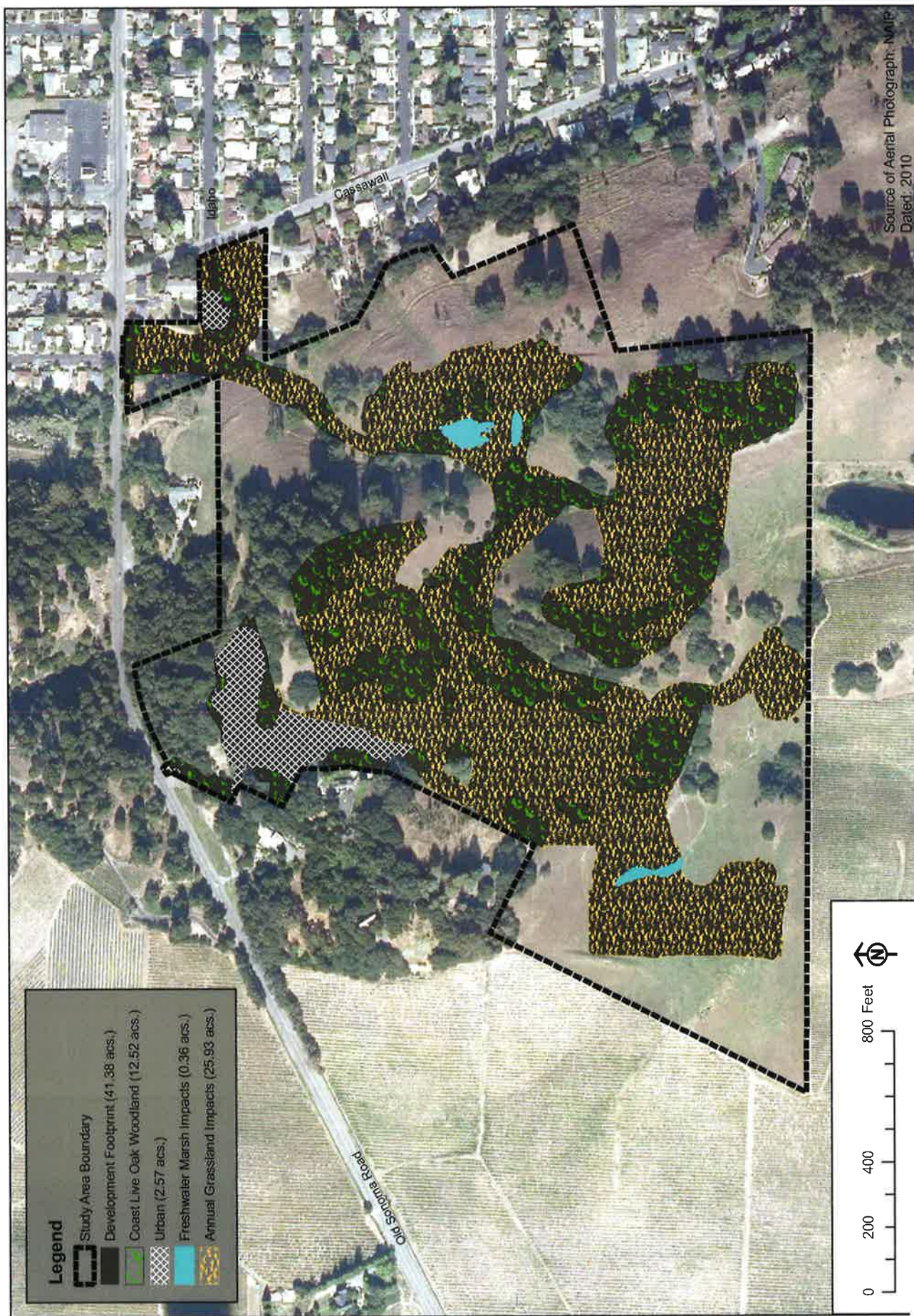
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**Figure 9. Map of Plant Communities at the Project Site**

Napa Oaks Project  
City of Napa, Napa County, California



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**Figure 10. Wetlands and Waters of the U.S. Potentially Subject to Corps Jurisdiction**  
 Napa Oaks Project  
 City of Napa, Napa County, California



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# **Figure 11. Impacts to Vegetation Communities Occurring on the Project Site**

Napa Oaks Project  
City of Napa, Napa County, California



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**Figure 12. Impacts to Wetlands and Waters of the U.S. Potentially Subject to Corps Jurisdiction**  
Napa Oaks Project  
City of Napa, Napa County, California

# ATTACHMENT 2

**ATTACHMENT 2.**

**SUPPLEMENTAL BIOLOGICAL INFORMATION**

**Table 1. Status, Distribution, and Habitat of Special-Status Plants with Potential to Occur in the Vicinity of the Napa Oaks Project Plan Area, Napa, California**

| <b>SCIENTIFIC NAME</b>                                                                            | <b>STATUS<sup>2</sup></b> | <b>HABITAT/RANGE</b>                                                                                                                                                                                  | <b>OCCURRENCE</b>                                                                                 |
|---------------------------------------------------------------------------------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Franciscan onion<br>( <i>Allium peninsulare</i> var.<br><i>franciscanum</i> )                     | --/--/1B                  | On clay soils on dry hillsides, often on serpentine, in cismontane woodland and valley and foothill grassland. 100-300m. Nearest location is a half mile north of Sonoma, over 8 miles from the site. | Not present. Potential habitats were surveyed in spring and summer of 2011 with negative results. |
| Napa false indigo<br>( <i>Amorpha californica</i> var.<br><i>napensis</i> )                       | --/--/1B                  | Broad-leaved upland forest, chaparral, cismontane woodland; openings in forest or woodland or in chaparral (150-2000m). Nearest location is at Patrick Road about 5 miles northwest of the site.      | Not present. Potential habitats were surveyed in spring and summer of 2011 with negative results. |
| Clara Hunt's milk-vetch<br>( <i>Astragalus clarianus</i> )                                        | FE/CT/1B                  | Inhabits open grassy hillsides in thin, volcanic clay soils in cismontane woodland, valley and foothill grassland and chaparral. Not known to occur within 10 miles of the site.                      | Not present. Potential habitats were surveyed in spring and summer of 2011 with negative results. |
| San Joaquin spearscale<br>( <i>Atriplex joaquiniana</i> )                                         | --/--/1B                  | Chenopod scrub, alkali meadow in valley and foothill grassland. Alkali scrub and mesic grasslands in the Delta and Central Valley basin. 1-250m. Known from within Napa about a mile from the site.   | Not present. Appropriate habitat is not present on site.                                          |
| Big-scale (California) balsamroot<br>( <i>Balsamorhiza macrolepis</i> var.<br><i>macrolepis</i> ) | SLC/--/1B                 | Chaparral, cismontane woodland, valley and foothill grassland/sometimes serpentine; 90-1400m. Nearest location is over 8 miles east of the site.                                                      | Not present. Potential habitats were surveyed in spring and summer of 2011 with negative results. |

| SCIENTIFIC NAME                                                                              | STATUS <sup>2</sup> | HABITAT/RANGE                                                                                                                                                                                         | OCCURRENCE                                                |
|----------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Sonoma sunshine<br>( <i>Blennosperma bakeri</i> )                                            | FE/CE/1B            | Vernal pools and swales in valley and foothill grassland. 10-100m. Nearest location is north of Sonoma over 8 miles from the site.                                                                    | Not present. Appropriate habitat is not present on site.  |
| Narrow-anthered California brodiaea<br>( <i>Brodiaea californica</i> var. <i>leptandra</i> ) | --/--/1B            | Broadleafed upland forest, chaparral, lower montane coniferous forest. 110-915m. Nearest location is at Arrowhead Mountain about 5 miles west of the site.                                            | Not present. Appropriate habitat is not present on site.  |
| Tiburon Indian paintbrush<br>( <i>Castilleja affinis</i> ssp. <i>neglecta</i> )              | FE/CT/1B            | Rocky serpentine sites in valley and foothill grasslands. 75-400 m. Nearest location is in American Canyon nearly 10 miles from the site.                                                             | Not present. Appropriate habitat is not present on site.  |
| Holly-leaved ceanothus<br>( <i>Ceanothus purpureus</i> )                                     | SLC/--/--           | Rocky volcanic slopes in chaparral. 120-640m. Nearest location is near Sugarloaf Summit about 4 miles east of the site.                                                                               | Not present.. Appropriate habitat is not present on site. |
| Sonoma Ceanothus<br>( <i>Ceanothus sonomensis</i> )                                          | --/--/1B            | On sandy, serpentine or volcanic soils in chaparral. 210-800m. Nearest location is along the Sonoma/Napa County line about 6 miles west of the site.                                                  | Not present. Appropriate habitat is not present on site   |
| Pappose tarplant<br>( <i>Centromadia parryi</i> ssp. <i>parryi</i> )                         | SLC/--/1B           | Vernally mesic, often alkaline sites in coastal prairie, meadows and seeps, coastal salt marsh and valley and foothill grassland. Nearest location is near Highway 121 about 8.5 miles from the site. | Not present. Appropriate habitat is not present on site.  |

| SCIENTIFIC NAME                                                           | STATUS <sup>2</sup> | HABITAT/RANGE                                                                                                                                                                                                               | OCCURRENCE                                                                                        |
|---------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Soft bird's-beak<br>( <i>Cordylanthus mollis</i> ssp.<br><i>mollis</i> )  | FE/CR/1B            | Inhabits brackish tidal marsh and seasonal alkali marsh. 0-3m. Known from fewer than 20 populations in Contra Costa, Napa, and Solano Counties. Nearest location is southwest of Cuttings Wharf over 5 miles from the site. | Not present. Appropriate habitat is not present on site.                                          |
| Dwarf downingia<br>( <i>Downingia pusilla</i> )                           | --/--/2             | Margins of vernal pools; mesic sites in valley and foothill grassland. 1-485m. Nearest location is near Highway 12/121 about 5 miles south of the site.                                                                     | Not present. Appropriate habitat is not present on site.                                          |
| Greene's narrow-leaved daisy<br>( <i>Erigeron greenei</i> )               | --/--/1B            | Serpentine and volcanic substrates in chaparral. 75-1060m. Nearest location is at Soda Creek Canyon between Napa and Yountville about 7 miles north of the site.                                                            | Not present. Appropriate habitat is not present on site                                           |
| Seaside tarplant<br>( <i>Hemizonia congesta</i> ssp.<br><i>congesta</i> ) | --/--/1B            | Grassy valleys and hills, often in fallow fields, in coastal scrub and valley and foothill grassland. Nearest location is south of Sonoma, over 8 miles from the site.                                                      | Not present. Potential habitats were surveyed in spring and summer of 2011 with negative results. |
| Northern California black walnut<br>( <i>Juglans hindsii</i> )            | --/--/1B            | In deep alluvial soils associated with a stream or creek; in riparian forest and riparian woodland. 0-395m. Known from a Napa City Park just over a mile from the site.                                                     | Not present. Appropriate habitat is not present on site.                                          |

| SCIENTIFIC NAME                                                     | STATUS <sup>2</sup> | HABITAT/RANGE                                                                                                                                                                                                                                                        | OCCURRENCE                                               |
|---------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Contra Costa Goldfields<br>( <i>Lasthenia conjugens</i> )           | FE/--/1B            | Vernal pools, swales, low depressions, in open grassy areas. 1-445m. Extirpated from most of its range. Most remaining occurrences restricted to the Fairfield region. Occurs near Highway 121 near the Napa River.                                                  | Not present. Appropriate habitat is not present on site. |
| Delta Tule Pea<br>( <i>Lathyrus jepsonii</i> var. <i>jepsonii</i> ) | --/--/1B            | Inhabits the banks of sloughs and bays in the Suisun Bay and Delta. Found in freshwater and brackish marshes. Nearest location is along the Napa River near the Maxwell Bridge.                                                                                      | Not present. Appropriate habitat is not present on site. |
| Legenere<br>( <i>Legenere limosa</i> )                              | --/--/1B            | Inhabits vernal pools, 1-880m. Known from scattered occurrences in the Delta, north Central Valley, and north SF Bay. Many occurrences are extirpated. Nearest location is about 4 miles south of the site.                                                          | Not present. Appropriate habitat is not present on site. |
| Mason's lilaeopsis<br>( <i>Lilaeopsis masonii</i> )                 | --/CR/1B            | Inhabits the edges of mudflats in brackish marsh and riparian scrub in the Delta. 0-10m. Known along the Napa River just over a mile from the site.                                                                                                                  | Not present. Appropriate habitat is not present on site. |
| Sebastopol meadowfoam<br>( <i>Limnanthes vincularis</i> )           | FE/CE/1B            | Grows in poorly drained clay and sandy loam soils in swales, wet meadows, and marshy areas. Occurs in mesic meadows and vernal pools in valley and foothill grasslands. 15-115m. Nearest known location is about 10 miles from the site at the Laguna Vista Project. | Not present. Appropriate habitat is not present on site. |

| SCIENTIFIC NAME                                                                      | STATUS <sup>2</sup> | HABITAT/RANGE                                                                                                                                                                                                                                                                                | OCCURRENCE                                                                                        |
|--------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Cobb mountain lupine<br>( <i>Lupinus sericatus</i> )                                 | --/--/1B            | Chaparral, cismontane woodland, lower montane coniferous forest; in stands of knob cone pine-oak woodland; on open woodland slopes in gravelly soils; sometimes on serpentine (180-1500m). Nearest location is north of the summit of Hogback Mountain, about 7 miles northwest of the site. | Not present. Potential habitats were surveyed in spring and summer of 2011 with negative results. |
| Few-flowered Navarretia<br>( <i>Navarretia leucocephala</i> ssp. <i>pauciflora</i> ) | FE/CT/1B            | Inhabits volcanic ash flows and volcanic substrates in vernal pools. 400-855m. Not known to occur within 10 miles of the site.                                                                                                                                                               | Not present. Appropriate habitat is not present on site.                                          |
| Marin knotweed<br>( <i>Polygonum marinense</i> )                                     | SLC/--/3            | Coastal salt marshes and brackish marshes. 0-10m. Nearest location is at Cuttings Wharf over 4 miles south of the site.                                                                                                                                                                      | Not present. Appropriate habitat is not present on site.                                          |
| Marin checkerbloom<br>( <i>Sidalcea hickmanii</i> ssp. <i>viridis</i> )              | --/--/1B            | Chaparral. Serpentine or volcanic soils; sometimes appears after burns. 0-430m. Nearest location is at the base of Mt. George about 6 miles northeast of the site.                                                                                                                           | Not present.. Appropriate habitat is not present on site.                                         |
| Suisun Marsh aster<br>( <i>Symphyotrichum lentum</i> )                               | --/--/1B            | Both brackish and freshwater marshes and swamps. 0-3m. Occurs near the Napa Municipal Golf Course a couple miles from the site.                                                                                                                                                              | Not present. Appropriate habitat is not present on site.                                          |

| SCIENTIFIC NAME                                        | STATUS <sup>2</sup> | HABITAT/RANGE                                                                                                                                                                                                    | OCCURRENCE                                                                                        |
|--------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Napa bluecurls<br>( <i>Trichostema ruygii</i> )        | --/--/1B            | Open sunny areas in cismontane woodland, chaparral, valley and foothill grassland, vernal pools and lower montane coniferous forest. 30-590m. Nearest location is northeast of Napa about 6 miles from the site. | Not present. Potential habitats were surveyed in spring and summer of 2011 with negative results. |
| Showy Indian clover<br>( <i>Trifolium amoenum</i> )    | FE/--/1B            | Inhabits moist clay grassland soils; known from one extant occurrence in Marin County. 5-560m. Known from a 1951 sighting near Napa.                                                                             | Not present. Potential habitats were surveyed in spring and summer of 2011 with negative results. |
| Saline clover<br>( <i>Trifolium. hydrophilum</i> )     | --/--/1B            | Marshes and swamps, valley and foothill grassland, vernal pools. Found in mesic, alkaline sites. 0-300m. Nearest location is south of Napa about 3 miles from the site.                                          | Not present. Potential habitats were surveyed in spring and summer of 2011 with negative results. |
| Oval-leaved viburnum<br>( <i>Viburnum ellipticum</i> ) | --/--/1B            | Chaparral, cismontane woodland, lower montane coniferous forest. 215-1400m. Nearest location is at Skyline Park over 5 miles from the site.                                                                      | Not present. Potential habitats were surveyed in spring and summer of 2011 with negative results. |

1. Source: California Natural Diversity Data Base, Natural Heritage Division, California Department of Fish and Game for the Napa 7.5 Minute Quadrangle Map and surrounding areas, information dated January 2011

2. Status Codes:

|     |                                                                               |
|-----|-------------------------------------------------------------------------------|
| FE  | Federally Endangered                                                          |
| FT  | Federally Threatened                                                          |
| FPE | Federally Proposed Endangered                                                 |
| FPT | Federally Proposed Threatened                                                 |
| FSC | Federal Species of Concern (most are former C2 Candidates and some former C1) |
| CE  | California Endangered                                                         |
| CT  | California Threatened                                                         |
| CR  | California Rare                                                               |

|             |                                                                                |
|-------------|--------------------------------------------------------------------------------|
| CFP         | California Fully Protected                                                     |
| CSC         | California Species of Special Concern                                          |
| CNPS 1A     | Plants Presumed Extinct in California                                          |
| CNPS 1B     | Plants Rare, Threatened or Endangered in California or elsewhere               |
| CNPS LIST 2 | Plants Rare, Threatened or Endangered in California, but more common elsewhere |

**Table 2. Vascular Plant Species Observed at the Napa Oaks Project Plan Area, Napa, California (list compiled during the spring and summer botanical surveys conducted by Virginia Dains in 2011)**

| <b>Family</b>        | <b>Scientific Name</b>              | <b>Common Name</b>                  |
|----------------------|-------------------------------------|-------------------------------------|
| <i>Anacardiaceae</i> |                                     |                                     |
|                      | Toxicodendron diversilobum          | poison oak                          |
| <i>Apiaceae</i>      |                                     |                                     |
|                      | Conium maculatum                    | poison hemlock                      |
|                      | Foeniculum vulgare                  | fennel                              |
|                      | Sanicula bipinnatifida              | purple sanicle                      |
|                      | Sanicula crassicaulis               | Pacific sanicle                     |
|                      | Torilis arvensis                    | field hedge-parsley                 |
| <i>Asteraceae</i>    |                                     |                                     |
|                      | Achyrrachaena mollis                | blow-wives                          |
|                      | Baccharis pilularis                 | coyote brush                        |
|                      | Carduus pycnocephalus               | Italian thistle                     |
|                      | Centaurea calcitrapa                | red star-thistle                    |
|                      | Centaurea solstitialis              | yellow star-thistle                 |
|                      | Filago californica                  | California herba impia              |
|                      | Hedypnois cretica                   | Cretan hedypnois                    |
|                      | Hypochaeris glabra                  | smooth cat's ear                    |
|                      | Hypochaeris radicata                | rough cat's ear                     |
|                      | Lactuca serriola                    | prickly lettuce                     |
|                      | Leontodon taraxacoides              | hawkbit                             |
|                      | Micropus californicus               | slender cottonweed                  |
|                      | Picris echioides                    | bristly ox-tongue                   |
|                      | Psilocarphus oregonus               | Oregon woolly marbles               |
|                      | Senecio vulgaris                    | common groundsel                    |
|                      | Silybum marianum                    | milk thistle                        |
|                      | Soliva sessilis                     | common soliva                       |
|                      | Sonchus arvensis                    | perennial sow thistle               |
|                      | Sonchus asper ssp. asper            | prickly sow thistle                 |
|                      | Taraxacum officinale                | common dandelion                    |
| <i>Boraginaceae</i>  |                                     |                                     |
|                      | Amsinckia menziesii var. intermedia | orange-flowered Menzies' fiddleneck |
|                      | Plagiobothrys nothofulvus           | rusty-haired popcorn flower         |
| <i>Brassicaceae</i>  |                                     |                                     |

| <b>Family</b>                 | <b>Scientific Name</b>   | <b>Common Name</b>       |
|-------------------------------|--------------------------|--------------------------|
|                               | Brassica nigra           | black mustard            |
|                               | Brassica rapa            | field mustard            |
|                               | Cardamine oligosperma    | Idaho bittercress        |
|                               | Lepidium nitidum         | shining pepper-grass     |
|                               | Raphanus sativus         | wild radish              |
| <b><i>Caprifoliaceae</i></b>  |                          |                          |
|                               | Symphoricarpos mollis    | creeping snowberry       |
|                               | Viburnum tinus           | spring bouquet viburnum  |
| <b><i>Caryophyllaceae</i></b> |                          |                          |
|                               | Cerastium glomeratum     | mouse-ear chickweed      |
|                               | Stellaria media          | common chickweed         |
| <b><i>Crassulaceae</i></b>    |                          |                          |
|                               | Crassula tillaea         | Mediterranean pygmy-weed |
| <b><i>Cyperaceae</i></b>      |                          |                          |
|                               | Eleocharis macrostachya  | common spikerush         |
| <b><i>Ericaceae</i></b>       |                          |                          |
|                               | Arbutus menziesii        | madrone                  |
| <b><i>Fabaceae</i></b>        |                          |                          |
|                               | Lotus humistratus        | short-podded lotus       |
|                               | Lotus wrangelianus       | Chilean lotus            |
|                               | Lupinus bicolor          | miniature lupine         |
|                               | Lupinus nanus            | sky lupine               |
|                               | Medicago polymorpha      | California burclover     |
|                               | Trifolium campestre      | hop clover               |
|                               | Trifolium dubium         | shamrock                 |
|                               | Trifolium glomeratum     | clustered clover         |
|                               | Trifolium hirtum         | rose clover              |
|                               | Trifolium subterraneum   | subterranean clover      |
|                               | Trifolium willdenovii    | tomcat clover            |
| <b><i>Fagaceae</i></b>        |                          |                          |
|                               | Quercus agrifolia        | coast live oak           |
|                               | Quercus lobata           | Valley oak               |
| <b><i>Gentianaceae</i></b>    |                          |                          |
|                               | Centaurium muehlenbergii | Muhlenberg's centaury    |
|                               | Cicendia quadrangularis  | common microcalis        |
| <b><i>Geraniaceae</i></b>     |                          |                          |
|                               | Erodium botrys           | long-beaked filaree      |
|                               | Erodium cicutarium       | red-stemmed filaree      |

| <b>Family</b>                  | <b>Scientific Name</b>   | <b>Common Name</b>    |
|--------------------------------|--------------------------|-----------------------|
|                                | Geranium dissectum       | cut-leaved geranium   |
|                                | Geranium robertianum     | Robert's geranium     |
| <b><i>Hippocastanaceae</i></b> |                          |                       |
|                                | Aesculus californica     | California buckeye    |
| <b><i>Iridaceae</i></b>        |                          |                       |
|                                | Sisyrinchium bellum      | blue-eyed grass       |
| <b><i>Juglandaceae</i></b>     |                          |                       |
|                                | Juglans regia            | English walnut        |
| <b><i>Juncaceae</i></b>        |                          |                       |
|                                | Juncus bufonius          | toad rush             |
|                                | Juncus tenuis            | poverty rush          |
|                                | Juncus xiphioides        | iris-leaved rush      |
| <b><i>Juncaginaceae</i></b>    |                          |                       |
|                                | Lilaea scilloides        | flowering quillwort   |
| <b><i>Lamiaceae</i></b>        |                          |                       |
|                                | Marrubium vulgare        | horehound             |
|                                | Mentha pulegium          | pennyroyal            |
|                                | Stachys bullata          | southern hedge-nettle |
| <b><i>Liliaceae</i></b>        |                          |                       |
|                                | Calochortus luteus       | yellow mariposa       |
|                                | Chlorogalum pomeridianum | soaproot              |
| <b><i>Lythraceae</i></b>       |                          |                       |
|                                | Lythrum hyssopifolium    | hyssop loosestrife    |
| <b><i>Malvaceae</i></b>        |                          |                       |
|                                | Malva parviflora         | cheeseweed            |
| <b><i>Moraceae</i></b>         |                          |                       |
|                                | Ficus carica             | common fig            |
| <b><i>Oleaceae</i></b>         |                          |                       |
|                                | Olea europaea            | olive                 |
| <b><i>Onagraceae</i></b>       |                          |                       |
|                                | Camissonia ovata         | sun-cup               |
|                                | Clarkia unguiculata      | woodland clarkia      |
|                                | Epilobium brachycarpum   | autumn willowweed     |
| <b><i>Oxalidaceae</i></b>      |                          |                       |
|                                | Oxalis pes-caprae        | Bermuda buttercup     |
| <b><i>Papaveraceae</i></b>     |                          |                       |
|                                | Eschscholzia californica | California poppy      |
| <b><i>Pinaceae</i></b>         |                          |                       |

| <b>Family</b>                | <b>Scientific Name</b>                       | <b>Common Name</b>     |
|------------------------------|----------------------------------------------|------------------------|
|                              | <i>Pinus radiata</i>                         | Monterey pine          |
| <b><i>Plantaginaceae</i></b> |                                              |                        |
|                              | <i>Plantago erecta</i>                       | California plantain    |
|                              | <i>Plantago lanceolata</i>                   | English plantain       |
| <b><i>Poaceae</i></b>        |                                              |                        |
|                              | <i>Aira caryophylla</i>                      | silver hairgrass       |
|                              | <i>Avena barbata</i>                         | slender wild oats      |
|                              | <i>Brachypodium distachyon</i>               | purple false-brome     |
|                              | <i>Briza maxima</i>                          | big quaking grass      |
|                              | <i>Briza minor</i>                           | little quaking grass   |
|                              | <i>Bromus diandrus</i>                       | ripgut brome           |
|                              | <i>Bromus hordeaceus</i>                     | soft chess             |
|                              | <i>Cynosurus echinatus</i>                   | hedgehog dogtail-grass |
|                              | <i>Dactylis glomerata</i>                    | orchard-grass          |
|                              | <i>Elymus elymoides</i>                      | squirreltail           |
|                              | <i>Gastridium ventricosum</i>                | nit grass              |
|                              | <i>Hordeum brachyantherum</i>                | meadow barley          |
|                              | <i>Hordeum murinum</i> ssp. <i>leporinum</i> | foxtail barley         |
|                              | <i>Lolium multiflorum</i>                    | Italian rye-grass      |
|                              | <i>Melica californica</i>                    | California melic       |
|                              | <i>Nassella pulchra</i>                      | purple needlegrass     |
|                              | <i>Pleuropogon californicus</i>              | semaphore grass        |
|                              | <i>Poa annua</i>                             | annual blue grass      |
|                              | <i>Vulpia bromoides</i>                      | brome fescue           |
|                              | <i>Vulpia myuros</i>                         | rattail fescue         |
| <b><i>Polygonaceae</i></b>   |                                              |                        |
|                              | <i>Rumex acetosella</i>                      | common sheep sorrel    |
|                              | <i>Rumex crispus</i>                         | curly dock             |
|                              | <i>Rumex occidentalis</i>                    | western dock           |
|                              | <i>Rumex pulcher</i>                         | fiddle dock            |
| <b><i>Portulacaceae</i></b>  |                                              |                        |
|                              | <i>Claytonia perfoliata</i>                  | miner's lettuce        |
| <b><i>Primulaceae</i></b>    |                                              |                        |
|                              | <i>Anagallis arvensis</i>                    | scarlet pimpernel      |
| <b><i>Ranunculaceae</i></b>  |                                              |                        |
|                              | <i>Ranunculus californicus</i>               | California buttercup   |
|                              | <i>Ranunculus muricatus</i>                  | spiny buttercup        |
| <b><i>Rhamnaceae</i></b>     |                                              |                        |

| Family                  | Scientific Name                 | Common Name            |
|-------------------------|---------------------------------|------------------------|
|                         | Rhamnus californica             | California coffeeberry |
| <i>Rosaceae</i>         |                                 |                        |
|                         | Heteromeles arbutifolia         | toyon                  |
|                         | Malus sylvestris                | domestic apple         |
|                         | Prunus cerasifera               | cherry plum            |
|                         | Prunus dulcis                   | almond                 |
|                         | Pyracantha angustifolia         | firethorn              |
|                         | Rubus discolor                  | Himalaya-berry         |
| <i>Rubiaceae</i>        |                                 |                        |
|                         | Galium aparine                  | common bedstraw        |
|                         | Galium parisiense               | wall bedstraw          |
|                         | Sherardia arvensis              | field madder           |
| <i>Saxifragaceae</i>    |                                 |                        |
|                         | Lithophragma affine             | common woodland star   |
| <i>Scrophulariaceae</i> |                                 |                        |
|                         | Castilleja exserta ssp. exserta | purple owl's clover    |
|                         | Parentucellia viscosa           | yellow parentucellia   |
|                         | Triphysaria pusilla             | little owl's clover    |
|                         | Verbascum blattaria             | moth mullein           |
| <i>Solanaceae</i>       |                                 |                        |
|                         | Solanum sisymbriifolium         | sticky nightshade      |
| <i>Urticaceae</i>       |                                 |                        |
|                         | Urtica urens                    | dwarf nettle           |

**Table 3. Animal Species Observed on the Project Site or Expected to Utilize the Project Site**

### **MAMMALS**

|                              |                                  |
|------------------------------|----------------------------------|
| Virginia Opossum             | <i>Didelphis virginiana</i>      |
| Broad-footed Mole            | <i>Scapanus latimanus</i>        |
| California Myotis            | <i>Myotis californicus</i>       |
| Yuma Myotis                  | <i>Myotis yumanensis</i>         |
| Western Pipistrelle          | <i>Pipistrellus hesperus</i>     |
| Big Brown Bat                | <i>Eptesicus fuscus</i>          |
| Red Bat                      | <i>Lasiurus borealis</i>         |
| Pallid Bat                   | <i>Antrozous pallidus</i>        |
| Brazilian Free-tailed Bat    | <i>Tadarida brasiliensis</i>     |
| * Western Gray Squirrel      | <i>Sciurus griseus</i>           |
| * California Ground Squirrel | <i>Spermophilus beecheyi</i>     |
| * Black-tailed Jackrabbit    | <i>Lepus californicus</i>        |
| Desert Cottontail            | <i>Sylvilagus audubonii</i>      |
| * Botta's Pocket Gopher      | <i>Thomomys bottae</i>           |
| California Pocket Mouse      | <i>Chaetodipus californicus</i>  |
| Western Harvest Mouse        | <i>Reithrodontomys megalotis</i> |
| Deer Mouse                   | <i>Peromyscus maniculatus</i>    |
| Dusky-footed Woodrat         | <i>Neotoma fuscipes</i>          |
| California Vole              | <i>Microtus californicus</i>     |
| Norway Rat                   | <i>Rattus norvegicus</i>         |
| House Mouse                  | <i>Mus musculus</i>              |
| * Coyote                     | <i>Canis latrans</i>             |
| Red Fox                      | <i>Vulpes fulva</i>              |
| Gray Fox                     | <i>Urocyon cinereoargenteus</i>  |
| Raccoon                      | <i>Procyon lotor</i>             |
| Long-tailed Weasel           | <i>Mustela frenata</i>           |
| Striped Skunk                | <i>Mephitis mephitis</i>         |
| Bobcat                       | <i>Felis rufus</i>               |
| Mule Deer                    | <i>Odocoileus hemionus</i>       |

### **REPTILES AND AMPHIBIANS**

|                               |                                |
|-------------------------------|--------------------------------|
| Ensatina                      | <i>Ensatina eschscholtzi</i>   |
| California Slender Salamander | <i>Batrachoseps attenuatus</i> |
| * Arboreal Salamander         | <i>Aneides lugubris</i>        |
| Pacific Treefrog              | <i>Hyla regilla</i>            |
| **Western Toad                | <i>Bufo boreus</i>             |
| * Western Fence Lizard        | <i>Sceloporus occidentalis</i> |
| Western Skink                 | <i>Eumeces skiltonianus</i>    |
| Northern Alligator Lizard     | <i>Gerrhonotus coeruleus</i>   |
| Ringneck Snake                | <i>Diadophis punctatus</i>     |
| Sharp-tailed Snake            | <i>Contia tenuis</i>           |
| Racer                         | <i>Coluber constrictor</i>     |

Gopher Snake  
Common Kingsnake  
Common Garter Snake  
Night Snake  
Western Rattlesnake

*Pituophis melanoleucus*  
*Lampropeltis getulus*  
*Thamnophis sirtalis elegans*  
*Hypsiglena torquata*  
*Crotalis viridus*

## **BIRDS**

\* Turkey Vulture  
White-tailed Kite  
Northern Harrier  
\* Sharp-shinned Hawk  
\* Cooper's Hawk  
\* Red-shouldered Hawk  
\* Red-tailed Hawk  
\*\*Golden Eagle  
\* American Kestrel  
Prairie Falcon  
Peregrine Falcon  
Merlin  
\* Wild Turkey  
\* California Quail  
\* Killdeer  
Wilson's Snipe  
Ring-billed Gull  
California Gull  
\* Rock Pigeon  
\* Mourning Dove  
\* Band-tailed Pigeon  
Barn Owl  
Great Horned Owl  
Western Screech-owl  
\* White-throated Swift  
\* Anna's Hummingbird  
Lewis' Woodpecker  
\* Acorn Woodpecker  
Red-breasted Sapsucker  
\* Northern Flicker  
\* Nuttall's Woodpecker  
\* Hairy Woodpecker  
\* Downy Woodpecker  
\* Black Phoebe  
\* Say's Phoebe  
Olive-sided Flycatcher  
Western Wood-pewee  
Pacific-slope Flycatcher

*Cathartes aura*  
*Elanus caeruleus*  
*Circus cyaneus*  
*Accipiter striatus*  
*Accipiter cooperi*  
*Buteo lineatus*  
*Buteo jamaicensis*  
*Aquila chrysaetos*  
*Falco sparverius*  
*Falco mexicanus*  
*Falco peregrinus*  
*Falco columbarius*  
*Meleagris gallopavo*  
*Callipepla californica*  
*Charadrius vociferus*  
*Gallinago delicata*  
*Larus delawarensis*  
*Larus californicus*  
*Columba livia*  
*Zenaida macroura*  
*Columba fasciata*  
*Tyto alba*  
*Bubo virginianus*  
*Otus kennicottii*  
*Aeronautes saxatalis*  
*Calypte annas*  
*Malanerpes lewis*  
*Melanerpes formicivorus*  
*Sphyrapicus ruber*  
*Colaptes auratus*  
*Picoides nuttallii*  
*Picoides villosus*  
*Dendrocopos pubescens*  
*Sayornis nigricans*  
*Sayornis saya*  
*Contopus borealis*  
*Contopus sordidulus*  
*Empidonax difficilis*

- \* Ash-throated Flycatcher
- \* Western Kingbird
- California Horned Lark
- \* Barn Swallow
- Cliff Swallow
- \* Tree Swallow
- \* Violet-green Swallow
- Northern Rough-winged Swallow
- \* Western Scrub-jay
- \* Stellar's Jay
- \* Common Raven
- \* American Crow
- Chestnut-backed Chickadee
- \* Oak Titmouse
- \* Common Bushtit
- \* White-breasted Nuthatch
- \* Bewick's Wren
- House Wren
- Winter Wren
- \* American Robin
- Hermit Thrush
- Swainson's Thrush
- \* Western Bluebird
- Blue-gray Gnatcatcher
- \* Ruby-crowned Kinglet
- \* Northern Mockingbird
- American Pipit
- Cedar Waxwing
- Loggerhead Shrike
- \* European Starling
- \* Hutton's Vireo
- \* Orange-crowned Warbler
- Nashville Warbler
- Yellow Warbler
- \* Yellow-rumped Warbler
- Townsend's Warbler
- Black-throated Gray Warbler
- Common Yellowthroat
- Wilson's Warbler
- Western Tanager
- Black-headed Grosbeak
- Lazuli Bunting
- \* Spotted Towhee
- \* California Towhee
- Chipping Sparrow
- \* Savannah Sparrow

*Myiarchus cinerascens*  
*Tyrannus verticalis*  
*Eremophila alpestris*  
*Hirundo rustica*  
*Petrochelidon pyrrhonota*  
*Tachycineta bicolor*  
*Tachycineta thalassina*  
*Stelgidopteryx serripennis*  
*Aphelocoma californica*  
*Cyanocitta stellari*  
*Corvus corax*  
*Corvus brachyrhynchos*  
*Parus rufescens*  
*Baeolophus inornatus*  
*Psaltiriparus minimus*  
*Sitta carolinensis*  
*Thryomanes bewickii*  
*Troglodytes aedon*  
*Troglodytes troglodytes*  
*Turdus migratorius*  
*Hylocichla guttata*  
*Catharus ustulatus*  
*Sialia mexicana*  
*Poliophtila caerula*  
*Regulus calendula*  
*Mimus polyglottos*  
*Anthus rubescens*  
*Bombycilla cedrorum*  
*Lanius ludovicianus*  
*Sturnus vulgaris*  
*Vireo huttoni*  
*Vermivora celata*  
*Vermivora ruficapilla*  
*Dendroica petechia*  
*Dendroica coronata*  
*Dendroica townsendi*  
*Dendroica nigrescens*  
*Geothlypis trichas*  
*Wilsonia pusilla*  
*Piranga ludoviciana*  
*Pheucticus melanocephalus*  
*Passerina amoena*  
*Pipilo maculatus*  
*Pipilo crissalis*  
*Spizella passerina*  
*Passerculus sandwichensis*

- \* Lark Sparrow
- \* White-crowned Sparrow
- \* Golden-crowned Sparrow
- Fox Sparrow
- \* Song Sparrow
- Lincoln's Sparrow
- \* Dark-eyed Junco
- \* Western Meadowlark
- \* Red-winged Blackbird
- \* Brewer's Blackbird
- Brown-headed Cowbird
- \* Bullock's Oriole
- \* Purple Finch
- \* House Finch
- Pine Siskin
- \* American Goldfinch
- \* Lesser Goldfinch
- \* Evening Grosbeak
- \* House Sparrow

*Chondestes grammacus*  
*Zonotrichia leucophrys*  
*Zonotrichia atricapilla*  
*Passerella iliaca*  
*Melospiza melodia*  
*Melospiza lincolnii*  
*Junco hyemalis*  
*Sturnella neglecta*  
*Agelaius phoeniceus*  
*Euphagus cyanocephalus*  
*Molothrus ater*  
*Icterus bullockii*  
*Carpodacus purpureus*  
*Carpodacus mexicanus*  
*Carduelis pinus*  
*Spinus tristis*  
*Spinus psaltria*  
*Coccothraustes vespertinus*  
*Passer domesticus*

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\*Observed at the project site by HBG biologists during a field reviews conducted on January 10 and May 9, 2011.

\*\*Additional species observed by Zander Associates in 1998.

Mayer and Laudenslayer (1988)  
 National Geographic Society (2006)  
 Reid (2006)  
 Sibley (2000)  
 Stebbins (2003)  
 Zeiner et al. (1990a, 1990b, 1990c)

**Table 4. Special Status Animal Species that Have Been Reported in the Vicinity of the Napa Oaks Project Plan Area, Napa, California**

| SPECIES                                                                           | STATUS<br>FED/STATE/CNPS | HABITAT                                                                                                                                                                                                                                            | OCCURRENCE ON THE<br>PROJECT SITE                                                                     |
|-----------------------------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>ANIMALS</b>                                                                    |                          |                                                                                                                                                                                                                                                    |                                                                                                       |
| <b>Invertebrates</b>                                                              |                          |                                                                                                                                                                                                                                                    |                                                                                                       |
| Vernal Pool Fairy Shrimp<br>( <i>Branchinecta lynchi</i> )                        | FT/--                    | Endemic to the grasslands of the Central Valley, Central Coast Mountains, and South Coast Mountains in astatic rain-filled pools. Has occurred in inundated depressions at the south end of the Napa Airport, about 6 miles southeast of the site. | Unlikely. Suitable habitat is not present at the site.                                                |
| Conservancy Fairy Shrimp<br>( <i>Branchinecta conservatio</i> )                   | FE/--                    | Inhabits large vernal pools, often with turbid water; known from fewer than 15 occurrences in the Delta (Jepson Prairie) and Central Valley. Not known to occur within 10 miles of the site                                                        | Unlikely. Suitable habitat is not present at the site.                                                |
| Valley Elderberry Longhorn Beetle<br>( <i>Desmocerus californicus dimorphus</i> ) | FT/--                    | Inhabits blue elderberry bushes (host plant); restricted to the Central Valley and adjacent foothills.                                                                                                                                             | Unlikely. Suitable habitat is not present at the site.                                                |
| Callippe Silverspot Butterfly<br>( <i>Speyeria callippe callippe</i> )            | FE/--                    | Habitat for this species is grassland, often with a significant component of native grasses including the host plant ( <i>Viola pedunculata</i> ) and characterized by shallow rocky soils and numerous rock outcrops.                             | Unlikely. Site is outside of the range of the endangered subspecies of Callippe silverspot butterfly. |
| Myrtle's Silverspot Butterfly<br>( <i>Speyeria zerene myrtilae</i> )              | FE/--                    | Coastal hills; larvae feed on <i>viola adunca</i> .                                                                                                                                                                                                | Unlikely. Site is outside of the range of the species.                                                |

| SPECIES                                                                     | STATUS<br>FED/STATE/CNPS<br>2    | HABITAT                                                                                                                                                                                                                                                                                                                                                         | OCCURRENCE ON THE<br>PROJECT SITE                                                                      |
|-----------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| California freshwater shrimp<br>( <i>Syncaris pacifica</i> )                | FE/CE                            | Found in shallow pools away from the main streamflow in low elevation, low gradient streams where riparian cover is moderate to heavy. Endemic to Marin, Napa and Sonoma Counties. In winter prefer undercut banks with exposed roots; in summer prefer areas where leafy branches touch water surface. Found in Huichica Creek, 3 miles southwest of the site. | Unlikely. Suitable habitat is not present at the site.                                                 |
| <b>Fish</b>                                                                 |                                  |                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                        |
| Green Sturgeon<br>( <i>Acipenser medirostris</i> )                          | FPT/CSC                          | Found in streams, rivers, and estuarine habitat as well as marine waters during their lifecycle. Spawn in lower reaches of large rivers with swift currents and large cobble. Found spawning in the Sacramento, Klamath and Rogue Rivers.                                                                                                                       | Unlikely. Suitable habitat is not present onsite; no large river systems.                              |
| Tidewater Goby<br>( <i>Eucyclogobius newberryi</i> )                        | FE/CSC                           | Brackish water habitats along the Calif. Coast from Agua Hedionda Lagoon, San Diego Co. to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.                                                                                                               | Unlikely. Suitable habitat is not present on the site. Not known from the project vicinity.            |
| Delta Smelt<br>( <i>Hypomesus transpacificus</i> )                          | FT/CT                            | During spawning they migrate upstream into shallow fresh or slightly brackish tidally-influenced backwater sloughs and channel edges.                                                                                                                                                                                                                           | Unlikely. Suitable habitat is not present onsite; no large river systems or suitable spawning streams. |
| Coho Salmon-Central California Coast ESU<br>( <i>Oncorhynchus kisutch</i> ) | CE <sup>3</sup> /FE <sup>4</sup> | Coho Salmon spawn in streams that are narrow, shallow, clear, and cold with a strong upwelling of water through the gravel. This ESU encompasses the area from Punta Gorda in northern California south to and including the tributaries to San Francisco Bay, excluding the Sacramento-San Joaquin river system.                                               | Unlikely. Suitable habitat is not present onsite; no large river systems or suitable spawning streams. |

| SPECIES                                                                           | STATUS<br>FED/STATE/CNPS <sub>2</sub> | HABITAT                                                                                                                                                                                                                                                                                       | OCCURRENCE ON THE<br>PROJECT SITE                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Steelhead-Central California Coastal ESU<br>( <i>Oncorhynchus mykiss</i> )        | FT <sup>5</sup> /--                   | Steelhead spawn in streams that are shallow, clear, and cold with a strong upwelling of water through the gravel. The ESU encompasses the San Pablo Bay/Napa River watersheds. Found in Huichica Creek southwest of the project site.                                                         | Unlikely. Suitable habitat is not present onsite; no large river systems or suitable spawning streams.                                                                                                                                                        |
| Steelhead-Central Valley ESU<br>( <i>Oncorhynchus mykiss</i> ).                   | FT <sup>6</sup> /--                   | Steelhead spawn in streams that are shallow, clear, and cold with a strong upwelling of water through the gravel. The ESU encompasses the Suisun Bay/Sacramento River Delta watersheds.                                                                                                       | Unlikely. Suitable habitat is not present onsite; no large river systems or suitable spawning streams.                                                                                                                                                        |
| Chinook Salmon Central Valley spring-run<br>( <i>Oncorhynchus tshawytscha</i> ).  | FT <sup>7</sup> /CT                   | Chinook salmon choose to spawn in streams that are shallow, clear, and cold with a strong upwelling of water through the gravel. The ESU encompasses the Sacramento River and its tributaries.                                                                                                | Unlikely. Suitable habitat is not present onsite; no large river systems or suitable spawning streams.                                                                                                                                                        |
| Chinook Salmon Winter-Run Sacramento River<br>( <i>Oncorhynchus tshawytscha</i> ) | FE/CE                                 | Chinook Salmon spawn in streams that are shallow, clear, and cold with a strong upwelling of water through the gravel. The ESU includes populations of winter-run Chinook Salmon in the Sacramento River and its tributaries.                                                                 | Unlikely. Suitable habitat is not present onsite; no large river systems or suitable spawning streams.                                                                                                                                                        |
| <b>Amphibians</b>                                                                 |                                       |                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                               |
| California Tiger Salamander<br>( <i>Ambystoma californiense</i> )                 | FT/CSC                                | Found in annual grasslands and grassy understory of valley-foothill hardwood habitats in central and northern California. Needs underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water source for breeding. No records within 10 miles of the site. | Unlikely. A Phase 1 Habitat Assessment concluded that the site is outside the normal range of the species. Also would not be present in local farm ponds due to the presence of bullfrogs and predatory fish. The species is not present in the project area. |

| SPECIES                                                        | STATUS<br>FED/STATE/CNPS | HABITAT                                                                                                                                                                                                                                                                                                                                                                                                                                             | OCCURRENCE ON THE<br>PROJECT SITE                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| California Red-legged Frog<br>( <i>Rana aurora draytonii</i> ) | FT/CSC                   | Mostly found in lowlands and foothills in/near permanent sources of deep water but will disperse far during and after rain. Prefers shorelines with extensive vegetation. Requires 11-20 weeks of permanent water for larval development and requires access to estivation habitat. Nearest location is approximately 8 miles to the south-southeast of the site in the hills in the vicinity of Napa Junction.                                     | Unlikely. A Phase 1 Habitat Assessment concluded that the species is not present in the project area due to climatic conditions that have resulted in extirpation of the species from the Napa vicinity and the presence of bullfrogs and predatory fish in local farm ponds.                                                |
| Foothill Yellow-legged Frog<br>( <i>Rana boylei</i> )          | --/CSC                   | Partly shaded shallow streams with riffles, with a rocky substrate in a variety of habitats; needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Frogs are usually found on stream banks, especially near riffles. They do not leave the immediate vicinity of their stream or pool. The nearest known sighting of this species is along Redwood Creek about 5 miles northwest of the site. | Unlikely. No suitable habitat on site. Wetlands at the site are not considered suitable habitat for Foothill Yellow-legged Frog.                                                                                                                                                                                             |
| <b>Reptiles</b>                                                |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                              |
| Western Pond Turtle<br>( <i>Actinemys marmorata</i> )          | FSC/CSC                  | Aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs basking sites and suitable upland habitat for egg-laying (sandy banks or grassy open fields). The nearest location noted in the CNDDB is at a duck pond at the south end of Napa about 2 miles southeast of the site.                                                                                                                      | Possible. Suitable breeding habitat is not present on site due to the absence of wetlands with sufficient inundation, but individuals were observed within irrigation ponds on adjacent properties. Setbacks and use of silt fencing would prevent movement of individuals onto the site during construction of the project. |

| SPECIES                                                                                                            | STATUS<br>FED/STATE/CNPS <sub>2</sub> | HABITAT                                                                                                                                                                                                                                                                                                           | OCCURRENCE ON THE<br>PROJECT SITE                                                         |
|--------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Giant Garter Snake<br>( <i>Thamnophis gigas</i> )                                                                  | FT/CT                                 | Utilizes marshes, sloughs, small lakes, low gradient streams, ponds, agricultural wetlands (irrigation and drainage canals) and adjacent uplands. Not known to occur within 10 miles of the site.                                                                                                                 | Unlikely. Suitable habitat not present at the site. Not known to occur in project area.   |
| <b>Birds</b>                                                                                                       |                                       |                                                                                                                                                                                                                                                                                                                   |                                                                                           |
| California Brown Pelican<br>( <i>Pelecanus occidentalis californicus</i> )<br>(nesting colony and communal roosts) | FE/CE (CFP)                           | Found in estuarine, marine, subtidal, and marine pelagic waters along California coast. Nest is a small mound of sticks or debris on rocky or low brushy slopes of undisturbed islands, usually on ground, less often bushes.                                                                                     | Unlikely. Suitable habitat for a nesting colony or communal roost is not present on site. |
| California Black Rail<br>( <i>Lateralus jamaicensis coturniculus</i> )                                             | --/CT<br>(CFP)                        | Inhabits tidal salt and brackish marsh bordering sloughs and large bays. Nearest known location is about 5 miles from the site west of the Napa County Airport at Bull Island.                                                                                                                                    | Unlikely. Suitable habitat not present at the site.                                       |
| California Clapper Rail<br>( <i>Rallus longirostris obsoletus</i> )                                                | FE/CE<br>(CFP)                        | Inhabits tidal salt marsh along larger sloughs and bays in the SF Bay and lower Delta. Nearest known location is about 5 miles from the site west of the Napa County Airport at Bull Island.                                                                                                                      | Unlikely. Suitable habitat is not present at the site.                                    |
| Western Snowy Plover<br>( <i>Charadrius alexandrinus nivosus</i> )<br>(nesting)<br>(coastal population)            | FT/CSC                                | In the San Francisco Estuary, salt pond levees and exposed salt pond beds (playa-like habitat), San Francisco Bay; rare in San Pablo Bay. Typical coastal habitat is on wide, sandy beaches with scattered debris. Nearest known sighting between Huichica Creek and Coon Island about 6 miles south of the site. | Unlikely. Appropriate nesting habitat is not present on the study site.                   |
| California Least Tern<br>( <i>Sterna antillarum browni</i> )<br>(nesting colony)                                   | FE/CE<br>(CFP)                        | Nests on coastal, sandy, open areas usually around bays, estuaries, and creek and river mouths. Forages in shallow estuaries and lagoons, diving head first into the water after a wide variety of small fish.                                                                                                    | Unlikely. Suitable habitat for a nesting colony is not present on site.                   |

| SPECIES                                                       | STATUS<br>FED/STATE/CNPS<br>2 | HABITAT                                                                                                                                                                                                                                                                                              | OCCURRENCE ON THE<br>PROJECT SITE                                                                                                                                                     |
|---------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Northern Harrier<br>( <i>Circus cyaneus</i> ) [Nesting]       | --/CSC                        | Coastal salt marsh and freshwater marsh; nests and forages in grasslands; nests on ground in shrubby vegetation, usually at marsh edge.                                                                                                                                                              | Nesting unlikely. Appropriate nesting habitat is present in the project area and the species would be expected to forage on or near the site.                                         |
| White-tailed Kite<br>( <i>Elanus caeruleus</i> ) [Nesting]    | --/CFP                        | Open grassland and agricultural areas throughout Central California.                                                                                                                                                                                                                                 | Nesting unlikely. Appropriate nesting habitat is present in the project area and the species would be expected to forage on or near the site, at any time of year.                    |
| Sharp-shinned Hawk<br>( <i>Accipiter striatus</i> ) [Nesting] | --/CSC                        | Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers, but not restricted to, riparian habitats. Northfacing slopes, with plucking perches are critical requirements. All habitats except alpine, open prairie, and bare desert used in winter. | Nesting unlikely. Appropriate nesting habitat not present on site. Species likely forages on or near the site, especially in winter. One observed by Rana Resources in February 2011. |
| Cooper's Hawk<br>( <i>Accipiter cooperii</i> ) [Nesting]      | --/CSC                        | Nests primarily in deciduous riparian forests; forages in open woodlands.                                                                                                                                                                                                                            | Nesting unlikely. Appropriate nesting habitat not present on site. Species likely forages on or near the site, especially in winter. Observed by HBG in January 2011.                 |
| Ferruginous Hawk<br>( <i>Buteo regalis</i> ) [Wintering]      | FSC/CSC                       | Inhabits open country. Winters in small number along California coast and inland valleys. Has been recorded as a wintering species in south Napa in the area south of Soscol Creek.                                                                                                                  | Wintering possible. The species may utilize the site as a winter foraging habitat.                                                                                                    |

| SPECIES                                                              | STATUS<br>FED/STATE/CNPS <sub>2</sub> | HABITAT                                                                                                                                                                                                                                                                                                                                           | OCCURRENCE ON THE<br>PROJECT SITE                                                                                                                         |
|----------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Swainson's Hawk (nesting)<br>( <i>Buteo swainsoni</i> )              | --/CT                                 | Nests in trees and riparian stands; summer migrant to Central Valley. Suitable foraging areas include grasslands, pastures, alfalfa and other hay crops, and certain grain and row croplands. Nested in 2005 along Suscol Creek in south Napa just over 4 miles from the site.                                                                    | Nesting unlikely. Nests unlikely on the property due to a lack of suitable trees. The site provides suitable foraging habitat for this species.           |
| Golden Eagle<br>( <i>Aquila chrysaetos</i> ) [Nesting and wintering] | --/CSC                                | Typically frequents rolling foothills, mountain areas, sage-juniper flats and desert.                                                                                                                                                                                                                                                             | Wintering possible. The species likely utilizes the site as a winter foraging habitat.                                                                    |
| Merlin<br>( <i>Falco columbarius</i> ) [Wintering]                   | --/CSC                                | Breeds in Canada, winters in a variety of California habitats, including grasslands, savannahs, wetlands, etc.                                                                                                                                                                                                                                    | Wintering possible. The species may utilize the site as a winter foraging habitat.                                                                        |
| Burrowing Owl<br>( <i>Athene cunicularia</i> )                       | FSC/CSC                               | Found in open dry annual or perennial grasslands, deserts and scrublands characterized by low growing vegetation. This species is a subterranean nester, dependent upon the burrows of burrowing mammals, most notably the California ground squirrel. Nearest occurrence documented in the CNDDB is at Skaggs Island over 8 miles from the site. | Possible. No burrowing owls were observed during site surveys. Pre-construction surveys in areas of existing ground squirrel burrows should be conducted. |
| Northern spotted owl<br>( <i>Strix occidentalis caurina</i> )        | FT/--                                 | Northern spotted owls are typically found in mature coniferous forests. This owl species does not construct a nest so existing nest structures or cavities must be available.                                                                                                                                                                     | Unlikely. Suitable habitat not present on the site.                                                                                                       |
| California Horned Lark<br>( <i>Eremophila alpestris actia</i> )      | --/CSC                                | Resident in a variety of open habitats, including grasslands, less common in mountain regions.                                                                                                                                                                                                                                                    | Possible. Suitable nesting habitat occurs, though not observed during nesting season surveys. Preconstruction surveys are warranted.                      |

| SPECIES                                                                | STATUS<br>FED/STATE/CNPS<br>2 | HABITAT                                                                                                                                                                                                                                                                                                                                                                                          | OCCURRENCE ON THE<br>PROJECT SITE                                                                                                    |
|------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Loggerhead Shrike<br>( <i>Lanius ludovicianus</i> )                    | FSC/CSC                       | Habitat includes open areas such as desert, grasslands and savannah. Nests in thickly foliated trees or tall shrubs. Forages in open habitats, which contain trees, fence posts, utility poles, and other perches.                                                                                                                                                                               | Possible. Suitable nesting habitat occurs, though not observed during nesting season surveys. Preconstruction surveys are warranted. |
| Yellow Warbler<br>( <i>Dendroica petechia</i> ) [Nesting]              | --/CSC                        | Breeds in deciduous riparian woodlands, widespread during fall mitigation.                                                                                                                                                                                                                                                                                                                       | Nesting unlikely. No breeding habitat on site, migrants expected on site, especially in fall.                                        |
| Saltmarsh Common Yellowthroat<br>( <i>Geothlypis trichas sinuosa</i> ) | FSC/CSC                       | Forages and nests in dense fresh and saltwater marsh habitat in the San Francisco Bay and lower Delta. Requires thick continuous cover down to the water surface for foraging; tall grasses, tule patches or willows for nesting. Has nested along the Napa River north of Imola Avenue just over about a mile from the site.                                                                    | Unlikely. Suitable habitat is not present at the site.                                                                               |
| San Pablo Song Sparrow<br>( <i>Melospiza melodia samuelis</i> )        | --/CSC                        | Tidal, brackish or salt marshes, San Pablo Bay. Has occurred near Hudeman Slough about 6 miles south of the site.                                                                                                                                                                                                                                                                                | Unlikely. Site is outside the limited range of this species.                                                                         |
| Tri-colored Blackbird<br>( <i>Agelaius tricolor</i> ) [Nesting colony] | FSC/CSC                       | Breeds near freshwater, usually in tall emergent vegetation. Requires open water with protected nesting substrate. Colonies prefer heavy growth of cattails and tules. Uses grasslands and agricultural lands for foraging. Approximately 100 individuals nested in 1993 in a freshwater marsh just north of the Highway 29 bridge on the south end of Napa about 3 miles southeast of the site. | Nesting unlikely. Appropriate nesting habitat not present on site.                                                                   |
| <b>Mammals</b>                                                         |                               |                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                      |
| Salt Marsh Harvest Mouse<br>( <i>Reithrodontomys raviventris</i> )     | FE/CE<br>(CFP)                | Inhabits pickleweed salt marsh flats in the SF Bay and lower Delta. Surveys for construction of the Highway 12 bridge over the Napa River found to individuals.                                                                                                                                                                                                                                  | Unlikely. Suitable habitat is not present at the site.                                                                               |

| SPECIES                                     | STATUS<br>FED/STATE/CNPS <sup>2</sup> | HABITAT                                                                                                                                                                                                                                                                                                                                            | OCCURRENCE ON THE<br>PROJECT SITE                                                                                                                                                                                                         |
|---------------------------------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| American badger<br>( <i>Taxidea taxus</i> ) | --/CSC                                | Drier open stages of most shrub, forest, and herbaceous habitats; needs sufficient food, friable soils and open, uncultivated ground. Publications from 1937 indicate the presence of the species in Napa.                                                                                                                                         | Unlikely. Suitable habitat is not present at the site.                                                                                                                                                                                    |
| Pallid bat<br><i>Antrozous pallidus</i>     | --/CSC                                | Found in deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in rocky areas primarily in oak woodland and ponderosa pine habitats; forages in open areas. Present at a former roost site in a rural residential area on Sheveland Lane just over a mile from the site. | Possible. Relocated bats from an extirpated roost site in the vicinity could be present in the unoccupied house and ranch buildings present at the site. Bat surveys are necessary prior to construction and mitigation may be warranted. |

Source: California Natural Diversity Data Base, Natural Heritage Division, California Department of Fish and Game for the Napa 7.5 Minute Quadrangle Map and surrounding areas, information dated January 2011.

2. Status Codes:

FE Federally Endangered  
 FT Federally Threatened  
 FPE Federally Proposed Endangered  
 FPT Federally Proposed Threatened  
 FSC Federal Species of Concern (most are former C2 Candidates and some former C1)  
 CE California Endangered  
 CT California Threatened  
 CR California Rare  
 CFP California Fully Protected  
 CSC California Species of Special Concern  
 CNPS 1A Plants Presumed Extinct in California  
 CNPS 1B Plants Rare, Threatened or Endangered in California or elsewhere  
 CNPS LIST 2 Plants Rare, Threatened or Endangered in California, but more common elsewhere

2 Status Codes:

FE Federally Endangered  
 FT Federally Threatened  
 FPE Federally Proposed Endangered  
 FPT Federally Proposed Threatened  
 FSC Federal Species of Concern (most are former C2 Candidates and some former C1)  
 CE California Endangered

CT California Threatened  
CR California Rare  
CFP California Fully Protected  
CSC California Species of Special Concern  
SLC Species of Local Concern – other species of concern to the Sacramento Fish and Wildlife office

<sup>3</sup> The state listing is limited to Coho south of San Francisco Bay.

<sup>4</sup> The Federal listing is limited to naturally spawning populations in streams between Punta Gorda, Humboldt County and the San Lorenzo River, Santa Cruz County.

<sup>5</sup> Federal listing includes all runs in coastal basins from the Russian River in Sonoma County, south to Soquel Creek in Santa Cruz County, inclusive. Includes the San Francisco and San Pablo Bay basins, but excludes Sacramento-San Joaquin River basins.

<sup>6</sup> Federal listing includes all runs in the Sacramento and San Joaquin Rivers and their tributaries.

<sup>7</sup> Federal listing refers to Central Valley Spring-run ESU. It includes population spawning in the Sacramento River and its tributaries.

# **ATTACHMENT 3**

### **ATTACHMENT 3**

**2011 Botanical Survey, Napa Oaks Project, Napa, California. Prepared by Virginia Dains.  
July 2011.**

**2011 Botanical Survey**

**NAPA OAKS PROJECT**

**NAPA, CALIFORNIA**

**Prepared for:**

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**July 2011**

## INTRODUCTION

At the request of Huffman-Broadway Group, Inc. (HBA) of San Rafael, Ca., I have conducted a floristic survey of the 80 acre Napa Oaks property on the west side of Napa, California (Assessor's parcels #043-040-008, 043-040-010, 043-040-13 and 043-040-025). A development project is planned for the property that includes the construction of 54 single family residential units. This report describes botanical survey methods, findings, and recommendations pertaining to special status plant species for the Napa Oaks project site. A statement of my qualifications to perform this work is attached.

Special-status plant species addressed in this survey and report include:

- Species listed as Threatened or Endangered under provisions of the federal Endangered Species Act (ESA) of 1973 (16 USC 1531 et. seq., as amended) (U.S. Fish and Wildlife Service [USFWS] 2007a)
- Species listed as Rare, Threatened, or Endangered by the state of California under provisions of the 1984 California Endangered Species Act (CESA) and the 1977 Native Plant Protection Act (NPPA) (California Department of Fish and Game [CDFG] 2007).
- Plant species formally proposed for federal listing by the U.S. Fish and Wildlife Service (taxa for which a proposed rule has been published in the Federal Register; USFWS 2007b) are afforded limited legal protection under ESA, and federal Candidate species (USFWS 2007c)
- Plants found on List 1A (Plants Presumed Extinct in California), List 1B (Plants Rare, Threatened, or Endangered in California and Elsewhere), or List 2 (Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere) of the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Vascular Plants of California* (Tibor 2001; CNPS 2007).
- Plants included on List 3 (Plants About Which We Need More Information—A Review List) and List 4 (Plants of Limited Distribution—A Watch List) of the CNPS *Inventory*.

## METHODS

Prior to field surveys, I consulted background material from the California Natural Diversity Data Base (CNDDDB) and the California Native Plant Society (CNPS) to determine what rare, threatened or endangered plant species are known currently or historically from the project vicinity. I reviewed the results of a prior floristic study conducted by Zander Associates between January and April, 1998. A true color aerial photograph (approximately 1"=250') showing the project boundary was provided by HBA to use during field surveys.

Special status plants found historically or currently in the vicinity of the Napa Oaks property are listed on table 1. Species known from plant communities that are present on the property have some potential to occur at Napa Oaks. Plant communities found on the Napa Oaks property as described by HBA include annual grassland (49.73 acres), valley foothill hardwood (Coast live oak woodland, 26.97 acres), fresh emergent marsh (1.21 acres) and Urban (2.73 acres).

Annual grassland and oak woodland communities in the Napa area are known to support nine special status plants including:

- Early spring flowering species:
  - Franciscan onion (*Allium peninsulare* var. *franciscanum*)—March -June
  - Big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*) – March-June
- Spring flowering species:
  - Cobb mountain lupine (*Lupinus sericatus*) -- April-May
  - Clara Hunt's milk-vetch (*Astragalus clarianus*) – April-May
  - showy Indian clover (*Trifolium amoenum*) – April -June
- Summer flowering species:
  - Napa blue curls (*Trichostemma ruygtii*) –June-October
  - seaside tarplant (*Hemizonia congesta* ssp. *congesta*) – May-October
  - Napa false indigo (*Amorpha californica* var. *napensis*) – May-July
  - oval-leaved viburnum (*Viburnum ellipticum*) – May-June

The field surveys were timed in order to observe these plants during their flowering periods. Surveys were conducted on the Napa Oaks property on March 29, April 28, and June 15, 2011. The entire site was observed during field surveys by walking meandering transects through individual patches of habitat. Plant species encountered were identified and included on a general list of plants observed over the course of the spring. This list is attached at the end of this report. No herbarium collections were made.

## FINDINGS

No special status plant species were observed on the Napa Oaks property during floristic surveys conducted from March to June, 2011. No known or historic collections or observations of special status plants have been described from the site. Several factors can help explain the lack of special status plants in what might appear to be appropriate habitat.

The plant communities present on the Napa Oaks property are unprotected from grazing animals. Annual grasslands cover most of the site, but it is comprised mostly of introduced forage species. Much of the open rolling hills are dominated by sub-clover, rose clover, and soft chess. Sub-clover is a low dense crop that persists in heavily grazed areas. Later in the spring, the annual grassland supports thick patches of unpalatable exotics notably yellow bartsia (*Parentucellia viscosa*) and purple star thistle (*Centaurea calcytrapa*). Neither of these invasive species were observed in the 1998 plant survey suggesting that the habitat value of the annual grasslands on the site have degraded over the past 10 years.

The annual grassland does support some native plant spring wildflowers such as sun-cups (*Camissonia ovata*) and purple owl's clover (*Castilleja exserta* ssp. *exserta*) as well as patches of native perennial needlegrass (*Nasella pulchra*). These species are either unpalatable to cattle or flourish later in the year when grazing animals have been removed.

The impact of grazing and shading of cattle under the oak canopy has left an understory largely dominated by the noxious and invasive Italian thistle (*Carduus pycnocephalus*) or milk thistle (*Silybum marianum*). Wooded areas with dense canopy cover on shaded north slopes are largely un-vegetated but with soil churned by cattle. Open dry areas in the oak woodlands are covered with dogtail (*Cynosurus echinatus*). The vegetation of wetland seeps has also been impacted by cattle. Pennyroyal (*Mentha pulegium*), a strong scented perennial herb, is a dominant plant in hillside seeps and drainages.

Earthwork and loss of natural soils have also affected the habitat suitability for special status plants. Portions of the property have been altered in the past by earth moving that has left broken rocky substrates that now support sapling live oaks. These young trees are pruned by grazing animals and form "clumps". The dense canopy of some young oak trees provide protected sites for locally occurring and common chaparral shrubs such as toyon (*Heteromeles arbutifolia*), and some horticultural escapes including plum (*Prunus cerasifera*) and viburnum (*Viburnum tinus*). These areas also support some common native plants such as purple needle grass (*Nasella pulchra*) and California poppy (*Eschscholzia californica*).

Because the surveys were floristic in nature, special status plants were sought in all habitats (plant communities) but special attention was given to those few areas such as protected rocky outcrops, thin soils or steeper slopes, or areas supporting groups of native plants where grazing pressure was reduced or special habitats existed. In some cases common relatives of special status plants were present on the property such as members of the genera *Castilleja*, *Lupinus*, *Trifolium* and, *Viburnum*. The list of all species observed over the survey is attached.

## **RECOMMENDATIONS**

No avoidance or mitigation for special status plants is required for the Napa Oaks development project. No further botanical surveys are recommended.

**Table 1 Special Status Plant Known To Occur In The Vicinity Of The Napa Oaks Project Site**

| SCIENTIFIC NAME                                                                                      | STATUS <sup>2</sup> | HABITAT/RANGE                                                                                                                                                                                         | OCCURRENCE ON THE NAPA OAKS PROPERTY                                   |
|------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Franciscan onion<br>( <i>Allium peninsulare</i> var.<br><i>franciscanum</i> )                        | --/--/1B            | On clay soils on dry hillsides, often on serpentine, in cismontane woodland and valley and foothill grassland. 100-300m. Nearest location is a half mile north of Sonoma, over 8 miles from the site. | Not Present. Potential habitat was surveyed in spring and summer 2011. |
| Napa false indigo<br>( <i>Amorpha californica</i> var.<br><i>napensis</i> )                          | --/--/1B            | Broad-leaved upland forest, chaparral, cismontane woodland; openings in forest or woodland or in chaparral (150-2000m). Nearest location is at Patrick Road about 5 miles northwest of the site.      | Not Present. Potential habitat was surveyed in spring and summer 2011. |
| Clara Hunt's milk-vetch<br>( <i>Astragalus clarianus</i> )                                           | FE/CT/1B            | Inhabits open grassy hillsides in thin, volcanic clay soils in cismontane woodland, valley and foothill grassland and chaparral. Not known to occur within 10 miles of the site.                      | Not Present. Potential habitat was surveyed in spring and summer 2011. |
| San Joaquin spearscale<br>( <i>Atriplex joaquiniana</i> )                                            | --/--/1B            | Chenopod scrub, alkali meadow in valley and foothill grassland. Alkali scrub and mesic grasslands in the Delta and Central Valley basin. 1-250m. Known from within Napa about a mile from the site.   | Not present. Potential habitat is absent.                              |
| Big-scale (California)<br>balsamroot<br>( <i>Balsamorhiza macrolepis</i> var.<br><i>macrolepis</i> ) | SLC/--/1B           | Chaparral, cismontane woodland, valley and foothill grassland/sometimes serpentine; 90-1400m. Nearest location is over 8 miles east of the site.                                                      | Not Present. Potential habitat was surveyed in spring and summer 2011. |
| Sonoma sunshine<br>( <i>Blennosperma bakeri</i> )                                                    | FE/CE/1B            | Vernal pools and swales in valley and foothill grassland. 10-100m. Nearest location is north of Sonoma over 8 miles from the site.                                                                    | Not present. Potential habitat is absent.                              |
| Narrow-anthered California<br>brodiaea<br>( <i>Brodiaea californica</i> var.<br><i>leptandra</i> )   | --/--/1B            | Broadleaved upland forest, chaparral, lower montane coniferous forest. 110-915m. Nearest location is at Arrowhead Mountain about 5 miles west of the site.                                            | Not present. Potential habitat is absent.                              |

| SCIENTIFIC NAME                                                                 | STATUS <sup>2</sup> | HABITAT/RANGE                                                                                                                                                                                                               | OCCURRENCE ON THE NAPA OAKS PROPERTY                                   |
|---------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Tiburon Indian paintbrush<br>( <i>Castilleja affinis</i> ssp. <i>neglecta</i> ) | FE/CT/1B            | Rocky serpentine sites in valley and foothill grasslands. 75-400 m. Nearest location is in American Canyon nearly 10 miles from the site.                                                                                   | Not present. Potential habitat is absent.                              |
| Holly-leaved ceanothus<br>( <i>Ceanothus purpureus</i> )                        | SLC/--/--           | Rocky volcanic slopes in chaparral. 120-640m. Nearest location is near Sugarloaf Summit about 4 miles east of the site.                                                                                                     | Not present. Potential habitat is absent.                              |
| Sonoma Ceanothus<br>( <i>Ceanothus sonomensis</i> )                             | --/--/1B            | On sandy, serpentine or volcanic soils in chaparral. 210-800m. Nearest location is along the Sonoma/Napa County line about 6 miles west of the site.                                                                        | Not present. Potential habitat is absent.                              |
| Pappose tarplant<br>( <i>Centromadia parryi</i> ssp. <i>parryi</i> )            | SLC/--/1B           | Vernally mesic, often alkaline sites in coastal prairie, meadows and seeps, coastal salt marsh and valley and foothill grassland. Nearest location is near Highway 121 about 8.5 miles from the site.                       | Not present. Potential habitat is absent.                              |
| Soft bird's-beak<br>( <i>Cordylanthus mollis</i> ssp. <i>mollis</i> )           | FE/CR/1B            | Inhabits brackish tidal marsh and seasonal alkali marsh. 0-3m. Known from fewer than 20 populations in Contra Costa, Napa, and Solano Counties. Nearest location is southwest of Cuttings Wharf over 5 miles from the site. | Not present. Potential habitat is absent.                              |
| Dwarf downingia<br>( <i>Downingia pusilla</i> )                                 | --/--/2             | Margins of vernal pools; mesic sites in valley and foothill grassland. 1-485m. Nearest location is near Highway 12/121 about 5 miles south of the site.                                                                     | Not present. Potential habitat is absent.                              |
| Greene's narrow-leaved daisy<br>( <i>Erigeron greeneri</i> )                    | --/--/1B            | Serpentine and volcanic substrates in chaparral. 75-1060m. Nearest location is at Soda Creek Canyon between Napa and Yountville about 7 miles north of the site.                                                            | Not present. Potential habitat is absent.                              |
| Seaside tarplant<br>( <i>Hemizonia congesta</i> ssp. <i>congesta</i> )          | --/--/1B            | Grassy valleys and hills, often in fallow fields, in coastal scrub and valley and foothill grassland. Nearest location is south of Sonoma, over 8 miles from the site.                                                      | Not Present. Potential habitat was surveyed in spring and summer 2011. |
| Northern California black walnut<br>( <i>Juglans hindsii</i> )                  | --/--/1B            | In deep alluvial soils associated with a stream or creek; in riparian forest and riparian woodland. 0-395m. Known from a Napa City Park just over a mile from the site.                                                     | Not present. Potential habitat is absent.                              |

| SCIENTIFIC NAME                                                                      | STATUS <sup>2</sup> | HABITAT/RANGE                                                                                                                                                                                                                                                                                | OCCURRENCE ON THE NAPA OAKS PROPERTY                                   |
|--------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Contra Costa Goldfields<br>( <i>Lasthenia conjugens</i> )                            | FE/--/1B            | Vernal pools, swales, low depressions, in open grassy areas. 1-445m. Extirpated from most of its range. Most remaining occurrences restricted to the Fairfield region. Occurs near Highway 121 near the Napa River.                                                                          | Not present. Potential habitat is absent.                              |
| Delta Tule Pea<br>( <i>Lathyrus jepsonii</i> var. <i>jepsonii</i> )                  | --/--/1B            | Inhabits the banks of sloughs and bays in the Suisun Bay and Delta. Found in freshwater and brackish marshes. Nearest location is along the Napa River near the Maxwell Bridge.                                                                                                              | Not present. Potential habitat is absent.                              |
| Legenere<br>( <i>Legenere limosa</i> )                                               | --/--/1B            | Inhabits vernal pools, 1-880m. Known from scattered occurrences in the Delta, north Central Valley, and north SF Bay. Many occurrences are extirpated. Nearest location is about 4 miles south of the site.                                                                                  | Not present. Potential habitat is absent.                              |
| Mason's lilaeopsis<br>( <i>Lilaeopsis masonii</i> )                                  | --/CR/1B            | Inhabits the edges of mudflats in brackish marsh and riparian scrub in the Delta. 0-10m. Known along the Napa River just over a mile from the site.                                                                                                                                          | Not present. Potential habitat is absent.                              |
| Sebastopol meadowfoam<br>( <i>Limnanthes vincularis</i> )                            | FE/CE/1B            | Grows in poorly drained clay and sandy loam soils in swales, wet meadows, and marshy areas. Occurs in mesic meadows and vernal pools in valley and foothill grasslands. 15-115m. Nearest known location is about 10 miles from the site at the Laguna Vista Project.                         | Not present. Potential habitat is absent.                              |
| Cobb mountain lupine<br>( <i>Lupinus sericatus</i> )                                 | --/--/1B            | Chaparral, cismontane woodland, lower montane coniferous forest; in stands of knob cone pine-oak woodland; on open woodland slopes in gravelly soils; sometimes on serpentine (180-1500m). Nearest location is north of the summit of Hogback Mountain, about 7 miles northwest of the site. | Not Present. Potential habitat was surveyed in spring and summer 2011. |
| Few-flowered Navarretia<br>( <i>Navarretia leucocephala</i> ssp. <i>pauciflora</i> ) | FE/CT/1B            | Inhabits volcanic ash flows and volcanic substrates in vernal pools. 400-855m. Not known to occur within 10 miles of the site.                                                                                                                                                               | Not present. Potential habitat is absent.                              |
| Marin knotweed<br>( <i>Polygonum marinense</i> )                                     | SLC/--/3            | Coastal salt marshes and brackish marshes. 0-10m. Nearest location is at Cuttings Wharf over 4 miles south of the site.                                                                                                                                                                      | Not present. Potential habitat is absent.                              |

| SCIENTIFIC NAME                                                         | STATUS <sup>2</sup> | HABITAT/RANGE                                                                                                                                                                                                    | OCCURRENCE ON THE NAPA OAKS PROPERTY                                   |
|-------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Marin checkerbloom<br>( <i>Sidalcea hickmanii</i> ssp. <i>viridis</i> ) | --/--/1B            | Chaparral. Serpentine or volcanic soils; sometimes appears after burns. 0-430m. Nearest location is at the base of Mt. George about 6 miles northeast of the site.                                               | Not present. Potential habitat is absent.                              |
| Suisun Marsh aster<br>( <i>Symphyotrichum lentum</i> )                  | --/--/1B            | Both brackish and freshwater marshes and swamps. 0-3m. Occurs near the Napa Municipal Golf Course a couple miles from the site.                                                                                  | Not present. Potential habitat is absent.                              |
| Napa bluecurls<br>( <i>Trichostema ruygtii</i> )                        | --/--/1B            | Open sunny areas in cismontane woodland, chaparral, valley and foothill grassland, vernal pools and lower montane coniferous forest. 30-590m. Nearest location is northeast of Napa about 6 miles from the site. | Not Present. Potential habitat was surveyed in spring and summer 2011. |
| Showy Indian clover<br>( <i>Trifolium amoenum</i> )                     | FE/--/1B            | Inhabits moist clay grassland soils; known from one extant occurrence in Marin County. 5-560m. Known from a 1951 sighting near Napa.                                                                             | Not Present. Potential habitat was surveyed in spring and summer 2011. |
| Saline clover<br>( <i>Trifolium. hydrophilum</i> )                      | --/--/1B            | Marshes and swamps, valley and foothill grassland, vernal pools. Found in mesic, alkaline sites. 0-300m. Nearest location is south of Napa about 3 miles from the site.                                          | Not Present. Potential habitat was surveyed in spring and summer 2011. |
| Oval-leaved viburnum<br>( <i>Viburnum ellipticum</i> )                  | --/--/1B            | Chaparral, cismontane woodland, lower montane coniferous forest. 215-1400m. Nearest location is at Skyline Park over 5 miles from the site.                                                                      | Not Present. Potential habitat was surveyed in spring and summer 2011. |

1. Source: California Natural Diversity Data Base, Natural Heritage Division, California Department of Fish and Game for the Napa 7.5 Minute Quadrangle Map and surrounding areas, information dated January 2011

2. Status Codes:

FE Federally Endangered  
FT Federally Threatened  
FPE Federally Proposed Endangered  
FPT Federally Proposed Threatened  
FSC Federal Species of Concern (most are former C2 Candidates and some former C1)  
CE California Endangered  
CT California Threatened  
CR California Rare

|             |                                                                                |
|-------------|--------------------------------------------------------------------------------|
| CFP         | California Fully Protected                                                     |
| CSC         | California Species of Special Concern                                          |
| CNPS 1A     | Plants Presumed Extinct in California                                          |
| CNPS 1B     | Plants Rare, Threatened or Endangered in California or elsewhere               |
| CNPS LIST 2 | Plants Rare, Threatened or Endangered in California, but more common elsewhere |

## References

California Department of Fish and Game. 2011. Natural Heritage Division, Natural Diversity Data Base for Napa Quadrangle Map, January 2011.

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## Plant species observed at the Napa Oaks project site March-June 2011

| Family               | Scientific Name                                   | Common Name                         |
|----------------------|---------------------------------------------------|-------------------------------------|
| <i>Anacardiaceae</i> |                                                   |                                     |
|                      | <i>Toxicodendron diversilobum</i>                 | poison oak                          |
| <i>Apiaceae</i>      |                                                   |                                     |
|                      | <i>Conium maculatum</i>                           | poison hemlock                      |
|                      | <i>Foeniculum vulgare</i>                         | fennel                              |
|                      | <i>Sanicula bipinnatifida</i>                     | purple sanicle                      |
|                      | <i>Sanicula crassicaulis</i>                      | Pacific sanicle                     |
|                      | <i>Torilis arvensis</i>                           | field hedge-parsley                 |
| <i>Asteraceae</i>    |                                                   |                                     |
|                      | <i>Achyrachaena mollis</i>                        | blow-wives                          |
|                      | <i>Baccharis pilularis</i>                        | coyote brush                        |
|                      | <i>Carduus pycnocephalus</i>                      | Italian thistle                     |
|                      | <i>Centaurea calcitrapa</i>                       | red star-thistle                    |
|                      | <i>Centaurea solstitialis</i>                     | yellow star-thistle                 |
|                      | <i>Filago californica</i>                         | California herba impia              |
|                      | <i>Hedypnois cretica</i>                          | Cretan hedypnois                    |
|                      | <i>Hypochaeris glabra</i>                         | smooth cat's ear                    |
|                      | <i>Hypochaeris radicata</i>                       | rough cat's ear                     |
|                      | <i>Lactuca serriola</i>                           | prickly lettuce                     |
|                      | <i>Leontodon taraxacoides</i>                     | hawkbit                             |
|                      | <i>Micropus californicus</i>                      | slender cottonweed                  |
|                      | <i>Picris echioides</i>                           | bristly ox-tongue                   |
|                      | <i>Psilocarphus oregonus</i>                      | Oregon woolly marbles               |
|                      | <i>Senecio vulgaris</i>                           | common groundsel                    |
|                      | <i>Silybum marianum</i>                           | milk thistle                        |
|                      | <i>Soliva sessilis</i>                            | common soliva                       |
|                      | <i>Sonchus arvensis</i>                           | perennial sow thistle               |
|                      | <i>Sonchus asper</i> ssp. <i>asper</i>            | prickly sow thistle                 |
|                      | <i>Taraxacum officinale</i>                       | common dandelion                    |
| <i>Boraginaceae</i>  |                                                   |                                     |
|                      | <i>Amsinckia menziesii</i> var. <i>intermedia</i> | orange-flowered Menzies' fiddleneck |
|                      | <i>Plagiobothrys nothofulvus</i>                  | rusty-haired popcorn flower         |
| <i>Brassicaceae</i>  |                                                   |                                     |
|                      | <i>Brassica nigra</i>                             | black mustard                       |
|                      | <i>Brassica rapa</i>                              | field mustard                       |
|                      | <i>Cardamine oligosperma</i>                      | Idaho bittercress                   |
|                      | <i>Lepidium nitidum</i>                           | shining pepper-grass                |
|                      | <i>Raphanus sativus</i>                           | wild radish                         |

| Family                         | Scientific Name                 | Common Name              |
|--------------------------------|---------------------------------|--------------------------|
| <b><i>Caprifoliaceae</i></b>   |                                 |                          |
|                                | <i>Symphoricarpos mollis</i>    | creeping snowberry       |
|                                | <i>Viburnum tinus</i>           | spring bouquet viburnum  |
| <b><i>Caryophyllaceae</i></b>  |                                 |                          |
|                                | <i>Cerastium glomeratum</i>     | mouse-ear chickweed      |
|                                | <i>Stellaria media</i>          | common chickweed         |
| <b><i>Crassulaceae</i></b>     |                                 |                          |
|                                | <i>Crassula tillaea</i>         | Mediterranean pygmy-weed |
| <b><i>Cyperaceae</i></b>       |                                 |                          |
|                                | <i>Eleocharis macrostachya</i>  | common spikerush         |
| <b><i>Ericaceae</i></b>        |                                 |                          |
|                                | <i>Arbutus menziesii</i>        | madrone                  |
| <b><i>Fabaceae</i></b>         |                                 |                          |
|                                | <i>Lotus humistratus</i>        | short-podded lotus       |
|                                | <i>Lotus wrangelianus</i>       | Chilean lotus            |
|                                | <i>Lupinus bicolor</i>          | miniature lupine         |
|                                | <i>Lupinus nanus</i>            | sky lupine               |
|                                | <i>Medicago polymorpha</i>      | California burclover     |
|                                | <i>Trifolium campestre</i>      | hop clover               |
|                                | <i>Trifolium dubium</i>         | shamrock                 |
|                                | <i>Trifolium glomeratum</i>     | clustered clover         |
|                                | <i>Trifolium hirtum</i>         | rose clover              |
|                                | <i>Trifolium subterraneum</i>   | subterranean clover      |
|                                | <i>Trifolium willdenovii</i>    | tomcat clover            |
| <b><i>Fagaceae</i></b>         |                                 |                          |
|                                | <i>Quercus agrifolia</i>        | coast live oak           |
|                                | <i>Quercus lobata</i>           | Valley oak               |
| <b><i>Gentianaceae</i></b>     |                                 |                          |
|                                | <i>Centaurium muehlenbergii</i> | Muhlenberg's centaury    |
|                                | <i>Cicendia quadrangularis</i>  | common microcalis        |
| <b><i>Geraniaceae</i></b>      |                                 |                          |
|                                | <i>Erodium botrys</i>           | long-beaked filaree      |
|                                | <i>Erodium cicutarium</i>       | red-stemmed filaree      |
|                                | <i>Geranium dissectum</i>       | cut-leaved geranium      |
|                                | <i>Geranium robertianum</i>     | Robert's geranium        |
| <b><i>Hippocastanaceae</i></b> |                                 |                          |
|                                | <i>Aesculus californica</i>     | California buckeye       |
| <b><i>Iridaceae</i></b>        |                                 |                          |
|                                | <i>Sisyrinchium bellum</i>      | blue-eyed grass          |
| <b><i>Juglandaceae</i></b>     |                                 |                          |
|                                | <i>Juglans regia</i>            | English walnut           |

| Family                       | Scientific Name                 | Common Name           |
|------------------------------|---------------------------------|-----------------------|
| <b><i>Juncaceae</i></b>      |                                 |                       |
|                              | <i>Juncus bufonius</i>          | toad rush             |
|                              | <i>Juncus tenuis</i>            | poverty rush          |
|                              | <i>Juncus xiphioides</i>        | iris-leaved rush      |
| <b><i>Juncaginaceae</i></b>  |                                 |                       |
|                              | <i>Lilaea scilloides</i>        | flowering quillwort   |
| <b><i>Lamiaceae</i></b>      |                                 |                       |
|                              | <i>Marrubium vulgare</i>        | horehound             |
|                              | <i>Mentha pulegium</i>          | pennyroyal            |
|                              | <i>Stachys bullata</i>          | southern hedge-nettle |
| <b><i>Liliaceae</i></b>      |                                 |                       |
|                              | <i>Calochortus luteus</i>       | yellow mariposa       |
|                              | <i>Chlorogalum pomeridianum</i> | soaproot              |
| <b><i>Lythraceae</i></b>     |                                 |                       |
|                              | <i>Lythrum hyssopifolium</i>    | hyssop loosestrife    |
| <b><i>Malvaceae</i></b>      |                                 |                       |
|                              | <i>Malva parviflora</i>         | cheeseweed            |
| <b><i>Moraceae</i></b>       |                                 |                       |
|                              | <i>Ficus carica</i>             | common fig            |
| <b><i>Oleaceae</i></b>       |                                 |                       |
|                              | <i>Olea europaea</i>            | olive                 |
| <b><i>Onagraceae</i></b>     |                                 |                       |
|                              | <i>Camissonia ovata</i>         | sun-cup               |
|                              | <i>Clarkia unguiculata</i>      | woodland clarkia      |
|                              | <i>Epilobium brachycarpum</i>   | autumn willowweed     |
| <b><i>Oxalidaceae</i></b>    |                                 |                       |
|                              | <i>Oxalis pes-caprae</i>        | Bermuda buttercup     |
| <b><i>Papaveraceae</i></b>   |                                 |                       |
|                              | <i>Eschscholzia californica</i> | California poppy      |
| <b><i>Pinaceae</i></b>       |                                 |                       |
|                              | <i>Pinus radiata</i>            | Monterey pine         |
| <b><i>Plantaginaceae</i></b> |                                 |                       |
|                              | <i>Plantago erecta</i>          | California plantain   |
|                              | <i>Plantago lanceolata</i>      | English plantain      |
| <b><i>Poaceae</i></b>        |                                 |                       |
|                              | <i>Aira caryophyllea</i>        | silver hairgrass      |
|                              | <i>Avena barbata</i>            | slender wild oats     |
|                              | <i>Brachypodium distachyon</i>  | purple false-brome    |
|                              | <i>Briza maxima</i>             | big quaking grass     |
|                              | <i>Briza minor</i>              | little quaking grass  |
|                              | <i>Bromus diandrus</i>          | ripgut brome          |

| Family                      | Scientific Name                              | Common Name            |
|-----------------------------|----------------------------------------------|------------------------|
|                             | <i>Bromus hordeaceus</i>                     | soft chess             |
|                             | <i>Cynosurus echinatus</i>                   | hedgehog dogtail-grass |
|                             | <i>Dactylis glomerata</i>                    | orchard-grass          |
|                             | <i>Elymus elymoides</i>                      | squirreltail           |
|                             | <i>Gastridium ventricosum</i>                | nit grass              |
|                             | <i>Hordeum brachyantherum</i>                | meadow barley          |
|                             | <i>Hordeum murinum</i> ssp. <i>leporinum</i> | foxtail barley         |
|                             | <i>Lolium multiflorum</i>                    | Italian rye-grass      |
|                             | <i>Melica californica</i>                    | California melic       |
|                             | <i>Nassella pulchra</i>                      | purple needlegrass     |
|                             | <i>Pleuropogon californicus</i>              | semaphore grass        |
|                             | <i>Poa annua</i>                             | annual blue grass      |
|                             | <i>Vulpia bromoides</i>                      | brome fescue           |
|                             | <i>Vulpia myuros</i>                         | rattail fescue         |
| <b><i>Polygonaceae</i></b>  |                                              |                        |
|                             | <i>Rumex acetosella</i>                      | common sheep sorrel    |
|                             | <i>Rumex crispus</i>                         | curly dock             |
|                             | <i>Rumex occidentalis</i>                    | western dock           |
|                             | <i>Rumex pulcher</i>                         | fiddle dock            |
| <b><i>Portulacaceae</i></b> |                                              |                        |
|                             | <i>Claytonia perfoliata</i>                  | miner's lettuce        |
| <b><i>Primulaceae</i></b>   |                                              |                        |
|                             | <i>Anagallis arvensis</i>                    | scarlet pimpernel      |
| <b><i>Ranunculaceae</i></b> |                                              |                        |
|                             | <i>Ranunculus californicus</i>               | California buttercup   |
|                             | <i>Ranunculus muricatus</i>                  | spiny buttercup        |
| <b><i>Rhamnaceae</i></b>    |                                              |                        |
|                             | <i>Rhamnus californica</i>                   | California coffeeberry |
| <b><i>Rosaceae</i></b>      |                                              |                        |
|                             | <i>Heteromeles arbutifolia</i>               | toyon                  |
|                             | <i>Malus sylvestris</i>                      | domestic apple         |
|                             | <i>Prunus cerasifera</i>                     | cherry plum            |
|                             | <i>Prunus dulcis</i>                         | almond                 |
|                             | <i>Pyracantha angustifolia</i>               | firethorn              |
|                             | <i>Rubus discolor</i>                        | Himalaya-berry         |
| <b><i>Rubiaceae</i></b>     |                                              |                        |
|                             | <i>Galium aparine</i>                        | common bedstraw        |
|                             | <i>Galium parisiense</i>                     | wall bedstraw          |
|                             | <i>Sherardia arvensis</i>                    | field madder           |
| <b><i>Saxifragaceae</i></b> |                                              |                        |
|                             | <i>Lithophragma affine</i>                   | common woodland star   |

| Family                         | Scientific Name                 | Common Name          |
|--------------------------------|---------------------------------|----------------------|
| <b><i>Scrophulariaceae</i></b> |                                 |                      |
|                                | Castilleja exserta ssp. exserta | purple owl's clover  |
|                                | Parentucellia viscosa           | yellow parentucellia |
|                                | Triphysaria pusilla             | little owl's clover  |
|                                | Verbascum blattaria             | moth mullein         |
| <b><i>Solanaceae</i></b>       |                                 |                      |
|                                | Solanum sisymbriifolium         | sticky nightshade    |
| <b><i>Urticaceae</i></b>       |                                 |                      |
|                                | Urtica urens                    | dwarf nettle         |

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### EDUCATION

M.S. Biology (Plant Ecology), 1992, California State University, Sacramento, Thesis Topic: "The Water Relations of *Alnus rhombifolia*"

B.S. Biology (Field Biology), 1978, California Polytechnic State University, San Luis Obispo

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**Vegetation mapping**, quantitative sampling, and interpretation, Mt. St. Helens vegetation recovery researcher **Wetlands** delineation, mitigation design, construction and monitoring **Forage Inventory**, **Plant Identification Instructor**, **Vegetation Workshop Leader**, **Backcountry Naturalist**

# **ATTACHMENT 4**

## **ATTACHMENT 4**

**Revised Tree Report, Napa Oaks, Napa, California. Prepared by HortScience, Inc. July 2011**

## Revised Tree Report

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**Napa Oaks**  
Napa, CA

*Prepared for:*  
**Davidon Homes**  
1600 S. Main St., Suite 150  
Walnut Creek, CA 94596-5394

*Prepared by:*  
**HortScience, Inc.**  
325 Ray Street  
Pleasanton, CA 94566

**July 2011**



**REVISED TREE REPORT**  
**Napa Oaks**  
**Napa, CA**

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**Attachments**

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***Tree Survey Forms***

***Tree Survey Map (prepared by dK Consulting)***

### **Introduction and Overview**

Davidon Homes is planning to develop the Napa Oaks site in Napa, California. Currently, the site is open grazing land, with tight groups of trees spread across the site. The proposed development would construct 54 residential lots, with two access points onto Old Sonoma Road. A considerable amount of the site would remain as open space. HortScience, Inc. was asked to prepare a **Tree Report** for the site for review by the City of Napa.

This report provides the following information:

1. A survey of all trees with a trunk diameter of 6" or greater (measured 54" above grade) within the proposed project area.
2. An evaluation of the health of the tree on a 0-5 scale, where 0=dead, 1=poor, and 5 = excellent condition.
3. An assessment of the impacts of constructing the proposed project on the trees.
4. Guidelines for tree preservation during the design and construction phases of development.

### **Background**

Hortscience, Inc. prepared a **Tree Survey Report** for the Napa Oaks site in 1997. A total of 591 trees were surveyed at that time. This number reflects the City's requirement that only trees with diameters of 8" or greater, and within 30' of the proposed development, be included. Currently, we assessed all trees at the site with diameters of 6" or greater (per Chapter 12.45, Ordinance #02003-4).

In 1997, over a third of the trees were young, with diameters in the 8" to 11" range, and almost 90% were in moderate to excellent condition (rated 3, 4, or 5). Currently, over half of the trees (native and exotics) were young (diameters between 6" and 11"), and just over 90% were in moderate to excellent condition. The increase in the number of young trees reflects both the change in the requirements for the size and location of trees included in the survey, as well as the growth of trees to the minimum diameter threshold for inclusion in the survey.

### **Survey Methods**

Trees were surveyed in October and November, 2010. The survey included trees 6" and greater in diameter. The survey procedure consisted of the following steps:

1. Identifying the tree as to species;
2. Tagging each tree with an identifying number and recording its location on a map;
3. Measuring the trunk diameter at a point 54" above grade;
4. Evaluating the health and structural condition using a scale of 0 – 5:
  - 5 - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
  - 4 - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
  - 3 - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
  - 2 - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
  - 1 - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
  - 0 – Dead.

5. Rating the suitability for preservation as "good", "moderate" or "poor". Suitability for preservation considers the health, age and structural condition of the tree, and its potential to remain an asset to the site for years to come.

- Good:** Trees with good health and structural stability that have the potential for longevity at the site.
- Moderate:** Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in 'good' category.
- Poor:** Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual may have characteristics that are undesirable for landscapes, and generally are unsuited for use areas.

### **Description of Trees**

One thousand three hundred and seventy five (1,375) trees, represented by 33 species, were evaluated. Descriptions of each tree are found in the **Tree Survey Forms**, and locations are plotted on the **Tree Survey Map** (see attachments). Included in the survey were seven (7) off-site trees (#291 and 1187-1192), with portions of their crowns extending onto the project site and one (1) standing dead tree (#722).

The site was a native oak woodland with groupings of trees separated by open grasslands, where cattle grazed (photo 1). Cattle grazing can have a direct impact on vegetation, through feeding (especially on young plants), rubbing on tree trunks and compacting soil beneath trees, where they gather for shade. Evidence of these impacts was present at the Napa Oaks site.



**Photo 1:** Cattle grazing beneath the shade of a group of coast live oaks (#909-914). Grazing, soil compaction and direct injury can lead to a variety of tree impacts. Typically, grazing leads to a lack of young trees, as they are browsed on. However, this was not the case at the Napa Oaks site, where there were many young coast live oaks.

Many of the tree groupings were dominated by young trees, with diameters below 12". This is unusual for areas where grazing is common, as they are often browsed before they get large enough to tolerate the damage. The close spacing of trees in groupings also affected tree structure. Typically, there were one or more dominant trees, characterized by upright, spreading crowns, surrounded by intermediate and suppressed trees with leaning, asymmetric, or one-sided crowns.

Eight (8) of the 33 species surveyed were native to the site and the balance were planted exotics. The native species constituted 1,298 of the trees, or 94% of the population. Of these, 654, or 50% were young, with diameters less than 12".

There were 33 species represented at the site (Table 1, page 4). The most frequently occurring species was coast live oak, with 1,186 trees, or 86% of the population. The species was adapted to the site and had performed well, with 641 (54%) in good or excellent condition, 469 in fair (40%), and 75 in poor (6%). In addition to the groupings of young trees, there were several large diameter coast live oaks, including 92 trees with diameters of 30" or larger. For the most part, these had large, spreading crowns with branches extending to the ground. Coast live oak #1080 was one of the largest diameter coast live oaks at 50" and was in excellent health, with heavy lateral limbs (Photo 2, following page).

**Photo 2:** Coast live oak #1080 was in excellent condition, with a spreading crown and branches to the ground. Inset shows branching structure comprised of several heavy lateral limbs.



The second most common species was valley oak, with 56 trees (4%). Calif. buckeye, with 27 trees (2%) and Calif. black oak, with 14 trees (1%) were the next most common species. The remaining 29 species were represented by 10 or fewer individuals.

Average tree condition was good (723 trees or 53% of the population). Five hundred thirty-four (534) were in fair condition (39%), and 117 trees were in poor (9%). The good condition of the trees is a reflection of the number of native trees and their adaptation to site conditions.

For young trees of all species, low condition ratings were due to poor structure, primarily where crowns leaned or were bowed to horizontal as a result of competition for light. Extensive decay in trunks and scaffold branches was the primary reason for low condition ratings in mature trees. Decay was manifested in many ways, including thin or sparse foliage, branch failures and cavities.

The city of Napa defines certain native species with at least one trunk 12" or greater in diameter, as "Protected Native" trees (Chapter 12.45, Ordinance #02003-4). By this definition, 622 trees qualified as "Protected Native" trees, including 102 with trunk diameters of 30" or greater and 222 multi-stemmed trees, with at least one stem measuring 12" or greater (see **Tree Survey Forms**, attachments).

**Table 1: Condition ratings and frequency of occurrence of trees.  
Napa Oaks site, Napa**

| Common Name          | Scientific Name                            | Condition Rating |               |             |               | No. of Trees |
|----------------------|--------------------------------------------|------------------|---------------|-------------|---------------|--------------|
|                      |                                            | Dead<br>(0)      | Poor<br>(1-2) | Fair<br>(3) | Good<br>(4-5) |              |
| *Calif. buckeye      | <i>Aesculus californica</i>                | -                | 1             | 17          | 9             | 27           |
| Mimosa               | <i>Albizia julibrissin</i>                 | -                | 3             | 2           | -             | 5            |
| *Madrone             | <i>Arbutus menziesii</i>                   | -                | 5             | 2           | 3             | 10           |
| Incense cedar        | <i>Calocedrus decurrens</i>                | -                | -             | -           | 1             | 1            |
| Deodar cedar         | <i>Cedrus deodara</i>                      | -                | -             | -           | 1             | 1            |
| Arizona cypress      | <i>Cupressus arizonica</i>                 | -                | -             | -           | 1             | 1            |
| Evergreen ash        | <i>Fraxinus uhdei</i>                      | -                | 1             | 2           | -             | 3            |
| Silk oak             | <i>Grevillea robusta</i>                   | -                | -             | 1           | -             | 1            |
| *Toyon               | <i>Heteromeles arbutifolia</i>             | -                | 1             | 1           | -             | 2            |
| *Calif. black walnut | <i>Juglans hindsii</i>                     | -                | -             | 1           | 2             | 3            |
| Paradox walnut       | <i>Juglans 'Paradox'</i>                   | -                | -             | -           | 1             | 1            |
| English walnut       | <i>Juglans regia</i>                       | -                | 3             | 5           | 2             | 10           |
| Privet               | <i>Ligustrum japonicum</i>                 | -                | -             | 2           | -             | 2            |
| Apple                | <i>Malus domestica</i>                     | -                | 1             | 2           | -             | 3            |
| Myoporum             | <i>Myoporum laetum</i>                     | -                | -             | -           | 1             | 1            |
| Olive                | <i>Olea europaea</i>                       | -                | -             | 1           | 3             | 4            |
| Blue spruce          | <i>Picea pungens 'Glauca'</i>              | -                | -             | -           | 1             | 1            |
| Aleppo pine          | <i>Pinus halepensis</i>                    | -                | 1             | -           | 3             | 4            |
| Pinyon pine          | <i>Pinus monophylla</i>                    | -                | -             | -           | 1             | 1            |
| Italian stone pine   | <i>Pinus pinea</i>                         | -                | -             | 1           | -             | 1            |
| Monterey pine        | <i>Pinus radiata</i>                       | -                | 7             | 1           | -             | 8            |
| Scot's pine          | <i>Pinus sylvestris</i>                    | -                | 1             | -           | -             | 1            |
| Japanese black pine  | <i>Pinus thunbergiana</i>                  | -                | -             | 1           | 2             | 3            |
| Chinese pistache     | <i>Pistacia chinensis</i>                  | -                | -             | -           | 1             | 1            |
| Purple leaf plum     | <i>Prunus cerasifera</i><br>'Atropurpurea' | -                | 3             | 1           | -             | 4            |
| Plum                 | <i>Prunus domestica</i>                    | -                | 2             | 4           | 3             | 9            |
| Almond               | <i>Prunus dulcis</i>                       | -                | 6             | 1           | -             | 7            |
| *Coast live oak      | <i>Quercus agrifolia</i>                   | 1                | 75            | 469         | 641           | 1186         |
| *Valley oak          | <i>Quercus lobata</i>                      | -                | 4             | 17          | 35            | 56           |
| *Calif. black oak    | <i>Quercus douglasii</i>                   | -                | 3             | 1           | 10            | 14           |
| Burr oak             | <i>Quercus macrocarpa</i>                  | -                | -             | -           | 1             | 1            |
| *Coffeeberry         | <i>Rhamnus californica</i>                 | -                | -             | 1           | -             | 1            |
| *Coast redwood       | <i>Sequoia sempervirens</i>                | -                | -             | 1           | 1             | 2            |
| Total                |                                            | 1                | 117           | 534         | 723           | 1,375        |
|                      |                                            | ≤1%              | 9%            | 39%         | 53%           | 100%         |

\*Indicates species native to the site

### ***Suitability for Preservation***

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself, and the potential for individual trees to function well over an extended length of time. Trees that are preserved on development sites must be carefully selected to make sure that they may survive development impacts, adapt to a new environment and perform well in the landscape.

Our goal is to identify trees that have the potential for long-term health, structural stability and longevity. For trees growing in creeks, away from areas where people and property are present, structural defects and/or poor health presents a low risk of damage or injury if they fail. However, we must be concerned about safety in use areas. Therefore, where development encroaches into existing plantings, we must consider their structural stability as well as their potential to grow and thrive in a new environment. Where development will not occur, the normal life cycles of decline, structural failure and death should be allowed to continue.

Evaluation of suitability for preservation considers several factors:

- **Tree health**  
Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees.
- **Structural integrity**  
Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely.
- **Species response**  
There is a wide variation in the response of individual species to construction impacts and changes in the environment. In our experience, for example, coast live oak and coast redwood are more adaptable and tolerate injury better than valley oak or madrone.
- **Tree age and longevity**  
Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change.
- **Invasiveness**  
Trees with the potential to invade native habitats, reproduce rapidly, and grow in sub-optimal environments are considered invasive. Species with these qualities may alter the functional and aesthetic qualities of the habitats they invade. None of the species surveyed at the Napa Oaks site are considered invasive.

Each tree was rated for suitability for preservation based upon its age, health, structural condition and ability to safely coexist within a development environment (Table 2, following page).

We consider trees with good suitability for preservation to be the best candidates for preservation. We do not recommend retention of trees with low suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

**Table 2: Tree Suitability for preservation  
Napa Oaks site, Napa**

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Good</b>     | These are trees with good health and structural stability that have the potential for longevity at the site. Four hundred forty-six (446) trees were rated as having good suitability for preservation. This group included 398 coast live oaks, 21 valley oaks, eight (8) Calif. black oaks, six (6) Calif. buckeyes, three (3) madrones, and one (1) each of Arizona cypress, blue spruce, burr oak, Chinese pistache, coast redwood, deodar cedar, incense cedar, olive, pinyon pine and plum.                                                                                                                                                                                                                                                                                                                                           |
| <b>Moderate</b> | Trees in this category have fair health and/or structural defects that may be abated with treatment. Trees in this category require more intense management and monitoring, and may have shorter life-spans than those in the "good" category. Six hundred and fifty-five (655) trees were rated as having moderate suitability for preservation, including: 580 coast live oaks, 28 valley oaks, three (3) each of Aleppo pine, Calif. black walnut, Japanese black pine, olive and plum, two (2) each of apple, Calif. black oak, English walnut and madrone, and one (1) each of coast redwood, paradox walnut, privet, and toyon.                                                                                                                                                                                                       |
| <b>Poor</b>     | Trees in this category are in poor health or have significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings or be unsuited for use areas. Two hundred and seventy-four (274) trees were rated as having poor suitability for preservation, including: 208 coast live oaks, eight (8) Monterey pines, eight (8) English walnuts, seven (7) valley oaks, seven (7) almonds, five (5) each of madrone, mimosa and plum, four (4) purple-leaf plums, four (4) Calif. black oak, three (3) evergreen ash, two (2) Calif. buckeyes, and one (1) each of apple, Aleppo pine, coffeeberry, Italian stone pine, privet, Scot's pine, silk oak, and toyon. |

### ***Evaluation of Impacts and Recommendations for Action***

Appropriate tree retention develops a practical match between the location and intensity of construction activities and the quality and health of trees. The **Tree Survey** was the reference point for tree health and condition. Potential impacts from construction were evaluated using the Preliminary Grading and Drainage Plan, prepared by dK Consulting (received March 1, 2011).

The plan proposes to construct 54 custom residential homes on the site, leaving extensive areas undeveloped. The Preliminary Plan shows the grading for the roads, lots, building footprints, retaining wall locations, and detention ponds. Accurate trunk locations were shown for most trees but not for all the trees, as many will remain in undisturbed areas of Parcels A, B and C. Utilities and drainage were also shown on the plans.

Potential impacts from construction were estimated for each tree. Based on our evaluation of the plans, the proposed project would allow for the preservation of 765 trees, including 429 "Native Protected" trees. Five hundred and ninety-one (591) would be outside the development impacts and 174 would be within 45' of grading.

A total of 620 trees would require removal, including 200 "Native Protected" trees. A total of 392 trees would be impacted by lot grading, 158 impacted by road grading, 60 impacted by slope and swale grading, 26 impacted by the detention pond, eight (8) by the new entry onto Old Sonoma Rd. and four (4) by retaining walls. Of these, 112 were of poor suitability for preservation.

Pruning, cabling and monitoring is recommended for 158 trees. Pruning is recommended to provide clearance for construction activities (154 trees), to reduce end-weight (five trees), and to correct structural defects (three trees). Monitoring changes in lean, health and decay advancement is recommended for two (2) trees and cabling to reduce the likelihood of future stem or branch failure is recommended for four (4) trees. Tree #179 is recommended for an aerial inspection to identify any defects in structure not seen from the ground inspection and pruning, cabling and monitoring may be required for this tree based on the results of the aerial inspection. Any pruning of off-site trees must be done with the property owner's consent.

Davidon Homes has made a concerted effort at tree preservation. After several revisions to the site plan an additional 127 trees have been identified for preservation. Preservation of these trees is predicated on establishing a **Tree Protection Zone** and other measures recommended in the **Tree Preservation Guidelines** that follow (see page 19). Again, in the interest of space specific **Tree Protection Zones** have been reviewed with and provided to Davidon Homes, but are not included as part of this document.

In summary, implementation of the proposed plan would allow for preservation of 755 trees, including 422 "Native Protected" trees. Removal would be required for the remaining 620 trees, 200 of which are "Protected Native" trees. A description of trees recommended for removal, and the associated impacts, are listed in **Table 3**.

**Table 3: Trees recommended for removal  
Napa Oaks site, Napa**

| Tree # | Species             | Trunk<br>Diameter (in.) | Native<br>Protected? | Impacts                  |
|--------|---------------------|-------------------------|----------------------|--------------------------|
| 101    | Coast live oak      | 29                      | Yes                  | Within road grading      |
| 102    | Privet              | 9,7,6,5,5               | No                   | Within entry             |
| 103    | Mimosa              | 11                      | No                   | Within entry             |
| 104    | Italian stone pine  | 10                      | No                   | Within entry             |
| 105    | Mimosa              | 15,12                   | No                   | Within entry             |
| 106    | English walnut      | 13                      | No                   | Impacted by road grading |
| 108    | Mimosa              | 13                      | No                   | Within road grading      |
| 111    | Privet              | 6,5,4,3                 | No                   | Within entry             |
| 112    | Almond              | 8                       | No                   | Within entry             |
| 131    | English walnut      | 11                      | No                   | Within road grading      |
| 132    | English walnut      | 6,6                     | No                   | Within road grading      |
| 133    | Coast live oak      | 15,15,8                 | Yes                  | Within road grading      |
| 134    | Coast live oak      | 9,7,6,4,3               | No                   | Within road grading      |
| 135    | Valley oak          | 8                       | No                   | Within det. pond grading |
| 137    | Calif. black walnut | 10,8,7                  | No                   | Within road grading      |
| 138    | Calif. black walnut | 9,8,8,8                 | No                   | Within entry             |
| 139    | English walnut      | 13                      | No                   | Within entry             |
| 140    | Coast live oak      | 10                      | No                   | Within road grading      |
| 141    | Mimosa              | 14                      | No                   | Within road grading      |
| 142    | Aleppo pine         | 17                      | No                   | Within road grading      |
| 143    | Mimosa              | 10                      | No                   | Within road grading      |
| 144    | Aleppo pine         | 22,15                   | No                   | Within road grading      |
| 145    | Coast redwood       | 22                      | No                   | Within road grading      |

(continued, following page)

**Table 3: Trees recommended for removal, continued**  
**Napa Oaks site, Napa**

| Tree # | Species             | Trunk<br>Diameter (in.) | Native<br>Protected? | Impacts                       |
|--------|---------------------|-------------------------|----------------------|-------------------------------|
| 146    | Apple               | 8,7,5                   | No                   | Within road grading           |
| 147    | Valley oak          | 21                      | Yes                  | Within road grading           |
| 148    | Pinyon pine         | 10                      | No                   | Within det. pond grading      |
| 149    | Calif. black oak    | 7                       | No                   | Within det. pond grading      |
| 150    | Calif. black oak    | 9                       | No                   | Within det. pond grading      |
| 151    | Myoporum            | 8,7                     | No                   | Within det. pond grading      |
| 152    | Japanese black pine | 8                       | No                   | Within det. pond grading      |
| 153    | Calif. black oak    | 8                       | No                   | Within det. pond grading      |
| 154    | Chinese pistache    | 8                       | No                   | Within det. pond grading      |
| 155    | Calif. black oak    | 6                       | No                   | Within det. pond grading      |
| 156    | Incense cedar       | 36                      | No                   | Within det. pond grading      |
| 157    | Japanese black pine | 6,4                     | No                   | Within det. pond grading      |
| 158    | Japanese black pine | 7                       | No                   | Within det. pond grading      |
| 159    | Calif. black oak    | 8                       | No                   | Within det. pond grading      |
| 160    | Calif. black oak    | 11                      | No                   | Within det. pond grading      |
| 161    | Valley oak          | 13                      | Yes                  | Impacted by det. pond grading |
| 162    | Evergreen ash       | 13                      | No                   | Within det. pond grading      |
| 163    | Evergreen ash       | 17                      | No                   | Within det. pond grading      |
| 164    | Aleppo pine         | 15                      | No                   | Within det. pond grading      |
| 166    | Arizona cypress     | 16,9                    | No                   | Within road grading           |
| 167    | Almond              | 9                       | No                   | Within road grading           |
| 169    | Coast live oak      | 9                       | No                   | Within road grading           |
| 170    | Coast live oak      | 12                      | Yes                  | Within road grading           |
| 171    | Coast live oak      | 10                      | No                   | Within road grading           |
| 174    | Coast live oak      | 6                       | No                   | Within road grading           |
| 175    | English walnut      | 11                      | No                   | Within road grading           |
| 176    | Coast live oak      | 11,8                    | No                   | Within road grading           |
| 177    | Coast live oak      | 8                       | No                   | Within road grading           |
| 178    | Coast live oak      | 7                       | No                   | Within road grading           |
| 181    | Coast live oak      | 10,7                    | No                   | Impacted by road grading      |
| 182    | Valley oak          | 8                       | No                   | Impacted by road grading      |
| 183    | Valley oak          | 7                       | No                   | Within road grading           |
| 184    | Coast live oak      | 12                      | Yes                  | Within road grading           |
| 185    | Coast live oak      | 10,8                    | No                   | Within road grading           |
| 197    | Coast live oak      | 7,7,6,5,4               | No                   | Within lot grading            |
| 204    | Coast live oak      | 12                      | Yes                  | Impacted by road grading      |
| 217    | Coast live oak      | 10,6,6                  | No                   | Within road grading           |
| 219    | Coast live oak      | 10,10,7                 | No                   | Impacted by road grading      |
| 230    | Coast live oak      | 7                       | No                   | Impacted by road grading      |
| 231    | Valley oak          | 8                       | No                   | Within road grading           |
| 232    | Coast live oak      | 9,6                     | No                   | Within road grading           |
| 233    | Coast live oak      | 7                       | No                   | Within road grading           |
| 234    | Coast live oak      | 16,5                    | Yes                  | Within road grading           |
| 235    | Coast live oak      | 12                      | Yes                  | Within road grading           |
| 236    | Coast live oak      | 7                       | No                   | Within road grading           |
| 237    | Coast live oak      | 15,8                    | Yes                  | Within lot grading            |
| 238    | Coast live oak      | 15                      | Yes                  | Within road grading           |
| 239    | Coast live oak      | 13,7                    | Yes                  | Within lot grading            |
| 240    | Coast live oak      | 10,7                    | No                   | Within lot grading            |
| 241    | Coast live oak      | 9,9,6                   | No                   | Within road grading           |
| 242    | Coast live oak      | 10                      | No                   | Within road grading           |
| 243    | Coast live oak      | 28                      | Yes                  | Impacted by road grading      |
| 249    | Coast live oak      | 8                       | No                   | Within road grading           |
| 250    | Madrone             | 14,9,6                  | No                   | Within lot grading            |
| 251    | Coast live oak      | 8                       | No                   | Within lot grading            |
| 252    | Coast live oak      | 9,8,7                   | No                   | Within lot grading            |

(continued, following page)

**Table 3: Trees recommended for removal, continued  
Napa Oaks site, Napa**

| Tree # | Species          | Trunk<br>Diameter (in.) | Native<br>Protected? | Impacts                       |
|--------|------------------|-------------------------|----------------------|-------------------------------|
| 253    | Coast live oak   | 9,7,6                   | No                   | Within lot grading            |
| 254    | Coast live oak   | 8                       | No                   | Within lot grading            |
| 255    | Coast live oak   | 9,5                     | No                   | Within lot grading            |
| 256    | Coast live oak   | 10,9,8,5,5              | No                   | Within lot grading            |
| 257    | Coast live oak   | 9                       | No                   | Within lot grading            |
| 258    | Coast live oak   | 6,4,4                   | No                   | Within lot grading            |
| 259    | Coast live oak   | 9,8,7,6,6               | No                   | Within road grading           |
| 260    | Coast live oak   | 13                      | Yes                  | Within road grading           |
| 261    | Coast live oak   | 7,7,6,5,5               | No                   | Within road grading           |
| 262    | Coast live oak   | 18,7,6                  | Yes                  | Within road grading           |
| 263    | Coast live oak   | 6,6,5,5                 | No                   | Within road grading           |
| 264    | Coast live oak   | 9                       | No                   | Within road grading           |
| 265    | Coast live oak   | 8                       | No                   | Within lot grading            |
| 269    | Coast live oak   | 18                      | Yes                  | Within lot grading            |
| 275    | Coast live oak   | 10                      | No                   | Impacted by road grading      |
| 276    | Coast live oak   | 8,5,3                   | No                   | Within road grading           |
| 277    | Coast live oak   | 10,10                   | No                   | Within road grading           |
| 278    | Coast live oak   | 10                      | No                   | Within road grading           |
| 279    | Coast live oak   | 13                      | Yes                  | Within road grading           |
| 280    | Coast live oak   | 14,11,11                | Yes                  | Impacted by lot grading       |
| 284    | Coast live oak   | 11,7,6,5,5              | No                   | Within road grading           |
| 285    | Coast live oak   | 14                      | Yes                  | Within road grading           |
| 286    | Blue spruce      | 10                      | No                   | Within det. pond grading      |
| 287    | Burr oak         | 7                       | No                   | Within det. pond grading      |
| 288    | Calif. black oak | 11                      | No                   | Within det. pond grading      |
| 289    | Coast live oak   | 14                      | Yes                  | Within det. pond grading      |
| 290    | Evergreen ash    | 20                      | No                   | Within det. pond grading      |
| 292    | Scot's pine      | 6                       | No                   | Within det. pond grading      |
| 293    | English walnut   | 17                      | No                   | Impacted by det. pond grading |
| 294    | Coast redwood    | 22,18                   | No                   | Within det. pond grading      |
| 295    | Coast live oak   | 8                       | No                   | Within road grading           |
| 296    | Coast live oak   | 10                      | No                   | Within road grading           |
| 297    | Coast live oak   | 12,11                   | Yes                  | Within road grading           |
| 298    | Coast live oak   | 9,4                     | No                   | Within road grading           |
| 299    | Coast live oak   | 6                       | No                   | Within road grading           |
| 300    | Coast live oak   | 13,6,6                  | Yes                  | Within road grading           |
| 301    | Coast live oak   | 6                       | No                   | Within road grading           |
| 302    | Coast live oak   | 14,7                    | Yes                  | Within lot grading            |
| 303    | Coast live oak   | 6                       | No                   | Within lot grading            |
| 304    | Coast live oak   | 10,7,7                  | No                   | Within lot grading            |
| 305    | Coast live oak   | 11,6                    | No                   | Within lot grading            |
| 306    | Coast live oak   | 10,6                    | No                   | Within lot grading            |
| 307    | Coast live oak   | 9,8,6,6                 | No                   | Within lot grading            |
| 308    | Coast live oak   | 7,6,5,5                 | No                   | Within lot grading            |
| 309    | Coast live oak   | 7                       | No                   | Within lot grading            |
| 310    | Coast live oak   | 9,7,6,5                 | No                   | Within lot grading            |
| 311    | Coast live oak   | 7                       | No                   | Within lot grading            |
| 312    | Coast live oak   | 12,10,8                 | Yes                  | Within lot grading            |
| 313    | Coast live oak   | 11                      | No                   | Within lot grading            |
| 314    | Coast live oak   | 10                      | No                   | Within lot grading            |
| 315    | Coast live oak   | 6                       | No                   | Within lot grading            |
| 316    | Coast live oak   | 7                       | No                   | Within lot grading            |
| 317    | Coast live oak   | 11,8                    | No                   | Within lot grading            |
| 318    | Coast live oak   | 14,9                    | Yes                  | Within road grading           |

(continued, following page)

**Table 3: Trees recommended for removal, continued**  
**Napa Oaks site, Napa**

| Tree # | Species        | Trunk<br>Diameter (in.) | Native<br>Protected? | Impacts                  |
|--------|----------------|-------------------------|----------------------|--------------------------|
| 319    | Coast live oak | 9,8                     | No                   | Within lot grading       |
| 320    | Coast live oak | 8,6                     | No                   | Within lot grading       |
| 321    | Coast live oak | 6                       | No                   | Within lot grading       |
| 322    | Coast live oak | 10,9,8                  | No                   | Within lot grading       |
| 323    | Coast live oak | 8,7                     | No                   | Within lot grading       |
| 324    | Coast live oak | 6                       | No                   | Within lot grading       |
| 325    | Coast live oak | 8,7                     | No                   | Within lot grading       |
| 326    | Coast live oak | 10,9,8,6                | No                   | Within lot grading       |
| 327    | Coast live oak | 15,7,6                  | Yes                  | Within lot grading       |
| 328    | Coast live oak | 7                       | No                   | Within road grading      |
| 329    | Coast live oak | 11                      | No                   | Within road grading      |
| 330    | Coast live oak | 6                       | No                   | Within road grading      |
| 331    | Coast live oak | 8                       | No                   | Within road grading      |
| 332    | Coast live oak | 12                      | Yes                  | Within road grading      |
| 333    | Coast live oak | 6                       | No                   | Within road grading      |
| 334    | Coast live oak | 10                      | No                   | Within road grading      |
| 335    | Coast live oak | 7,6,5                   | No                   | Within road grading      |
| 336    | Coast live oak | 11                      | No                   | Within road grading      |
| 337    | Coast live oak | 6                       | No                   | Within road grading      |
| 338    | Coast live oak | 11                      | No                   | Within road grading      |
| 339    | Coast live oak | 12                      | Yes                  | Within road grading      |
| 340    | Coast live oak | 7,6,3                   | No                   | Within road grading      |
| 341    | Coast live oak | 6,6,6                   | No                   | Within road grading      |
| 342    | Coast live oak | 6                       | No                   | Within road grading      |
| 343    | Coast live oak | 7                       | No                   | Within road grading      |
| 344    | Valley oak     | 6,4                     | No                   | Within road grading      |
| 345    | Coast live oak | 7,6,4                   | No                   | Within road grading      |
| 346    | Coast live oak | 11                      | No                   | Within road grading      |
| 347    | Coast live oak | 7                       | No                   | Within road grading      |
| 348    | Coast live oak | 8,6,5,4                 | No                   | Within road grading      |
| 349    | Coast live oak | 7                       | No                   | Within road grading      |
| 350    | Coast live oak | 9                       | No                   | Within road grading      |
| 351    | Coast live oak | 7,6,4                   | No                   | Within road grading      |
| 352    | Coast live oak | 8                       | No                   | Within road grading      |
| 353    | Coast live oak | 6,6                     | No                   | Within road grading      |
| 354    | Coast live oak | 9                       | No                   | Within road grading      |
| 355    | Coast live oak | 12                      | Yes                  | Within road grading      |
| 357    | Coast live oak | 61                      | Yes                  | Impacted by road grading |
| 358    | Coast live oak | 20                      | Yes                  | Within road grading      |
| 359    | Coast live oak | 12,8                    | Yes                  | Impacted by grading      |
| 360    | Coast live oak | 7                       | No                   | Within road grading      |
| 361    | Coast live oak | 10                      | No                   | Within road grading      |
| 362    | Coast live oak | 13                      | Yes                  | Within road grading      |
| 363    | Coast live oak | 14,7                    | Yes                  | Within road grading      |
| 364    | Coast live oak | 11,6,5                  | No                   | Within road grading      |
| 365    | Coast live oak | 12,11                   | Yes                  | Within lot grading       |
| 366    | Coast live oak | 7,6                     | No                   | Within lot grading       |
| 367    | Coast live oak | 13                      | Yes                  | Within lot grading       |
| 368    | Coast live oak | 8                       | No                   | Within lot grading       |
| 369    | Coast live oak | 11                      | No                   | Within lot grading       |
| 370    | Coast live oak | 14,12,6                 | Yes                  | Within lot grading       |
| 376    | Coast live oak | 10,8,8,5                | No                   | Within lot grading       |
| 377    | Coast live oak | 8,7,5                   | No                   | Within lot grading       |
| 378    | Coast live oak | 6                       | No                   | Within lot grading       |

(continued, following page)

**Table 3: Trees recommended for removal, continued  
Napa Oaks site, Napa**

| Tree # | Species        | Trunk<br>Diameter (in.) | Native<br>Protected? | Impacts                 |
|--------|----------------|-------------------------|----------------------|-------------------------|
| 379    | Coast live oak | 8,7,6                   | No                   | Within lot grading      |
| 380    | Coast live oak | 6,5,5,5                 | No                   | Within lot grading      |
| 397    | Coast live oak | 9,9,8                   | No                   | Within lot grading      |
| 398    | Coast live oak | 11,9,8                  | No                   | Impacted by lot grading |
| 401    | Coast live oak | 6,4                     | No                   | Within lot grading      |
| 402    | Coast live oak | 8,6,6                   | No                   | Within lot grading      |
| 403    | Madrone        | 27                      | No                   | Within lot grading      |
| 404    | Coast live oak | 9,7,6,4                 | No                   | Within lot grading      |
| 405    | Coast live oak | 7,5,5,4                 | No                   | Within lot grading      |
| 406    | Coast live oak | 8,7,5,5,4,4             | No                   | Within lot grading      |
| 407    | Coast live oak | 8,5                     | No                   | Within lot grading      |
| 408    | Coast live oak | 9,8,7,6,6               | No                   | Within lot grading      |
| 409    | Coast live oak | 7,6,3,3                 | No                   | Within lot grading      |
| 410    | Coast live oak | 8                       | No                   | Within lot grading      |
| 411    | Coast live oak | 12,11,10                | Yes                  | Within road grading     |
| 412    | Coast live oak | 7,6,6,5,5,5             | No                   | Within lot grading      |
| 413    | Coast live oak | 6,5,4,4                 | No                   | Within lot grading      |
| 414    | Coast live oak | 7,7,6                   | No                   | Within lot grading      |
| 415    | Coast live oak | 12,6                    | Yes                  | Within lot grading      |
| 416    | Coast live oak | 7,6                     | No                   | Within lot grading      |
| 417    | Coast live oak | 9,8,6                   | No                   | Within lot grading      |
| 418    | Coast live oak | 6,5                     | No                   | Within lot grading      |
| 419    | Coast live oak | 13                      | Yes                  | Within lot grading      |
| 420    | Coast live oak | 29,9                    | Yes                  | Within lot grading      |
| 423    | Coast live oak | 9,8                     | No                   | Within lot grading      |
| 424    | Coast live oak | 8                       | No                   | Within lot grading      |
| 425    | Coast live oak | 10                      | No                   | Within lot grading      |
| 426    | Coast live oak | 10                      | No                   | Within lot grading      |
| 427    | Coast live oak | 9,7                     | No                   | Within lot grading      |
| 428    | Coast live oak | 10                      | No                   | Within lot grading      |
| 429    | Coast live oak | 6,5,5                   | No                   | Within lot grading      |
| 430    | Coast live oak | 6,4,4                   | No                   | Within lot grading      |
| 431    | Coast live oak | 6                       | No                   | Within lot grading      |
| 432    | Coast live oak | 9,5                     | No                   | Within lot grading      |
| 434    | Coast live oak | 10,5,4                  | No                   | Within lot grading      |
| 435    | Coast live oak | 8                       | No                   | Within lot grading      |
| 440    | Coast live oak | 6,4,3                   | No                   | Within grading          |
| 441    | Coast live oak | 7,4,3,3                 | No                   | Within grading          |
| 442    | Coast live oak | 15,7                    | Yes                  | Within grading          |
| 443    | Coast live oak | 9,8,4                   | No                   | Within grading          |
| 444    | Coast live oak | 7,6,5,5                 | No                   | Within lot grading      |
| 445    | Coast live oak | 14,14,8,7               | Yes                  | Within grading          |
| 446    | Coast live oak | 9,9,8                   | No                   | Within grading          |
| 447    | Coast live oak | 11,7,6                  | No                   | Within grading          |
| 449    | Coast live oak | 8                       | No                   | Within grading          |
| 450    | Madrone        | 15,14                   | No                   | Within grading          |
| 451    | Coast live oak | 7,6                     | No                   | Within lot grading      |
| 452    | Coast live oak | 8,7,6,6,5               | No                   | Within lot grading      |
| 453    | Coast live oak | 6,4                     | No                   | Within lot grading      |
| 454    | Coast live oak | 9                       | No                   | Within lot grading      |
| 455    | Coast live oak | 6,5,5,                  | No                   | Within lot grading      |
| 456    | Coast live oak | 7,6                     | No                   | Within lot grading      |
| 457    | Coast live oak | 9,7,6,6                 | No                   | Within lot grading      |
| 458    | Coast live oak | 9                       | No                   | Within lot grading      |

(continued, following page)

**Table 3: Trees recommended for removal, continued**  
**Napa Oaks site, Napa**

| Tree # | Species        | Trunk<br>Diameter (in.) | Native<br>Protected? | Impacts             |
|--------|----------------|-------------------------|----------------------|---------------------|
| 459    | Coast live oak | 10,9,5,5                | No                   | Within lot grading  |
| 460    | Coast live oak | 11,6                    | No                   | Within lot grading  |
| 461    | Coast live oak | 12                      | Yes                  | Within lot grading  |
| 462    | Coast live oak | 6,5                     | No                   | Within lot grading  |
| 463    | Coast live oak | 12                      | Yes                  | Within lot grading  |
| 464    | Coast live oak | 15,8,8                  | Yes                  | Within lot grading  |
| 465    | Coast live oak | 8,3                     | No                   | Within lot grading  |
| 489    | Coast live oak | 11                      | No                   | Within lot grading  |
| 490    | Coast live oak | 9,9,9                   | No                   | Within lot grading  |
| 491    | Coast live oak | 15,13                   | Yes                  | Within lot grading  |
| 492    | Coast live oak | 8,4                     | No                   | Within lot grading  |
| 493    | Coast live oak | 11                      | No                   | Within lot grading  |
| 494    | Coast live oak | 16                      | Yes                  | Within lot grading  |
| 495    | Coast live oak | 13                      | Yes                  | Within lot grading  |
| 496    | Coast live oak | 9,9,7                   | No                   | Within road grading |
| 497    | Coast live oak | 8,6                     | No                   | Within road grading |
| 508    | Coast live oak | 9                       | No                   | Within lot grading  |
| 509    | Coast live oak | 17,16                   | Yes                  | Within lot grading  |
| 510    | Coast live oak | 12,10,5                 | Yes                  | Within lot grading  |
| 514    | Coast live oak | 14,8,5                  | Yes                  | Impacted by grading |
| 515    | Coast live oak | 13,8,6                  | Yes                  | Within lot grading  |
| 516    | Coast live oak | 7                       | No                   | Within lot grading  |
| 517    | Coast live oak | 12                      | Yes                  | Within lot grading  |
| 518    | Coast live oak | 15                      | Yes                  | Within lot grading  |
| 519    | Coast live oak | 15,15                   | Yes                  | Within lot grading  |
| 520    | Coast live oak | 10                      | No                   | Within lot grading  |
| 521    | Coast live oak | 12,11,10                | Yes                  | Within lot grading  |
| 522    | Coast live oak | 18                      | Yes                  | Within lot grading  |
| 523    | Coast live oak | 34,12,10                | Yes                  | Within lot grading  |
| 524    | Coast live oak | 29                      | Yes                  | Within lot grading  |
| 525    | Coast live oak | 14                      | Yes                  | Within lot grading  |
| 526    | Coast live oak | 15,11                   | Yes                  | Within lot grading  |
| 527    | Coast live oak | 11,9,9,8                | No                   | Within lot grading  |
| 528    | Coast live oak | 18                      | Yes                  | Within lot grading  |
| 529    | Coast live oak | 16,9                    | Yes                  | Within lot grading  |
| 530    | Coast live oak | 12                      | Yes                  | Within lot grading  |
| 531    | Coast live oak | 25,12                   | Yes                  | Within lot grading  |
| 537    | Plum           | 10,7,6,4                | No                   | Within lot grading  |
| 538    | Coast live oak | 12,11                   | Yes                  | Within lot grading  |
| 539    | Coast live oak | 12,11                   | Yes                  | Within lot grading  |
| 540    | Coast live oak | 13,11                   | Yes                  | Within lot grading  |
| 541    | Coast live oak | 12,12                   | Yes                  | Within lot grading  |
| 561    | Coast live oak | 8,8,7,7,4               | No                   | Within lot grading  |
| 562    | Coast live oak | 16,10                   | Yes                  | Within lot grading  |
| 563    | Coast live oak | 9,9,7                   | No                   | Within road grading |
| 564    | Coast live oak | 16,11,10                | Yes                  | Within lot grading  |
| 565    | Coast live oak | 19,19,15                | Yes                  | Within lot grading  |
| 566    | Coast live oak | 9                       | No                   | Within lot grading  |
| 567    | Coast live oak | 11,5                    | No                   | Within lot grading  |
| 568    | Coast live oak | 9,7,6                   | No                   | Within lot grading  |
| 569    | Coast live oak | 10                      | No                   | Within lot grading  |
| 570    | Coast live oak | 14,9,9                  | Yes                  | Within lot grading  |
| 571    | Coast live oak | 12,11,9                 | Yes                  | Within lot grading  |
| 572    | Coast live oak | 9,8,7,7                 | No                   | Within lot grading  |

(continued, following page)

**Table 3: Trees recommended for removal, continued**  
**Napa Oaks site, Napa**

| Tree # | Species        | Trunk<br>Diameter (in.) | Native<br>Protected? | Impacts                 |
|--------|----------------|-------------------------|----------------------|-------------------------|
| 573    | Coast live oak | 7                       | No                   | Within lot grading      |
| 574    | Coast live oak | 8,5                     | No                   | Within lot grading      |
| 575    | Coast live oak | 11                      | No                   | Within road grading     |
| 576    | Coast live oak | 6                       | No                   | Within road grading     |
| 577    | Coast live oak | 9                       | No                   | Within road grading     |
| 578    | Madrone        | 14,12,12                | No                   | Within road grading     |
| 579    | Madrone        | 18,17,14,12,10          | No                   | Within road grading     |
| 580    | Coast live oak | 8,7                     | No                   | Within lot grading      |
| 581    | Coast live oak | 6                       | No                   | Within lot grading      |
| 582    | Coast live oak | 8                       | No                   | Within road grading     |
| 583    | Coast live oak | 7                       | No                   | Within lot grading      |
| 584    | Coast live oak | 17                      | Yes                  | Within lot grading      |
| 585    | Coast live oak | 6,5,5                   | No                   | Within lot grading      |
| 586    | Coast live oak | 7,5,5                   | No                   | Within lot grading      |
| 587    | Coast live oak | 8                       | No                   | Within lot grading      |
| 588    | Coast live oak | 14                      | Yes                  | Within lot grading      |
| 589    | Coast live oak | 9,9                     | No                   | Within lot grading      |
| 590    | Coast live oak | 28                      | Yes                  | Within lot grading      |
| 591    | Coast live oak | 31                      | Yes                  | Within lot grading      |
| 592    | Coast live oak | 42                      | Yes                  | Within lot grading      |
| 593    | Coast live oak | 47                      | Yes                  | Within lot grading      |
| 594    | Coast live oak | 7                       | No                   | Within lot grading      |
| 595    | Coast live oak | 30                      | Yes                  | Within lot grading      |
| 596    | Coast live oak | 8,8                     | No                   | Within lot grading      |
| 597    | Coast live oak | 6                       | No                   | Within lot grading      |
| 598    | Coast live oak | 6,4                     | No                   | Within lot grading      |
| 599    | Coast live oak | 7,5                     | No                   | Within lot grading      |
| 600    | Coast live oak | 34                      | Yes                  | Within lot grading      |
| 604    | Coast live oak | 39                      | Yes                  | Impacted by lot grading |
| 612    | Coast live oak | 10                      | No                   | Within lot grading      |
| 613    | Coast live oak | 11                      | No                   | Within lot grading      |
| 614    | Coast live oak | 9,6                     | No                   | Within lot grading      |
| 623    | Coast live oak | 31                      | Yes                  | Impacted by lot grading |
| 643    | Coast live oak | 15                      | Yes                  | Impacted by lot grading |
| 648    | Coast live oak | 9,6,4                   | No                   | Within grading          |
| 649    | Coast live oak | 13                      | Yes                  | Within lot grading      |
| 650    | Coast live oak | 6,4                     | No                   | Impacted by grading     |
| 651    | Coast live oak | 17                      | Yes                  | Impacted by grading     |
| 652    | Coast live oak | 13,9                    | Yes                  | Within grading          |
| 653    | Coast live oak | 7,6,4,3                 | No                   | Within grading          |
| 654    | Coast live oak | 8,7,5                   | No                   | Within grading          |
| 655    | Coast live oak | 7                       | No                   | Within grading          |
| 656    | Coast live oak | 8                       | No                   | Within grading          |
| 658    | Coast live oak | 12,11,10                | Yes                  | Impacted by grading     |
| 665    | Coast live oak | 41                      | Yes                  | Impacted by grading     |
| 666    | Coast live oak | 27                      | Yes                  | Within grading          |
| 667    | Coast live oak | 18                      | Yes                  | Within road grading     |
| 668    | Coast live oak | 8,4                     | No                   | Within road grading     |
| 669    | Coast live oak | 11                      | No                   | Within road grading     |
| 670    | Coast live oak | 15                      | Yes                  | Within road grading     |
| 671    | Coast live oak | 12,12                   | Yes                  | Within grading          |
| 672    | Coast live oak | 16                      | Yes                  | Within grading          |
| 675    | Coast live oak | 11,6                    | No                   | Within road grading     |
| 676    | Coast live oak | 14                      | Yes                  | Within lot grading      |

(continued, following page)

**Table 3: Trees recommended for removal, continued  
Napa Oaks site, Napa**

| Tree # | Species        | Trunk<br>Diameter (in.) | Native<br>Protected? | Impacts                 |
|--------|----------------|-------------------------|----------------------|-------------------------|
| 677    | Coast live oak | 7                       | No                   | Within lot grading      |
| 678    | Coast live oak | 6,6,5,5                 | No                   | Impacted by grading     |
| 679    | Coast live oak | 6                       | No                   | Impacted by grading     |
| 680    | Coast live oak | 10,9,8,7,6              | No                   | Within lot grading      |
| 681    | Coast live oak | 16                      | Yes                  | Within lot grading      |
| 682    | Coast live oak | 6                       | No                   | Within lot grading      |
| 683    | Coast live oak | 12                      | Yes                  | Within lot grading      |
| 684    | Coast live oak | 15,6                    | Yes                  | Within lot grading      |
| 685    | Coast live oak | 11                      | No                   | Within lot grading      |
| 686    | Coast live oak | 19,11                   | Yes                  | Within lot grading      |
| 687    | Coast live oak | 14                      | Yes                  | Within lot grading      |
| 688    | Coast live oak | 12,12,11,9,7            | Yes                  | Within lot grading      |
| 689    | Coast live oak | 12,11,8,8               | Yes                  | Within lot grading      |
| 690    | Coast live oak | 13,12,8                 | Yes                  | Within lot grading      |
| 691    | Coast live oak | 7,6,5                   | No                   | Within lot grading      |
| 692    | Coast live oak | 7,4                     | No                   | Within lot grading      |
| 701    | Coast live oak | 12,7,3,2                | Yes                  | Impacted by lot grading |
| 709    | Coast live oak | 21                      | Yes                  | Within lot grading      |
| 710    | Coast live oak | 23                      | Yes                  | Impacted by lot grading |
| 711    | Coast live oak | 25,15                   | Yes                  | Impacted by lot grading |
| 712    | Coast live oak | 21                      | Yes                  | Impacted by lot grading |
| 713    | Plum           | 7                       | No                   | Within lot grading      |
| 714    | Coast live oak | 11                      | No                   | Within lot grading      |
| 716    | Coast live oak | 53                      | Yes                  | Impacted by lot grading |
| 718    | Coast live oak | 28                      | Yes                  | Within lot grading      |
| 719    | Coast live oak | 13,11,7                 | Yes                  | Within road grading     |
| 720    | Coast live oak | 10,7,7                  | No                   | Within road grading     |
| 721    | Coast live oak | 45,35                   | Yes                  | Within lot grading      |
| 722    | Coast live oak | 13                      | Yes                  | Within lot grading      |
| 724    | Coast live oak | 24                      | Yes                  | Within lot grading      |
| 725    | Coast live oak | 10,8,6,5                | No                   | Within lot grading      |
| 726    | Coast live oak | 10,7                    | No                   | Within lot grading      |
| 727    | Coast live oak | 11                      | No                   | Within road grading     |
| 728    | Coast live oak | 11,10                   | No                   | Within lot grading      |
| 729    | Coast live oak | 9,9,6                   | No                   | Within lot grading      |
| 730    | Plum           | 7,6,6,5,5               | No                   | Within lot grading      |
| 731    | Coast live oak | 7,7,6                   | No                   | Within lot grading      |
| 732    | Coast live oak | 9,8                     | No                   | Within lot grading      |
| 733    | Coast live oak | 13,10,9                 | Yes                  | Within lot grading      |
| 734    | Coast live oak | 12,7                    | Yes                  | Within lot grading      |
| 735    | Coast live oak | 8                       | No                   | Within lot grading      |
| 736    | Coast live oak | 7                       | No                   | Within lot grading      |
| 737    | Coast live oak | 10,7                    | No                   | Within road grading     |
| 738    | Coast live oak | 11,7                    | No                   | Within road grading     |
| 739    | Plum           | 6,4                     | No                   | Within road grading     |
| 740    | Coast live oak | 8,6                     | No                   | Within road grading     |
| 741    | Coast live oak | 13                      | Yes                  | Within road grading     |
| 742    | Coast live oak | 17                      | Yes                  | Within lot grading      |
| 743    | Coast live oak | 14,13,8                 | Yes                  | Within lot grading      |
| 744    | Coast live oak | 13                      | Yes                  | Within lot grading      |
| 745    | Coast live oak | 12,11,10                | Yes                  | Within lot grading      |
| 746    | Coast live oak | 11,6,4                  | No                   | Within lot grading      |
| 747    | Coast live oak | 10                      | No                   | Within lot grading      |
| 748    | Coast live oak | 16,12                   | Yes                  | Within lot grading      |

(continued, following page)

**Table 3: Trees recommended for removal, continued**  
**Napa Oaks site, Napa**

| Tree # | Species        | Trunk<br>Diameter (in.) | Native<br>Protected? | Impacts                 |
|--------|----------------|-------------------------|----------------------|-------------------------|
| 749    | Coast live oak | 9                       | No                   | Within lot grading      |
| 750    | Coast live oak | 8                       | No                   | Within lot grading      |
| 751    | Coast live oak | 10                      | No                   | Within lot grading      |
| 752    | Coast live oak | 9                       | No                   | Within lot grading      |
| 753    | Coast live oak | 14,11                   | Yes                  | Within lot grading      |
| 754    | Coast live oak | 7,3                     | No                   | Within lot grading      |
| 755    | Coast live oak | 11,9,9,8                | No                   | Within lot grading      |
| 756    | Coast live oak | 12,9                    | Yes                  | Within lot grading      |
| 757    | Coast live oak | 19                      | Yes                  | Within lot grading      |
| 758    | Coast live oak | 17                      | Yes                  | Within lot grading      |
| 759    | Coast live oak | 9                       | No                   | Within lot grading      |
| 760    | Coast live oak | 15                      | Yes                  | Within lot grading      |
| 761    | Coast live oak | 11,10,9,8,5             | No                   | Within lot grading      |
| 762    | Valley oak     | 6                       | No                   | Within lot grading      |
| 763    | Coast live oak | 18                      | Yes                  | Within lot grading      |
| 764    | Coast live oak | 12,12                   | Yes                  | Within lot grading      |
| 765    | Coast live oak | 8,8,7,4                 | No                   | Within lot grading      |
| 766    | Coast live oak | 9,9,7,4                 | No                   | Within lot grading      |
| 767    | Coast live oak | 10                      | No                   | Within lot grading      |
| 768    | Coast live oak | 15,13,6                 | Yes                  | Within lot grading      |
| 769    | Coast live oak | 8                       | No                   | Within lot grading      |
| 770    | Coast live oak | 9,8,7                   | No                   | Within lot grading      |
| 771    | Coast live oak | 8,6                     | No                   | Within lot grading      |
| 772    | Coast live oak | 10                      | No                   | Within lot grading      |
| 773    | Coast live oak | 11,7                    | No                   | Within lot grading      |
| 774    | Coast live oak | 13,8,7                  | Yes                  | Within lot grading      |
| 775    | Coast live oak | 13,12,12,12,10,10       | Yes                  | Within lot grading      |
| 776    | Coast live oak | 7                       | No                   | Within lot grading      |
| 777    | Coast live oak | 9                       | No                   | Within lot grading      |
| 778    | Coast live oak | 12,11                   | Yes                  | Within lot grading      |
| 794    | Coast live oak | 23                      | Yes                  | Impacted by grading     |
| 795    | Coast live oak | 25                      | Yes                  | Impacted by grading     |
| 796    | Coast live oak | 15                      | Yes                  | Within lot grading      |
| 797    | Coast live oak | 29                      | Yes                  | Within lot grading      |
| 798    | Coast live oak | 29                      | Yes                  | Within lot grading      |
| 800    | Coast live oak | 23                      | Yes                  | Impacted by grading     |
| 801    | Coast live oak | 39                      | Yes                  | Within lot grading      |
| 810    | Coast live oak | 46                      | Yes                  | Impacted by lot grading |
| 818    | Coast live oak | 15,14,13,12,9           | Yes                  | Within road grading     |
| 819    | Coast live oak | 19,11                   | Yes                  | Within road grading     |
| 820    | Coast live oak | 14                      | Yes                  | Within lot grading      |
| 840    | Coast live oak | 8                       | No                   | Impacted by lot grading |
| 841    | Coast live oak | 21                      | Yes                  | Within lot grading      |
| 842    | Madrone        | 12,11                   | No                   | Within lot grading      |
| 843    | Coast live oak | 10,9,9,9,8,7            | No                   | Within lot grading      |
| 844    | Coast live oak | 23                      | Yes                  | Within lot grading      |
| 845    | Coast live oak | 17                      | Yes                  | Within lot grading      |
| 846    | Coast live oak | 11                      | No                   | Within lot grading      |
| 847    | Coast live oak | 14                      | Yes                  | Within lot grading      |
| 848    | Coast live oak | 12,8                    | Yes                  | Within lot grading      |
| 849    | Coast live oak | 14,13                   | Yes                  | Within lot grading      |
| 867    | Coast live oak | 16                      | Yes                  | Impacted by lot grading |
| 868    | Coast live oak | 6                       | No                   | Impacted by lot grading |
| 869    | Coast live oak | 15,10                   | Yes                  | Within lot grading      |

(continued, following page)

**Table 3: Trees recommended for removal, continued  
Napa Oaks site, Napa**

| Tree # | Species        | Trunk<br>Diameter (in.) | Native<br>Protected? | Impacts                  |
|--------|----------------|-------------------------|----------------------|--------------------------|
| 870    | Coast live oak | 18,13                   | Yes                  | Within lot grading       |
| 871    | Coast live oak | 8,6                     | No                   | Within lot grading       |
| 877    | Coast live oak | 13,5,3                  | Yes                  | Within lot grading       |
| 878    | Coast live oak | 6,6                     | No                   | Within lot grading       |
| 879    | Coast live oak | 11,10,9                 | No                   | Within lot grading       |
| 880    | Coast live oak | 12,11,8,8,5             | Yes                  | Within lot grading       |
| 881    | Coast live oak | 11,8                    | No                   | Within lot grading       |
| 882    | Coast live oak | 7,6,6                   | No                   | Within road grading      |
| 884    | Coast live oak | 45                      | Yes                  | Within lot grading       |
| 885    | Coast live oak | 26                      | Yes                  | Impacted by lot grading  |
| 886    | Coast live oak | 29,22                   | Yes                  | Within lot grading       |
| 887    | Coast live oak | 26                      | Yes                  | Within lot grading       |
| 888    | Coast live oak | 35                      | Yes                  | Within lot grading       |
| 891    | Coast live oak | 56,54                   | Yes                  | Impacted by road grading |
| 892    | Coast live oak | 11,10,9                 | No                   | Within road grading      |
| 893    | Coast live oak | 22,14,12                | Yes                  | Within road grading      |
| 894    | Coast live oak | 18,15,8                 | Yes                  | Within lot grading       |
| 895    | Coast live oak | 11                      | No                   | Within lot grading       |
| 896    | Valley oak     | 28                      | Yes                  | Within lot grading       |
| 897    | Coast live oak | 36,18,11,11             | Yes                  | Within lot grading       |
| 898    | Coast live oak | 25                      | Yes                  | Within lot grading       |
| 899    | Coast live oak | 7                       | No                   | Within lot grading       |
| 900    | Coast live oak | 27                      | Yes                  | Within lot grading       |
| 901    | Coast live oak | 7                       | No                   | Within lot grading       |
| 902    | Coast live oak | 14                      | Yes                  | Within lot grading       |
| 903    | Coast live oak | 9                       | No                   | Within lot grading       |
| 904    | Coast live oak | 15,11,7                 | Yes                  | Within lot grading       |
| 905    | Coast live oak | 7,6                     | No                   | Within lot grading       |
| 906    | Coast live oak | 10,9,9,5                | No                   | Within lot grading       |
| 907    | Coast live oak | 6,5                     | No                   | Within lot grading       |
| 908    | Coast live oak | 13,12,11,10             | Yes                  | Within lot grading       |
| 909    | Coast live oak | 12                      | Yes                  | Within lot grading       |
| 910    | Coast live oak | 13,12,12                | Yes                  | Within lot grading       |
| 911    | Coast live oak | 6                       | No                   | Within lot grading       |
| 912    | Coast live oak | 7,4                     | No                   | Within lot grading       |
| 913    | Coast live oak | 12,10                   | Yes                  | Within lot grading       |
| 914    | Coast live oak | 8,6                     | No                   | Within lot grading       |
| 915    | Coast live oak | 7,7,6                   | No                   | Within lot grading       |
| 916    | Coast live oak | 10,9,8                  | No                   | Within lot grading       |
| 917    | Coast live oak | 11                      | No                   | Within road grading      |
| 918    | Coast live oak | 8,7                     | No                   | Within road grading      |
| 919    | Coast live oak | 6                       | No                   | Within road grading      |
| 920    | Coast live oak | 26,17                   | Yes                  | Within road grading      |
| 921    | Coast live oak | 16,12,6,5               | Yes                  | Within lot grading       |
| 922    | Coast live oak | 7,6,4                   | No                   | Within lot grading       |
| 923    | Coast live oak | 9,8,8,5                 | No                   | Within lot grading       |
| 924    | Coast live oak | 7,5                     | No                   | Within lot grading       |
| 925    | Coast live oak | 11,5                    | No                   | Within lot grading       |
| 926    | Coast live oak | 7,6,5,4                 | No                   | Within lot grading       |
| 927    | Coast live oak | 8,8                     | No                   | Within lot grading       |
| 928    | Madrone        | 21,12,12                | No                   | Within lot grading       |
| 929    | Coast live oak | 10                      | No                   | Within lot grading       |
| 931    | Coast live oak | 8,6,5                   | No                   | Within lot grading       |
| 956    | Coast live oak | 10,9,5                  | No                   | Within lot grading       |

(continued, following page)

**Table 3: Trees recommended for removal, continued**  
**Napa Oaks site, Napa**

| Tree # | Species          | Trunk<br>Diameter (in.) | Native<br>Protected? | Impacts                 |
|--------|------------------|-------------------------|----------------------|-------------------------|
| 957    | Coast live oak   | 10,9,4                  | No                   | Within lot grading      |
| 958    | Coast live oak   | 15,13                   | Yes                  | Within lot grading      |
| 959    | Coast live oak   | 17                      | Yes                  | Within lot grading      |
| 960    | Coast live oak   | 13                      | Yes                  | Within lot grading      |
| 961    | Coast live oak   | 39                      | Yes                  | Impacted by lot grading |
| 962    | Coast live oak   | 9,8,7                   | No                   | Within lot grading      |
| 963    | Coast live oak   | 18                      | Yes                  | Within lot grading      |
| 964    | Coast live oak   | 8,8,6                   | No                   | Within lot grading      |
| 965    | Coast live oak   | 11                      | No                   | Within lot grading      |
| 966    | Coast live oak   | 18,15,11                | Yes                  | Within lot grading      |
| 972    | Coast live oak   | 13                      | Yes                  | Within lot grading      |
| 976    | Coast live oak   | 9,9,8                   | No                   | Within lot grading      |
| 977    | Coast live oak   | 6                       | No                   | Within lot grading      |
| 978    | Coast live oak   | 10,9                    | No                   | Within lot grading      |
| 979    | Coast live oak   | 8,7,5                   | No                   | Within lot grading      |
| 980    | Coast live oak   | 8,8                     | No                   | Within lot grading      |
| 981    | Coast live oak   | 6,6,5,4                 | No                   | Within lot grading      |
| 982    | Coast live oak   | 7                       | No                   | Within lot grading      |
| 983    | Coast live oak   | 9,9,8,6                 | No                   | Within lot grading      |
| 984    | Coast live oak   | 14                      | Yes                  | Within lot grading      |
| 985    | Coast live oak   | 8                       | No                   | Within lot grading      |
| 986    | Coast live oak   | 6                       | No                   | Within lot grading      |
| 987    | Coast live oak   | 8,7,6                   | No                   | Within lot grading      |
| 988    | Coast live oak   | 8,4                     | No                   | Within lot grading      |
| 989    | Coast live oak   | 7,4                     | No                   | Within lot grading      |
| 990    | Coast live oak   | 8                       | No                   | Within lot grading      |
| 992    | Coast live oak   | 9,8                     | No                   | Within lot grading      |
| 993    | Coast live oak   | 12,10,8,6               | Yes                  | Within lot grading      |
| 994    | Coast live oak   | 9,9,5                   | No                   | Within lot grading      |
| 995    | Coast live oak   | 6,3                     | No                   | Within lot grading      |
| 996    | Coast live oak   | 8,8                     | No                   | Within lot grading      |
| 997    | Coast live oak   | 7                       | No                   | Within lot grading      |
| 1075   | Monterey pine    | 31                      | No                   | Within lot grading      |
| 1076   | Monterey pine    | 25                      | No                   | Within road grading     |
| 1077   | Monterey pine    | 31                      | No                   | Within road grading     |
| 1078   | Monterey pine    | 27                      | No                   | Within road grading     |
| 1079   | Monterey pine    | 36                      | No                   | Within road grading     |
| 1081   | Coast live oak   | 6,5                     | No                   | Within road grading     |
| 1084   | Coast live oak   | 14,7                    | Yes                  | Within grading          |
| 1086   | Coast live oak   | 32                      | Yes                  | Impacted by lot grading |
| 1089   | Coast live oak   | 7                       | No                   | Within lot grading      |
| 1108   | Calif. black oak | 36                      | Yes                  | Within lot grading      |
| 1109   | Coast live oak   | 6                       | No                   | Within lot grading      |
| 1110   | Coast live oak   | 49                      | Yes                  | Impacted by lot grading |
| 1132   | Coast live oak   | 6                       | No                   | Within swale grading    |
| 1142   | Coast live oak   | 7,6                     | No                   | Within swale grading    |
| 1145   | Coast live oak   | 6                       | No                   | Within swale grading    |
| 1146   | Coast live oak   | 7                       | No                   | Within swale grading    |
| 1147   | Coast live oak   | 8,5,3                   | No                   | Within road grading     |
| 1148   | Coast live oak   | 6,5                     | No                   | Within road grading     |
| 1149   | Coast live oak   | 6                       | No                   | Within road grading     |
| 1150   | Coast live oak   | 9                       | No                   | Within grading          |
| 1151   | Coast live oak   | 8,7,7,6                 | No                   | Within grading          |
| 1152   | Coast live oak   | 7,5                     | No                   | Within grading          |

(continued, following page)

**Table 3: Trees recommended for removal, continued  
Napa Oaks site, Napa**

| Tree # | Species          | Trunk<br>Diameter (in.) | Native<br>Protected? | Impacts                |
|--------|------------------|-------------------------|----------------------|------------------------|
| 1153   | Coast live oak   | 9,5,5                   | No                   | Within grading         |
| 1154   | Coast live oak   | 8,7,7,6                 | No                   | Within grading         |
| 1155   | Coast live oak   | 6                       | No                   | Within grading         |
| 1156   | Coast live oak   | 6                       | No                   | Within grading         |
| 1157   | Coast live oak   | 7                       | No                   | Within grading         |
| 1158   | Coast live oak   | 11                      | No                   | Within grading         |
| 1159   | Coast live oak   | 9                       | No                   | Within grading         |
| 1160   | Mimosa           | 8,8,7                   | No                   | Within grading         |
| 1161   | Coast live oak   | 8                       | No                   | Within grading         |
| 1162   | Coast live oak   | 8,7,5                   | No                   | Within grading         |
| 1163   | Coast live oak   | 10,8,8,7                | No                   | Within grading         |
| 1164   | Apple            | 7,6,6                   | No                   | Within lot grading     |
| 1165   | Apple            | 13,6                    | No                   | Within lot grading     |
| 1166   | Deodar cedar     | 25                      | No                   | Within lot grading     |
| 1167   | Purple leaf plum | 8,8                     | No                   | Within lot grading     |
| 1168   | Purple leaf plum | 9,6,6,4                 | No                   | Within road grading    |
| 1169   | Purple leaf plum | 8                       | No                   | Within road grading    |
| 1170   | Monterey pine    | 28                      | No                   | Within road grading    |
| 1171   | Monterey pine    | 38                      | No                   | Within road grading    |
| 1172   | Coast live oak   | 31,20                   | Yes                  | 9' from grading        |
| 1181   | Coast live oak   | 28,12                   | Yes                  | 2' from retaining wall |
| 1183   | Coast live oak   | 8,5                     | No                   | Within road grading    |
| 1184   | Coast live oak   | 10                      | No                   | Within road grading    |
| 1185   | Coast live oak   | 6,5,2                   | No                   | 1' from road grading   |
| 1186   | Coast live oak   | 7,6                     | No                   | Within road grading    |
| 1190   | Coast live oak   | 13,9                    | Yes                  | 3' from road grading   |
| 1193   | Coast live oak   | 27                      | Yes                  | Within road grading    |
| 1194   | Coast live oak   | 23                      | Yes                  | Within road grading    |
| 1195   | Coast live oak   | 19                      | Yes                  | 1' from retaining wall |
| 1196   | Coast live oak   | 46,22                   | Yes                  | 4' from retaining wall |
| 1270   | Coast live oak   | 14,12                   | Yes                  | Within lot grading     |
| 1271   | Coast live oak   | 11                      | No                   | Within grading         |
| 1272   | Coast live oak   | 8                       | No                   | Within grading         |
| 1273   | Coast live oak   | 9                       | No                   | Within grading         |
| 1274   | Coast live oak   | 7                       | No                   | Within grading         |
| 1275   | Coast live oak   | 7                       | No                   | Impacted by grading    |
| 1277   | Coast live oak   | 9                       | No                   | Impacted by grading    |
| 1278   | Coast live oak   | 7                       | No                   | Impacted by grading    |
| 1279   | Coast live oak   | 10                      | No                   | Impacted by grading    |
| 1281   | Coast live oak   | 6,4                     | No                   | Within swale grading   |
| 1282   | Coast live oak   | 7,4                     | No                   | Within road grading    |
| 1283   | Coast live oak   | 6                       | No                   | Within road grading    |
| 1284   | Purple leaf plum | 6,5                     | No                   | Within road grading    |
| 1310   | Monterey pine    | 25                      | No                   | Within lot grading     |
| 1311   | Coast live oak   | 23,22                   | Yes                  | 6' from grading        |
| 1317   | Coast live oak   | 10,8                    | No                   | Within lot grading     |
| 1318   | Coast live oak   | 10                      | No                   | Within lot grading     |
| 1319   | Coast live oak   | 7                       | No                   | Within lot grading     |
| 1320   | Coast live oak   | 7,6                     | No                   | Within lot grading     |
| 1321   | Coast live oak   | 10,8,7                  | No                   | Within lot grading     |
| 1441   | Coast live oak   | 6                       | No                   | Within grading         |
| 1442   | Coast live oak   | 6,5,5,4                 | No                   | Within lot grading     |
| 1473   | Coast live oak   | 10,7                    | No                   | Within road grading    |
| 1474   | Coast live oak   | 5,5,4,3                 | Yes                  | Within lot grading     |
| 1475   | Coast live oak   | 8,8,7,6                 | No                   | Within lot grading     |

### **Tree Preservation Guidelines**

The goal of tree preservation is not merely tree survival during development but maintenance of tree health and beauty for many years. Trees retained on sites that are either subject to extensive injury during construction or are inadequately maintained become a liability rather than an asset. The response of individual trees will depend on the amount of excavation and grading, the care with which demolition is undertaken, and the construction methods. Coordinating any construction activity inside the **Tree Protection Zone** can minimize these impacts.

Specific **TREE PROTECTION ZONES** have been reviewed with Davidon Homes for each tree and will be provided prior to construction. No grading, excavation, construction or storage of materials shall occur within the **TREE PROTECTION ZONES**.

The following recommendations will help reduce impacts to trees from development and maintain and improve their health and vitality through the clearing, grading and construction phases.

#### **Design recommendations**

1. Any plan affecting trees should be reviewed by the Consulting Arborist with regard to tree impacts. These include, but are not limited to, improvement plans, utility and drainage plans, grading plans, landscape and irrigation plans and demolition plans.
2. Evaluate the possibility of adjusting the locations of the V-ditch adjacent to trees #706, 707, and 790-793 to provide a minimum of 5' between the V-ditch and tree trunks.
3. A **TREE PROTECTION ZONE** shall be established around each tree per our recommendations. Trees shall be protected at the specific distance in the direction specified, and at the dripline in all other directions. No grading, excavation, construction or storage of materials shall occur within that zone. For trees where no **TREE PROTECTION ZONE** was specified, fencing and protection are not required, as they are away from the proposed improvements.
4. No underground services including utilities, sub-drains, water or sewer shall be placed in the **TREE PROTECTION ZONE**, without the review and written approval of the Consulting Arborist.
5. **Tree Preservation Notes**, prepared by the Consulting Arborist, should be included on all plans.

#### **Pre-construction treatments and recommendations**

1. The construction superintendent shall meet with the Consulting Arborist before beginning work to discuss work procedures and tree protection.
2. Fence all trees to be retained to completely enclose the **TREE PROTECTION ZONE** prior to demolition, grubbing or grading. Fences shall be 6 ft. chain link or equivalent as approved by consulting arborist. Fences are to remain until all grading and construction is completed.
3. Preliminary pruning recommendations for trees in proximity to the proposed development have been reviewed with Davidon Homes and will be provided prior to construction.

4. Prune trees to be preserved to clean the crown, correct for any defects in structure, and to provide clearance. Any pruning of off-site trees must be performed with the property owner's permission. All pruning shall be completed by a Certified Arborist or Tree Worker and adhere to the latest edition of the ANSI Z133 and A300 standards as well as the *Best Management Practices -- Tree Pruning* published by the International Society of Arboriculture. Brush shall be chipped and spread beneath the trees within the **TREE PROTECTION ZONE**.

**Recommendations for tree protection during construction**

1. No grading, construction, demolition or other work shall occur within the **TREE PROTECTION ZONE**. Any modifications must be approved and monitored by the Consulting Arborist.
2. Any root pruning required for construction purposes shall receive the prior approval of, and be supervised by, the Consulting Arborist.
3. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.
4. No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored within the **TREE PROTECTION ZONE**.
5. Trees to be removed that have canopies touching trees to remain shall be removed by a Certified Arborist in a manner to avoid damage to remaining trees.
6. Any additional tree pruning needed for clearance during construction must be performed by a Certified Arborist and not by construction personnel.
7. As trees withdraw water from the soil, expansive soils may shrink within the root area. Therefore, foundations, footings and pavements on expansive soils near trees should be designed to withstand differential displacement.

**Maintenance of impacted trees**

Trees preserved at the Napa Oaks site will experience physical environment different from that pre-development. As a result, tree health and structural stability should be monitored. Occasional pruning, fertilization, mulch, pest management, replanting and irrigation may be required. In addition, provisions for monitoring both tree health and structural stability following construction must be made a priority. As trees age, the likelihood of failure of branches or entire trees increases. Therefore, annual inspection for hazard potential is recommended.

**HortScience, Inc.**

Sincerely,



John Leffingwell  
Board Certified Master Arborist #WE-3966B  
Registered Consulting Arborist #442

# Tree Survey

Napa Oaks site  
Napa, California  
October & November 2010



| TREE No. | SPECIES            | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                            |
|----------|--------------------|---------------------------|-------------------|------------------------------|------------------------------|-------------------------------------------------------------------------------------|
| 101      | Coast live oak     | 29                        | Yes               | 4                            | Good                         | Codominant trunks at 6'; crossing branches; pruned on north for overhead utilities. |
| 102      | Privet             | 9,7,6,5,5                 | No                | 3                            | Moderate                     | Multiple attachments at base; growing around old curb.                              |
| 103      | Mimosa             | 11                        | No                | 3                            | Poor                         | Leans south; thin crown.                                                            |
| 104      | Italian stone pine | 10                        | No                | 3                            | Poor                         | Crook in upper crown; fire damage.                                                  |
| 105      | Mimosa             | 15,12                     | No                | 1                            | Poor                         | Stems splitting at attachment; hazardous tree.                                      |
| 106      | English walnut     | 13                        | No                | 2                            | Poor                         | Poor form and structure; topped at 15'.                                             |
| 107      | Paradox walnut     | 15                        | No                | 4                            | Moderate                     | Codominant trunks at 5'; branch failure west; dieback in upper crown.               |
| 108      | Mimosa             | 13                        | No                | 3                            | Poor                         | One-sided east; old topping points; basal wound.                                    |
| 109      | Aleppo pine        | 22                        | No                | 4                            | Moderate                     | Codominant trunks at 10'; upright form.                                             |
| 110      | English walnut     | 12,4                      | No                | 2                            | Poor                         | Topped for overhead utilities; dieback; black walnut sprouts from base.             |
| 111      | Privet             | 6,5,4,3                   | No                | 3                            | Poor                         | Multiple attachments at base; topped for overhead utilities.                        |
| 112      | Almond             | 8                         | No                | 1                            | Poor                         | All but dead.                                                                       |
| 113      | Almond             | 7,6,5,4,4                 | No                | 2                            | Poor                         | Thin crown; declining.                                                              |
| 114      | English walnut     | 7                         | No                | 3                            | Poor                         | Suppressed form; black walnut sprouts from base.                                    |
| 115      | Calif. black oak   | 13                        | Yes               | 4                            | Moderate                     | Multiple attachment at 4'; privet stem embedded in trunk.                           |
| 116      | Valley oak         | 8                         | No                | 3                            | Moderate                     | Suppressed; one-sided north.                                                        |
| 117      | Coast live oak     | 12                        | Yes               | 4                            | Moderate                     | Crowded; asymmetric crown.                                                          |
| 118      | Coast live oak     | 6                         | No                | 2                            | Poor                         | Suppressed form; lost top; embedded barbed wire.                                    |
| 119      | English walnut     | 10                        | No                | 3                            | Poor                         | Suppressed form; engulfed in ivy; black walnut sprouts from base.                   |
| 120      | Coast live oak     | 18                        | Yes               | 4                            | Moderate                     | Off-site; one-sided west; trunk wound east.                                         |

# Tree Survey

Napa Oaks site  
Napa, California  
October & November 2010



| TREE No. | SPECIES             | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                                             |
|----------|---------------------|---------------------------|-------------------|------------------------------|------------------------------|------------------------------------------------------------------------------------------------------|
| 121      | Valley oak          | 36                        | Yes               | 4                            | Moderate                     | Multiple attachments at 18'; heavy lateral limbs; history of branch failure; engulfed in poison oak. |
| 122      | Almond              | 12                        | No                | 2                            | Poor                         | Suppressed; topped at 15'.                                                                           |
| 123      | Olive               | 7,6                       | No                | 4                            | Good                         | Codominant trunks at base; suppressed.                                                               |
| 124      | Olive               | 7                         | No                | 3                            | Moderate                     | Off-site; leans west.                                                                                |
| 125      | Coast live oak      | 30,26                     | Yes               | 5                            | Good                         | Codominant trunks at base; spreading form; good form and structure; rope girdling branch northeast.  |
| 126      | Coast live oak      | 10                        | No                | 2                            | Poor                         | Suppressed form; topped at 8'.                                                                       |
| 127      | Coast live oak      | 9                         | No                | 3                            | Moderate                     | Suppressed form; trunk wound in upper crown.                                                         |
| 128      | Coast live oak      | 7                         | No                | 2                            | Poor                         | Basal wounds; thin crown.                                                                            |
| 129      | English walnut      | 8                         | No                | 3                            | Poor                         | Suppressed form; black walnut sprouts from base.                                                     |
| 130      | Coast live oak      | 15                        | Yes               | 5                            | Good                         | Good form and structure; western stem removed.                                                       |
| 131      | English walnut      | 11                        | No                | 3                            | Poor                         | Basal swelling; topped at 10'.                                                                       |
| 132      | English walnut      | 6,6                       | No                | 4                            | Moderate                     | Codominant trunks at 2'; included bark.                                                              |
| 133      | Coast live oak      | 15,15,8                   | Yes               | 5                            | Good                         | Good form and structure; beneath overhead utilities.                                                 |
| 134      | Coast live oak      | 9,7,6,4,3                 | No                | 4                            | Moderate                     | One-sided east; seam in attachment; beneath overhead utilities.                                      |
| 135      | Valley oak          | 8                         | No                | 5                            | Good                         | Good young tree.                                                                                     |
| 136      | Valley oak          | 13                        | Yes               | 4                            | Good                         | Multiple attachments at 10'; twig dieback; engulfed in vines.                                        |
| 137      | Calif. black walnut | 10,8,7                    | No                | 4                            | Moderate                     | Multiple attachments at base; minor dieback.                                                         |
| 138      | Calif. black walnut | 9,8,8,8                   | No                | 4                            | Moderate                     | Stump sprout; multiple attachments at base.                                                          |
| 139      | English walnut      | 13                        | No                | 3                            | Poor                         | Basal cavity; topped.                                                                                |
| 140      | Coast live oak      | 10                        | No                | 4                            | Moderate                     | Multiple attachments at 7'; good young tree; growth crack south.                                     |
| 141      | Mimosa              | 14                        | No                | 2                            | Poor                         | Declining; thin crown.                                                                               |

# Tree Survey

Napa Oaks site  
Napa, California  
October & November 2010



| TREE No. | SPECIES             | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                              |
|----------|---------------------|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------------------------------------------------|
| 142      | Aleppo pine         | 17                        | No                | 4                            | Moderate                     | Codominant trunks at 10'; upright form; basal fire damage.            |
| 143      | Mimosa              | 10                        | No                | 1                            | Poor                         | All but dead.                                                         |
| 144      | Aleppo pine         | 22, 15                    | No                | 4                            | Moderate                     | Multiple attachments at 5'; upright form; basal fire damage.          |
| 145      | Coast redwood       | 22                        | No                | 5                            | Good                         | Good form and structure; fire damage on lower trunk & branches.       |
| 146      | Apple               | 8, 7, 5                   | No                | 2                            | Poor                         | Topped; cavities fill with concrete.                                  |
| 147      | Valley oak          | 21                        | Yes               | 4                            | Moderate                     | Fair structure; thinning crown.                                       |
| 148      | Pinyon pine         | 10                        | No                | 5                            | Good                         | Good form and structure.                                              |
| 149      | Calif. black oak    | 7                         | No                | 5                            | Good                         | Good young tree.                                                      |
| 150      | Calif. black oak    | 9                         | No                | 5                            | Good                         | Good young tree.                                                      |
| 151      | Myoporum            | 8, 7                      | No                | 4                            | Moderate                     | Codominant trunks at base; low lateral west.                          |
| 152      | Japanese black pine | 8                         | No                | 3                            | Moderate                     | Leans south.                                                          |
| 153      | Calif. black oak    | 8                         | No                | 5                            | Good                         | Good young tree.                                                      |
| 154      | Chinese pistache    | 8                         | No                | 5                            | Good                         | Good form and structure.                                              |
| 155      | Calif. black oak    | 6                         | No                | 5                            | Good                         | Good young tree.                                                      |
| 156      | Incense cedar       | 36                        | No                | 4                            | Good                         | Upright form; heavy lateral limbs.                                    |
| 157      | Japanese black pine | 6, 4                      | No                | 4                            | Moderate                     | Upright form; lower limbs pruned.                                     |
| 158      | Japanese black pine | 7                         | No                | 4                            | Moderate                     | Upright form; lower limbs pruned.                                     |
| 159      | Calif. black oak    | 8                         | No                | 5                            | Good                         | Good young tree; small basal wound.                                   |
| 160      | Calif. black oak    | 11                        | No                | 5                            | Good                         | Good form and structure; branch wounds.                               |
| 161      | Valley oak          | 13                        | Yes               | 4                            | Good                         | Multiple attachments at 6'; pruned east for overhead utilities.       |
| 162      | Evergreen ash       | 13                        | No                | 2                            | Poor                         | Extensive mistletoe; trunk decay; little live material remains.       |
| 163      | Evergreen ash       | 17                        | No                | 3                            | Poor                         | Extensive mistletoe; trunk decay; pruned east for overhead utilities. |
| 164      | Aleppo pine         | 15                        | No                | 2                            | Poor                         | Very thin crown; sequoia pitch moth.                                  |
| 165      | Coast live oak      | 9                         | No                | 5                            | Good                         | Good form and structure; beneath overhead utilities.                  |

# Tree Survey

Napa Oaks site  
Napa, California  
October & November 2010



| TREE No. | SPECIES          | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                           |
|----------|------------------|---------------------------|-------------------|------------------------------|------------------------------|------------------------------------------------------------------------------------|
| 166      | Arizona cypress  | 16,9                      | No                | 4                            | Good                         | Open form; twig and branch dieback.                                                |
| 167      | Almond           | 9                         | No                | 2                            | Poor                         | Very thin crown; sapsucker damage.                                                 |
| 168      | Valley oak       | 41                        | Yes               | 4                            | Moderate                     | Multiple attachments at 12'; dead wood; epicormic shoots.                          |
| 169      | Coast live oak   | 9                         | No                | 4                            | Moderate                     | Crowded; one-sided east.                                                           |
| 170      | Coast live oak   | 12                        | Yes               | 4                            | Moderate                     | Crowded; one-sided west.                                                           |
| 171      | Coast live oak   | 10                        | No                | 3                            | Moderate                     | Crowded; leans northwest.                                                          |
| 172      | Almond           | 10,9                      | No                | 2                            | Poor                         | One-sided east; extensive dieback west.                                            |
| 173      | Coast live oak   | 18                        | Yes               | 4                            | Good                         | Leans west; low lateral south.                                                     |
| 174      | Coast live oak   | 6                         | No                | 4                            | Moderate                     | Heavy lean west.                                                                   |
| 175      | English walnut   | 11                        | No                | 4                            | Moderate                     | One sided south; dieback.                                                          |
| 176      | Coast live oak   | 11,8                      | No                | 4                            | Moderate                     | Codominant trunks at 3'; seam in attachment; basal swelling.                       |
| 177      | Coast live oak   | 8                         | No                | 4                            | Good                         | Slight lean north.                                                                 |
| 178      | Coast live oak   | 7                         | No                | 4                            | Good                         | Crowded; slight lean west.                                                         |
| 179      | Coast live oak   | 50                        | Yes               | 4                            | Moderate                     | Multiple attachments at 15'; heavy lateral limb/low branching east.                |
| 180      | Valley oak       | 26                        | Yes               | 2                            | Poor                         | Very thin crown; eastern stem failed at 5'.                                        |
| 181      | Coast live oak   | 10,7                      | No                | 5                            | Good                         | Codominant at base with #182; one-sided west.                                      |
| 182      | Valley oak       | 8                         | No                | 5                            | Good                         | Codominant at base with #183; upright form.                                        |
| 183      | Valley oak       | 7                         | No                | 3                            | Moderate                     | Thin crown; growing at top of channel.                                             |
| 184      | Coast live oak   | 12                        | Yes               | 4                            | Good                         | Multiple attachments at 5'; slightly thin crown.                                   |
| 185      | Coast live oak   | 10,8                      | No                | 4                            | Moderate                     | Growing at top of channel; roots exposed west.                                     |
| 186      | Valley oak       | 28                        | Yes               | 4                            | Moderate                     | One-sided north; twig and branch dieback.                                          |
| 187      | Calif. black oak | 28,18                     | Yes               | 4                            | Moderate                     | Codominant trunks at 4'; one-sided south; history of branch failure; trunk wounds. |
| 188      | Valley oak       | 23                        | Yes               | 3                            | Moderate                     | Codominant trunks at 10'; very one-sided west.                                     |
| 189      | Valley oak       | 21                        | Yes               | 4                            | Moderate                     | Multiple attachments at 8'; upright form; dead wood.                               |
| 190      | Coast live oak   | 27                        | Yes               | 4                            | Moderate                     | Multiple attachments at 8'; low laterals; trunk wounds/cavities.                   |

# Tree Survey

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                    |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-------------------------------------------------------------|
| 191      | Valley oak     | 16                        | Yes               | 4                            | Moderate                     | Upright form; slightly thin crown.                          |
| 192      | Valley oak     | 17                        | Yes               | 3                            | Moderate                     | Thin, high crown.                                           |
| 193      | Valley oak     | 16                        | Yes               | 3                            | Poor                         | Thin, asymmetric crown; low lateral north.                  |
| 194      | Valley oak     | 18                        | Yes               | 3                            | Poor                         | Thin, asymmetric crown; basal swelling.                     |
| 195      | Valley oak     | 17                        | Yes               | 4                            | Moderate                     | Good form; fair structure.                                  |
| 196      | Valley oak     | 22, 15                    | Yes               | 4                            | Moderate                     | Codominant trunks at 3'; low branching south; dead wood.    |
| 197      | Coast live oak | 7, 7, 6, 5, 4             | No                | 5                            | Good                         | Multiple attachments at base; good young tree.              |
| 198      | Coast live oak | 6                         | No                | 5                            | Good                         | Good young tree.                                            |
| 199      | Valley oak     | 7                         | No                | 3                            | Moderate                     | Twig and branch dieback; epicormic shoots.                  |
| 200      | Coast live oak | 6, 5                      | No                | 5                            | Good                         | Good young tree.                                            |
| 201      | Coast live oak | 6                         | No                | 4                            | Good                         | One-sided west.                                             |
| 202      | Coast live oak | 7, 6, 5                   | No                | 5                            | Good                         | Multiple attachments at base; crowded by #188.              |
| 203      | Coast live oak | 10, 8, 8, 7, 6            | No                | 5                            | Good                         | Multiple attachments at base; low branching.                |
| 204      | Coast live oak | 12                        | Yes               | 5                            | Good                         | Slight lean north; low branch south.                        |
| 205      | Calif. buckeye | 9, 6, 5                   | No                | 4                            | Moderate                     | Multiple attachments at base; one-sided north.              |
| 206      | Valley oak     | 33                        | Yes               | 4                            | Moderate                     | Sweeps from base; opening in crown.                         |
| 207      | Almond         | 15, 9                     | No                | 3                            | Poor                         | Dieback of eastern branches.                                |
| 208      | Coast live oak | 8, 5, 5                   | No                | 5                            | Good                         | Good young tree; low branching.                             |
| 209      | Valley oak     | 6                         | No                | 5                            | Good                         | Good young tree.                                            |
| 210      | Calif. buckeye | 16, 15                    | No                | 4                            | Moderate                     | Codominant trunks at base; one-sided northeast.             |
| 211      | Coast live oak | 48                        | Yes               | 3                            | Moderate                     | Leans southeast; roots exposed and lifting on tension side. |
| 212      | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | Suppressed form; bowed east to horizontal.                  |
| 213      | Coast live oak | 19                        | Yes               | 3                            | Moderate                     | Suppressed form; one-sided south; heavy lateral limbs.      |
| 214      | Coast live oak | 7, 7                      | No                | 3                            | Moderate                     | Codominant trunks at 1'; narrow crown.                      |
| 215      | Coast live oak | 6, 5, 5                   | No                | 3                            | Moderate                     | Crushed beneath old #110 that failed at base.               |
| 216      | Coast live oak | 8, 7, 6, 5, 5             | No                | 5                            | Good                         | Multiple attachments at base; upright form.                 |

# Tree Survey

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                            |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------------------------------|
| 217      | Coast live oak | 10,6,6                    | No                | 5                            | Good                         | Multiple attachments at base; upright form.         |
| 218      | Coast live oak | 12                        | Yes               | 4                            | Moderate                     | Part of grove; crowded; one-sided north.            |
| 219      | Coast live oak | 10,10,7                   | No                | 4                            | Moderate                     | Part of grove; crowded; upright form.               |
| 220      | Coast live oak | 8                         | No                | 2                            | Poor                         | Part of grove; extensive dieback.                   |
| 221      | Coast live oak | 8,8,6                     | No                | 4                            | Moderate                     | Part of grove; crowded; upright form.               |
| 222      | Coast live oak | 10,7,5                    | No                | 3                            | Moderate                     | Part of grove; crowded; one-sided west.             |
| 223      | Coast live oak | 9                         | No                | 3                            | Poor                         | Part of grove; crowded; small crown.                |
| 224      | Coast live oak | 9,5                       | No                | 3                            | Moderate                     | Part of grove; crowded; narrow crown.               |
| 225      | Coast live oak | 10,7                      | No                | 3                            | Poor                         | Part of grove; crowded; small crown.                |
| 226      | Coast live oak | 9                         | No                | 3                            | Moderate                     | Part of grove; crowded; one-sided west.             |
| 227      | Coast live oak | 10                        | No                | 4                            | Moderate                     | Part of grove; crowded; upright form.               |
| 228      | Coast live oak | 6                         | No                | 3                            | Moderate                     | Part of grove; crowded; small crown.                |
| 229      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Part of grove; crowded; small crown.                |
| 230      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Part of grove; crowded; narrow crown.               |
| 231      | Valley oak     | 8                         | No                | 3                            | Moderate                     | Part of grove; crowded; crown bowed east.           |
| 232      | Coast live oak | 9,6                       | No                | 3                            | Moderate                     | Part of grove; crowded; crown bowed east.           |
| 233      | Coast live oak | 7                         | No                | 3                            | Poor                         | Part of grove; crowded; small crown.                |
| 234      | Coast live oak | 16,5                      | Yes               | 4                            | Good                         | Part of grove; dominant tree.                       |
| 235      | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | Part of grove; crowded; narrow, asymmetric crown.   |
| 236      | Coast live oak | 7                         | No                | 3                            | Poor                         | Part of grove; crowded; small crown.                |
| 237      | Coast live oak | 15,8                      | Yes               | 5                            | Good                         | Codominant trunks at base; good form and structure. |
| 238      | Coast live oak | 15                        | Yes               | 4                            | Good                         | Edge of grove; multiple attachments at 6'.          |
| 239      | Coast live oak | 13,7                      | Yes               | 5                            | Good                         | Codominant trunks at base; low branching south.     |
| 240      | Coast live oak | 10,7                      | No                | 5                            | Good                         | Codominant trunks at 2'; good form and structure.   |
| 241      | Coast live oak | 9,9,6                     | No                | 5                            | Good                         | Codominant trunks at base; good form and structure. |
| 242      | Coast live oak | 10                        | No                | 4                            | Moderate                     | One-sided south; basal sprouts.                     |
| 243      | Coast live oak | 28                        | Yes               | 4                            | Good                         | Slight lean east; roots exposed; dead wood.         |

# Tree Survey

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                  |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|---------------------------------------------------------------------------|
| 244      | Coast live oak | 9                         | No                | 3                            | Moderate                     | One-sided southwest.                                                      |
| 245      | Coast live oak | 7                         | No                | 3                            | Poor                         | Suppressed form.                                                          |
| 246      | Coast live oak | 12                        | Yes               | 5                            | Good                         | No tag; good young tree; engulfed in blackberry.                          |
| 247      | Coast live oak | 8                         | No                | 4                            | Good                         | Good young tree; one-sided west.                                          |
| 248      | Coast live oak | 9                         | No                | 4                            | Good                         | Good young tree; one-sided east.                                          |
| 249      | Coast live oak | 8                         | No                | 5                            | Good                         | Good young tree; crown lifted by cattle.                                  |
| 250      | Madrone        | 14,9,6                    | No                | 2                            | Poor                         | Extensive trunk wounds/decay; thin crown.                                 |
| 251      | Coast live oak | 8                         | No                | 5                            | Good                         | Good young tree; branches to the ground.                                  |
| 252      | Coast live oak | 9,8,7                     | No                | 5                            | Good                         | Multiple attachments at base; good young tree.                            |
| 253      | Coast live oak | 9,7,6                     | No                | 4                            | Moderate                     | Multiple attachments at base; thin crown.                                 |
| 254      | Coast live oak | 8                         | No                | 4                            | Moderate                     | Crook at 6'; crown bowed west.                                            |
| 255      | Coast live oak | 9,5                       | No                | 4                            | Moderate                     | Codominant trunks at base; thin crown.                                    |
| 256      | Coast live oak | 10,9,8,5,5                | No                | 5                            | Good                         | Multiple attachments at 3'; low branching.                                |
| 257      | Coast live oak | 9                         | No                | 3                            | Moderate                     | Suppressed form; crown bowed northeast.                                   |
| 258      | Coast live oak | 6,4,4                     | No                | 3                            | Poor                         | Low branching; twig and branch dieback                                    |
| 259      | Coast live oak | 9,8,7,6,6                 | No                | 5                            | Good                         | Multiple attachments at base.                                             |
| 260      | Coast live oak | 13                        | Yes               | 4                            | Moderate                     | Crowded; asymmetric crown.                                                |
| 261      | Coast live oak | 7,7,6,5,5                 | No                | 4                            | Moderate                     | Multiple attachments at 1'; one-sided east.                               |
| 262      | Coast live oak | 18,7,6                    | Yes               | 5                            | Good                         | Dominant tree; dead wood.                                                 |
| 263      | Coast live oak | 6,6,5,5                   | No                | 4                            | Moderate                     | Multiple attachments at 1'; one-sided west.                               |
| 264      | Coast live oak | 9                         | No                | 3                            | Moderate                     | One sided north; twig dieback.                                            |
| 265      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Small crown; basal wounds.                                                |
| 266      | Coast live oak | 36                        | Yes               | 4                            | Good                         | Multiple attachments at 7'; good form and structure; low branching south. |
| 267      | Calif. buckeye | 23,18,13                  | No                | 4                            | Moderate                     | Multiple attachments at 3'; slight lean east; cavities/decay.             |
| 268      | Calif. buckeye | 15                        | No                | 3                            | Poor                         | One-sided west; basal cavity; decayed roots.                              |
| 269      | Coast live oak | 18                        | Yes               | 5                            | Good                         | Good form and structure.                                                  |
| 270      | Coast live oak | 36                        | Yes               | 4                            | Good                         | Codominant trunks at 1'; cavity in attachment; low branching east.        |

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| TREE No. | SPECIES          | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                    |
|----------|------------------|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------------------------------------------------------|
| 271      | Coast live oak   | 17,15,13,11               | Yes               | 5                            | Good                         | Multiple attachments at base; good form and structure; low branching south. |
| 272      | Coast live oak   | 13,10                     | Yes               | 4                            | Good                         | Codominant trunks at base; narrow crown.                                    |
| 273      | Coast live oak   | 16                        | Yes               | 4                            | Good                         | One-sided east.                                                             |
| 274      | Coast live oak   | 8,6                       | No                | 5                            | Good                         | Good young tree; branches to the ground.                                    |
| 275      | Coast live oak   | 10                        | No                | 5                            | Good                         | Multiple attachments at 5'; good form and structure; pruned south.          |
| 276      | Coast live oak   | 8,5,3                     | No                | 4                            | Good                         | Multiple attachments at 2'; seam in attachment.                             |
| 277      | Coast live oak   | 10,10                     | No                | 4                            | Good                         | Codominant trunks at 4'; twig dieback.                                      |
| 278      | Coast live oak   | 10                        | No                | 4                            | Moderate                     | Crowded; one-sided west                                                     |
| 279      | Coast live oak   | 13                        | Yes               | 5                            | Good                         | Codominant trunks at 5'; seam in attachment.                                |
| 280      | Coast live oak   | 14,11,11                  | Yes               | 4                            | Good                         | Multiple attachments at 2'; good form and structure.                        |
| 281      | Valley oak       | 11                        | No                | 4                            | Good                         | Crowded; upright form.                                                      |
| 282      | Coast live oak   | 12,11,6                   | Yes               | 3                            | Good                         | Crowded; one-sided southwest.                                               |
| 283      | Coast live oak   | 14                        | Yes               | 4                            | Moderate                     | Crowded; one-sided south.                                                   |
| 284      | Coast live oak   | 11,7,6,5,5                | No                | 4                            | Good                         | Multiple attachments at 9'; pruned south.                                   |
| 285      | Coast live oak   | 14                        | Yes               | 4                            | Moderate                     | Multiple attachments at 5'; basal swelling; crown lifted over road east.    |
| 286      | Blue spruce      | 10                        | No                | 5                            | Good                         | Good form and structure.                                                    |
| 287      | Burr oak         | 7                         | No                | 4                            | Good                         | Good form and structure; chlorotic.                                         |
| 288      | Calif. black oak | 11                        | No                | 5                            | Good                         | Good form and structure; pruning wounds.                                    |
| 289      | Coast live oak   | 14                        | Yes               | 3                            | Moderate                     | Trunk wounds; lateral north.                                                |
| 290      | Evergreen ash    | 20                        | No                | 3                            | Poor                         | Topped for overhead utilities; extensive mistletoe.                         |
| 291      | Coast live oak   | 24                        | Yes               | 4                            | Moderate                     | Off-site, no tag; pruned south for overhead utilities.                      |
| 292      | Scot's pine      | 6                         | No                | 2                            | Poor                         | Suppressed form; leans south.                                               |
| 293      | English walnut   | 17                        | No                | 2                            | Poor                         | Topped for overhead utilities; dieback in upper crown.                      |
| 294      | Coast redwood    | 22,18                     | No                | 3                            | Moderate                     | Codominant trunks at base; topped for overhead utilities.                   |

# Tree Survey

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                         |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|----------------------------------------------------------------------------------|
|          |                |                           |                   |                              |                              |                                                                                  |
| 295      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Edge of grove; suppressed form.                                                  |
| 296      | Coast live oak | 10                        | No                | 3                            | Moderate                     | Edge of grove; one-sided northeast.                                              |
| 297      | Coast live oak | 12,11                     | Yes               | 4                            | Good                         | Part of grove; codominant trunks at 3'.                                          |
| 298      | Coast live oak | 9,4                       | No                | 4                            | Moderate                     | Edge of grove; one-sided east.                                                   |
| 299      | Coast live oak | 6                         | No                | 3                            | Moderate                     | Edge of grove; fair structure.                                                   |
| 300      | Coast live oak | 13,6,6                    | Yes               | 4                            | Good                         | Part of grove; multiple attachments at 3'; included bark.                        |
| 301      | Coast live oak | 6                         | No                | 3                            | Moderate                     | Part of grove; crowded.                                                          |
| 302      | Coast live oak | 14,7                      | Yes               | 3                            | Poor                         | Part of grove; trunk wounds.                                                     |
| 303      | Coast live oak | 6                         | No                | 3                            | Poor                         | Part of grove; crowded; poor form and structure.                                 |
| 304      | Coast live oak | 10,7,7                    | No                | 3                            | Moderate                     | Part of grove; crowded; asymmetric crown.                                        |
| 305      | Coast live oak | 11,6                      | No                | 3                            | Moderate                     | Edge of grove; one-sided northwest.                                              |
| 306      | Coast live oak | 10,6                      | No                | 3                            | Moderate                     | Edge of grove; one-sided west.                                                   |
| 307      | Coast live oak | 9,8,6,6                   | No                | 3                            | Moderate                     | Part of grove; multiple attachments at base; thin crown; engulfed in poison oak. |
| 308      | Coast live oak | 7,6,5,5                   | No                | 3                            | Poor                         | Part of grove; multiple attachments at base; thin crown; engulfed in poison oak. |
| 309      | Coast live oak | 7                         | No                | 4                            | Moderate                     | Part of grove; crowded; narrow crown.                                            |
| 310      | Coast live oak | 9,7,6,5                   | No                | 3                            | Moderate                     | Part of grove; multiple attachments at base; asymmetric crown.                   |
| 311      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Part of grove; crowded; small crown.                                             |
| 312      | Coast live oak | 12,10,8                   | Yes               | 4                            | Good                         | Edge of grove; multiple attachments at 4'; one-sided east.                       |
| 313      | Coast live oak | 11                        | No                | 3                            | Moderate                     | Edge of grove; trunk wounds; one-sided east.                                     |
| 314      | Coast live oak | 10                        | No                | 3                            | Poor                         | Part of grove; crowded; dead top.                                                |
| 315      | Coast live oak | 6                         | No                | 3                            | Moderate                     | Part of grove; thin top.                                                         |
| 316      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Part of grove; crowded.                                                          |
| 317      | Coast live oak | 11,8                      | No                | 4                            | Moderate                     | Part of grove; codominant trunks at 1'; narrow crown.                            |
| 318      | Coast live oak | 14,9                      | Yes               | 4                            | Good                         | Edge of grove; one-sided east.                                                   |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                       |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|--------------------------------------------------------------------------------|
| 319      | Coast live oak | 9,8                       | No                | 3                            | Moderate                     | Part of grove; codominant trunks at 1'; asymmetric crown.                      |
| 320      | Coast live oak | 8,6                       | No                | 3                            | Moderate                     | Part of grove; codominant trunks at 3'.                                        |
| 321      | Coast live oak | 6                         | No                | 3                            | Poor                         | Part of grove; crowded; very small crown.                                      |
| 322      | Coast live oak | 10,9,8                    | No                | 3                            | Moderate                     | Part of grove; codominant trunks at 4'; asymmetric crown.                      |
| 323      | Coast live oak | 8,7                       | No                | 3                            | Moderate                     | Edge of grove; crowded; one-sided west.                                        |
| 324      | Coast live oak | 6                         | No                | 3                            | Poor                         | Part of grove; crowded; suppressed form.                                       |
| 325      | Coast live oak | 8,7                       | No                | 3                            | Moderate                     | Edge of grove; one-sided east.                                                 |
| 326      | Coast live oak | 10,9,8,6                  | No                | 4                            | Good                         | Part of grove; multiple attachments at 4'; good form and structure.            |
| 327      | Coast live oak | 15,7,6                    | Yes               | 4                            | Good                         | Edge of grove; upright form.                                                   |
| 328      | Coast live oak | 7                         | No                | 3                            | Poor                         | Part of grove; crowded; small crown.                                           |
| 329      | Coast live oak | 11                        | No                | 3                            | Moderate                     | Part of grove; crowded; asymmetric crown.                                      |
| 330      | Coast live oak | 6                         | No                | 3                            | Poor                         | Edge of grove; crowded; suppressed form.                                       |
| 331      | Coast live oak | 8                         | No                | 3                            | Poor                         | Edge of grove; crowded; one-sided southwest.                                   |
| 332      | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | Part of grove; crowded; asymmetric crown.                                      |
| 333      | Coast live oak | 6                         | No                | 2                            | Poor                         | Edge of grove; crowded; small crown.                                           |
| 334      | Coast live oak | 10                        | No                | 3                            | Moderate                     | Part of grove; crowded; upright form.                                          |
| 335      | Coast live oak | 7,6,5                     | No                | 4                            | Moderate                     | Edge of grove; one-sided east.                                                 |
| 336      | Coast live oak | 11                        | No                | 4                            | Moderate                     | Edge of grove; one-sided east.                                                 |
| 337      | Coast live oak | 6                         | No                | 3                            | Poor                         | Part of grove; small crown.                                                    |
| 338      | Coast live oak | 11                        | No                | 3                            | Poor                         | Part of grove; codominant trunks at 4'; narrow attachment; seam in attachment. |
| 339      | Coast live oak | 12                        | Yes               | 4                            | Moderate                     | Edge of grove; one-sided west                                                  |
| 340      | Coast live oak | 7,6,3                     | No                | 3                            | Moderate                     | Part of grove; narrow crown.                                                   |
| 341      | Coast live oak | 6,6,6                     | No                | 3                            | Poor                         | Part of grove; poor form and structure.                                        |
| 342      | Coast live oak | 6                         | No                | 4                            | Moderate                     | Edge of grove; one-sided southeast.                                            |
| 343      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Part of grove; high, small crown.                                              |
| 344      | Valley oak     | 6,4                       | No                | 3                            | Moderate                     | Part of grove; codominant trunks at 3'; narrow crown.                          |
| 345      | Coast live oak | 7,6,4                     | No                | 3                            | Moderate                     | Part of grove; narrow crown.                                                   |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                        |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------------------------------------------|
|          |                |                           |                   |                              |                              |                                                                 |
| 346      | Coast live oak | 11                        | No                | 3                            | Moderate                     | Edge of grove; one-sided west.                                  |
| 347      | Coast live oak | 7                         | No                | 4                            | Moderate                     | Part of grove; upright form.                                    |
| 348      | Coast live oak | 8,6,5,4                   | No                | 4                            | Moderate                     | Edge of grove; multiple attachments at base; one-sided west.    |
| 349      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Part of grove; small crown; upright form.                       |
| 350      | Coast live oak | 9                         | No                | 3                            | Moderate                     | Part of grove; crown bowed west.                                |
| 351      | Coast live oak | 7,6,4                     | No                | 4                            | Moderate                     | Edge of grove; one-sided west.                                  |
| 352      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Part of grove; leans north; small crown.                        |
| 353      | Coast live oak | 6,6                       | No                | 3                            | Moderate                     | Edge of grove; upright form.                                    |
| 354      | Coast live oak | 9                         | No                | 4                            | Moderate                     | Part of grove; upright form.                                    |
| 355      | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | Edge of grove; one-sided south.                                 |
| 356      | Calif. buckeye | 20                        | No                | 3                            | Moderate                     | Suppressed form; crown broke a 8' dnd is now propping the tree. |
| 357      | Coast live oak | 61                        | Yes               | 4                            | Moderate                     | Multiple attachments at 7'; 30" stem failed on north side.      |
| 358      | Coast live oak | 20                        | Yes               | 5                            | Good                         | Multiple attachments at 4'; seam in attachments.                |
| 359      | Coast live oak | 12,8                      | Yes               | 4                            | Moderate                     | Edge of grove; one-sided south.                                 |
| 360      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Edge of grove; upright form.                                    |
| 361      | Coast live oak | 10                        | No                | 3                            | Poor                         | Part of grove; suppressed form.                                 |
| 362      | Coast live oak | 13                        | Yes               | 4                            | Moderate                     | Part of grove; upright form.                                    |
| 363      | Coast live oak | 14,7                      | Yes               | 3                            | Moderate                     | Edge of grove; leanig & one-sided west.                         |
| 364      | Coast live oak | 11,6,5                    | No                | 4                            | Moderate                     | Part of grove; upright form.                                    |
| 365      | Coast live oak | 12,11                     | Yes               | 4                            | Moderate                     | Part of grove; multiple attachments at 3'.                      |
| 366      | Coast live oak | 7,6                       | No                | 3                            | Poor                         | Edge of grove; one-sided east.                                  |
| 367      | Coast live oak | 13                        | Yes               | 3                            | Moderate                     | Part of grove; fair structure.                                  |
| 368      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Edge of grove; upright form.                                    |
| 369      | Coast live oak | 11                        | No                | 3                            | Moderate                     | Edge of grove; one-sided east.                                  |
| 370      | Coast live oak | 14,12,6                   | Yes               | 4                            | Good                         | Edge of grove; multiple attachments at base; low lateral north. |
| 371      | Coast live oak | 20                        | Yes               | 3                            | Poor                         | Lage trunk wound north; failed south and laying on ground.      |

# Tree Survey

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                          |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------------------------------------------------------------|
| 372      | Coast live oak | 20                        | Yes               | 3                            | Poor                         | Suppressed form; asymmetric crown.                                                |
| 373      | Coast live oak | 14                        | Yes               | 3                            | Poor                         | Leans south; basal wound.                                                         |
| 374      | Coast live oak | 35                        | Yes               | 4                            | Moderate                     | Codominant trunks at 7'; one-sided south; branches to the ground south.           |
| 375      | Coast live oak | 22                        | Yes               | 3                            | Poor                         | Basal cavity east; asymmetric crown; dead wood.                                   |
| 376      | Coast live oak | 10,8,8,5                  | No                | 4                            | Good                         | Multiple attachments at base; one-sided southwest.                                |
| 377      | Coast live oak | 8,7,5                     | No                | 4                            | Moderate                     | Multiple attachments at base; narrow crown.                                       |
| 378      | Coast live oak | 6                         | No                | 3                            | Poor                         | Suppressed form; leans east.                                                      |
| 379      | Coast live oak | 8,7,6                     | No                | 4                            | Moderate                     | Multiple attachments at base; good form and structure.                            |
| 380      | Coast live oak | 6,5,5,5                   | No                | 3                            | Moderate                     | Multiple attachments at 1'; leans east.                                           |
| 381      | Coast live oak | 31,16                     | Yes               | 3                            | Poor                         | Codominant trunks at 6'; dieback in upper crown; 16" stem laying on ground south. |
| 382      | Coast live oak | 29                        | Yes               | 2                            | Poor                         | Multiple attachments at 10'; cavities; extensive dieback in upper crown.          |
| 383      | Coast live oak | 12,6,6                    | Yes               | 4                            | Good                         | Codominant trunks at 2'; squirrel damage/dieback.                                 |
| 384      | Coast live oak | 11,9                      | No                | 3                            | Moderate                     | Multiple attachments at 1'; one-sided east.                                       |
| 385      | Coast live oak | 7,3                       | No                | 3                            | Poor                         | Suppressed form; one-sided east.                                                  |
| 386      | Coast live oak | 8,7,6                     | No                | 3                            | Moderate                     | Multiple attachments at base; upright form; twig dieback.                         |
| 387      | Coast live oak | 6                         | No                | 3                            | Poor                         | Suppressed; small crown.                                                          |
| 388      | Coast live oak | 8,7,7,6,6,5               | No                | 4                            | Moderate                     | Multiple attachments at base; one-sided west; low branching south.                |
| 389      | Coast live oak | 8,6                       | No                | 3                            | Moderate                     | Codominant trunks at 2'; asymmetric crown.                                        |
| 390      | Coast live oak | 12,5                      | Yes               | 5                            | Good                         | Good form and structure.                                                          |
| 391      | Coast live oak | 8,5                       | No                | 3                            | Poor                         | Suppressed form; low growing south.                                               |
| 392      | Coast live oak | 8                         | No                | 4                            | Moderate                     | Upright form.                                                                     |
| 393      | Coast live oak | 6                         | No                | 3                            | Moderate                     | Good young tree; upright form                                                     |
| 394      | Coast live oak | 8,6                       | No                | 3                            | Moderate                     | Codominant trunks at 1'; asymmetric crown.                                        |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                     |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|--------------------------------------------------------------|
| 395      | Coast live oak | 6,6                       | No                | 3                            | Moderate                     | Codominant trunks at base; upright form.                     |
| 396      | Coast live oak | 11,10,8,5,5               | No                | 4                            | Moderate                     | Multiple attachments at base; asymmetric crown.              |
| 397      | Coast live oak | 9,9,8                     | No                | 4                            | Moderate                     | Multiple attachments at base; upright form.                  |
| 398      | Coast live oak | 11,9,8                    | No                | 4                            | Moderate                     | Multiple attachments at base; crowded; asymmetric crown.     |
| 399      | Coast live oak | 12,11,9                   | Yes               | 4                            | Moderate                     | Multiple attachments at 1'; good form and structure.         |
| 400      | Coast live oak | 19,10,9                   | Yes               | 2                            | Poor                         | Multiple attachments at base; stems split apart at ground.   |
| 401      | Coast live oak | 6,4                       | No                | 3                            | Moderate                     | Codominant trunks at at base; crowded with asymmetric crown. |
| 402      | Coast live oak | 8,6,6                     | No                | 4                            | Good                         | Multiple attachments at base; low branching.                 |
| 403      | Madrone        | 27                        | No                | 4                            | Good                         | Multiple attachments at 7'; good form and structure.         |
| 404      | Coast live oak | 9,7,6,4                   | No                | 5                            | Good                         | Multiple attachments at 2'; one-sided west.                  |
| 405      | Coast live oak | 7,5,5,4                   | No                | 4                            | Moderate                     | Multiple attachments at base; small leaves; thin crown.      |
| 406      | Coast live oak | 8,7,5,5,4,4               | No                | 4                            | Moderate                     | Multiple attachments at base; low branching south.           |
| 407      | Coast live oak | 8,5                       | No                | 4                            | Good                         | Codominant trunks at 3'; twisted at base.                    |
| 408      | Coast live oak | 9,8,7,6,6                 | No                | 5                            | Good                         | Multiple attachments at 2'; good form and structure.         |
| 409      | Coast live oak | 7,6,3,3                   | No                | 5                            | Good                         | Multiple attachments at base; low canopy.                    |
| 410      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Poor color; thin crown.                                      |
| 411      | Coast live oak | 12,11,10                  | Yes               | 3                            | Moderate                     | Multiple attachments at 4'; seams in attachment; thin crown. |
| 412      | Coast live oak | 7,6,6,5,5,5               | No                | 4                            | Moderate                     | Multiple attachments at base; part of a dense grove.         |
| 413      | Coast live oak | 6,5,4,4                   | No                | 3                            | Moderate                     | Multiple attachments at base; part of a dense grove.         |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                             |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|--------------------------------------------------------------------------------------|
| 414      | Coast live oak | 7,7,6                     | No                | 3                            | Moderate                     | Multiple attachments at base; one-sided west; part of a dense grove.                 |
| 415      | Coast live oak | 12,6                      | Yes               | 4                            | Moderate                     | Codominant trunks at base; asymmetric crown; part of a dense grove.                  |
| 416      | Coast live oak | 7,6                       | No                | 3                            | Moderate                     | Codominant trunks at base; part of a dense grove.                                    |
| 417      | Coast live oak | 9,8,6                     | No                | 3                            | Moderate                     | Multiple attachments at base; 6" stem laying on ground south; part of a dense grove. |
| 418      | Coast live oak | 6,5                       | No                | 3                            | Poor                         | Small crown; part of a dense grove.                                                  |
| 419      | Coast live oak | 13                        | Yes               | 4                            | Moderate                     | Asymmetric crown; part of a dense grove.                                             |
| 420      | Coast live oak | 29,9                      | Yes               | 2                            | Poor                         | Huge cavity extends to upper crown; one-sided southeast.                             |
| 421      | Coast live oak | 28                        | Yes               | 4                            | Moderate                     | Multiple attachments at 8'; twig and branch dieback; low laterals north.             |
| 422      | Coast live oak | 34                        | Yes               | 3                            | Poor                         | Dieback to 6"; one-sided east.                                                       |
| 423      | Coast live oak | 9,8                       | No                | 3                            | Moderate                     | Codominant trunks at 3'; part of a dense grove.                                      |
| 424      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Small crown; part of a dense grove.                                                  |
| 425      | Coast live oak | 10                        | No                | 3                            | Poor                         | Bleeding at base; dieback; part of a dense grove.                                    |
| 426      | Coast live oak | 10                        | No                | 3                            | Poor                         | Dieback; part of a dense grove.                                                      |
| 427      | Coast live oak | 9,7                       | No                | 3                            | Moderate                     | Crown bowed west; part of a dense grove.                                             |
| 428      | Coast live oak | 10                        | No                | 3                            | Moderate                     | Crown bowed west; part of a dense grove.                                             |
| 429      | Coast live oak | 6,5,5                     | No                | 3                            | Poor                         | Small, asymmetric crown; part of a dense grove.                                      |
| 430      | Coast live oak | 6,4,4                     | No                | 3                            | Moderate                     | Part of a dense grove.                                                               |
| 431      | Coast live oak | 6                         | No                | 3                            | Poor                         | Small crown; part of a dense grove.                                                  |
| 432      | Coast live oak | 9,5                       | No                | 4                            | Moderate                     | Edge of a dense grove; one-sided north.                                              |
| 433      | Coast live oak | 22                        | Yes               | 2                            | Poor                         | Very thin crown; epicormic shoots; dieback.                                          |
| 434      | Coast live oak | 10,5,4                    | No                | 5                            | Good                         | Multiple attachments at base; low branching.                                         |
| 435      | Coast live oak | 8                         | No                | 4                            | Moderate                     | Crowded; asymmetric crown.                                                           |
| 436      | Coast live oak | 23,13                     | Yes               | 1                            | Poor                         | Very thin crown; extensive dieback.                                                  |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                             |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|----------------------------------------------------------------------|
| 437      | Coast live oak | 22                        | Yes               | 5                            | Good                         | Multiple attachments at 7'; good form and structure.                 |
| 438      | Coast live oak | 32                        | Yes               | 4                            | Moderate                     | Spreading form; low laterals south; crown a little thin.             |
| 439      | Coast live oak | 8                         | No                | 3                            | Poor                         | Partial failure at base.                                             |
| 440      | Coast live oak | 6,4,3                     | No                | 3                            | Moderate                     | Multiple attachments at base; part of dense grove.                   |
| 441      | Coast live oak | 7,4,3,3                   | No                | 3                            | Moderate                     | Multiple attachments at base; asymmetric crown; part of dense grove. |
| 442      | Coast live oak | 15,7                      | Yes               | 4                            | Moderate                     | One-sided west; edge of dense grove.                                 |
| 443      | Coast live oak | 9,8,4                     | No                | 2                            | Poor                         | Multiple attachments at base; very thin crown.                       |
| 444      | Coast live oak | 7,6,5,5                   | No                | 4                            | Good                         | Multiple attachments at 1'; good form and structure.                 |
| 445      | Coast live oak | 14,14,8,7                 | Yes               | 4                            | Good                         | Codominant trunks at 2'; seam in attachment.                         |
| 446      | Coast live oak | 9,9,8                     | No                | 3                            | Moderate                     | Multiple attachments at base; asymmetric crown; part of dense grove. |
| 447      | Coast live oak | 11,7,6                    | No                | 3                            | Moderate                     | Multiple attachments at base; leans north; part of dense grove.      |
| 448      | Coast live oak | 9,8,7,6,4                 | No                | 4                            | Moderate                     | Multiple attachments at base; upright form; part of dense grove.     |
| 449      | Coast live oak | 8                         | No                | 2                            | Poor                         | Small, thin crown.                                                   |
| 450      | Madrone        | 15,14                     | No                | 2                            | Poor                         | Codominant trunks at 2'; extensive trunk wounds very thin crown.     |
| 451      | Coast live oak | 7,6                       | No                | 3                            | Moderate                     | Edge of dense grove.                                                 |
| 452      | Coast live oak | 8,7,6,6,5                 | No                | 4                            | Good                         | Multiple attachments at base; low branching.                         |
| 453      | Coast live oak | 6,4                       | No                | 3                            | Moderate                     | Codominant trunks at base; shrubby.                                  |
| 454      | Coast live oak | 9                         | No                | 4                            | Good                         | Low branching; small leaves.                                         |
| 455      | Coast live oak | 6,5,5,                    | No                | 4                            | Good                         | Multiple attachments at base; good young tree.                       |
| 456      | Coast live oak | 7,6                       | No                | 4                            | Good                         | Codominant trunks at base; pruned north.                             |
| 457      | Coast live oak | 9,7,6,6                   | No                | 3                            | Moderate                     | Multiple attachments at base; thin crown; large leaves.              |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                    |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------------------------------------------------------|
| 458      | Coast live oak | 9                         | No                | 4                            | Moderate                     | Multiple attachments at base; part of dense grove.                          |
| 459      | Coast live oak | 10,9,5,5                  | No                | 4                            | Moderate                     | Multiple attachments at base; good form and structure; part of dense grove. |
| 460      | Coast live oak | 11,6                      | No                | 3                            | Moderate                     | Multiple attachments at base; asymmetric crown; edge of dense grove.        |
| 461      | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | Trunk wounds/canker; part of dense grove.                                   |
| 462      | Coast live oak | 6,5                       | No                | 3                            | Moderate                     | One-sided south; thin crown; part of dense grove.                           |
| 463      | Coast live oak | 12                        | Yes               | 4                            | Moderate                     | Part of dense grove.                                                        |
| 464      | Coast live oak | 15,8,8                    | Yes               | 4                            | Moderate                     | Thin crown; twig and branch dieback.                                        |
| 465      | Coast live oak | 8,3                       | No                | 3                            | Moderate                     | One-sided west.                                                             |
| 466      | Coast live oak | 15,13,9                   | Yes               | 4                            | Moderate                     | Multiple attachments at 2'; edge of dense grove.                            |
| 467      | Coast live oak | 14,13,10,8,7              | Yes               | 4                            | Good                         | Multiple attachments at 2'; one-sided west; edge of dense grove.            |
| 468      | Coast live oak | 12,6                      | Yes               | 3                            | Moderate                     | Asymmetric crown; part of dense grove.                                      |
| 469      | Coast live oak | 16                        | Yes               | 4                            | Good                         | One-sided west; edge of dense grove.                                        |
| 470      | Coast live oak | 14,13,8                   | Yes               | 4                            | Moderate                     | Multiple attachments at base; narrow crown; edge of dense grove.            |
| 471      | Coast live oak | 15,12,4,4                 | Yes               | 4                            | Good                         | Multiple attachments at base; one-sided west; edge of dense grove.          |
| 472      | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | Slight lean north; edge of dense grove.                                     |
| 473      | Coast live oak | 15                        | Yes               | 3                            | Moderate                     | Upright form; narrow crown; part of dense grove.                            |
| 474      | Coast live oak | 10                        | No                | 3                            | Poor                         | Crown bowed west to horizontal; cracks forming in trunk.                    |
| 475      | Coast live oak | 19                        | Yes               | 4                            | Good                         | Upright form; narrow crown; part of dense grove.                            |
| 476      | Coast live oak | 14                        | Yes               | 3                            | Poor                         | Crown bowed east; edge of dense grove.                                      |
| 477      | Coast live oak | 20,9                      | Yes               | 4                            | Moderate                     | One-sided west; edge of dense grove.                                        |
| 478      | Coast live oak | 13                        | Yes               | 3                            | Moderate                     | Crown bowed west; edge of dense grove.                                      |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                              |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------------------------------------------------|
| 479      | Coast live oak | 15,12,11                  | Yes               | 3                            | Moderate                     | Multiple attachments at 1'; asymmetric crown; part of dense grove.    |
| 480      | Coast live oak | 20                        | Yes               | 4                            | Moderate                     | One-sided southwest; edge of dense grove.                             |
| 481      | Coast live oak | 15                        | Yes               | 2                            | Poor                         | Was codominant; eastern stem failed.                                  |
| 482      | Coast live oak | 17,6                      | Yes               | 4                            | Good                         | Upright form; edge of dense grove.                                    |
| 483      | Coast live oak | 18                        | Yes               | 4                            | Good                         | One-sided west; edge of dense grove.                                  |
| 484      | Coast live oak | 9,8,7,6,6                 | No                | 4                            | Good                         | Multiple attachments at base; trunk wounds; part of dense grove.      |
| 485      | Coast live oak | 11,8,8                    | No                | 4                            | Good                         | Multiple attachments at 2'; one-sided north; edge of dense grove.     |
| 486      | Coast live oak | 8                         | No                | 5                            | Good                         | Good young tree; edge of dense grove.                                 |
| 487      | Coast live oak | 16                        | Yes               | 5                            | Good                         | Good young tree.                                                      |
| 488      | Coast live oak | 10,8,6                    | No                | 3                            | Poor                         | Extensivetwig dieback.                                                |
| 489      | Coast live oak | 11                        | No                | 5                            | Good                         | Good young tree.                                                      |
| 490      | Coast live oak | 9,9,9                     | No                | 4                            | Good                         | Multiple attachments at base; two stem upright; one stem bowed west.  |
| 491      | Coast live oak | 15,13                     | Yes               | 3                            | Poor                         | Codominant trunks at base; southern stem failed and laying on ground. |
| 492      | Coast live oak | 8,4                       | No                | 4                            | Moderate                     | Codominant trunks at base; narrow crown.                              |
| 493      | Coast live oak | 11                        | No                | 5                            | Good                         | Good young tree.                                                      |
| 494      | Coast live oak | 16                        | Yes               | 4                            | Good                         | Crowded; asymmetric crown.                                            |
| 495      | Coast live oak | 13                        | Yes               | 3                            | Moderate                     | Crowded; very asymmetric crown.                                       |
| 496      | Coast live oak | 9,9,7                     | No                | 4                            | Good                         | Multiple attachments at base.                                         |
| 497      | Coast live oak | 8,6                       | No                | 3                            | Moderate                     | Crowded; one-sided east.                                              |
| 498      | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | Crowded; one-sided southeast.                                         |
| 499      | Coast live oak | 17,17,15,12               | Yes               | 5                            | Good                         | Multiple attachments at 1'; low branching; good form and structure.   |
| 500      | Coast live oak | 6                         | No                | 3                            | Moderate                     | Suppressed form.                                                      |
| 501      | Coast live oak | 9,9                       | No                | 2                            | Poor                         | Very thin crown; one-sided west.                                      |
| 502      | Coast live oak | 11,7,6                    | No                | 3                            | Moderate                     | Multiple attachments at base; crowded.                                |
| 503      | Coast live oak | 14,9,7                    | Yes               | 4                            | Moderate                     | Multiple attachments at base; one-sided north.                        |
| 504      | Coast live oak | 13                        | Yes               | 3                            | Moderate                     | Crowded; crown bowed south.                                           |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                           |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|------------------------------------------------------------------------------------|
| 505      | Coast live oak | 17                        | Yes               | 4                            | Good                         | One-sided southwest.                                                               |
| 506      | Coast live oak | 21,19,14,13               | Yes               | 4                            | Good                         | Multiple attachments at 3'; spreading form; low crown east; bark checking at base. |
| 507      | Coast live oak | 22,21,7                   | Yes               | 4                            | Good                         | Multiple attachments at base; bark checking at base.                               |
| 508      | Coast live oak | 9                         | No                | 3                            | Moderate                     | Crowded; crown bowed north.                                                        |
| 509      | Coast live oak | 17,16                     | Yes               | 4                            | Good                         | Codominant trunks at base; seam in attachment.                                     |
| 510      | Coast live oak | 12,10,5                   | Yes               | 4                            | Moderate                     | Multiple attachments at 1'; one-sided west.                                        |
| 511      | Coast live oak | 22                        | Yes               | 3                            | Poor                         | Multiple attachments at 7'; borer holes along trunk.                               |
| 512      | Coast live oak | 15,15                     | Yes               | 4                            | Moderate                     | Growing down-slope; one-sided west                                                 |
| 513      | Coast live oak | 16,15                     | Yes               | 4                            | Moderate                     | Growing down-slope; one-sided west                                                 |
| 514      | Coast live oak | 14,8,5                    | Yes               | 4                            | Good                         | Growing down-slope; low branching west                                             |
| 515      | Coast live oak | 13,8,6                    | Yes               | 4                            | Good                         | Multiple attachments at base; low branching/northern stem n ground.                |
| 516      | Coast live oak | 7                         | No                | 5                            | Good                         | Good young tree; branches to the ground.                                           |
| 517      | Coast live oak | 12                        | Yes               | 4                            | Good                         | Multiple attachments at 6'; one-sided west.                                        |
| 518      | Coast live oak | 15                        | Yes               | 5                            | Good                         | Good form and structure.                                                           |
| 519      | Coast live oak | 15,15                     | Yes               | 5                            | Good                         | Codominant trunks at base; good form and structure.                                |
| 520      | Coast live oak | 10                        | No                | 5                            | Good                         | Good young tree.                                                                   |
| 521      | Coast live oak | 12,11,10                  | Yes               | 4                            | Moderate                     | Multiple attachments at base; one-sided east.                                      |
| 522      | Coast live oak | 18                        | Yes               | 4                            | Good                         | Multiple attachments at 6'; heavy lateral limb north; trunk wounds.                |
| 523      | Coast live oak | 34,12,10                  | Yes               | 5                            | Good                         | Multiple attachments at 6'; heavy lateral limbs; bleeding from trunk wounds.       |
| 524      | Coast live oak | 29                        | Yes               | 4                            | Good                         | Multiple attachments at 4'; one-sided north; trunk wounds.                         |
| 525      | Coast live oak | 14                        | Yes               | 3                            | Moderate                     | Crowded; one-sided west.                                                           |
| 526      | Coast live oak | 15,11                     | Yes               | 5                            | Good                         | Growing down-slope; low branching.                                                 |
| 527      | Coast live oak | 11,9,9,8                  | No                | 5                            | Good                         | Multiple attachments at 3'; good young tree.                                       |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                            |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|---------------------------------------------------------------------|
| 528      | Coast live oak | 18                        | Yes               | 4                            | Moderate                     | Multiple attachments at 6'; bark checking at base/fill at base.     |
| 529      | Coast live oak | 16,9                      | Yes               | 5                            | Good                         | Low lateral west at 3'; good form and structure.                    |
| 530      | Coast live oak | 12                        | Yes               | 3                            | Poor                         | Suppressed form; leans east.                                        |
| 531      | Coast live oak | 25,12                     | Yes               | 3                            | Moderate                     | Multiple attachments at 6'; thinning crown; low branching.          |
| 532      | Coast live oak | 26,10,8                   | Yes               | 4                            | Moderate                     | Multiple attachments at 6'; twig and branch dieback; low branching. |
| 533      | Coast live oak | 16                        | Yes               | 4                            | Good                         | Codominant trunks at 6'; one-sided west.                            |
| 534      | Coast live oak | 29,25,16,14,10            | Yes               | 5                            | Good                         | Multiple attachments at base; spreading form; low branching north.  |
| 535      | Coffeeberry    | 10                        | No                | 3                            | Poor                         | Suppressed form; bowed west; ganoderma conk at base.                |
| 536      | Coast live oak | 21,19,19,15,12,7          | Yes               | 5                            | Good                         | Multiple attachments at base; spreading form; low branching.        |
| 537      | Plum           | 10,7,6,4                  | No                | 4                            | Moderate                     | Multiple attachments at 2'; aphids/sooty mildew.                    |
| 538      | Coast live oak | 12,11                     | Yes               | 4                            | Good                         | Codominant trunks at 4'; seam in attachment; bark checking.         |
| 539      | Coast live oak | 12,11                     | Yes               | 4                            | Moderate                     | Codominant trunks at 1'; seam/bleeding at attachment.               |
| 540      | Coast live oak | 13,11                     | Yes               | 4                            | Moderate                     | Codominant trunks at 3'; weak attachment.                           |
| 541      | Coast live oak | 12,12                     | Yes               | 4                            | Moderate                     | Codominant trunks at base; asymmetric crown.                        |
| 542      | Coast live oak | 9,8                       | No                | 3                            | Poor                         | Suppressed form; bowed north to horizontal.                         |
| 543      | Madrone        | 18                        | No                | 1                            | Poor                         | Extensive trunk decay; little live material remains.                |
| 544      | Coast live oak | 18,17,17                  | Yes               | 4                            | Good                         | Multiple attachments at 3'; one-sided west.                         |
| 545      | Coast live oak | 10,5,5                    | No                | 3                            | Moderate                     | Crowded; asymmetric crown.                                          |
| 546      | Coast live oak | 12                        | Yes               | 4                            | Good                         | Codominant trunks at 7'; seam in attachment; upright form.          |
| 547      | Coast live oak | 14                        | Yes               | 4                            | Good                         | Multiple attachments at 5'; crowded; upright form.                  |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                               |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|------------------------------------------------------------------------|
| 548      | Coast live oak | 7                         | No                | 3                            | Poor                         | Suppressed form; crown bowed north to horizontal.                      |
| 549      | Coast live oak | 19,17,17,17               | Yes               | 3                            | Moderate                     | Multiple attachments at base; spreading form; thinning in upper crown. |
| 550      | Coast live oak | 6                         | No                | 3                            | Poor                         | Suppressed form; crown bowed west.                                     |
| 551      | Coast live oak | 11                        | No                | 4                            | Moderate                     | Crowded; asymmetric crown.                                             |
| 552      | Coast live oak | 19                        | Yes               | 5                            | Good                         | Good form and structure; one-sided west.                               |
| 553      | Plum           | 8,6,5,4,4                 | No                | 3                            | Moderate                     | Multiple attachments at 2'; twig dieback; aphids/sooty mildew.         |
| 554      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Crowded; narrow crown.                                                 |
| 555      | Coast live oak | 6                         | No                | 3                            | Poor                         | Suppressed form; one-sided east.                                       |
| 556      | Coast live oak | 15,8                      | Yes               | 4                            | Moderate                     | One-sided west; seam in attachment.                                    |
| 557      | Coast live oak | 52                        | Yes               | 4                            | Good                         | Very one-sided east; branches to the ground east are propping tree.    |
| 558      | Coast live oak | 31                        | Yes               | 2                            | Poor                         | Declining; dieback throughout.                                         |
| 559      | Coast live oak | 31                        | Yes               | 1                            | Poor                         | Extensive trunk decay; all but dead.                                   |
| 560      | Coast live oak | 36                        | Yes               | 1                            | Poor                         | All but dead.                                                          |
| 561      | Coast live oak | 8,8,7,7,4                 | No                | 4                            | Good                         | Multiple attachments at 3'; seams in attachments.                      |
| 562      | Coast live oak | 16,10                     | Yes               | 4                            | Good                         | Codominant trunks at 1'; seam in attachment.                           |
| 563      | Coast live oak | 9,9,7                     | No                | 4                            | Moderate                     | Good young tree; twig dieback.                                         |
| 564      | Coast live oak | 16,11,10                  | Yes               | 4                            | Moderate                     | Good form and structure; twig dieback.                                 |
| 565      | Coast live oak | 19,19,15                  | Yes               | 5                            | Good                         | Codominant trunks at base; spreading form; twig dieback.               |
| 566      | Coast live oak | 9                         | No                | 3                            | Moderate                     | Suppressed form; one-sided south.                                      |
| 567      | Coast live oak | 11,5                      | No                | 4                            | Moderate                     | Crowded; one-sided west.                                               |
| 568      | Coast live oak | 9,7,6                     | No                | 3                            | Moderate                     | Thin in upper crown; bleeding along trunk.                             |
| 569      | Coast live oak | 10                        | No                | 3                            | Moderate                     | Crowded; one-sided south.                                              |
| 570      | Coast live oak | 14,9,9                    | Yes               | 4                            | Good                         | Codominant trunks at base; engulfed in poison oak.                     |
| 571      | Coast live oak | 12,11,9                   | Yes               | 4                            | Good                         | Multiple attachments at 2'; low lateral east; bleeding along trunk.    |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                 |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|--------------------------------------------------------------------------|
| 572      | Coast live oak | 9,8,7,7                   | No                | 3                            | Moderate                     | Multiple attachments at 1'; asymmetric crown; twig dieback.              |
| 573      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Twig and branch dieback.; edge of dense grove.                           |
| 574      | Coast live oak | 8,5                       | No                | 3                            | Moderate                     | One-sided west; edge of dense grove.                                     |
| 575      | Coast live oak | 11                        | No                | 4                            | Moderate                     | Upright form; part of dense grove.                                       |
| 576      | Coast live oak | 6                         | No                | 4                            | Moderate                     | Upright form; part of dense grove.                                       |
| 577      | Coast live oak | 9                         | No                | 3                            | Moderate                     | Crowded; crook in upper crown; part of dense grove.                      |
| 578      | Madrone        | 14,12,12                  | No                | 2                            | Poor                         | Extensive dieback.                                                       |
| 579      | Madrone        | 18,17,14,12,10            | No                | 3                            | Moderate                     | Multiple attachments at 3'; dieback in upper crown; heavy lateral limbs. |
| 580      | Coast live oak | 8,7                       | No                | 3                            | Moderate                     | Crowded; twig dieback; part of dense grove.                              |
| 581      | Coast live oak | 6                         | No                | 4                            | Good                         | Edge of dense grove; good young tree.                                    |
| 582      | Coast live oak | 8                         | No                | 4                            | Good                         | One-sided south; edge of dense grove.                                    |
| 583      | Coast live oak | 7                         | No                | 4                            | Good                         | One-sided south; edge of dense grove.                                    |
| 584      | Coast live oak | 17                        | Yes               | 5                            | Good                         | Upright form; part of dense grove.                                       |
| 585      | Coast live oak | 6,5,5                     | No                | 4                            | Good                         | One-sided north; edge of dense grove.                                    |
| 586      | Coast live oak | 7,5,5                     | No                | 3                            | Moderate                     | Narrow attachments; thin crown; edge of dense grove.                     |
| 587      | Coast live oak | 8                         | No                | 3                            | Poor                         | Suppressed form ; part of dense grove.                                   |
| 588      | Coast live oak | 14                        | Yes               | 4                            | Good                         | Upright form; part of dense grove.                                       |
| 589      | Coast live oak | 9,9                       | No                | 5                            | Good                         | Codominant trunks at 1'; good young tree; edge of dense grove.           |
| 590      | Coast live oak | 28                        | Yes               | 2                            | Poor                         | Extensive trunk decay; leans north.                                      |
| 591      | Coast live oak | 31                        | Yes               | 4                            | Good                         | Multiple attachments at 10'; good form and structure.                    |
| 592      | Coast live oak | 42                        | Yes               | 4                            | Good                         | Codominant trunks at 6'; western stem failed; one-sided east.            |
| 593      | Coast live oak | 47                        | Yes               | 4                            | Moderate                     | Multiple attachments at 10'; adding wood on northern stem; twig dieback. |
| 594      | Coast live oak | 7                         | No                | 4                            | Good                         | Leans east; good young tree.                                             |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                                        |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-------------------------------------------------------------------------------------------------|
| 595      | Coast live oak | 30                        | Yes               | 2                            | Poor                         | Extensive trunk decay; epicormic shoots.                                                        |
| 596      | Coast live oak | 8,8                       | No                | 4                            | Good                         | Codominant trunks at 2'; seam in attachment.                                                    |
| 597      | Coast live oak | 6                         | No                | 3                            | Moderate                     | Crowded; suppressed form.                                                                       |
| 598      | Coast live oak | 6,4                       | No                | 3                            | Moderate                     | Crowded; suppressed form.                                                                       |
| 599      | Coast live oak | 7,5                       | No                | 5                            | Good                         | Good young tree.                                                                                |
| 600      | Coast live oak | 34                        | Yes               | 3                            | Poor                         | Trunk decay/active bee hive; dieback throughout crown.                                          |
| 601      | Coast live oak | 29                        | Yes               | 3                            | Moderate                     | Multiple attachments at 8'; heavy lateral limbs; history of branch failure.                     |
| 602      | Coast live oak | 7,7,6,4,4                 | No                | 4                            | Moderate                     | Growing against slope; leaf scorch.                                                             |
| 603      | Coast live oak | 40                        | Yes               | 3                            | Poor                         | History of branch failure; ganoderma conk on western branch; trunk decay.                       |
| 604      | Coast live oak | 39                        | Yes               | 4                            | Moderate                     | Multiple attachments at 7'; one-sided southwest.                                                |
| 605      | Coast live oak | 36                        | Yes               | 4                            | Moderate                     | Multiple attachments at 5'; damaged by adjacent failure.                                        |
| 606      | Coast live oak | 32                        | Yes               | 4                            | Moderate                     | Multiple attachments at 7'; epicormic shoots; dead wood.                                        |
| 607      | Coast live oak | 40                        | Yes               | 4                            | Good                         | Multiple attachments at 7'; one-sided and low branching north.                                  |
| 608      | Coast live oak | 26,24                     | Yes               | 4                            | Moderate                     | Codominant trunks at 3'; epicormic shoots; asymmetric crown.                                    |
| 609      | Coast live oak | 22,19                     | Yes               | 3                            | Moderate                     | Codominant trunks at 4'; cavity on upper side of northern stem; crown bowed west to horizontal. |
| 610      | Coast live oak | 10                        | No                | 5                            | Good                         | Good young tree; sl west.                                                                       |
| 611      | Coast live oak | 9,7                       | No                | 5                            | Good                         | Good young tree; one-sided south.                                                               |
| 612      | Coast live oak | 10                        | No                | 5                            | Good                         | Good young tree.                                                                                |
| 613      | Coast live oak | 11                        | No                | 4                            | Good                         | Slight lean north; twig dieback in lower canopy.                                                |
| 614      | Coast live oak | 9,6                       | No                | 4                            | Moderate                     | Crowded; one-sided west; included bark.                                                         |
| 615      | Coast live oak | 12,5                      | Yes               | 3                            | Poor                         | Small, asymmetric crown; dieback.                                                               |
| 616      | Coast live oak | 15                        | Yes               | 4                            | Moderate                     | Good form and structure.                                                                        |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                          |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-------------------------------------------------------------------|
|          |                |                           |                   |                              |                              |                                                                   |
| 617      | Coast live oak | 16                        | Yes               | 5                            | Good                         | Slight lean south; minor twig dieback.                            |
| 618      | Coast live oak | 7,4                       | No                | 3                            | Poor                         | Suppressed; crown bowed west.                                     |
| 619      | Coast live oak | 15                        | Yes               | 4                            | Moderate                     | Crowded; asymmetric crown.                                        |
| 620      | Coast live oak | 11,10,9,9,6               | No                | 4                            | Moderate                     | Crowded; one-sided north.                                         |
| 621      | Coast live oak | 22                        | Yes               | 3                            | Moderate                     | Crowded; leans south; trunk wounds.                               |
| 622      | Coast live oak | 16,15                     | Yes               | 3                            | Poor                         | Codominant trunks at 2'; thin crown.                              |
| 623      | Coast live oak | 31                        | Yes               | 4                            | Good                         | Heavy lateral limb west at 5'; one-sided west.                    |
| 624      | Coast live oak | 18                        | Yes               | 3                            | Poor                         | Suppressed form; crown bowed south to horizontal.                 |
| 625      | Coast live oak | 21                        | Yes               | 3                            | Moderate                     | Crowded; asymmetric crown; trunk wound.                           |
| 626      | Coast live oak | 28                        | Yes               | 4                            | Moderate                     | Good form and structure; epicormic shoots.                        |
| 627      | Coast live oak | 34                        | Yes               | 4                            | Moderate                     | Upright form; trunk wounds north; laterals west.                  |
| 628      | Coast live oak | 14                        | Yes               | 2                            | Poor                         | Failed at base and turned up.                                     |
| 629      | Coast live oak | 15                        | Yes               | 3                            | Poor                         | Suppressed form; small crown.                                     |
| 630      | Coast live oak | 10                        | No                | 3                            | Moderate                     | Crowded; one-sided east.                                          |
| 631      | Coast live oak | 10,7                      | No                | 4                            | Good                         | Codominant trunks at 1'; upright form.                            |
| 632      | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | Crowded; asymmetric crown.                                        |
| 633      | Coast live oak | 33                        | Yes               | 2                            | Poor                         | Basal wounds; heavy lateral limb west; adding wood all over.      |
| 634      | Coast live oak | 24,19                     | Yes               | 4                            | Moderate                     | Codominant trunks at 4'; one-sided north; branches to the ground. |
| 635      | Coast live oak | 15                        | Yes               | 5                            | Moderate                     | One-sided north; heavy lateral limb.                              |
| 636      | Coast live oak | 12,3                      | Yes               | 2                            | Poor                         | Failed at base and turned up.                                     |
| 637      | Coast live oak | 38                        | Yes               | 4                            | Good                         | One sided west; heavy lateral limbs.                              |
| 638      | Coast live oak | 10                        | No                | 3                            | Moderate                     | Crowded; narrow crown.                                            |
| 639      | Coast live oak | 8,7,4                     | No                | 3                            | Moderate                     | Codominant trunks at base; narrow crown.                          |
| 640      | Coast live oak | 15                        | Yes               | 3                            | Moderate                     | Crowded; twig dieback.                                            |
| 641      | Coast live oak | 19                        | Yes               | 4                            | Moderate                     | One-sided southwest; heavy lateral limbs.                         |
| 642      | Coast live oak | 33                        | Yes               | 3                            | Moderate                     | Multiple attachments at 7'; thin in upper crown.                  |
| 643      | Coast live oak | 15                        | Yes               | 5                            | Good                         | One-sided west; good young tree.                                  |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                 |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|--------------------------------------------------------------------------|
| 644      | Coast live oak | 7,5                       | No                | 4                            | Moderate                     | One-sided west; suppressed..                                             |
| 645      | Coast live oak | 14                        | Yes               | 4                            | Moderate                     | One-sided west; suppressed.                                              |
| 646      | Coast live oak | 9                         | No                | 3                            | Moderate                     | Crowded; small crown.                                                    |
| 647      | Coast live oak | 32                        | Yes               | 4                            | Moderate                     | Multiple attachments at 7'; wide, spreading form.                        |
| 648      | Coast live oak | 9,6,4                     | No                | 4                            | Moderate                     | Crowded; part of dense grove.                                            |
| 649      | Coast live oak | 13                        | Yes               | 4                            | Good                         | Upright form; part of dense grove.                                       |
| 650      | Coast live oak | 6,4                       | No                | 3                            | Moderate                     | Crowded; asymmetric crown; part of dense grove.                          |
| 651      | Coast live oak | 17                        | Yes               | 4                            | Good                         | Good form and structure; part of dense grove.                            |
| 652      | Coast live oak | 13,9                      | Yes               | 4                            | Good                         | Good form and structure; part of dense grove.                            |
| 653      | Coast live oak | 7,6,4,3                   | No                | 3                            | Moderate                     | Crowded; one-sided west; edge of dense grove.                            |
| 654      | Coast live oak | 8,7,5                     | No                | 3                            | Moderate                     | Crowded; one-sided west; edge of dense grove.                            |
| 655      | Coast live oak | 7                         | No                | 4                            | Moderate                     | Crowded; part of dense grove.                                            |
| 656      | Coast live oak | 8                         | No                | 5                            | Good                         | Upright form; edge of dense grove.                                       |
| 657      | Coast live oak | 13                        | Yes               | 5                            | Good                         | Good young tree.                                                         |
| 658      | Coast live oak | 12,11,10                  | Yes               | 4                            | Good                         | Codominant trunks at 2'; one-sided west.                                 |
| 659      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Crowded; one-sided south; part of dense grove.                           |
| 660      | Coast live oak | 8,8,5,4                   | No                | 4                            | Moderate                     | Multiple attachments at base; upright form; part of dense grove.         |
| 661      | Coast live oak | 7,5,4,4                   | No                | 3                            | Moderate                     | One-sided south; part of dense grove.                                    |
| 662      | Coast live oak | 8,7                       | No                | 3                            | Moderate                     | Asymmetric crown; part of dense grove.                                   |
| 663      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Small crown; part of dense grove.                                        |
| 664      | Coast live oak | 18,17                     | Yes               | 4                            | Moderate                     | Multiple attachments at 3'; leans east uphill; edge of dense grove.      |
| 665      | Coast live oak | 41                        | Yes               | 4                            | Moderate                     | Multiple attachments at 7'; spreading form; 18" heavy lateral limb east. |
| 666      | Coast live oak | 27                        | Yes               | 4                            | Moderate                     | Multiple attachments at 7'; one-sided and leaning west.                  |

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|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|---------------------------------------------------------------|
| 667      | Coast live oak | 18                        | Yes               | 5                            | Good                         | Codominant trunks at 6'; good form and structure.             |
| 668      | Coast live oak | 8,4                       | No                | 4                            | Moderate                     | Good form, fair branch structure.                             |
| 669      | Coast live oak | 11                        | No                | 5                            | Good                         | Slight lean south; good tree.                                 |
| 670      | Coast live oak | 15                        | Yes               | 4                            | Good                         | Codominant trunks at 5'; seam in attachment.                  |
| 671      | Coast live oak | 12,12                     | Yes               | 5                            | Good                         | Codominant trunks at 3'; good form and structure.             |
| 672      | Coast live oak | 16                        | Yes               | 4                            | Good                         | Codominant trunks at 5'; one-sided west.                      |
| 673      | Coast live oak | 17,11,7                   | Yes               | 4                            | Good                         | Multiple attachments at base; seam in attachment.             |
| 674      | Coast live oak | 11                        | No                | 4                            | Good                         | Codominant trunks at 5'; one-sided east.                      |
| 675      | Coast live oak | 11,6                      | No                | 4                            | Good                         | Codominant trunks at 3'; one-sided south.                     |
| 676      | Coast live oak | 14                        | Yes               | 4                            | Good                         | Codominant trunks at 5'; upright form; seam in attachment.    |
| 677      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Suppressed form.                                              |
| 678      | Coast live oak | 6,6,5,5                   | No                | 4                            | Moderate                     | Multiple attachments at base; shrub form.                     |
| 679      | Coast live oak | 6                         | No                | 3                            | Poor                         | Suppressed form; thin crown.                                  |
| 680      | Coast live oak | 10,9,8,7,6                | No                | 3                            | Moderate                     | Multiple attachments at 3'; seams in attachments; thin crown. |
| 681      | Coast live oak | 16                        | Yes               | 5                            | Good                         | Good young tree.                                              |
| 682      | Coast live oak | 6                         | No                | 3                            | Poor                         | Suppressed form.                                              |
| 683      | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | Codominant trunks at 5'; thin crown.                          |
| 684      | Coast live oak | 15,6                      | Yes               | 5                            | Good                         | Codominant trunks at base; good form and structure.           |
| 685      | Coast live oak | 11                        | No                | 5                            | Good                         | Codominant trunks at 5'; seam in attachment.                  |
| 686      | Coast live oak | 19,11                     | Yes               | 4                            | Good                         | Multiple attachments at 3'; one-sided north.                  |
| 687      | Coast live oak | 14                        | Yes               | 4                            | Moderate                     | Crowded; one-sided south.                                     |
| 688      | Coast live oak | 12,12,11,9,7              | Yes               | 4                            | Moderate                     | Multiple attachments at 2'; crowded and one-sided northeast.  |
| 689      | Coast live oak | 12,11,8,8                 | Yes               | 3                            | Moderate                     | Multiple attachments at 2'; crowded and one-sided southwest.  |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                           |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|------------------------------------------------------------------------------------|
| 690      | Coast live oak | 13,12,8                   | Yes               | 5                            | Good                         | Multiple attachments at 2'; seams in attachments; good tree.                       |
| 691      | Coast live oak | 7,6,5                     | No                | 4                            | Good                         | Multiple attachments at 3'; good young tree.                                       |
| 692      | Coast live oak | 7,4                       | No                | 3                            | Moderate                     | Crowded; one-sided north.                                                          |
| 693      | Coast live oak | 8,5,5                     | No                | 5                            | Good                         | Good young tree.                                                                   |
| 694      | Coast live oak | 6,6,5,54                  | No                | 5                            | Good                         | Multiple attachments at 1'; good young tree.                                       |
| 695      | Coast live oak | 14                        | Yes               | 5                            | Good                         | Multiple attachments at 5'; good young tree.                                       |
| 696      | Coast live oak | 13,7                      | Yes               | 3                            | Moderate                     | Codominant trunks at 3'; leans north; part of dense grove.                         |
| 697      | Coast live oak | 7                         | No                | 3                            | Poor                         | Suppressed form; part of dense grove.                                              |
| 698      | Coast live oak | 9,8,6,5                   | No                | 3                            | Moderate                     | Codominant trunks at 1'; narrow attachment; one-sided southeast.                   |
| 699      | Coast live oak | 11,9                      | No                | 3                            | Moderate                     | Codominant trunks at 1'; one-sided south.                                          |
| 700      | Coast live oak | 11,11,4,4                 | No                | 3                            | Moderate                     | Codominant trunks at 1'; asymmetric crown.                                         |
| 701      | Coast live oak | 12,7,3,2                  | Yes               | 3                            | Moderate                     | Multiple attachments at 1'; one-sided north.                                       |
| 702      | Coast live oak | 11                        | No                | 3                            | Moderate                     | Crowded; one-sided north; part of dense grove.                                     |
| 703      | Coast live oak | 22                        | Yes               | 4                            | Good                         | Codominant trunks at 6'; seam in attachment; part of dense grove.                  |
| 704      | Coast live oak | 15                        | Yes               | 3                            | Moderate                     | Crowded; asymmetric crown; part of dense grove.                                    |
| 705      | Coast live oak | 12,11,8                   | Yes               | 4                            | Moderate                     | Multiple attachments at 1'; one-sided south; part of dense grove.                  |
| 706      | Coast live oak | 9                         | No                | 3                            | Poor                         | Crowded; leans east; part of dense grove.                                          |
| 707      | Coast live oak | 24,11                     | Yes               | 4                            | Moderate                     | Multiple attachments at 5'; narrow attachment; 14" stem bowed south to horizontal. |
| 708      | Coast live oak | 18,6,5                    | Yes               | 3                            | Poor                         | Thin crown; lateral south.                                                         |
| 709      | Coast live oak | 21                        | Yes               | 3                            | Poor                         | Basal cavity north; thin crown.                                                    |
| 710      | Coast live oak | 23                        | Yes               | 3                            | Moderate                     | Multiple attachments at 6'; crowded and one-sided southwest.                       |
| 711      | Coast live oak | 25,15                     | Yes               | 4                            | Good                         | 22" stem upright; 15" stem lateral southwest.                                      |
| 712      | Coast live oak | 21                        | Yes               | 3                            | Moderate                     | Bowed east to horizontal.                                                          |
| 713      | Plum           | 7                         | No                | 3                            | Poor                         | Suppressed form.                                                                   |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                              |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|---------------------------------------------------------------------------------------|
| 714      | Coast live oak | 11                        | No                | 3                            | Poor                         | Leans east; large stem failure east; roots exposed west; owl nest in cavity           |
| 715      | Valley oak     | 23                        | Yes               | 3                            | Poor                         | Leans east with heavy lateral limbs; epicormic shoots.                                |
| 716      | Coast live oak | 53                        | Yes               | 3                            | Poor                         | Basal cavities; upright form; dead wood to 15"; ganoderma conks on lower trunk north. |
| 717      | Valley oak     | 31                        | Yes               | 3                            | Moderate                     | One-sided west.                                                                       |
| 718      | Coast live oak | 28                        | Yes               | 1                            | Poor                         | All but dead.                                                                         |
| 719      | Coast live oak | 13,11,7                   | Yes               | 4                            | Moderate                     | Multiple attachments at 3'; slightly thin crown.                                      |
| 720      | Coast live oak | 10,7,7                    | No                | 3                            | Moderate                     | Supressed; one-sided west.                                                            |
| 721      | Coast live oak | 45,35                     | Yes               | 3                            | Poor                         | Extensive trunk decay; stems splitting at attachment.                                 |
| 722      | Coast live oak | 13                        | Yes               | 0                            | Poor                         | Dead.                                                                                 |
| 723      | Coast live oak | 17                        | Yes               | 4                            | Good                         | Codominant trunks at 5'; wide attachment; trunk wound.                                |
| 724      | Coast live oak | 24                        | Yes               | 3                            | Moderate                     | Multiple attachments at 5'; several heavy lateral limbs; stem failure east.           |
| 725      | Coast live oak | 10,8,6,5                  | No                | 4                            | Moderate                     | Multiple attachments at base; dieback north.                                          |
| 726      | Coast live oak | 10,7                      | No                | 4                            | Good                         | Good form and structure; slightly thin crown.                                         |
| 727      | Coast live oak | 11                        | No                | 5                            | Good                         | Good form and structure.                                                              |
| 728      | Coast live oak | 11,10                     | No                | 4                            | Good                         | Codominant trunks at 4'; one-sided east.                                              |
| 729      | Coast live oak | 9,9,6                     | No                | 4                            | Good                         | Multiple attachments at 3'; one-sided west.                                           |
| 730      | Plum           | 7,6,6,5,5                 | No                | 3                            | Poor                         | Dieback in lower crown.                                                               |
| 731      | Coast live oak | 7,7,6                     | No                | 4                            | Moderate                     | Multiple attachments at 3'; slight lean east.                                         |
| 732      | Coast live oak | 9,8                       | No                | 3                            | Moderate                     | Codominant trunks at 2'; suppressed form.                                             |
| 733      | Coast live oak | 13,10,9                   | Yes               | 4                            | Moderate                     | Multiple attachments at base; one-sided east.                                         |
| 734      | Coast live oak | 12,7                      | Yes               | 4                            | Moderate                     | Crowded; asymmetric crown.                                                            |
| 735      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Suppressed form.                                                                      |
| 736      | Coast live oak | 7                         | No                | 3                            | Poor                         | Suppressed form; crown bowed west.                                                    |
| 737      | Coast live oak | 10,7                      | No                | 4                            | Moderate                     | Crowded; one-sided west.                                                              |
| 738      | Coast live oak | 11,7                      | No                | 4                            | Moderate                     | Crowded; asymmetric crown.                                                            |
| 739      | Plum           | 6,4                       | No                | 2                            | Poor                         | Extensive dieback.                                                                    |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                          |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-------------------------------------------------------------------|
| 740      | Coast live oak | 8,6                       | No                | 3                            | Poor                         | Crowded; suppressed form.                                         |
| 741      | Coast live oak | 13                        | Yes               | 4                            | Good                         | Upright form.                                                     |
| 742      | Coast live oak | 17                        | Yes               | 5                            | Good                         | Multiple attachments at 8'; twig dieback.                         |
| 743      | Coast live oak | 14,13,8                   | Yes               | 4                            | Good                         | Multiple attachments at 4'; seams in attachments; one-sided west. |
| 744      | Coast live oak | 13                        | Yes               | 4                            | Good                         | Upright form.                                                     |
| 745      | Coast live oak | 12,11,10                  | Yes               | 4                            | Good                         | Multiple attachments at 2'; dieback in lower crown.               |
| 746      | Coast live oak | 11,6,4                    | No                | 4                            | Moderate                     | Crowded; narrow crown.                                            |
| 747      | Coast live oak | 10                        | No                | 3                            | Poor                         | Crowded; narrow crown.                                            |
| 748      | Coast live oak | 16,12                     | Yes               | 3                            | Moderate                     | Codominant trunks at base; dieback in upper crown.                |
| 749      | Coast live oak | 9                         | No                | 3                            | Poor                         | Crowded; suppressed form.                                         |
| 750      | Coast live oak | 8                         | No                | 2                            | Poor                         | Suppressed form; bowed north to horizontal.                       |
| 751      | Coast live oak | 10                        | No                | 3                            | Moderate                     | Crowded; upright form.                                            |
| 752      | Coast live oak | 9                         | No                | 3                            | Poor                         | Crowded; leans north.                                             |
| 753      | Coast live oak | 14,11                     | Yes               | 4                            | Moderate                     | Multiple attachments at 5'; asymmetric crown.                     |
| 754      | Coast live oak | 7,3                       | No                | 3                            | Moderate                     | Crowded; narrow crown.                                            |
| 755      | Coast live oak | 11,9,9,8                  | No                | 4                            | Good                         | Multiple attachments at 3'; fair branch structure.                |
| 756      | Coast live oak | 12,9                      | Yes               | 4                            | Good                         | Crowded; upright form.                                            |
| 757      | Coast live oak | 19                        | Yes               | 5                            | Good                         | Multiple attachments at 6'; good structure.                       |
| 758      | Coast live oak | 17                        | Yes               | 4                            | Moderate                     | Crowded; asymmetric crown.                                        |
| 759      | Coast live oak | 9                         | No                | 3                            | Moderate                     | Crowded; high crown.                                              |
| 760      | Coast live oak | 15                        | Yes               | 4                            | Moderate                     | Crowded; one-sided west.                                          |
| 761      | Coast live oak | 11,10,9,8,5               | No                | 4                            | Moderate                     | Crowded; one-sided east.                                          |
| 762      | Valley oak     | 6                         | No                | 3                            | Moderate                     | Suppressed form; crown bowed southwest to horizontal.             |
| 763      | Coast live oak | 18                        | Yes               | 4                            | Good                         | Multiple attachments at 5'; dieback north.                        |
| 764      | Coast live oak | 12,12                     | Yes               | 4                            | Moderate                     | Upright form; one-sided north.                                    |
| 765      | Coast live oak | 8,8,7,4                   | No                | 4                            | Moderate                     | Crowded; narrow crown.                                            |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                                         |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|--------------------------------------------------------------------------------------------------|
| 766      | Coast live oak | 9,9,7,4                   | No                | 3                            | Moderate                     | Crowded; asymmetric crown; dieback of lower branches.                                            |
| 767      | Coast live oak | 10                        | No                | 4                            | Good                         | Crowded; upright form.                                                                           |
| 768      | Coast live oak | 15,13,6                   | Yes               | 4                            | Moderate                     | Multiple attachments at 2'; one-sided east.                                                      |
| 769      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Crowded; one-sided west.                                                                         |
| 770      | Coast live oak | 9,8,7                     | No                | 5                            | Good                         | Multiple attachments at 3'; good young tree.                                                     |
| 771      | Coast live oak | 8,6                       | No                | 5                            | Good                         | Good young tree.                                                                                 |
| 772      | Coast live oak | 10                        | No                | 3                            | Moderate                     | Crowded; one-sided southwest.                                                                    |
| 773      | Coast live oak | 11,7                      | No                | 4                            | Good                         | Good young tree; low branching.                                                                  |
| 774      | Coast live oak | 13,8,7                    | Yes               | 3                            | Moderate                     | Codominant trunks at base; growing in rock; seam in attachment; thin crown.                      |
| 775      | Coast live oak | 13,12,12,12,10,10         | Yes               | 4                            | Moderate                     | Multiple attachments at 2'; growing in rock; narrow attachments.                                 |
| 776      | Coast live oak | 7                         | No                | 1                            | Poor                         | Extensive dieback.                                                                               |
| 777      | Coast live oak | 9                         | No                | 5                            | Good                         | Good young tree; minor bleeding from trunk.                                                      |
| 778      | Coast live oak | 12,11                     | Yes               | 4                            | Good                         | Codominant trunks at 2'; dieback of lower branches north.                                        |
| 779      | Coast live oak | 29,22                     | Yes               | 5                            | Good                         | Multiple attachments at 4'; small crack in attachment of northern stem; good form and structure  |
| 780      | Coast live oak | 42                        | Yes               | 4                            | Moderate                     | Multiple attachments at 7'; spreading form; heavy lateral limbs to ground south; thinning crown. |
| 781      | Coast live oak | 15                        | Yes               | 3                            | Moderate                     | Crowded; one-sided north; trunk wounds.                                                          |
| 782      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Crowded; small crown.                                                                            |
| 783      | Coast live oak | 15                        | Yes               | 5                            | Good                         | Codominant trunks at 4'; seam in attachment; good young tree.                                    |
| 784      | Coast live oak | 8,5                       | No                | 3                            | Poor                         | Suppressed form; crown bowed southwest.                                                          |
| 785      | Coast live oak | 7                         | No                | 4                            | Moderate                     | Crowded; slight lean north.                                                                      |
| 786      | Coast live oak | 12,10                     | Yes               | 4                            | Moderate                     | Crowded; slight lean north.                                                                      |
| 787      | Coast live oak | 17,10                     | Yes               | 5                            | Good                         | Multiple attachments at 4'; good form and structure.                                             |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                          |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------------------------------------------------------------|
| 788      | Coast live oak | 13,12                     | Yes               | 3                            | Moderate                     | Crowded; asymmetric crown.                                                        |
| 789      | Coast live oak | 15,10                     | Yes               | 4                            | Moderate                     | Crowded; one-sided south.                                                         |
| 790      | Coast live oak | 50                        | Yes               | 3                            | Moderate                     | Multiple attachments at 7'; cavity at attachment south; dieback throughout crown. |
| 791      | Coast live oak | 42                        | Yes               | 4                            | Good                         | Codominant trunks at 7'; good form and structure.                                 |
| 792      | Coast live oak | 6                         | No                | 4                            | Good                         | One-sided south.                                                                  |
| 793      | Coast live oak | 11                        | No                | 4                            | Good                         | One-sided south.                                                                  |
| 794      | Coast live oak | 23                        | Yes               | 2                            | Poor                         | Extensive dieback.                                                                |
| 795      | Coast live oak | 25                        | Yes               | 3                            | Moderate                     | Multiple attachments at 10'; poor branch structure; thinning crown.               |
| 796      | Coast live oak | 15                        | Yes               | 3                            | Poor                         | Suppressed form; dieback in upper crown.                                          |
| 797      | Coast live oak | 29                        | Yes               | 4                            | Moderate                     | Multiple attachments at 8'; trunk wounds; dead wood.                              |
| 798      | Coast live oak | 29                        | Yes               | 1                            | Poor                         | All but dead; engulfed in lichens.                                                |
| 799      | Coast live oak | 14                        | Yes               | 4                            | Good                         | Slight lean east; good form and structure.                                        |
| 800      | Coast live oak | 23                        | Yes               | 2                            | Poor                         | Very thin crown.                                                                  |
| 801      | Coast live oak | 39                        | Yes               | 3                            | Poor                         | Small crown; cavity west.                                                         |
| 802      | Coast live oak | 42                        | Yes               | 3                            | Poor                         | Multiple attachments at 8'; dieback; epicormic shoots; heavy lateral stems south. |
| 803      | Coast live oak | 35                        | Yes               | 4                            | Moderate                     | Codominant trunks at 5'; spreading form; branches to the ground.                  |
| 804      | Coast live oak | 31                        | Yes               | 3                            | Moderate                     | Multiple attachments at 6'; dieback; trunk wound from stem failure.               |
| 805      | Coast live oak | 47                        | Yes               | 4                            | Good                         | Multiple attachments at 6'; narrow attachment north; branches to the ground.      |
| 806      | Coast live oak | 28,22                     | Yes               | 3                            | Moderate                     | Codominant trunks at 3'; suppressed form; all weight south.                       |
| 807      | Coast live oak | 58                        | Yes               | 1                            | Poor                         | Failed at 8'; crown formed by 4" regrowth; extensive trunk decay.                 |
| 808      | Coast live oak | 13                        | Yes               | 5                            | Good                         | Multiple attachments at 3'; narrow attachments; nice form.                        |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                          |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------------------------------------------------------------|
| 809      | Coast live oak | 17                        | Yes               | 5                            | Good                         | Multiple attachments at 5'; one-sided southeast.                                  |
| 810      | Coast live oak | 46                        | Yes               | 3                            | Poor                         | Multiple attachments at 5'; cavities with trunk decay; heavy lateral stem east.   |
| 811      | Coast live oak | 16                        | Yes               | 5                            | Good                         | Multiple attachments at 5'; narrow attachments; one-sided west.                   |
| 812      | Coast live oak | 9,8,7,7                   | No                | 5                            | Good                         | Multiple attachments at 2'; good form and structure.                              |
| 813      | Coast live oak | 6                         | No                | 3                            | Moderate                     | Suppressed form; one-sided east.                                                  |
| 814      | Coast live oak | 14,10,8,6                 | Yes               | 5                            | Good                         | Multiple attachments at 2'; pruned north over road.                               |
| 815      | Coast live oak | 9,8                       | No                | 4                            | Moderate                     | Codominant trunks at 1'; seam in attachment; one-sided south.                     |
| 816      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Suppressed form; crown bowed south.                                               |
| 817      | Coast live oak | 11                        | No                | 4                            | Good                         | Part of dense grove; one-sided southeast.                                         |
| 818      | Coast live oak | 15,14,13,12,9             | Yes               | 5                            | Good                         | Multiple attachments at 1'; good form and structure.                              |
| 819      | Coast live oak | 19,11                     | Yes               | 5                            | Good                         | Codominant trunks at 3'; good form and structure.                                 |
| 820      | Coast live oak | 14                        | Yes               | 5                            | Good                         | Multiple attachments at 6'; narrow attachments; nice form.                        |
| 821      | Coast live oak | 25,20                     | Yes               | 4                            | Good                         | Codominant trunks at 3'; included bark and old canker attachment; spreading form. |
| 822      | Coast live oak | 7,6,6,5,5                 | No                | 3                            | Moderate                     | Multiple attachments at 2'; one-sided south.                                      |
| 823      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Edge of dense grove; one-sided south.                                             |
| 824      | Coast live oak | 6,4                       | No                | 3                            | Poor                         | Suppressed form.                                                                  |
| 825      | Coast live oak | 7,6,5                     | No                | 3                            | Moderate                     | Edge of dense grove; one-sided south.                                             |
| 826      | Coast live oak | 6                         | No                | 3                            | Moderate                     | Part of dense grove; upright form.                                                |
| 827      | Coast live oak | 11                        | No                | 4                            | Moderate                     | Part of dense grove; asymmetric crown.                                            |
| 828      | Coast live oak | 14                        | Yes               | 3                            | Moderate                     | Part of dense grove; slight lean south.                                           |
| 829      | Coast live oak | 13                        | Yes               | 3                            | Poor                         | Part of dense grove; poor form and structure.                                     |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                     |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|------------------------------------------------------------------------------|
| 830      | Coast live oak | 18                        | Yes               | 4                            | Moderate                     | Part of dense grove; multiple attachments at 8'; asymmetric crown.           |
| 831      | Coast live oak | 10,10                     | No                | 3                            | Moderate                     | Edge of dense grove; leans northwest.                                        |
| 832      | Coast live oak | 17                        | Yes               | 4                            | Moderate                     | Part of dense grove; one-sided west.                                         |
| 833      | Coast live oak | 20                        | Yes               | 4                            | Good                         | Edge of dense grove; multiple attachments at 8'; one-sided south.            |
| 834      | Coast live oak | 14,10                     | Yes               | 4                            | Good                         | Edge of dense grove; slight lean south.                                      |
| 835      | Coast live oak | 11,8                      | No                | 3                            | Poor                         | Suppressed form.                                                             |
| 836      | Coast live oak | 14                        | Yes               | 4                            | Moderate                     | Good form and structure; thin crown.                                         |
| 837      | Coast live oak | 8                         | No                | 5                            | Good                         | Good young tree; engulfed in berries.                                        |
| 838      | Coast live oak | 8,4                       | No                | 5                            | Good                         | No tag; good young tree; engulfed in berries.                                |
| 839      | Coast live oak | 32                        | Yes               | 5                            | Good                         | Multiple attachments at 6'; nice, upright form.                              |
| 840      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Suppressed form; thin in upper crown.                                        |
| 841      | Coast live oak | 21                        | Yes               | 5                            | Good                         | Multiple attachments at 5'; good form and structure; basal swelling.         |
| 842      | Madrone        | 12,11                     | No                | 4                            | Good                         | Codominant trunks at 2'; trunk wound with decay on southern stem; nice form. |
| 843      | Coast live oak | 10,9,9,9,8,7              | No                | 4                            | Good                         | Multiple attachments at 3'; one-sided east.                                  |
| 844      | Coast live oak | 23                        | Yes               | 5                            | Good                         | Codominant trunks at 6'; wide attachment.                                    |
| 845      | Coast live oak | 17                        | Yes               | 5                            | Good                         | Good form and structure; one-sided north.                                    |
| 846      | Coast live oak | 11                        | No                | 4                            | Moderate                     | Part of dense grove; upright form.                                           |
| 847      | Coast live oak | 14                        | Yes               | 3                            | Moderate                     | Crowded; asymmetric crown.                                                   |
| 848      | Coast live oak | 12,8                      | Yes               | 3                            | Moderate                     | Crowded; one-sided west.                                                     |
| 849      | Coast live oak | 14,13                     | Yes               | 4                            | Good                         | Part of dense grove; upright form.                                           |
| 850      | Coast live oak | 13,10                     | Yes               | 3                            | Moderate                     | Part of dense grove; narrow crown.                                           |
| 851      | Coast live oak | 8                         | No                | 2                            | Poor                         | Part of dense grove; suppressed form.                                        |
| 852      | Coast live oak | 18                        | Yes               | 4                            | Moderate                     | Part of dense grove; one-sided southeast.                                    |
| 853      | Coast live oak | 11,10                     | No                | 3                            | Moderate                     | Part of dense grove; bleeding along trunk; asymmetric crown.                 |
| 854      | Coast live oak | 11,10,9                   | No                | 3                            | Moderate                     | Part of dense grove; stems twisted around one another; one-sided south.      |
| 855      | Coast live oak | 10,5                      | No                | 3                            | Poor                         | Part of dense grove; suppressed form.                                        |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                              |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------------------------------------------------|
| 856      | Valley oak     | 9                         | No                | 3                            | Moderate                     | Part of dense grove; narrow crown.                                    |
| 857      | Coast live oak | 11                        | No                | 3                            | Poor                         | Part of dense grove; narrow crown; bark checking.                     |
| 858      | Coast live oak | 10,5,4                    | No                | 3                            | Poor                         | Part of dense grove; asymmetric crown; dead wood..                    |
| 859      | Coast live oak | 8                         | No                | 2                            | Poor                         | Part of dense grove; small crown.                                     |
| 860      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Part of dense grove; upright form.                                    |
| 861      | Coast live oak | 12,10,10,8                | Yes               | 3                            | Moderate                     | Edge of dense grove; multiple attachments at 1'; one-sided west.      |
| 862      | Coast live oak | 6,5,4,4                   | No                | 3                            | Moderate                     | Multiple attachments at base; stem failures north.                    |
| 863      | Coast live oak | 13,12,11                  | Yes               | 4                            | Moderate                     | Edge of dense grove; multiple attachments at 2'.                      |
| 864      | Coast live oak | 13,11                     | Yes               | 3                            | Moderate                     | Part of dense grove; asymmetric; thin crown.                          |
| 865      | Coast live oak | 7                         | No                | 2                            | Poor                         | Part of dense grove; suppressed form.                                 |
| 866      | Coast live oak | 15,9                      | Yes               | 4                            | Good                         | Part of dense grove; asymmetric crown.                                |
| 867      | Coast live oak | 16                        | Yes               | 4                            | Good                         | Part of dense grove; upright form.                                    |
| 868      | Coast live oak | 6                         | No                | 3                            | Poor                         | Part of dense grove; suppressed form.                                 |
| 869      | Coast live oak | 15,10                     | Yes               | 3                            | Moderate                     | Edge of dense grove; multiple attachments at 4'; one-sided west.      |
| 870      | Coast live oak | 18,13                     | Yes               | 4                            | Moderate                     | Edge of dense grove; slightly leaning and one-sided north.            |
| 871      | Coast live oak | 8,6                       | No                | 3                            | Moderate                     | Part of dense grove; poor form and structure; engulfed in poison oak. |
| 872      | Coast live oak | 10,9,7,5,5                | No                | 5                            | Good                         | Multiple attachments at base; good young tree.                        |
| 873      | Coast live oak | 7,5                       | No                | 3                            | Poor                         | Crowded; one-sided south; thin crown.                                 |
| 874      | Coast live oak | 9,9,6,4                   | No                | 5                            | Good                         | Multiple attachments at 1'; good young tree.                          |
| 875      | Coast live oak | 6,3                       | No                | 5                            | Good                         | No tag; good young tree; engulfed in berries.                         |
| 876      | Coast live oak | 11                        | No                | 4                            | Moderate                     | Good young tree; erosion south expsd roots.                           |
| 877      | Coast live oak | 13,5,3                    | Yes               | 5                            | Good                         | Multiple attachments at 1'; good young tree.                          |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                                       |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|------------------------------------------------------------------------------------------------|
| 878      | Coast live oak | 6,6                       | No                | 4                            | Moderate                     | Codominant trunks at 3'; crowded and one-sided east.                                           |
| 879      | Coast live oak | 11,10,9                   | No                | 4                            | Moderate                     | Multiple attachments at 2'; crowded and one-sided south.                                       |
| 880      | Coast live oak | 12,11,8,8,5               | Yes               | 4                            | Good                         | Multiple attachments at 2'; low growing; bleedin along trunk...                                |
| 881      | Coast live oak | 11,8                      | No                | 4                            | Moderate                     | Codominant trunks at 2'; dieback east.                                                         |
| 882      | Coast live oak | 7,6,6                     | No                | 3                            | Moderate                     | Multiple attachments at 1'; thin crown.                                                        |
| 883      | Coast live oak | 48                        | Yes               | 3                            | Poor                         | Multiple attachments at 8'; very thin crown; branches to the ground.                           |
| 884      | Coast live oak | 45                        | Yes               | 2                            | Poor                         | Extensive trunk decay; cavities throughout; small crown.                                       |
| 885      | Coast live oak | 26                        | Yes               | 2                            | Poor                         | Extensive trunk decay; cavities throughout; small crown.                                       |
| 886      | Coast live oak | 29,22                     | Yes               | 3                            | Moderate                     | Codominant trunks at base; good structure; thin crown.                                         |
| 887      | Coast live oak | 26                        | Yes               | 3                            | Moderate                     | Multiple attachments at 8'; one-sided east.                                                    |
| 888      | Coast live oak | 35                        | Yes               | 1                            | Poor                         | Very thin crown; all but dead.                                                                 |
| 889      | Coast live oak | 21                        | Yes               | 5                            | Good                         | On fence line; multiple attachments at 5'; fair branch structure; extends 20' east over fence. |
| 890      | Valley oak     | 40                        | Yes               | 5                            | Good                         | Multiple attachments at 10'; heavy lateral limbs south; branches to the ground.                |
| 891      | Coast live oak | 56,54                     | Yes               | 3                            | Poor                         | Codominant trunks at 3'; multiple large stem failures; northern stem thinning in upper crown.  |
| 892      | Coast live oak | 11,10,9                   | No                | 5                            | Good                         | Multiple attachments at 4'; good young tree.                                                   |
| 893      | Coast live oak | 22,14,12                  | Yes               | 5                            | Good                         | Multiple attachments at 3'; one-sided south.                                                   |
| 894      | Coast live oak | 18,15,8                   | Yes               | 5                            | Good                         | Multiple attachments at 3'; one-sided north.                                                   |
| 895      | Coast live oak | 11                        | No                | 5                            | Good                         | Multiple attachments at 5'; one-sided south.                                                   |
| 896      | Valley oak     | 28                        | Yes               | 5                            | Good                         | Slight lean and one-sided east; cankers along branches.                                        |
| 897      | Coast live oak | 36,18,11,11               | Yes               | 3                            | Moderate                     | Failed at base and turned up; dieback in upper crown.                                          |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                               |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|------------------------------------------------------------------------|
| 898      | Coast live oak | 25                        | Yes               | 4                            | Good                         | Multiple attachments at 8'; one-sided northwest.                       |
| 899      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Suppressed form; bowed west to horizontal.                             |
| 900      | Coast live oak | 27                        | Yes               | 5                            | Good                         | Multiple attachments at 6'; good form and structure.                   |
| 901      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Part of dense grove; leans northwest.                                  |
| 902      | Coast live oak | 14                        | Yes               | 4                            | Moderate                     | Part of dense grove; one-sided south.                                  |
| 903      | Coast live oak | 9                         | No                | 3                            | Moderate                     | Part of dense grove; leans northwest.                                  |
| 904      | Coast live oak | 15,11,7                   | Yes               | 4                            | Moderate                     | Part of dense grove; multiple attachments at base; asymmetric crown.   |
| 905      | Coast live oak | 7,6                       | No                | 3                            | Poor                         | Part of dense grove; crown bowed northwest to horizontal.              |
| 906      | Coast live oak | 10,9,9,5                  | No                | 3                            | Moderate                     | Multiple attachments at 3'; thin crown.                                |
| 907      | Coast live oak | 6,5                       | No                | 4                            | Good                         | Codominant trunks at base; good young tree.                            |
| 908      | Coast live oak | 13,12,11,10               | Yes               | 5                            | Good                         | Multiple attachments at 3'; growing up-slope; good form and structure. |
| 909      | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | Dieback throughout crown.                                              |
| 910      | Coast live oak | 13,12,12                  | Yes               | 5                            | Good                         | Multiple attachments at 2'; good form and structure.                   |
| 911      | Coast live oak | 6                         | No                | 3                            | Moderate                     | Suppressed form; leans north.                                          |
| 912      | Coast live oak | 7,4                       | No                | 4                            | Moderate                     | Codominant trunks at 1'; good young tree.                              |
| 913      | Coast live oak | 12,10                     | Yes               | 4                            | Good                         | Codominant trunks at 3'; one-sided east.                               |
| 914      | Coast live oak | 8,6                       | No                | 3                            | Moderate                     | .Multiple attachments at 1'; dieback of lower branches.                |
| 915      | Coast live oak | 7,7,6                     | No                | 5                            | Good                         | .Multiple attachments at 1'; seam in attachment.                       |
| 916      | Coast live oak | 10,9,8                    | No                | 5                            | Good                         | Multiple attachments at 2'; good form and structure.                   |
| 917      | Coast live oak | 11                        | No                | 5                            | Good                         | Slight lean north; good form and structure.                            |
| 918      | Coast live oak | 8,7                       | No                | 2                            | Poor                         | Codominant trunks at 1'; very thin crown.                              |
| 919      | Coast live oak | 6                         | No                | 5                            | Good                         | Good young tree; browse damage of low branches.                        |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                             |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|----------------------------------------------------------------------|
| 920      | Coast live oak | 26,17                     | Yes               | 5                            | Good                         | Codominant trunks at 4'; good form and structure.                    |
| 921      | Coast live oak | 16,12,6,5                 | Yes               | 4                            | Good                         | Multiple attachments at base'; one-sided south.                      |
| 922      | Coast live oak | 7,6,4                     | No                | 5                            | Good                         | Multiple attachments at 2'; good young tree; branches to the ground. |
| 923      | Coast live oak | 9,8,8,5                   | No                | 3                            | Moderate                     | Multiple attachments at base; twig dieback.                          |
| 924      | Coast live oak | 7,5                       | No                | 5                            | Good                         | Good young tree; light colored leaves.                               |
| 925      | Coast live oak | 11,5                      | No                | 4                            | Moderate                     | Codominant trunks at base; twig dieback.                             |
| 926      | Coast live oak | 7,6,5,4                   | No                | 4                            | Moderate                     | Multiple attachments at base; fair structure.                        |
| 927      | Coast live oak | 8,8                       | No                | 5                            | Good                         | Codominant trunks at 1'; good young tree.                            |
| 928      | Madrone        | 21,12,12                  | No                | 2                            | Poor                         | Extensive trunk wounds; decay; dieback.                              |
| 929      | Coast live oak | 10                        | No                | 5                            | Good                         | Edge of dense grove; good form and structure.                        |
| 930      | Coast live oak | 15                        | Yes               | 5                            | Good                         | Part of dense grove; one-sided south.                                |
| 931      | Coast live oak | 8,6,5                     | No                | 4                            | Moderate                     | Edge of dense grove; dieback.                                        |
| 932      | Coast live oak | 9                         | No                | 3                            | Poor                         | Part of dense grove; suppressed form.                                |
| 933      | Coast live oak | 9,7                       | No                | 3                            | Poor                         | Part of dense grove; suppressed form.                                |
| 934      | Coast live oak | 10                        | No                | 3                            | Moderate                     | Part of dense grove; asymmetric crown.                               |
| 935      | Coast live oak | 12,5                      | Yes               | 3                            | Moderate                     | Part of dense grove; crown bowed south.                              |
| 936      | Coast live oak | 11,10                     | No                | 4                            | Moderate                     | Part of dense grove; asymmetric crown.                               |
| 937      | Coast live oak | 10,9,9,7,6                | No                | 4                            | Good                         | Edge of dense grove; one-sided south.                                |
| 938      | Coast live oak | 14                        | Yes               | 4                            | Good                         | Part of dense grove; slightly one-sided south.                       |
| 939      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Part of dense grove; one-sided west.                                 |
| 940      | Coast live oak | 11,7,4                    | No                | 4                            | Moderate                     | Part of dense grove; upright form.                                   |
| 941      | Coast live oak | 8                         | No                | 2                            | Poor                         | Part of dense grove; leans west; thin crown.                         |
| 942      | Coast live oak | 6,5                       | No                | 3                            | Poor                         | Part of dense grove; leans west.                                     |
| 943      | Coast live oak | 8                         | No                | 2                            | Poor                         | Part of dense grove; suppressed form.                                |
| 944      | Coast live oak | 7                         | No                | 3                            | Moderate                     | Part of dense grove; leans north.                                    |
| 945      | Coast live oak | 6,4                       | No                | 2                            | Poor                         | Part of dense grove; suppressed form.                                |
| 946      | Coast live oak | 10                        | No                | 4                            | Moderate                     | Part of dense grove; wide attachment; upright form.                  |
| 947      | Coast live oak | 8                         | No                | 3                            | Poor                         | Part of dense grove; suppressed form.                                |
| 948      | Coast live oak | 8,7                       | No                | 3                            | Moderate                     | Part of dense grove; leans north.                                    |

# Tree Survey

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                              |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|---------------------------------------------------------------------------------------|
| 949      | Coast live oak | 7                         | No                | 2                            | Poor                         | Part of dense grove; small crown.                                                     |
| 950      | Coast live oak | 12                        | Yes               | 4                            | Moderate                     | Part of dense grove; upright form.                                                    |
| 951      | Coast live oak | 44                        | Yes               | 3                            | Moderate                     | Multiple attachments at 10'; heavy lateral limbs northeast; epicormic shoots/dieback. |
| 952      | Coast live oak | 20                        | Yes               | 4                            | Moderate                     | Part of dense grove; upright form; twig dieback.                                      |
| 953      | Coast live oak | 13                        | Yes               | 4                            | Moderate                     | Part of dense grove; one-sided east.                                                  |
| 954      | Coast live oak | 10,3                      | No                | 3                            | Moderate                     | Part of dense grove; suppressed form.                                                 |
| 955      | Coast live oak | 10,10,8,7                 | No                | 4                            | Moderate                     | Part of dense grove; seam in attachment; one-sided east.                              |
| 956      | Coast live oak | 10,9,5                    | No                | 3                            | Moderate                     | Part of dense grove; asymmetric crown.                                                |
| 957      | Coast live oak | 10,9,4                    | No                | 3                            | Moderate                     | Part of dense grove; asymmetric crown; dieback.                                       |
| 958      | Coast live oak | 15,13                     | Yes               | 5                            | Good                         | Codominant trunks at 3'; seam in attachment.                                          |
| 959      | Coast live oak | 17                        | Yes               | 4                            | Moderate                     | Part of dense grove; multiple attachments at 5'.                                      |
| 960      | Coast live oak | 13                        | Yes               | 4                            | Moderate                     | Edge of dense grove; wide attachment.                                                 |
| 961      | Coast live oak | 39                        | Yes               | 3                            | Poor                         | Codominant trunks at 6'; dieback throughout crown.                                    |
| 962      | Coast live oak | 9,8,7                     | No                | 3                            | Moderate                     | Edge of dense grove; multiple attachments at 3'; seam in attachment.                  |
| 963      | Coast live oak | 18                        | Yes               | 4                            | Moderate                     | Multiple attachments at 5'; twig and branch dieback.                                  |
| 964      | Coast live oak | 8,8,6                     | No                | 3                            | Moderate                     | Edge of dense grove; one-sided west.                                                  |
| 965      | Coast live oak | 11                        | No                | 4                            | Moderate                     | Part of dense grove; upright form.                                                    |
| 966      | Coast live oak | 18,15,11                  | Yes               | 4                            | Good                         | Part of dense grove; multiple attachments at 2'.                                      |
| 967      | Coast live oak | 25,12                     | Yes               | 3                            | Moderate                     | Growing down-slope; heavy lateral limb south; engulfed in poison oak.                 |
| 968      | Coast live oak | 18                        | Yes               | 3                            | Moderate                     | Growing down-slope; one-sided east; engulfed in poison oak.                           |
| 969      | Coast live oak | 15                        | Yes               | 4                            | Moderate                     | Growing down-slope; one-sided west; engulfed in poison oak.                           |
| 970      | Coast live oak | 20                        | Yes               | 2                            | Poor                         | Growing down-slope; dieback in upper crown.                                           |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                       |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|----------------------------------------------------------------|
| 971      | Coast live oak | 13                        | Yes               | 4                            | Good                         | Part of dense grove; low lateral south.                        |
| 972      | Coast live oak | 13                        | Yes               | 4                            | Moderate                     | Edge of dense grove; slightly thin crown.                      |
| 973      | Coast live oak | 12,11,10                  | Yes               | 3                            | Moderate                     | Multiple attachments at 2'; narrow attachments; thin crown.    |
| 974      | Coast live oak | 39                        | Yes               | 4                            | Good                         | Slight lean east; trunk wounds; branches to the ground east.   |
| 975      | Coast live oak | 25                        | Yes               | 4                            | Moderate                     | Leans east; dieback; very narrow attachment.                   |
| 976      | Coast live oak | 9,9,8                     | No                | 5                            | Good                         | Multiple attachments at base; good young tree.                 |
| 977      | Coast live oak | 6                         | No                | 3                            | Poor                         | Part of dense grove; asymmetric crown.                         |
| 978      | Coast live oak | 10,9                      | No                | 3                            | Poor                         | Edge of dense grove; thin crown.                               |
| 979      | Coast live oak | 8,7,5                     | No                | 4                            | Moderate                     | Part of dense grove; one-sided south.                          |
| 980      | Coast live oak | 8,8                       | No                | 4                            | Moderate                     | Part of dense grove; asymmetric crown.                         |
| 981      | Coast live oak | 6,6,5,4                   | No                | 3                            | Poor                         | Part of dense grove; suppressed form.                          |
| 982      | Coast live oak | 7                         | No                | 4                            | Moderate                     | Part of dense grove; upright form.                             |
| 983      | Coast live oak | 9,9,8,6                   | No                | 5                            | Good                         | Multiple attachments at 2'; good form and structure.           |
| 984      | Coast live oak | 14                        | Yes               | 5                            | Good                         | Good young tree.                                               |
| 985      | Coast live oak | 8                         | No                | 3                            | Moderate                     | Part of dense grove; leans east.                               |
| 986      | Coast live oak | 6                         | No                | 3                            | Moderate                     | Part of dense grove; leans south; small crown.                 |
| 987      | Coast live oak | 8,7,6                     | No                | 4                            | Moderate                     | Part of dense grove; multiple attachments at 4'; upright form. |
| 988      | Coast live oak | 8,4                       | No                | 3                            | Moderate                     | Part of dense grove; narrow crown.                             |
| 989      | Coast live oak | 7,4                       | No                | 3                            | Moderate                     | Part of dense grove; asymmetric crown.                         |
| 990      | Coast live oak | 8                         | No                | 3                            | Poor                         | Part of dense grove; thin crown.                               |
| 991      | Coast live oak | 30,16                     | Yes               | 2                            | Poor                         | Extensive dieback; trunk wounds/decay.                         |
| 992      | Coast live oak | 9,8                       | No                | 4                            | Moderate                     | Codominant trunks at 2'; good young tree.                      |
| 993      | Coast live oak | 12,10,8,6                 | Yes               | 3                            | Moderate                     | Multiple attachments at 2'; twig dieback.                      |
| 994      | Coast live oak | 9,9,5                     | No                | 3                            | Moderate                     | Multiple attachments at base; asymmetric crown.                |
| 995      | Coast live oak | 6,3                       | No                | 3                            | Moderate                     | Small crown; leaf scorch.                                      |
| 996      | Coast live oak | 8,8                       | No                | 3                            | Moderate                     | Codominant trunks at base; thin crown.                         |
| 997      | Coast live oak | 7                         | No                | 2                            | Poor                         | Windswept; thin crown.                                         |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION<br>1=POOR<br>5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                             |
|----------|----------------|---------------------------|-------------------|------------------------------------|------------------------------|--------------------------------------------------------------------------------------|
|          |                |                           |                   |                                    |                              |                                                                                      |
| 998      | Coast live oak | 8                         | No                | 2                                  | Poor                         | Dieback; minor trunk wound.                                                          |
| 999      | Coast live oak | 9                         | No                | 3                                  | Moderate                     | Crowded; asymmetric crown.                                                           |
| 1000     | Coast live oak | 14                        | Yes               | 4                                  | Good                         | Multiple attachments at 4'; good young tree.                                         |
| 1001     | Coast live oak | 6,5,5                     | No                | 4                                  | Good                         | Multiple attachments at 1'; shrubby at base.                                         |
| 1002     | Coast live oak | 7,6                       | No                | 4                                  | Moderate                     | Codominant trunks at base; one-sided east.                                           |
| 1003     | Coast live oak | 10,7                      | No                | 4                                  | Good                         | Codominant trunks at base; minor twig dieback.                                       |
| 1004     | Coast live oak | 15                        | Yes               | 3                                  | Moderate                     | Multiple attachments at 6'; one-sided north.                                         |
| 1005     | Coast live oak | 13,10,8                   | Yes               | 4                                  | Moderate                     | Multiple attachments at base; one-sided south.                                       |
| 1006     | Coast live oak | 25                        | Yes               | 1                                  | Poor                         | Extensive dieback.                                                                   |
| 1007     | Coast live oak | 31                        | Yes               | 4                                  | Moderate                     | Multiple attachments at 4'; good young tree.                                         |
| 1008     | Coast live oak | 28,25                     | Yes               | 4                                  | Good                         | Codominant trunks at 3'; wide attachment; low laterals east.                         |
| 1009     | Coast live oak | 7,6                       | No                | 5                                  | Good                         | Good young tree.                                                                     |
| 1010     | Coast live oak | 15                        | Yes               | 5                                  | Good                         | Multiple attachments at 6'; good young tree.                                         |
| 1011     | Coast live oak | 6,6,6,4                   | No                | 4                                  | Moderate                     | Multiple attachments at 2'; large leaves; light color.                               |
| 1012     | Coast live oak | 36                        | Yes               | 4                                  | Good                         | Large laterals southwest to ground; forms closed canopy with neighbors.              |
| 1013     | Coast live oak | 28,26,20                  | Yes               | 4                                  | Moderate                     | Multiple attachments at 3'; spreading form with branches to the ground; adding wood. |
| 1014     | Valley oak     | 27                        | Yes               | 4                                  | Moderate                     | Codominant trunks at 6'; one-sided east.                                             |
| 1015     | Coast live oak | 16                        | Yes               | 2                                  | Poor                         | Crown bowed south to horizontal; very thin crown.                                    |
| 1016     | Calif. buckeye | 17,16,11                  | No                | 2                                  | Poor                         | Basal decay; multiple branch failures.                                               |
| 1017     | Coast live oak | 27                        | Yes               | 3                                  | Poor                         | Codominant trunks at 7'; dieback and epicormic shoots throughout canopy.             |
| 1018     | Coast live oak | 46                        | Yes               | 4                                  | Good                         | Codominant trunks at 5'; cavity at attachment; very nice form.                       |
| 1019     | Coast live oak | 36                        | Yes               | 4                                  | Good                         | Multiple attachments at 6'; one-sided south; good form.                              |
| 1020     | Coast live oak | 7                         | No                | 4                                  | Moderate                     | Good young tree; basal wound.                                                        |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                 |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|--------------------------------------------------------------------------|
|          |                |                           |                   |                              |                              |                                                                          |
| 1021     | Valley oak     | 11                        | No                | 4                            | Good                         | Slight lean southwest; minor dieback.                                    |
| 1022     | Coast live oak | 18                        | Yes               | 5                            | Good                         | Good young tree.                                                         |
| 1023     | Coast live oak | 22                        | Yes               | 3                            | Poor                         | Suppressed form; mostly epicormic shoots.                                |
| 1024     | Coast live oak | 23                        | Yes               | 4                            | Moderate                     | One-sided north; small leaves.                                           |
| 1025     | Coast live oak | 10                        | No                | 2                            | Poor                         | Suppressed form; bowed north to horizontal.                              |
| 1026     | Coast live oak | 41                        | Yes               | 4                            | Good                         | Multiple attachments at 7'; adding wood at attachment.                   |
| 1027     | Coast live oak | 16                        | Yes               | 3                            | Moderate                     | Suppressed an leaning south; small crown.                                |
| 1028     | Coast live oak | 16                        | Yes               | 2                            | Poor                         | Extensive trunk decay; top failed and resprouted.                        |
| 1029     | Toyon          | 6                         | No                | 3                            | Moderate                     | Suppressed form.                                                         |
| 1030     | Coast live oak | 28                        | Yes               | 4                            | Moderate                     | Multiple attachments at 10'; thinning crown; epicormic shoots.           |
| 1031     | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | Suppressed form; high crown.                                             |
| 1032     | Coast live oak | 27,17                     | Yes               | 3                            | Moderate                     | Multiple attachments at 6'; one-sided south.                             |
| 1033     | Coast live oak | 13                        | Yes               | 3                            | Moderate                     | Suppressed form; one-sided southeast.                                    |
| 1034     | Olive          | 10,3                      | No                | 4                            | Moderate                     | Suppressed form; good young tree.                                        |
| 1035     | Valley oak     | 21                        | Yes               | 4                            | Moderate                     | Codominant trunks at 6'; engulfed in poison oak.                         |
| 1036     | Coast live oak | 22                        | Yes               | 5                            | Good                         | Multiple attachments at 4'; low lateral east; good form and structure.   |
| 1037     | Valley oak     | 25                        | Yes               | 4                            | Good                         | Good form and structure; canker on branch north; engulfed in poison oak. |
| 1038     | Coast live oak | 30                        | Yes               | 5                            | Good                         | Multiple attachments at 10'; one-sided east.                             |
| 1039     | Coast live oak | 17                        | Yes               | 3                            | Moderate                     | Crowded; high, asymmetric crown.                                         |
| 1040     | Coast live oak | 19                        | Yes               | 3                            | Moderate                     | Leans and one-sided east.                                                |
| 1041     | Coast live oak | 24                        | Yes               | 4                            | Moderate                     | Multiple attachments at 10'; narrow attachment; upright form.            |
| 1042     | Coast live oak | 19                        | Yes               | 5                            | Good                         | Good young tree.                                                         |
| 1043     | Coast live oak | 9,9,9                     | No                | 3                            | Moderate                     | Crowded with asymmetric crown.                                           |
| 1044     | Valley oak     | 10                        | No                | 5                            | Good                         | Good young tree.                                                         |
| 1045     | Valley oak     | 7                         | No                | 4                            | Good                         | Crowded; asymmetric crown.                                               |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                            |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|---------------------------------------------------------------------|
| 1046     | Valley oak     | 14                        | Yes               | 5                            | Good                         | Good young tree.                                                    |
| 1047     | Coast live oak | 6,4                       | No                | 5                            | Good                         | Codominant trunks at 2'; good young tree.                           |
| 1048     | Valley oak     | 7                         | No                | 5                            | Good                         | Good young tree.                                                    |
| 1049     | Valley oak     | 16                        | Yes               | 5                            | Good                         | Multiple attachment at 25'; upright form.                           |
| 1050     | Coast live oak | 19                        | Yes               | 4                            | Moderate                     | Codominant trunks at 5'; one-sided north.                           |
| 1051     | Coast live oak | 8                         | No                | 5                            | Good                         | Good young tree.                                                    |
| 1052     | Coast live oak | 6,6,4                     | No                | 5                            | Good                         | Good young tree; branches to the ground.                            |
| 1053     | Coast live oak | 6                         | No                | 5                            | Good                         | Good young tree; crowded.                                           |
| 1054     | Coast live oak | 19                        | Yes               | 4                            | Moderate                     | Good form and structure; pruned heavy at fence line north.          |
| 1055     | Coast live oak | 14,13,12                  | Yes               | 4                            | Moderate                     | Multiple attachments at base; pruned heavy at fence line north.     |
| 1056     | Coast live oak | 6,4                       | No                | 5                            | Good                         | Codominant trunks at 4'; crowded.                                   |
| 1057     | Coast live oak | 8                         | No                | 5                            | Good                         | Good young tree; one-sided south.                                   |
| 1058     | Coast live oak | 6                         | No                | 5                            | Good                         | Good young tree; one-sided south.                                   |
| 1059     | Coast live oak | 47                        | Yes               | 4                            | Moderate                     | Multiple attachments at 5'; history of branch failure.              |
| 1060     | Coast live oak | 28                        | Yes               | 4                            | Moderate                     | Multiple attachments at 12'; dieback and history of branch failure. |
| 1061     | Coast live oak | 39,28                     | Yes               | 4                            | Moderate                     | Crowded; asymmetric crown; heavy lateral limb east.                 |
| 1062     | Coast live oak | 11,8,7                    | No                | 3                            | Moderate                     | Crown bowed northeast; trunk & branch wounds.                       |
| 1063     | Coast live oak | 38                        | Yes               | 5                            | Good                         | Multiple attachments at 8'; heavy lateral limb west.                |
| 1064     | Olive          | 6                         | No                | 4                            | Moderate                     | Crowded; crown bowed east.                                          |
| 1065     | Coast live oak | 37                        | Yes               | 4                            | Moderate                     | Multiple attachments at 8'; twig dieback; heavy lateral limbs east. |
| 1066     | Coast live oak | 14                        | Yes               | 5                            | Good                         | Codominant trunks at 10'; good young tree.                          |
| 1067     | Coast live oak | 17                        | Yes               | 4                            | Good                         | Good form and structure; thin crown.                                |
| 1068     | Valley oak     | 24                        | Yes               | 4                            | Moderate                     | Tag on fence; multiple attachments at 20'; high crown.              |

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| TREE No. | SPECIES          | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                   |
|----------|------------------|---------------------------|-------------------|------------------------------|------------------------------|----------------------------------------------------------------------------|
| 1069     | Coast live oak   | 30,19                     | Yes               | 4                            | Good                         | Codominant trunks at base; 19" stem bowed west.                            |
| 1070     | Coast live oak   | 14                        | Yes               | 3                            | Moderate                     | Suppressed form; leans east.                                               |
| 1071     | Coast live oak   | 8                         | No                | 3                            | Poor                         | Suppressed form; bowed south to horizontal.                                |
| 1072     | Coast live oak   | 28                        | Yes               | 5                            | Good                         | Upright form.                                                              |
| 1073     | Coast live oak   | 14                        | Yes               | 3                            | Moderate                     | Suppressed form; leans south.                                              |
| 1074     | Toyon            | 8                         | No                | 2                            | Poor                         | Western half dead.                                                         |
| 1075     | Monterey pine    | 31                        | No                | 1                            | Poor                         | Extensive pine pitch canker; dead top.                                     |
| 1076     | Monterey pine    | 25                        | No                | 2                            | Poor                         | Pine pitch canker; poor form and structure.                                |
| 1077     | Monterey pine    | 31                        | No                | 2                            | Poor                         | Codominant trunks at 7; pine pitch canker.                                 |
| 1078     | Monterey pine    | 27                        | No                | 2                            | Poor                         | Laterals south; pine pitch canker.                                         |
| 1079     | Monterey pine    | 36                        | No                | 3                            | Poor                         | Multiple attachments at 10'; pine pitch canker.                            |
| 1080     | Coast live oak   | 50                        | Yes               | 5                            | Good                         | Big tree; multiple attachments at 10'; several heavy lateral limbs to 36". |
| 1081     | Coast live oak   | 6,5                       | No                | 4                            | Good                         | Codominant trunks at 2'; seam in attachment.                               |
| 1082     | Coast live oak   | 11,9,8                    | No                | 3                            | Moderate                     | Multiple attachments at 2'; one-sided south.                               |
| 1083     | Coast live oak   | 10                        | No                | 3                            | Moderate                     | Suppressed form; leans south.                                              |
| 1084     | Coast live oak   | 14,7                      | Yes               | 4                            | Good                         | One sided south; low lateral.                                              |
| 1085     | Coast live oak   | 39                        | Yes               | 2                            | Poor                         | Extensive dieback; history of branch failure; declining.                   |
| 1086     | Coast live oak   | 32                        | Yes               | 2                            | Poor                         | Multiple stem failures; large ganoderma conk south; declining.             |
| 1087     | Coast live oak   | 27                        | Yes               | 3                            | Poor                         | Codominant trunks at 6'; trunk wound; decay.                               |
| 1088     | Calif. black oak | 32                        | Yes               | 3                            | Poor                         | Basal cavity south; dieback throughout crown; trunk wound.                 |
| 1089     | Coast live oak   | 7                         | No                | 3                            | Poor                         | Windswept north; twig and branch dieback.                                  |
| 1090     | Coast live oak   | 8,7                       | No                | 3                            | Moderate                     | Codominant trunks at 3'; thin crown.                                       |
| 1091     | Coast live oak   | 28                        | Yes               | 4                            | Moderate                     | Multiple attachments at 8'; spreading form; branch wound.                  |
| 1092     | Valley oak       | 17                        | Yes               | 4                            | Moderate                     | Upright form; high crown.                                                  |
| 1093     | Coast live oak   | 16                        | Yes               | 3                            | Moderate                     | Codominant trunks at 7'; lateral west.                                     |

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| TREE No. | SPECIES          | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                             |
|----------|------------------|---------------------------|-------------------|------------------------------|------------------------------|--------------------------------------------------------------------------------------|
| 1094     | Coast live oak   | 32                        | Yes               | 3                            | Moderate                     | Codominant trunks at 8'; cavity in attachment; thinning crown.                       |
| 1095     | Coast live oak   | 17                        | Yes               | 2                            | Poor                         | Large trunk wound with decay; crown bowed south.                                     |
| 1096     | Coast live oak   | 16                        | Yes               | 3                            | Moderate                     | Suppressed form; leans south; trunk wound.                                           |
| 1097     | Coast live oak   | 8,7                       | No                | 3                            | Moderate                     | Multiple attachments at 10'; heavy lateral limb northeast; cavity west.              |
| 1098     | Coast live oak   | 6                         | No                | 5                            | Good                         | Good young tree.                                                                     |
| 1099     | Coast live oak   | 9                         | No                | 5                            | Good                         | Perched on cliff; good young tree.                                                   |
| 1100     | Coast live oak   | 7                         | No                | 5                            | Good                         | Good young tree.                                                                     |
| 1101     | Coast live oak   | 28                        | Yes               | 2                            | Poor                         | Extensive trunk decay; declining.                                                    |
| 1102     | Coast live oak   | 14                        | Yes               | 3                            | Poor                         | Crown bowed east; basal cavity.                                                      |
| 1103     | Coast live oak   | 23                        | Yes               | 3                            | Moderate                     | Basal wound; decay; nice form.                                                       |
| 1104     | Coast live oak   | 23                        | Yes               | 3                            | Moderate                     | Perched on cliff; twig and branch dieback.                                           |
| 1105     | Coast live oak   | 24                        | Yes               | 3                            | Poor                         | Basal cavity north; trunk wound; twig dieback.                                       |
| 1106     | Coast live oak   | 12                        | Yes               | 5                            | Good                         | Upright form; good young tree.                                                       |
| 1107     | Coast live oak   | 12                        | Yes               | 5                            | Good                         | Upright form; good young tree.                                                       |
| 1108     | Calif. black oak | 36                        | Yes               | 2                            | Poor                         | No tag; extensive trunk decay; small crown.                                          |
| 1109     | Coast live oak   | 6                         | No                | 5                            | Good                         | No tag; good young tree.                                                             |
| 1110     | Coast live oak   | 49                        | Yes               | 3                            | Poor                         | Multiple attachments at 10'; adding wood; cavities with trunk decay east.            |
| 1111     | Coast live oak   | 11                        | No                | 5                            | Good                         | Upright form; good young tree.                                                       |
| 1112     | Coast live oak   | 12                        | Yes               | 3                            | Moderate                     | Suppressed form; leans east.                                                         |
| 1113     | Coast live oak   | 13,11,6                   | Yes               | 3                            | Moderate                     | Crowded; asymmetric crown.                                                           |
| 1114     | Coast live oak   | 14,14,10,9,9,7            | Yes               | 5                            | Good                         | Multiple attachments at base; part of dense grove.                                   |
| 1115     | Coast live oak   | 9,9                       | No                | 4                            | Moderate                     | Codominant trunks at base; part of dense grove.                                      |
| 1116     | Coast live oak   | 11,8,6                    | No                | 3                            | Moderate                     | Multiple attachments at base; dead branches from rodent damage; part of dense grove. |
| 1117     | Coast live oak   | 6,3                       | No                | 3                            | Moderate                     | Suppressed form; part of dense grove.                                                |

# Tree Survey

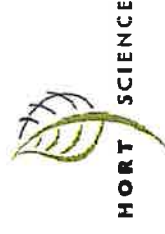
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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                              |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------------------------------------------------|
| 1118     | Coast live oak | 9,8,7,7,6,6,6             | No                | 4                            | Good                         | Multiple attachments at base; narrow form; part of dense grove.       |
| 1119     | Coast live oak | 8                         | No                | 3                            | Moderate                     | Suppressed form; leans west; part of dense grove.                     |
| 1120     | Coast live oak | 10,7                      | No                | 4                            | Good                         | Codominant trunks at base; asymmetric crown; part of dense grove.     |
| 1121     | Coast live oak | 10,7                      | No                | 5                            | Good                         | Upright form; part of dense grove.                                    |
| 1122     | Coast live oak | 10,7,6                    | No                | 5                            | Good                         | Seam in attachment; part of dense grove.                              |
| 1123     | Coast live oak | 6                         | No                | 3                            | Poor                         | Small crown; part of dense grove.                                     |
| 1124     | Coast live oak | 6,6                       | No                | 4                            | Good                         | Asymmetric crown; part of dense grove.                                |
| 1125     | Coast live oak | 10,8                      | No                | 5                            | Good                         | Upright form; part of dense grove.                                    |
| 1126     | Coast live oak | 8                         | No                | 4                            | Moderate                     | One-sided south; twig dieback; part of dense grove.                   |
| 1127     | Coast live oak | 11,10,7,7,7               | No                | 5                            | Good                         | Multiple attachments at base; upright form; part of dense grove.      |
| 1128     | Coast live oak | 9                         | No                | 5                            | Good                         | Upright form; part of dense grove.                                    |
| 1129     | Coast live oak | 20                        | Yes               | 3                            | Moderate                     | Codominant trunks at 5'; seam in attachment; twig and branch dieback. |
| 1130     | Coast live oak | 7                         | No                | 3                            | Moderate                     | Suppressed form; one-sided northwest.                                 |
| 1131     | Coast live oak | 6                         | No                | 4                            | Moderate                     | Upright form; part of dense grove.                                    |
| 1132     | Coast live oak | 6                         | No                | 5                            | Good                         | Good young tree; growing against fence.                               |
| 1133     | Coast live oak | 7                         | No                | 4                            | Good                         | Codominant trunks at base; included bark.                             |
| 1134     | Coast live oak | 6                         | No                | 3                            | Moderate                     | Suppressed form; leans north.                                         |
| 1135     | Coast live oak | 12,12,9                   | Yes               | 4                            | Good                         | Multiple attachments at base; one-sided south; edge of dense grove.   |
| 1136     | Coast live oak | 13,8                      | Yes               | 3                            | Moderate                     | Codominant trunks at 1'; asymmetric crown.                            |
| 1137     | Coast live oak | 8,7,5,5,5,5               | No                | 4                            | Good                         | Multiple attachments at base; part of dense grove.                    |
| 1138     | Coast live oak | 8                         | No                | 5                            | Good                         | Good young tree; edge of dense grove.                                 |
| 1139     | Coast live oak | 8                         | No                | 5                            | Good                         | Upright form; part of dense grove.                                    |
| 1140     | Coast live oak | 12,9                      | Yes               | 4                            | Moderate                     | Asymmetric crown; part of dense grove.                                |
| 1141     | Coast live oak | 6                         | No                | 3                            | Poor                         | Suppressed form; part of dense grove.                                 |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                         |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|------------------------------------------------------------------|
| 1142     | Coast live oak | 7,6                       | No                | 4                            | Good                         | One-sided north; part of dense grove.                            |
| 1143     | Coast live oak | 12,12,7,5,5,5             | Yes               | 5                            | Good                         | Multiple attachments at base; upright form; part of dense grove. |
| 1144     | Coast live oak | 13,13,12,9,8,5            | Yes               | 4                            | Good                         | Multiple attachments at 1'; edge of dense grove.                 |
| 1145     | Coast live oak | 6                         | No                | 5                            | Good                         | Good young tree; fence nailed to trunk.                          |
| 1146     | Coast live oak | 7                         | No                | 5                            | Good                         | Good young tree.                                                 |
| 1147     | Coast live oak | 8,5,3                     | No                | 4                            | Good                         | Pruned north; good young tree.                                   |
| 1148     | Coast live oak | 6,5                       | No                | 4                            | Moderate                     | Trunk wounds; branch wound from horse.                           |
| 1149     | Coast live oak | 6                         | No                | 5                            | Good                         | Good young tree.                                                 |
| 1150     | Coast live oak | 9                         | No                | 3                            | Moderate                     | Inside cattle coral; leans east; trunk rubbed smooth.            |
| 1151     | Coast live oak | 8,7,7,6                   | No                | 4                            | Moderate                     | Multiple attachments at base; bark checking.                     |
| 1152     | Coast live oak | 7,5                       | No                | 5                            | Good                         | Good young tree.                                                 |
| 1153     | Coast live oak | 9,5,5                     | No                | 5                            | Good                         | Multiple attachments at base; good young tree.                   |
| 1154     | Coast live oak | 8,7,7,6                   | No                | 3                            | Moderate                     | Crowded; one-sided east.                                         |
| 1155     | Coast live oak | 6                         | No                | 4                            | Good                         | Crowded; upright form.                                           |
| 1156     | Coast live oak | 6                         | No                | 4                            | Good                         | Crowded; upright form.                                           |
| 1157     | Coast live oak | 7                         | No                | 4                            | Moderate                     | Crowded; crown bowed west.                                       |
| 1158     | Coast live oak | 11                        | No                | 5                            | Good                         | Crowded; good form and structure.                                |
| 1159     | Coast live oak | 9                         | No                | 4                            | Good                         | Crowded; upright form.                                           |
| 1160     | Mimosa         | 8,8,7                     | No                | 3                            | Poor                         | Multiple attachments at 3'; poor form and structure.             |
| 1161     | Coast live oak | 8                         | No                | 3                            | Moderate                     | Crowded; leans north.                                            |
| 1162     | Coast live oak | 8,7,5                     | No                | 4                            | Good                         | Multiple attachments at 2'; rodent damage dieback.               |
| 1163     | Coast live oak | 10,8,8,7                  | No                | 4                            | Moderate                     | Multiple attachments at 1'; half of canopy within coral.         |
| 1164     | Apple          | 7,6,6                     | No                | 3                            | Moderate                     | Inside cattle coral; leans north; trunk rubbed smooth.           |
| 1165     | Apple          | 13,6                      | No                | 3                            | Moderate                     | Inside cattle coral; leans north; trunk rubbed smooth.           |

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| TREE No. | SPECIES          | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                        |
|----------|------------------|---------------------------|-------------------|------------------------------|------------------------------|---------------------------------------------------------------------------------|
| 1166     | Deodar cedar     | 25                        | No                | 5                            | Good                         | Good form; lateral south.                                                       |
| 1167     | Purple leaf plum | 8,8                       | No                | 2                            | Poor                         | Inside coral; extensive dieback; trunk rubbed smooth.                           |
| 1168     | Purple leaf plum | 9,6,6,4                   | No                | 2                            | Poor                         | Inside coral; extensive dieback; trunk rubbed smooth.                           |
| 1169     | Purple leaf plum | 8                         | No                | 1                            | Poor                         | Inside coral; extensive dieback and trunk decay.                                |
| 1170     | Monterey pine    | 28                        | No                | 2                            | Poor                         | Extensive pine pitch canker; poor form and structure.                           |
| 1171     | Monterey pine    | 38                        | No                | 2                            | Poor                         | Pine pitch canker; poor form and structure.                                     |
| 1172     | Coast live oak   | 31,20                     | Yes               | 3                            | Moderate                     | Inside coral; roots exposed west; trunk wounds.                                 |
| 1173     | Coast live oak   | 26                        | Yes               | 3                            | Poor                         | Inside coral; multiple branch failures; trunk decay.                            |
| 1174     | Coast live oak   | 32                        | Yes               | 4                            | Moderate                     | Inside coral; multiple attachments at 6'; laterals east.                        |
| 1175     | Coast live oak   | 23                        | Yes               | 3                            | Moderate                     | Inside coral; leans northwest.                                                  |
| 1176     | Coast live oak   | 14,12                     | Yes               | 3                            | Poor                         | Inside coral; one-sided north; cavity.                                          |
| 1177     | Coast live oak   | 25,24,23                  | Yes               | 4                            | Moderate                     | Inside coral; multiple attachments at 2'; cavity in attachment; one-sided west. |
| 1178     | Coast live oak   | 18                        | Yes               | 3                            | Moderate                     | Inside coral; leaning and one-sided northwest.                                  |
| 1179     | Plum             | 6                         | No                | 4                            | Good                         | Inside coral; upright form.                                                     |
| 1180     | Coast live oak   | 10                        | No                | 3                            | Moderate                     | Inside coral; upright form; thin crown.                                         |
| 1181     | Coast live oak   | 28,12                     | Yes               | 3                            | Moderate                     | Inside coral; asymmetric crown; epicormic shoots; dieback.                      |
| 1182     | Coast live oak   | 29                        | Yes               | 4                            | Good                         | Inside coral; multiple attachments at 6'; good form and structure.              |
| 1183     | Coast live oak   | 8,5                       | No                | 5                            | Good                         | Inside coral; good young tree.                                                  |
| 1184     | Coast live oak   | 10                        | No                | 5                            | Good                         | Inside coral; good young tree.                                                  |
| 1185     | Coast live oak   | 6,5,2                     | No                | 4                            | Good                         | Inside coral; basal wounds.                                                     |
| 1186     | Coast live oak   | 7,6                       | No                | 4                            | Good                         | Inside coral; codominant trunks at 3'; wide attachment.                         |
| 1187     | Coast live oak   | 6,4                       | No                | 3                            | Moderate                     | Off-site; suppressed; leans south.                                              |

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| TREE No. | SPECIES             | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                       |
|----------|---------------------|---------------------------|-------------------|------------------------------|------------------------------|--------------------------------------------------------------------------------|
| 1188     | Coast live oak      | 19                        | Yes               | 3                            | Moderate                     | Off-site; slight lean east; cavity west.                                       |
| 1189     | Coast live oak      | 19,18,10                  | Yes               | 5                            | Good                         | Off-site; multiple attachments at 3'; good form and structure.                 |
| 1190     | Coast live oak      | 13,9                      | Yes               | 4                            | Good                         | One stem off-site; codominant trunks at base.                                  |
| 1191     | Coast live oak      | 23                        | Yes               | 3                            | Poor                         | Off-site; pruned for overhead utilities.                                       |
| 1192     | Coast live oak      | 9                         | No                | 4                            | Good                         | Off-site; one-sided west.                                                      |
| 1193     | Coast live oak      | 27                        | Yes               | 4                            | Moderate                     | Codominant trunks at 8'; one-sided northwest over road; embedded barbed wire.  |
| 1194     | Coast live oak      | 23                        | Yes               | 3                            | Moderate                     | Heavy lean north.                                                              |
| 1195     | Coast live oak      | 19                        | Yes               | 1                            | Poor                         | Suppressed form; little live material remains.                                 |
| 1196     | Coast live oak      | 46,22                     | Yes               | 4                            | Good                         | Multiple attachments at 4'; upright form; pruned north for overhead utilities. |
| 1197     | Coast live oak      | 14                        | Yes               | 3                            | Moderate                     | Suppressed form; leans west.                                                   |
| 1198     | Valley oak          | 25                        | Yes               | 4                            | Good                         | Multiple attachments at 6'; upright form; twig dieback.                        |
| 1199     | Coast live oak      | 18                        | Yes               | 3                            | Moderate                     | Heavy lean west.                                                               |
| 1200     | Coast live oak      | 13                        | Yes               | 3                            | Poor                         | Small, high crown.                                                             |
| 1201     | Coast live oak      | 22                        | Yes               | 2                            | Poor                         | Large trunk wound; active bee hive; leans west.                                |
| 1202     | Coast live oak      | 11,10                     | No                | 3                            | Poor                         | Suppressed form.                                                               |
| 1203     | Coast live oak      | 24                        | Yes               | 3                            | Moderate                     | Multiple attachments at 6'; topped for overhead utilities.                     |
| 1204     | Coast live oak      | 11                        | No                | 1                            | Poor                         | Lost top.                                                                      |
| 1205     | Coast live oak      | 25                        | Yes               | 4                            | Moderate                     | Codominant trunks at 12'; upright form; pruned for overhead utilities.         |
| 1206     | Coast live oak      | 16                        | Yes               | 3                            | Moderate                     | Suppressed form; crown bowed east.                                             |
| 1207     | Coast live oak      | 16,7                      | Yes               | 3                            | Poor                         | Leans west; pruned for overhead utilities.                                     |
| 1208     | Coast live oak      | 17,16,12                  | Yes               | 3                            | Moderate                     | Multiple attachments at 2'; crown bowed north; pruned for overhead utilities.  |
| 1209     | Calif. black walnut | 6                         | No                | 3                            | Moderate                     | Suppressed form.                                                               |
| 1210     | Coast live oak      | 12                        | Yes               | 3                            | Poor                         | Bowed west to horizontal.                                                      |
| 1211     | Coast live oak      | 16                        | Yes               | 3                            | Poor                         | Bowed west to horizontal.                                                      |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                        |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|---------------------------------------------------------------------------------|
| 1212     | Coast live oak | 24,12                     | Yes               | 4                            | Moderate                     | Multiple attachments at 4'; pruned west for overhead utilities.                 |
| 1213     | Calif. buckeye | 9,7,6,5                   | No                | 3                            | Moderate                     | Part of dense grove; trunk wounds.                                              |
| 1214     | Calif. buckeye | 7                         | No                | 3                            | Moderate                     | Part of dense grove; leans west.                                                |
| 1215     | Calif. buckeye | 7,7,6,5                   | No                | 4                            | Good                         | Part of dense grove; upright form.                                              |
| 1216     | Calif. buckeye | 9,8,5                     | No                | 3                            | Moderate                     | Part of dense grove; leaning across creek.                                      |
| 1217     | Calif. buckeye | 10,9,9,7,4                | No                | 3                            | Moderate                     | Part of dense grove; topped for overhead utilities; trunk wounds/rodent damage. |
| 1218     | Coast live oak | 7                         | No                | 3                            | Poor                         | Suppressed form.                                                                |
| 1219     | Calif. buckeye | 16,9,8                    | No                | 3                            | Moderate                     | Part of dense grove; topped for overhead utilities; trunk wounds.               |
| 1220     | Calif. buckeye | 7,6,5,4                   | No                | 3                            | Moderate                     | Part of dense grove; topped for overhead utilities.                             |
| 1221     | Coast live oak | 8                         | No                | 3                            | Moderate                     | Beneath overhead utilities.                                                     |
| 1222     | Coast live oak | 13                        | Yes               | 3                            | Moderate                     | Topped for overhead utilities; leans west.                                      |
| 1223     | Coast live oak | 20                        | Yes               | 3                            | Moderate                     | Beneath overhead utilities.                                                     |
| 1224     | Calif. buckeye | 9,6,6,4                   | No                | 3                            | Moderate                     | Topped for overhead utilities.                                                  |
| 1225     | Calif. buckeye | 9,6                       | No                | 3                            | Moderate                     | Suppressed form; bowed west.                                                    |
| 1226     | Coast live oak | 20                        | Yes               | 3                            | Moderate                     | Leans west; topped for overhead utilities.                                      |
| 1227     | Calif. buckeye | 7,7,6,6,5                 | No                | 3                            | Moderate                     | Multiple attachments at base; beneath overhead utilities.                       |
| 1228     | Calif. buckeye | 10                        | No                | 3                            | Moderate                     | Suppressed form; leans north.                                                   |
| 1229     | Calif. buckeye | 9,8                       | No                | 3                            | Moderate                     | Growing in creek; roots exposed.                                                |
| 1230     | Coast live oak | 14,13                     | Yes               | 3                            | Poor                         | Codominant trunks at 2'; topped for overhead utilities.                         |
| 1231     | Coast live oak | 18                        | Yes               | 3                            | Moderate                     | Leans east.                                                                     |
| 1232     | Coast live oak | 8                         | No                | 1                            | Poor                         | Crushed by failed neighbor.                                                     |
| 1233     | Coast live oak | 9                         | No                | 3                            | Moderate                     | No tag; growing on steep slope; engulfed in poison oak.                         |
| 1234     | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | No tag; growing on steep slope; engulfed in poison oak.                         |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                       |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|----------------------------------------------------------------|
| 1235     | Coast live oak | 16                        | Yes               | 3                            | Moderate                     | No tag; growing on steep slope; topped for overhead utilities. |
| 1236     | Calif. buckeye | 9,8,7,5                   | No                | 3                            | Moderate                     | Growing on steep slope; dead stem; rodent damage.              |
| 1237     | Coast live oak | 15                        | Yes               | 3                            | Poor                         | Upright form; topped for overhead utilities.                   |
| 1238     | Coast live oak | 15,7,5                    | Yes               | 3                            | Poor                         | Topped for overhead utilities.                                 |
| 1239     | Coast live oak | 20                        | Yes               | 3                            | Poor                         | Cavities; topped for overhead utilities.                       |
| 1240     | Coast live oak | 17                        | Yes               | 3                            | Poor                         | Bowed west to horizontal.                                      |
| 1241     | Coast live oak | 20                        | Yes               | 4                            | Moderate                     | Codominant trunks at 6'; pruned for overhead utilities.        |
| 1242     | Coast live oak | 14                        | Yes               | 3                            | Poor                         | Cavities; pruned for overhead utilities.                       |
| 1243     | Valley oak     | 11                        | No                | 2                            | Poor                         | Little live material remains.                                  |
| 1244     | Calif. buckeye | 9,6                       | No                | 3                            | Moderate                     | Trunk wounds from rodent damage.                               |
| 1245     | Coast live oak | 12                        | Yes               | 3                            | Poor                         | Topped for overhead utilities.                                 |
| 1246     | Coast live oak | 9                         | No                | 3                            | Poor                         | Topped for overhead utilities.                                 |
| 1247     | Coast live oak | 18                        | Yes               | 3                            | Moderate                     | Multiple attachments at 8'; leans north.                       |
| 1248     | Coast live oak | 6                         | No                | 3                            | Moderate                     | Crowded; small crown.                                          |
| 1249     | Coast live oak | 8                         | No                | 4                            | Moderate                     | Good young tree; engulfed in berries.                          |
| 1250     | Coast live oak | 9                         | No                | 3                            | Poor                         | No tag; topped for overhead utilities; engulfed in berries.    |
| 1251     | Coast live oak | 10,6                      | No                | 3                            | Poor                         | Upright form; pruned for overhead utilities.                   |
| 1252     | Coast live oak | 10,6                      | No                | 3                            | Poor                         | Topped for overhead utilities.                                 |
| 1253     | Coast live oak | 6                         | No                | 3                            | Poor                         | Topped for overhead utilities.                                 |
| 1254     | Coast live oak | 6                         | No                | 3                            | Poor                         | Suppressed form; beneath overhead utilities.                   |
| 1255     | Coast live oak | 6                         | No                | 5                            | Moderate                     | Good young tree; next to overhead utilities.                   |
| 1256     | Coast live oak | 8,5,4                     | No                | 4                            | Good                         | Crowded; good young tree.                                      |
| 1257     | Coast live oak | 26                        | Yes               | 3                            | Poor                         | Thin crown; engulfed in poison oak.                            |
| 1258     | Coast live oak | 34                        | Yes               | 4                            | Moderate                     | Multiple attachments at 8'; cavity; epicormic shoots.          |
| 1259     | Plum           | 6,5,4                     | No                | 3                            | Poor                         | Leans west; topped for overhead utilities.                     |
| 1260     | Coast live oak | 15                        | Yes               | 4                            | Moderate                     | Twig dieback; pruned for overhead utilities.                   |
| 1261     | Coast live oak | 9,4                       | No                | 3                            | Moderate                     | Suppressed form; crown bowed south.                            |

# Tree Survey

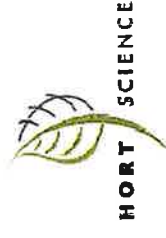
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| TREE No. | SPECIES          | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                  |
|----------|------------------|---------------------------|-------------------|------------------------------|------------------------------|---------------------------------------------------------------------------|
| 1262     | Coast live oak   | 29                        | Yes               | 5                            | Good                         | Multiple attachments at 7"; good form and structure.                      |
| 1263     | Coast live oak   | 6                         | No                | 5                            | Good                         | Good young tree.                                                          |
| 1264     | Coast live oak   | 14                        | Yes               | 4                            | Moderate                     | One-sided south; good form and structure.                                 |
| 1265     | Coast live oak   | 23,22                     | Yes               | 5                            | Good                         | Group of three trees form unit; good form and structure; one-sided west.  |
| 1266     | Coast live oak   | 19,12                     | Yes               | 5                            | Good                         | Group of three trees form unit; good form and structure; one-sided south. |
| 1267     | Coast live oak   | 18                        | Yes               | 4                            | Good                         | Group of three trees form unit; leans east.                               |
| 1268     | Coast live oak   | 42                        | Yes               | 4                            | Moderate                     | Multiple attachments at 15"; spreading form; cavities.                    |
| 1269     | Coast live oak   | 43,26                     | Yes               | 4                            | Good                         | Multiple attachments at 5"; spreading form; twig and branch dieback.      |
| 1270     | Coast live oak   | 14,12                     | Yes               | 5                            | Good                         | Codominant trunks at 3"; good form and structure; in horse coral.         |
| 1271     | Coast live oak   | 11                        | No                | 5                            | Good                         | Codominant trunks at 5"; good form and structure; in horse coral.         |
| 1272     | Coast live oak   | 8                         | No                | 4                            | Good                         | Crowded; slight lean south.                                               |
| 1273     | Coast live oak   | 9                         | No                | 5                            | Good                         | Good young tree.                                                          |
| 1274     | Coast live oak   | 7                         | No                | 3                            | Moderate                     | Crowded; leans south; in horse coral.                                     |
| 1275     | Coast live oak   | 7                         | No                | 4                            | Moderate                     | Upright form; flush cuts; wired to fence.                                 |
| 1276     | Coast live oak   | 9                         | No                | 3                            | Moderate                     | Leans south.                                                              |
| 1277     | Coast live oak   | 9                         | No                | 4                            | Moderate                     | Crowded; asymmetric crown.                                                |
| 1278     | Coast live oak   | 7                         | No                | 4                            | Good                         | Crowded; one-sided north.                                                 |
| 1279     | Coast live oak   | 10                        | No                | 4                            | Good                         | Crowded; one-sided south.                                                 |
| 1280     | Coast live oak   | 7                         | No                | 4                            | Moderate                     | Crowded; perched on steep slope.                                          |
| 1281     | Coast live oak   | 6,4                       | No                | 3                            | Moderate                     | Small crown; exposed roots.                                               |
| 1282     | Coast live oak   | 7,4                       | No                | 4                            | Moderate                     | Good young tree; in horse coral.                                          |
| 1283     | Coast live oak   | 6                         | No                | 4                            | Moderate                     | One-sided north; in horse coral.                                          |
| 1284     | Purple leaf plum | 6,5                       | No                | 3                            | Poor                         | Large trunk wound; in horse coral.                                        |
| 1285     | Coast live oak   | 44,22                     | Yes               | 4                            | Moderate                     | Multiple attachments at 6"; 21" stem is low lateral east; cavities.       |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                  |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------------------------------------|
| 1286     | Coast live oak | 21                        | Yes               | 5                            | Good                         | Upright form; one-sided north.                            |
| 1287     | Coast live oak | 24, 18                    | Yes               | 4                            | Good                         | Codominant trunks at 4'; crown bowed north.               |
| 1288     | Plum           | 9                         | No                | 4                            | Moderate                     | Upright form.                                             |
| 1289     | Coast live oak | 24                        | Yes               | 4                            | Moderate                     | One-sided east; trunk wounds from branch failures.        |
| 1290     | Coast live oak | 29                        | Yes               | 4                            | Good                         | Multiple attachments at 6'; upright form.                 |
| 1291     | Coast live oak | 25                        | Yes               | 4                            | Moderate                     | One-sided west; adding wood to southern stem.             |
| 1292     | Coast live oak | 11                        | No                | 2                            | Poor                         | Half of tree failed; poor form and structure.             |
| 1293     | Coast live oak | 21                        | Yes               | 1                            | Poor                         | Little live material remains.                             |
| 1294     | Coast live oak | 6                         | No                | 5                            | Good                         | Good young tree; vines in canopy.                         |
| 1295     | Coast live oak | 6                         | No                | 3                            | Poor                         | Small crown; bowed north.                                 |
| 1296     | Coast live oak | 9                         | No                | 3                            | Moderate                     | Slight lean north.                                        |
| 1297     | Valley oak     | 13                        | Yes               | 4                            | Moderate                     | Crowded; high, narrow crown.                              |
| 1298     | Coast live oak | 15                        | Yes               | 4                            | Moderate                     | One-sided west.                                           |
| 1299     | Coast live oak | 25                        | Yes               | 3                            | Moderate                     | Codominant trunks at 8'; one stem upright, one stem west. |
| 1300     | Coast live oak | 24                        | Yes               | 3                            | Moderate                     | Corrected lean; epicormic shoots; trunk wound south.      |
| 1301     | Coast live oak | 20, 19, 13                | Yes               | 4                            | Good                         | Multiple attachments at base; twig and branch dieback.    |
| 1302     | Coast live oak | 19                        | Yes               | 4                            | Moderate                     | Asymmetric crown; trunk wound north.                      |
| 1303     | Coast live oak | 15                        | Yes               | 4                            | Moderate                     | Crowded; dead wood.                                       |
| 1304     | Coast live oak | 15, 13                    | Yes               | 4                            | Moderate                     | Codominant trunks at 4'; one-sided north.                 |
| 1305     | Coast live oak | 8                         | No                | 3                            | Poor                         | Suppressed form; leans northwest.                         |
| 1306     | Coast live oak | 9                         | No                | 3                            | Poor                         | Suppressed form; crown bowed west to horizontal.          |
| 1307     | Coast live oak | 13                        | Yes               | 3                            | Poor                         | Suppressed form; crown bowed north to horizontal.         |
| 1308     | Coast live oak | 24, 16, 12                | Yes               | 4                            | Good                         | Multiple attachments at 4'; spreading form.               |
| 1309     | Coast live oak | 28                        | Yes               | 4                            | Moderate                     | Upright form; twig dieback; in bull coral.                |

# Tree Survey

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                 |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|--------------------------------------------------------------------------|
| 1310     | Monterey pine  | 25                        | No                | 2                            | Poor                         | No tag; poor form and structure; pine pitch canker; in bull coral.       |
| 1311     | Coast live oak | 23,22                     | Yes               | 3                            | Moderate                     | No tag; one-sided north; twig and branch dieback; in bull coral.         |
| 1312     | Coast live oak | 36                        | Yes               | 4                            | Moderate                     | Northern stem failed; small cavities; in bull coral.                     |
| 1313     | Coast live oak | 30                        | Yes               | 4                            | Moderate                     | Codominant trunks at 15'; slight lean north; in bull coral.              |
| 1314     | Coast live oak | 20                        | Yes               | 3                            | Moderate                     | Multiple attachments at 6'; asymmetric crown; in bull coral.             |
| 1315     | Coast live oak | 48,13                     | Yes               | 3                            | Moderate                     | Multiple attachments at 10'; twig and branch dieback; in horse coral.    |
| 1316     | Coast live oak | 20                        | Yes               | 3                            | Moderate                     | Suppressed form; crown bowed east; in horse coral.                       |
| 1317     | Coast live oak | 10,8                      | No                | 4                            | Good                         | Codominant trunks at 4'; good form and structure; in horse coral.        |
| 1318     | Coast live oak | 10                        | No                | 3                            | Moderate                     | One-sided east; in horse coral.                                          |
| 1319     | Coast live oak | 7                         | No                | 3                            | Moderate                     | Crowded; in horse coral.                                                 |
| 1320     | Coast live oak | 7,6                       | No                | 4                            | Good                         | Crook at 6'; in horse coral.                                             |
| 1321     | Coast live oak | 10,8,7                    | No                | 4                            | Good                         | Multiple attachments at 1'; good young tree; in horse coral.             |
| 1322     | Coast live oak | 38                        | Yes               | 2                            | Poor                         | Extensive trunk decay; small crown.                                      |
| 1323     | Coast live oak | 12,12                     | Yes               | 4                            | Moderate                     | Part of dense grove; crown bowed south.                                  |
| 1324     | Coast live oak | 8                         | No                | 3                            | Moderate                     | Part of dense grove; narrow crown.                                       |
| 1325     | Coast live oak | 18                        | Yes               | 4                            | Good                         | Part of dense grove; asymmetric crown.                                   |
| 1326     | Coast live oak | 14                        | Yes               | 4                            | Moderate                     | Part of dense grove; crown bowed east.                                   |
| 1327     | Coast live oak | 18                        | Yes               | 4                            | Good                         | Part of dense grove; asymmetric crown.                                   |
| 1328     | Coast live oak | 9                         | No                | 3                            | Poor                         | Part of dense grove; poor form and structure.                            |
| 1329     | Coast live oak | 8,7,6,5                   | No                | 3                            | Poor                         | Part of dense grove; multiple attachments at base; dieback; leans south. |
| 1330     | Coast live oak | 19                        | Yes               | 3                            | Moderate                     | Part of dense grove; thin, asymmetric crown.                             |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                             |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|--------------------------------------------------------------------------------------|
| 1331     | Coast live oak | 11,8                      | No                | 4                            | Moderate                     | Part of dense grove; codominant trunks at base.                                      |
| 1332     | Coast live oak | 13,9,8,6,5                | Yes               | 4                            | Moderate                     | Multiple attachments at 2'; one-sided south.                                         |
| 1333     | Coast live oak | 24                        | Yes               | 3                            | Moderate                     | Thin crown; history of branch failure.                                               |
| 1334     | Coast live oak | 14,9                      | Yes               | 4                            | Moderate                     | Codominant trunks at base; leans west.                                               |
| 1335     | Coast live oak | 13,6                      | Yes               | 3                            | Moderate                     | Thin crown; one-sided south.                                                         |
| 1336     | Coast live oak | 26                        | Yes               | 3                            | Moderate                     | One-sided east; bark checking; dead wood.                                            |
| 1337     | Coast live oak | 48,20                     | Yes               | 2                            | Poor                         | Extensive bark checking; borer damage south; 20" stem is low lateral south; dieback. |
| 1338     | Coast live oak | 23                        | Yes               | 3                            | Moderate                     | One-sided west; bark checking; embedded barbed wire.                                 |
| 1339     | Coast live oak | 13,10                     | Yes               | 4                            | Good                         | Part of dense grove; upright form; one-sided north.                                  |
| 1340     | Coast live oak | 11,7                      | No                | 4                            | Moderate                     | Part of dense grove; leans northeast.                                                |
| 1341     | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | Part of dense grove; one-sided northwest.                                            |
| 1342     | Coast live oak | 15,14,7,5                 | Yes               | 4                            | Moderate                     | Part of dense grove; upright form; narrow attachments.                               |
| 1343     | Coast live oak | 8                         | No                | 3                            | Moderate                     | Part of dense grove; leans east.                                                     |
| 1344     | Coast live oak | 17,11,9                   | Yes               | 4                            | Moderate                     | Part of dense grove; one-sided south; twig dieback.                                  |
| 1345     | Coast live oak | 40                        | Yes               | 4                            | Good                         | Multiple attachments at 6'; good form and structure; thin in upper crown.            |
| 1346     | Coast live oak | 13,8                      | Yes               | 3                            | Moderate                     | One-sided south.                                                                     |
| 1347     | Coast live oak | 14                        | Yes               | 4                            | Moderate                     | One-sided east.                                                                      |
| 1348     | Coast live oak | 12,12,10                  | Yes               | 4                            | Moderate                     | Multiple attachments at 3'; little thin crown.                                       |
| 1349     | Coast live oak | 19,15,15                  | Yes               | 5                            | Good                         | Multiple attachments at 4'; good form and structure.                                 |
| 1350     | Coast live oak | 27,16                     | Yes               | 4                            | Moderate                     | Multiple attachments at 6'; low lateral south; bleeding along trunk.                 |
| 1351     | Coast live oak | 7                         | No                | 3                            | Moderate                     | Part of dense grove; one-sided south.                                                |
| 1352     | Coast live oak | 7,7,6                     | No                | 4                            | Moderate                     | Part of dense grove; one stem upright; other stems one-sided south.                  |

# Tree Survey

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| TREE<br>No. | SPECIES        | SIZE<br>DIAMETER<br>(in inches) | NATIVE<br>PROTECTED? | CONDITION<br>1=POOR<br>5=EXCELLENT | SUITABILITY<br>FOR<br>PRESERVATION | COMMENTS                                                                         |
|-------------|----------------|---------------------------------|----------------------|------------------------------------|------------------------------------|----------------------------------------------------------------------------------|
|             |                |                                 |                      |                                    |                                    |                                                                                  |
| 1353        | Coast live oak | 18, 15, 14                      | Yes                  | 2                                  | Poor                               | Multiple attachments at 3'; extensive dieback.                                   |
| 1354        | Coast live oak | 6, 6, 4, 4                      | No                   | 5                                  | Good                               | Multiple attachments at base; good young tree.                                   |
| 1355        | Coast live oak | 8, 7, 6                         | No                   | 5                                  | Good                               | Part of dense grove; multiple attachments at base; good young tree.              |
| 1356        | Coast live oak | 6                               | No                   | 4                                  | Good                               | Part of dense grove; narrow crown.                                               |
| 1357        | Coast live oak | 6, 4, 4                         | No                   | 5                                  | Good                               | Part of dense grove; multiple attachments at base; good young tree.              |
| 1358        | Coast live oak | 24, 17                          | Yes                  | 3                                  | Moderate                           | Good form and structure; thin in upper crown.                                    |
| 1359        | Coast live oak | 26                              | Yes                  | 5                                  | Good                               | Multiple attachments at 5'; seam in attachment; nice form.                       |
| 1360        | Coast live oak | 7                               | No                   | 3                                  | Moderate                           | At edge of road; codominant at 6' with narrow attachment.                        |
| 1361        | Coast live oak | 7                               | No                   | 3                                  | Moderate                           | At edge of road; codominant at 5' with narrow attachment.                        |
| 1362        | Coast live oak | 6                               | No                   | 3                                  | Moderate                           | Trunk wound from recent car accident.                                            |
| 1363        | Coast live oak | 10, 8                           | No                   | 4                                  | Good                               | Codominant at 3'.                                                                |
| 1364        | Coast live oak | 18, 17                          | Yes                  | 4                                  | Good                               | Neighboring tree failed into its crown; codominant at 3'.                        |
| 1365        | Coast live oak | 9, 8                            | No                   | 3                                  | Moderate                           | Codominant at base; stem to west could be removed.                               |
| 1366        | Coast live oak | 16                              | Yes                  | 3                                  | Moderate                           | Codominant at 4'; one-sided to north.                                            |
| 1367        | Coast live oak | 17                              | Yes                  | 4                                  | Good                               | Corrected lean to east.                                                          |
| 1368        | Coast live oak | 8                               | No                   | 3                                  | Moderate                           | Suppressed form north.                                                           |
| 1369        | Coast live oak | 40                              | Yes                  | 3                                  | Moderate                           | Tree failed at base and is propped on ground; crown is upright, full and healthy |
| 1370        | Coast live oak | 50                              | Yes                  | 4                                  | Good                               | Bottle butt; multiple attachments at 7'; full wide spreading crown.              |
| 1371        | Coast live oak | 28                              | Yes                  | 3                                  | Moderate                           | History of branch failures; leans southeast; thin crown                          |
| 1372        | Coast live oak | 7, 4, 3                         | No                   | 4                                  | Good                               | Part of dense grove; codominant at 1'.                                           |
| 1373        | Coast live oak | 14, 8                           | Yes                  | 4                                  | Good                               | Part of dense grove; codominant at 2'; crown to north.                           |

# Tree Survey

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                     |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|------------------------------------------------------------------------------|
|          |                |                           |                   |                              |                              |                                                                              |
| 1374     | Coast live oak | 6                         | No                | 3                            | Moderate                     | Part of dense grove; crown to north.                                         |
| 1375     | Coast live oak | 7                         | No                | 3                            | Moderate                     | Part of dense grove; high narrow crown.                                      |
| 1376     | Coast live oak | 10                        | No                | 3                            | Moderate                     | Part of dense grove; high narrow crown.                                      |
| 1377     | Coast live oak | 6                         | No                | 3                            | Moderate                     | Part of dense grove; high narrow crown.                                      |
| 1378     | Coast live oak | 7,4                       | No                | 3                            | Moderate                     | Part of dense grove; stems from base; suppressed form.                       |
| 1379     | Coast live oak | 12,4                      | Yes               | 5                            | Good                         | Next to tree #471; top of bank; good tree.                                   |
| 1380     | Coast live oak | 7                         | No                | 2                            | Poor                         | Very thin crown; suppressed to south.                                        |
| 1381     | Coast live oak | 8                         | No                | 2                            | Poor                         | Very thin crown; large failure from neighboring tree left it highly exposed. |
| 1382     | Coast live oak | 10,8                      | No                | 3                            | Moderate                     | Next to tree #470; codominant at base; crown to east.                        |
| 1383     | Coast live oak | 9                         | No                | 3                            | Moderate                     | Part of dense grove; high narrow crown.                                      |
| 1384     | Coast live oak | 6,4                       | No                | 1                            | Poor                         | Part of dense grove; all but dead.                                           |
| 1385     | Coast live oak | 9                         | No                | 1                            | Poor                         | Very thin crown; large failure from neighboring tree left it highly exposed. |
| 1386     | Coast live oak | 10                        | No                | 2                            | Poor                         | Very thin crown; large failure from neighboring tree left it highly exposed. |
| 1387     | Coast live oak | 11,10                     | No                | 3                            | Moderate                     | Codominant at 3' with included bark; leans to northeast.                     |
| 1388     | Coast live oak | 7                         | No                | 2                            | Poor                         | Part of dense grove; high narrow crown.                                      |
| 1389     | Coast live oak | 9                         | No                | 3                            | Moderate                     | Crown to east; engulfed in poison oak.                                       |
| 1390     | Coast live oak | 12                        | Yes               | 3                            | Moderate                     | Crown suppressed to east.                                                    |
| 1391     | Coast live oak | 18                        | Yes               | 4                            | Good                         | Codominant at 5'; full healthy crown.                                        |
| 1392     | Coast live oak | 10                        | No                | 3                            | Moderate                     | Crown suppressed to north.                                                   |
| 1393     | Coast live oak | 6,4                       | No                | 3                            | Moderate                     | Codominant at base; crown suppressed to north.                               |
| 1394     | Coast live oak | 10,8,5                    | No                | 3                            | Moderate                     | Multiple attachments at 1' and 3'; crown suppressed to east.                 |
| 1395     | Coast live oak | 9                         | No                | 3                            | Moderate                     | Codominant at 4'; crown suppressed to east.                                  |
| 1396     | Coast live oak | 7                         | No                | 2                            | Poor                         | Poor form; heavily suppressed to south.                                      |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                                                                |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 1397     | Coast live oak | 11                        | No                | 3                            | Moderate                     | Edge of canopy; crown to south; codominant at 5'.                                                                       |
| 1398     | Coast live oak | 8,7                       | No                | 4                            | Good                         | Good young tree; codominant at 3'; low crown.                                                                           |
| 1399     | Coast live oak | 25                        | Yes               | 4                            | Good                         | Good form; crown a bit thin.                                                                                            |
| 1400     | Coast live oak | 9,9,8,7,5                 | No                | 4                            | Moderate                     | Tree failed years ago; branches have turned upright to create nice crown.                                               |
| 1401     | Valley oak     | 35                        | Yes               | 4                            | Good                         | Codominant at 8'; branch dieback; history of branch failures.                                                           |
| 1402     | Calif. buckeye | 13,6                      | No                | 3                            | Moderate                     | Codominant at 2'; overtopped by neighbor.                                                                               |
| 1403     | Coast live oak | 34,31                     | Yes               | 3                            | Moderate                     | Codominant at 1'; 31" stem had large failure; 34" stem has cavity on south.                                             |
| 1404     | Valley oak     | 16                        | Yes               | 2                            | Poor                         | High thin crown; twig and branch dieback.                                                                               |
| 1405     | Coast live oak | 38                        | Yes               | 3                            | Moderate                     | Large basal cavity; heavy lateral limb to north.                                                                        |
| 1406     | Valley oak     | 20                        | Yes               | 3                            | Moderate                     | Crown and trunk bows to east.                                                                                           |
| 1407     | Coast live oak | 13                        | Yes               | 3                            | Moderate                     | Trunk has crook at 10'                                                                                                  |
| 1408     | Coast live oak | 20                        | Yes               | 1                            | Poor                         | All but dead.                                                                                                           |
| 1409     | Coast live oak | 41                        | Yes               | 4                            | Good                         | Multiple attachments at 7'; a bit one-sided to west; heavy lateral limb to south has a possible hazard beam forming.    |
| 1410     | Coast live oak | 28,25                     | Yes               | 5                            | Good                         | Codominant at 2'; excellent form.                                                                                       |
| 1411     | Coast live oak | 19,13                     | Yes               | 3                            | Moderate                     | Codominant at base; 13" has severely twisted form; possincluded barkly beginning to fail; crack at point of attachment. |
| 1412     | Calif. buckeye | 10,6                      | No                | 4                            | Good                         | Good form; overtopped by neighbors.                                                                                     |
| 1413     | Coast live oak | 23                        | Yes               | 2                            | Poor                         | Large area of decay at 15' from previous failure.                                                                       |
| 1414     | Valley oak     | 9                         | No                | 2                            | Poor                         | Top of tree dead; small coast live oak at base.                                                                         |
| 1415     | Coast live oak | 25,24                     | Yes               | 3                            | Moderate                     | Codominant at 2'; history of branch failures; twig and branch dieback; decay in some failed stems; needs pruning.       |
| 1416     | Valley oak     | 27                        | Yes               | 4                            | Good                         | High crown; somewhat thin.                                                                                              |
| 1417     | Coast live oak | 20                        | Yes               | 4                            | Good                         | Under canopy of #1416; crown to south.                                                                                  |

# Tree Survey

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                                   |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|--------------------------------------------------------------------------------------------|
| 1418     | Calif. buckeye | 18,17,14,13               | No                | 4                            | Good                         | 3 separate stems at base leaning to the outside of center; nice little group; some decay.  |
| 1419     | Valley oak     | 19,15                     | Yes               | 4                            | Good                         | Codominant at base; full crown.                                                            |
| 1420     | Coast live oak | 11                        | No                | 4                            | Good                         | A bit crooked.                                                                             |
| 1421     | Coast live oak | 23                        | Yes               | 3                            | Moderate                     | Twig and brach dieback.                                                                    |
| 1422     | Coast live oak | 11                        | No                | 3                            | Moderate                     | Trunk has crook at 4'.                                                                     |
| 1423     | Calif. buckeye | 11,7                      | No                | 3                            | Moderate                     | Wounds in trunk and center stem.                                                           |
| 1424     | Coast live oak | 16,13                     | Yes               | 2                            | Poor                         | Codominant at 1'; extensive twig and branch dieback.                                       |
| 1425     | Coast live oak | 22,17,14                  | Yes               | 3                            | Moderate                     | Multiple attachments at 1'; twig and branch dieback; 22" stem bows heavily to north.       |
| 1426     | Valley oak     | 17                        | Yes               | 4                            | Good                         | Codominant at 6'; minor dieback.                                                           |
| 1427     | Coast live oak | 17,15                     | Yes               | 1                            | Poor                         | Failed at base; laying on ground; green crown.                                             |
| 1428     | Valley oak     | 15                        | Yes               | 3                            | Moderate                     | Trunk bows to east.                                                                        |
| 1429     | Valley oak     | 17                        | Yes               | 3                            | Moderate                     | High small crown; low branch is dead.                                                      |
| 1430     | Coast live oak | 24                        | Yes               | 4                            | Good                         | Slight bow in trunk.                                                                       |
| 1431     | Coast live oak | 18                        | Yes               | 4                            | Good                         | Good form; base fused to #1432.                                                            |
| 1432     | Valley oak     | 16                        | Yes               | 4                            | Good                         | High crown; base fused to #1431.                                                           |
| 1433     | Coast live oak | 22,19                     | Yes               | 4                            | Good                         | Codominant at 2'; nice full crown.                                                         |
| 1434     | Coast live oak | 13                        | Yes               | 3                            | Moderate                     | Twig and branch dieback; trunk cavity on west; suppressed form.                            |
| 1435     | Coast live oak | 12,10,9,8                 | Yes               | 4                            | Good                         | One stem from base is separating from main stem; remaining tree is a very good young tree. |
| 1436     | Coast live oak | 8,7,6                     | No                | 4                            | Good                         | Multiple attachments at 2'; good young tree.                                               |
| 1437     | Coast live oak | 13,9,6                    | Yes               | 5                            | Good                         | Multiple attachments at 1'; low branching; good young tree.                                |
| 1438     | Coast live oak | 8,6,5,4,3                 | No                | 2                            | Poor                         | Very thin; poor color.                                                                     |
| 1439     | Madrone        | 7,6                       | No                | 5                            | Good                         | Good young tree; low branching.                                                            |
| 1440     | Madrone        | 16,13                     | No                | 3                            | Moderate                     | Codominant at 1' cracking apart; center stem is dead.                                      |
| 1441     | Coast live oak | 6                         | No                | 5                            | Good                         | Good young tree; low braching.                                                             |
| 1442     | Coast live oak | 6,5,5,4                   | No                | 2                            | Poor                         | Declining; leaves browning.                                                                |

# Tree Survey

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| TREE No. | SPECIES          | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                              |
|----------|------------------|---------------------------|-------------------|------------------------------|------------------------------|-----------------------------------------------------------------------|
| 1443     | Coast live oak   | 36                        | Yes               | 4                            | Good                         | Heavy laterals extend uphill and rest on ground; beautiful form.      |
| 1444     | Coast live oak   | 32                        | Yes               | 4                            | Good                         | Codominant at 4'; branching to ground; small branch failures.         |
| 1445     | Coast live oak   | 34                        | Yes               | 5                            | Good                         | Excellent form and structure; multiple attachments at 7'.             |
| 1446     | Calif. black oak | 35                        | Yes               | 5                            | Good                         | Excellent form and structure; nice specimen.                          |
| 1447     | Calif. black oak | 17                        | Yes               | 2                            | Poor                         | Only center stem is alive; extensive decay in upper trunk.            |
| 1448     | Valley oak       | 22                        | Yes               | 3                            | Moderate                     | Crown bows downhill to north; otherwise nice crown.                   |
| 1449     | Coast live oak   | 22,22,21                  | Yes               | 3                            | Moderate                     | Multiple attachments at 3'; thin crown; center of tree bowing uphill. |
| 1450     | Coast live oak   | 34                        | Yes               | 4                            | Good                         | Multiple attachments at 7'; twig and branch dieback.                  |
| 1451     | Calif. buckeye   | 9,9,8,8,6                 | No                | 5                            | Good                         | Stems from base and 1'; nice form; overtopped by #150.                |
| 1452     | Calif. black oak | 18                        | Yes               | 1                            | Poor                         | Half of tree failed; bees in base.                                    |
| 1453     | Calif. buckeye   | 20                        | No                | 5                            | Good                         | Excellent form and structure; a couple of small cavities.             |
| 1454     | Coast live oak   | 18                        | Yes               | 3                            | Moderate                     | Trunk has corrected form to east.                                     |
| 1455     | Coast live oak   | 23                        | Yes               | 3                            | Moderate                     | Trunk bows to west.                                                   |
| 1456     | Coast live oak   | 6                         | No                | 2                            | Poor                         | Poor form.                                                            |
| 1457     | Coast live oak   | 15                        | Yes               | 3                            | Moderate                     | Suppressed form to east.                                              |
| 1458     | Coast live oak   | 12,10                     | Yes               | 3                            | Moderate                     | Codominant at 2'; suppressed form to southeast.                       |
| 1459     | Coast live oak   | 33,10,17                  | Yes               | 5                            | Good                         | Multiple attachments at 4'; beautiful full crown extends to ground.   |
| 1460     | Coast live oak   | 17,11,7                   | Yes               | 4                            | Moderate                     | Multiple attachments at 1'; thin crown.                               |
| 1461     | Plum             | 11                        | No                | 1                            | Poor                         | All but dead.                                                         |
| 1462     | Coast live oak   | 9,8,8,6                   | No                | 4                            | Good                         | Staddles property line; multiple attachments at base; low crown.      |

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| TREE No. | SPECIES        | SIZE DIAMETER (in inches) | NATIVE PROTECTED? | CONDITION 1=POOR 5=EXCELLENT | SUITABILITY FOR PRESERVATION | COMMENTS                                                                               |
|----------|----------------|---------------------------|-------------------|------------------------------|------------------------------|----------------------------------------------------------------------------------------|
| 1463     | Coast live oak | 15                        | Yes               | 4                            | Good                         | Slight lean to north.                                                                  |
| 1464     | Calif. buckeye | 7,6,6                     | No                | 4                            | Good                         | Good form; engulfed in poison oak.                                                     |
| 1465     | Almond         | 15                        | No                | 2                            | Poor                         | Half of tree failed; trunk decay.                                                      |
| 1466     | Coast live oak | 13,11                     | Yes               | 5                            | Good                         | Codominant at 3'; excellent form and structure.                                        |
| 1467     | Coast live oak | 8,8                       | No                | 4                            | Good                         | Part of dense grove; codominant at 1'.                                                 |
| 1468     | Coast live oak | 8                         | No                | 4                            | Good                         | Part of dense grove; one-sided.                                                        |
| 1469     | Coast live oak | 7                         | No                | 4                            | Good                         | Part of dense grove; narrow upright form.                                              |
| 1470     | Coast live oak | 7                         | No                | 3                            | Moderate                     | Part of dense grove; suppressed form to south.                                         |
| 1471     | Coast live oak | 7                         | No                | 4                            | Good                         | Part of dense grove; crown to east.                                                    |
| 1472     | Coast live oak | 10,10                     | No                | 4                            | Good                         | Part of dense grove; codominant at 3'.                                                 |
| 1473     | Coast live oak | 10,7                      | No                | 4                            | Good                         | Just south of tree #733; codominant at 2'; bark checking at base; part of dense grove. |
| 1474     | Coast live oak | 5,5,4,3                   | Yes               | 4                            | Good                         | East of tree #209; codominant at 1' and 3'; low crown.                                 |
| 1475     | Coast live oak | 8,8,7,6                   | No                | 4                            | Good                         | Near tree #910; codominant at 3'; top of cut slope; good form.                         |

# **ATTACHMENT 5**

## **ATTACHMENT 5**

### **U.S. Fish and Wildlife Service, California Natural Diversity Data Base and California Native Plant Society Special Status Species Lists for the Project Area**



**United States Department of the Interior**  
**FISH AND WILDLIFE SERVICE**

Sacramento Fish and Wildlife Office  
2800 Cottage Way, Room W-2605  
Sacramento, California 95825



January 28, 2011

Document Number: 110128052418

Gary Deghi  
Huffman-Broadway Group, Inc.  
828 Mission Avenue  
San Rafael, CA 94901

Subject: Species List for Napa Oaks Project

Dear: Mr. Deghi

We are sending this official species list in response to your January 28, 2011 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be April 28, 2011.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found at [www.fws.gov/sacramento/es/branches.htm](http://www.fws.gov/sacramento/es/branches.htm).

Endangered Species Division



**U.S. Fish & Wildlife Service**  
**Sacramento Fish & Wildlife Office**  
**Federal Endangered and Threatened Species that Occur in**  
**or may be Affected by Projects in the Counties and/or**  
**U.S.G.S. 7 1/2 Minute Quads you requested**

Document Number: 110128052418

Database Last Updated: April 29, 2010

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Quad Lists

Listed Species

Invertebrates

- Branchinecta conservatio*  
Conservancy fairy shrimp (E)
- Branchinecta lynchi*  
Critical habitat, vernal pool fairy shrimp (X)  
vernal pool fairy shrimp (T)
- Desmocerus californicus dimorphus*  
valley elderberry longhorn beetle (T)
- Speyeria callippe callippe*  
callippe silverspot butterfly (E)
- Speyeria zerene myrtleae*  
Myrtle's silverspot butterfly (E)
- Syncaris pacifica*  
California freshwater shrimp (E)

Fish

- Acipenser medirostris*  
green sturgeon (T) (NMFS)
- Eucyclogobius newberryi*  
tidewater goby (E)
- Hypomesus transpacificus*  
Critical habitat, delta smelt (X)  
delta smelt (T)
- Oncorhynchus kisutch*  
coho salmon - central CA coast (E) (NMFS)
- Oncorhynchus mykiss*  
Central California Coastal steelhead (T) (NMFS)  
Central Valley steelhead (T) (NMFS)  
Critical habitat, Central California coastal steelhead (X) (NMFS)
- Oncorhynchus tshawytscha*  
Central Valley spring-run chinook salmon (T) (NMFS)  
Critical habitat, winter-run chinook salmon (X) (NMFS)  
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

- Ambystoma californiense*  
California tiger salamander, central population (T)
- Rana draytonii*  
California red-legged frog (T)  
Critical habitat, California red-legged frog (X)

**Reptiles**

*Thamnophis gigas*  
giant garter snake (T)

**Birds**

*Charadrius alexandrinus nivosus*  
western snowy plover (T)  
*Pelecanus occidentalis californicus*  
California brown pelican (E)  
*Rallus longirostris obsoletus*  
California clapper rail (E)  
*Sternula antillarum* (=Sterna, =albifrons) browni  
California least tern (E)  
*Strix occidentalis caurina*  
northern spotted owl (T)

**Mammals**

*Reithrodontomys raviventris*  
salt marsh harvest mouse (E)

**Plants**

*Astragalus clarianus*  
Clara Hunt's milk-vetch (E)  
*Blennosperma bakeri*  
Baker's stickyseed [=Sonoma Sunshine] (E)  
*Castilleja affinis ssp. neglecta*  
Tiburon paintbrush (E)  
*Cordylanthus mollis ssp. mollis*  
soft bird's-beak (E)  
*Lasthenia conjugens*  
Contra Costa goldfields (E)  
Critical habitat, Contra Costa goldfields (X)  
*Navarretia leucocephala ssp. pauciflora*  
few-flowered navarretia (E)

**Proposed Species****Amphibians**

*Rana draytonii*  
Critical habitat, California red-legged frog (PX)

**Plants**

*Cordylanthus mollis ssp. mollis*  
Critical habitat, soft bird's-beak (PX)

**Quads Containing Listed, Proposed or Candidate Species:**

CORDELIA (482B)  
CUTTINGS WHARF (483A)  
SEARS POINT (483B)  
CAPELL VALLEY (499B)  
MT. GEORGE (499C)  
YOUNTVILLE (500A)  
RUTHERFORD (500B)  
SONOMA (500C)  
NAPA (500D)

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**County Lists**

No county species lists requested.

## Key:

- (E) *Endangered* - Listed as being in danger of extinction.
- (T) *Threatened* - Listed as likely to become endangered within the foreseeable future.
- (P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.
- Critical Habitat* - Area essential to the conservation of a species.
- (PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.
- (C) *Candidate* - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) *Critical Habitat* designated for this species

## Important Information About Your Species List

### How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

### Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

### Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our [Protocol](#) and [Recovery Permits](#) pages.

For plant surveys, we recommend using the [Guidelines for Conducting and Reporting Botanical Inventories](#). The results of your surveys should be published in any environmental documents prepared for your project.

### Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or

injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

## Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our Map Room page.

## Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

## Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. More info

## Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you

will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

### Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be April 28, 2011.



## Inventory of Rare and Endangered Plants

## Plant List

51 matches found. [Click on scientific name for details](#)

## Search Criteria

Found in 9 Quads around 38122C3.

Community is one of (Broadleaved upland forest, Cismontane woodland, Meadows and seeps, Marshes and swamps, Valley and foothill grassland, Vernal pool

| Scientific Name                                     | Common Name                         | Family           | Lifeform                       | Rare Plant Rank | State Rank | Global Rank |
|-----------------------------------------------------|-------------------------------------|------------------|--------------------------------|-----------------|------------|-------------|
| <i>Allium peninsulare</i> var. <i>frutescens</i>    | Franciscan onion                    | Liliaceae        | perennial bulbiferous herb     | 1B.2            | S2.2       | G5T2        |
| <i>Amorpha californica</i> var. <i>nana</i>         | Napa false indigo                   | Fabaceae         | perennial deciduous shrub      | 1B.2            | S2.2       | G4T2        |
| <i>Arctostaphylos bakeri</i> ssp. <i>bakeri</i>     | Baker's manzanita                   | Ericaceae        | perennial evergreen shrub      | 1B.1            | S2         | G2T2        |
| <i>Astragalus clarus</i>                            | Clara Hunt's milk-vetch             | Fabaceae         | annual herb                    | 1B.1            | S1.1       | G1          |
| <i>Astragalus clevelandii</i>                       | Cleveland's milk-vetch              | Fabaceae         | perennial herb                 | 4.3             | S3.37      | G3          |
| <i>Astragalus tenuis</i> var. <i>tenuis</i>         | alkali milk-vetch                   | Fabaceae         | annual herb                    | 1B.2            | S1.1       | G1T1        |
| <i>Altriplex joaquiniensis</i>                      | San Joaquin sparscale               | Chenopodiaceae   | annual herb                    | 1B.2            | S2         | G2          |
| <i>Balsamorhiza maculata</i> var. <i>maculata</i>   | big-scale balsamroot                | Asteraceae       | perennial herb                 | 1B.2            | S2         | G3G4T2      |
| <i>Elaeagnus umbellata</i>                          | Sonoma sunshine                     | Asteraceae       | annual herb                    | 1B.1            | S1.2       | G1          |
| <i>Brodiaea californica</i> var. <i>leptandra</i>   | narrow-anthered California brodiaea | Liliaceae        | perennial bulbiferous herb     | 1B.2            | S2S3.2     | G4T2T3      |
| <i>Calochortus pulchellus</i>                       | Mt. Diablo fairy-lantern            | Liliaceae        | perennial bulbiferous herb     | 1B.2            | S2.1       | G2          |
| <i>Calycadenia micrantha</i>                        | small-flowered calycadenia          | Asteraceae       | annual herb                    | 1B.2            | S2S3.2     | G2G3        |
| <i>Castilleja affinis</i> ssp. <i>neglecta</i>      | Tiburon paintbrush                  | Scrophulariaceae | perennial herb (hemiparasitic) | 1B.2            | S1.2       | G4G5T1      |
| <i>Ceanothus confusus</i>                           | Rincon Ridge ceanothus              | Rhamnaceae       | perennial evergreen shrub      | 1B.1            | S2.2       | G2          |
| <i>Ceanothus purpureus</i>                          | holly-leaved ceanothus              | Rhamnaceae       | perennial evergreen shrub      | 1B.2            | S2.2       | G2          |
| <i>Centromadia purryi</i> ssp. <i>purryi</i>        | pappose tarplant                    | Asteraceae       | annual herb                    | 1B.2            | S2.2       | G4T2        |
| <i>Cordylanthus mollis</i> ssp. <i>mollis</i>       | soft bird's-beak                    | Scrophulariaceae | annual herb (hemiparasitic)    | 1B.2            | S1.1       | G2T1        |
| <i>Downingia pusilla</i>                            | dwarf downingia                     | Campanulaceae    | annual herb                    | 2.2             | S2         | G2          |
| <i>Erigeron lupulifolius</i>                        | streamside daisy                    | Asteraceae       | perennial herb                 | 3               | S3?        | G3?         |
| <i>Eriogonum luteolum</i> var. <i>canadense</i>     | Tiburon buckwheat                   | Polygonaceae     | annual herb                    | 1B.2            | S2         | G5T2        |
| <i>Gilia capitata</i> ssp. <i>torreyana</i>         | woolly-headed gilia                 | Polemoniaceae    | annual herb                    | 1B.1            | S1.1       | G5T1        |
| <i>Harmonia nutans</i>                              | nodding harmonia                    | Asteraceae       | annual herb                    | 4.3             | S3.3       | G3          |
| <i>Horizonia congesta</i> ssp. <i>congesta</i>      | pale yellow hayfield tarplant       | Asteraceae       | annual herb                    | 1B.2            | S2S3       | G5T2T3      |
| <i>Hesperolobos breweri</i>                         | Brewer's western flax               | Linaceae         | annual herb                    | 1B.2            | S2.2       | G2          |
| <i>Horkelia tenuiloba</i>                           | thin-lobed horkelia                 | Rosaceae         | perennial herb                 | 1B.2            | S2.2       | G2          |
| <i>Iris longipetala</i>                             | coast iris                          | Iridaceae        | perennial rhizomatous herb     | 4.2             | S3.2       | G3          |
| <i>Leathrum conjugens</i>                           | Contra Costa goldfields             | Asteraceae       | annual herb                    | 1B.1            | S1.1       | G1          |
| <i>Lathyrus jepsonii</i> var. <i>jepsonii</i>       | Delta tule pea                      | Fabaceae         | perennial herb                 | 1B.2            | S2.2       | G5T2        |
| <i>Legume limosa</i>                                | legenore                            | Campanulaceae    | annual herb                    | 1B.1            | S2.2       | G2          |
| <i>Leptocarpus acicularis</i>                       | bristly leptocarpus                 | Polemoniaceae    | annual herb                    | 4.2             | S3.2       | G3          |
| <i>Leptocarpus jepsonii</i>                         | Jepson's leptocarpus                | Polemoniaceae    | annual herb                    | 1B.2            | S2.2       | G2          |
| <i>Lesqueria hololeuca</i>                          | woolly-headed lescingia             | Asteraceae       | annual herb                    | 3               | S3         | G3          |
| <i>Lilaeopsis masonii</i>                           | Mason's lilaeopsis                  | Apiaceae         | perennial rhizomatous herb     | 1B.1            | S2         | G2          |
| <i>Lilium tuberosum</i>                             | redwood lily                        | Liliaceae        | perennial bulbiferous herb     | 4.2             | S3.2       | G3          |
| <i>Limnanthes viscaria</i>                          | Sebastopol meadowfoam               | Limnathaceae     | annual herb                    | 1B.1            | S2.1       | G2          |
| <i>Lonicera repens</i>                              | Napa lomatium                       | Apiaceae         | perennial herb                 | 4.3             | S3.3       | G3          |
| <i>Lupinus varius</i>                               | Cobb Mountain lupine                | Fabaceae         | perennial herb                 | 1B.2            | S2.2       | G2          |
| <i>Microglossa angustifolia</i>                     | Mt. Diablo cottonweed               | Asteraceae       | annual herb                    | 3.2             | S3.2?      | G3          |
| <i>Monardella villosa</i> ssp. <i>globosa</i>       | robust monardella                   | Lamiaceae        | perennial rhizomatous herb     | 1B.2            | S2.2       | G5T2        |
| <i>Monardella viridis</i> ssp. <i>viridis</i>       | green monardella                    | Lamiaceae        | perennial rhizomatous herb     | 4.3             | S3.3       | G3T3        |
| <i>Navaretia leucacantha</i> ssp. <i>pauciflora</i> | few-flowered navaretia              | Polemoniaceae    | annual herb                    | 1B.1            | S1.1       | G4T1        |
| <i>Polygonum maritimum</i>                          | Marin knotweed                      | Polygonaceae     | annual herb                    | 3.1             | S1.1       | G1Q         |
| <i>Rhynchospora californica</i>                     | California beaked rush              | Cyperaceae       | perennial rhizomatous herb     | 1B.1            | S1.1       | G1          |
| <i>Shepherdia breweri</i> var. <i>hesperidis</i>    | green jewel-flower                  | Brassicaceae     | annual herb                    | 1B.2            | S2.2       | G5T2        |
| <i>Synphyllanthus tenuis</i>                        | Suisun March aster                  | Asteraceae       | perennial rhizomatous herb     | 1B.2            | S2         | G2          |
| <i>Trichostema rubicundum</i>                       | Hernandez bluecups                  | Lamiaceae        | annual herb                    | 4.3             | S3.3       | G3          |
| <i>Trichostema ovale</i>                            | Napa bluecups                       | Lamiaceae        | annual herb                    | 1B.2            | S2         | G2          |
| <i>Trifolium antecurum</i>                          | two fork clover                     | Fabaceae         | annual herb                    | 1B.1            | S1.1       | G1          |

|                               |                       |           |                            |      |       |     |
|-------------------------------|-----------------------|-----------|----------------------------|------|-------|-----|
| <i>Trifolium hydrophyllum</i> | saline clover         | Fabaceae  | annual herb                | 1B.2 | S2.2? | G2? |
| <i>Trilepis lugens</i>        | dark-mouthed trilepis | Liliaceae | perennial bulbiferous herb | 4.3  | S3.3  | G3  |
| <i>Viburnum ellipticum</i>    | oval-leaved viburnum  | Adoxaceae | perennial deciduous shrub  | 2.3  | S2.3  | G5  |

**Suggested Citation**

California Native Plant Society (CNPS). 2011. Inventory of Rare and Endangered Plants (online edition, v8-01a). California Native Plant Society. Sacramento, CA. Accessed on Monday, January 31, 2011.

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# **ATTACHMENT 6**

## **ATTACHMENT 6**

**Habitat Assessment for the California Tiger Salamander  
on the Napa Oaks Project Site, Napa County, California.  
Prepared by Mark Jennings of Rana Resources  
February 10, 2011**

**HABITAT ASSESSMENT FOR THE  
CALIFORNIA TIGER SALAMANDER (*Ambystoma californiense*),  
ON THE NAPA OAKS PROJECT SITE,  
NAPA COUNTY, CALIFORNIA**

Prepared by:

Mark R. Jennings  
Rana Resources  
P.O. Box 2185  
Davis, CA 95617-2185

For  
Gary Deghi  
The Huffman-Broadway Group, Inc.  
828 Mission Avenue  
San Rafael, CA 94901

February 10, 2011

## EXECUTIVE SUMMARY

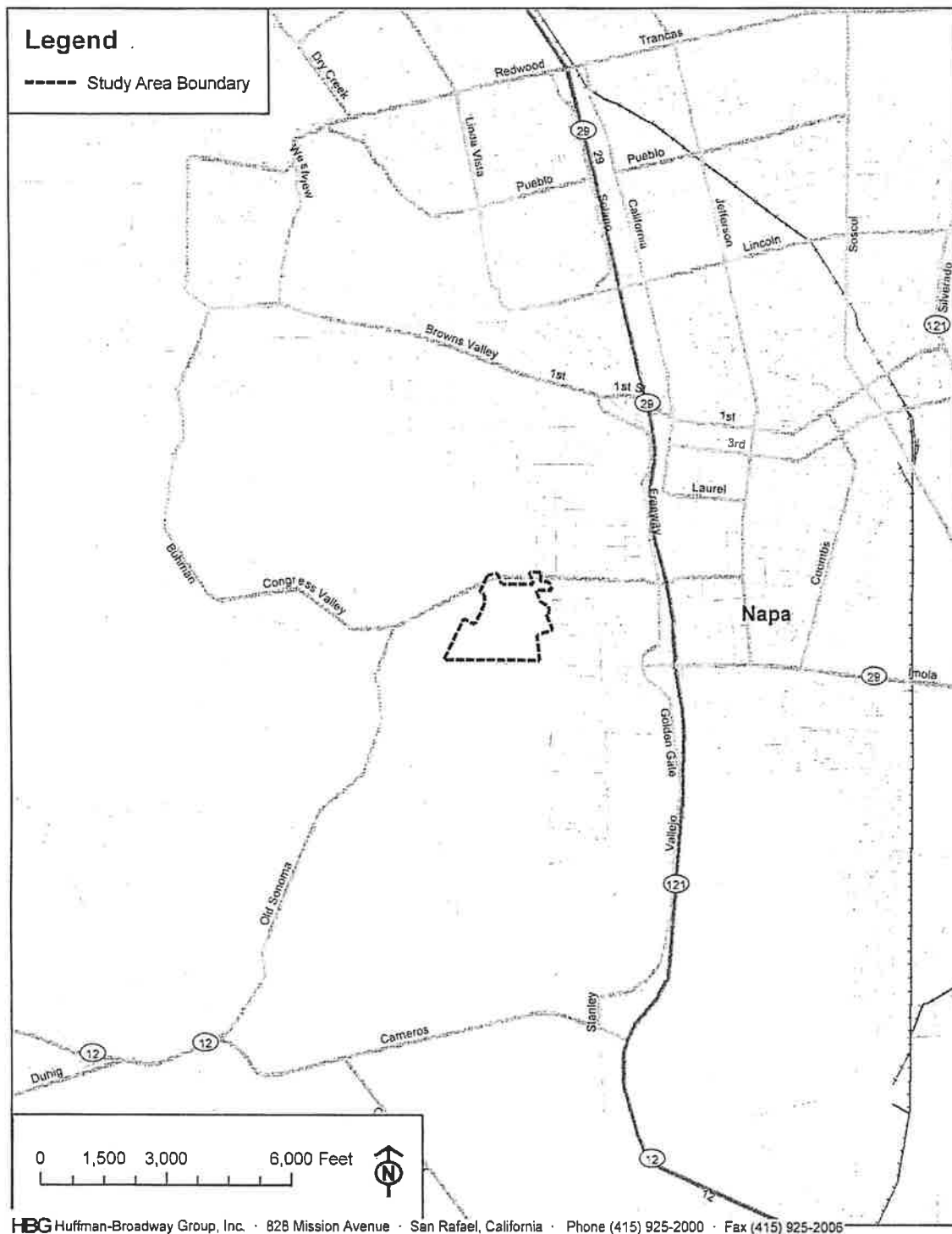
A habitat assessment was conducted for the California tiger salamander (*Ambystoma californiense*; CTS) during 01 February 2011 on the 80.64-acre Napa Oaks Project site (at 3095 Old Sonoma Road) in Napa, Napa County, California. Results showed that the site is outside of the known native range for CTS, it is not within any of the U.S. Fish and Wildlife Service critical habitat areas designated for the species, and it lacks suitable breeding habitat for CTS. The closest known historic populations are located approximately 18 miles to the southeast of the site in the vicinity of Fairfield (near Travis Air Force Base) in Solano County, and 19 miles to the northwest at the southern edge of the Santa Rosa Plain (near Cotati and Rohnert Park) in Sonoma County. In-between the project site and the closest known populations are extensive areas of natural waterways (including rivers), mountain ranges, urbanization, freeways, and agricultural areas. It is my professional opinion that CTS do not occur on the site or within at least 15 miles of the project location.

## INTRODUCTION

The Napa Oaks Project is a proposed development on 80.64 acres in the low hills just west of the current city of Napa at 3095 Old Sonoma Road in Napa County (Figure 1). The project boundary lies just within the current city limits. Because this project site is located near the historic native range of the California tiger salamander (*Ambystoma californiense*; CTS) [Jennings and Hayes 1994], the following habitat assessment was conducted to see if this salamander could potentially occur on site. The common and scientific names utilized in this report follow Jennings (2004), as per recent taxonomic revisions.

## STUDY AREA

The Napa Oaks Project is located at 3095 Old Sonoma Road within the City of Napa, Napa County (Figure 1). The 80.64-acre site lies within the western edge of the city limits of Napa in the low hills of a partly-wooded oak (*Quercus* spp.) area. The site is bounded on the east by the City of Napa, to the north by Old Sonoma Road, and to the south and west by extensive vineyards. The site contains a house, barn, corrals, and other



**Figure 1. Project Area Location Map**

Napa Oaks Project

City of Napa, Napa County, California

Figure 1. Location of the Project within the City of Napa.

associated structures, and a mixed grassland-oak woodland area that is used for grazing. There are piped watering troughs for livestock on the property. However, all drainages and wetland areas on the site are intermittent and only hold water for up to several weeks after periods of rainfall.

The vineyards to the west and south are largely cleared of natural vegetation and contain numerous large irrigation ponds. I counted 4 such irrigation ponds (including 1 immediately south of the project site) within 0.25 miles of the project boundary. There are many other vineyard irrigation ponds that lie further away from the four ponds alluded to above. These ponds provide suitable aquatic and riparian habitat for a number of wildlife which forage on the adjacent project site (e.g., Pacific treefrogs (*Hyla regilla*), raccoons (*Procyon lotor*), mule deer (*Odocoileus hemionus*), great egrets (*Ardea alba*, etc.).

## **MATERIALS AND METHODS**

The site was examined by myself on 01 February 2011. I looked at the overall area of the proposed development, as well as the adjacent areas by the use of public roads and the views (via binoculars) from the heights of the project site. All areas were assessed for potential habitat of CTS by following the guidance provided by the U.S. Fish and Wildlife Service (2003). Additionally, I examined pertinent locality information for CTS via the California Natural Diversity Data Base (California Department of Fish and Game 2011) and recently published information in the Federal Register by the U.S. Fish and Wildlife Service.

## **RESULTS AND DISCUSSION**

There are no wetlands or water bodies located on the project site that are suitable for CTS breeding. All of the areas that naturally hold water for any period of time are very shallow (only 1-3 inches deep) and completely dry after only a few weeks when rainfall ceases. The numerous irrigation ponds within the vineyards adjacent to the site are potentially suitable for CTS breeding. However, I observed introduced western mosquitofish (*Gambusia affinis*) in the pond closest to the property and introduced bullfrogs (*Rana catesbeiana*) are known to be abundant in aquatic habitats within the

Napa area (e.g., see Jennings and Padgett-Flohr 2004). These negative factors, coupled with the lack of records for CTS within any part of Napa County (California Department of Fish and Game 2011) suggest that CTS do not inhabit the area. Further, Napa County is not within any of the U.S. Fish and Wildlife Service critical habitat areas designated for CTS (U.S. Fish and Wildlife Service 2005, 2011). The closest known historic CTS populations are located approximately 18 miles to the southeast of the site in the vicinity of Fairfield (near Travis Air Force Base) in Solano County and 19 miles to the northwest at the southern edge of the Santa Rosa Plain (near Cotati and Rohnert Park) in Sonoma County (Jennings and Hayes 1994, California Department of Fish and Game 2011). In-between the project site and the closest known populations are extensive areas of natural waterways (including rivers), mountain ranges, urbanization, freeways, and agricultural areas. Thus, it is my professional opinion that CTS do not occur on the site or within at least 15 miles of the project location.

In summary, it appears that the Napa Oaks Project site lacks suitable aquatic habitat for CTS, and is outside the known native range of the species. It is my professional opinion that the project will have no negative effects on these species within the City of Napa.

#### **LITERATURE CITED**

- California Department of Fish and Game. 2011. California Natural Diversity Data Base for Napa, Solano, and Sonoma counties. Natural Heritage Division, Sacramento, California.
- Jennings, M. R. 2004. An annotated check list of the amphibians and reptiles of California and adjacent waters (third, revised edition). California Fish and Game, 90(4):161-213.
- Jennings, M. R., and M. P. Hayes. 1994. Amphibian and reptile species of special concern in California. Final report to the California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California, under contract number 8023. iii+225 p.
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*marmorata*), California freshwater shrimp (*Synacris pacifica*), and steelhead (*Oncorhynchus mykiss irideus*). Final report prepared for The Environmental Collaborative, Emeryville, California. 15 p.

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# ATTACHMENT 7

## **ATTACHMENT 7**

**Habitat Assessment for the California Red-legged Frog  
on the Napa Oaks Project Site, Napa County, California  
Prepared by Mark Jennings of Rana Resources  
February 11, 2011**

**HABITAT ASSESSMENT FOR THE  
CALIFORNIA RED-LEGGED FROG (*Rana draytonii*),  
ON THE NAPA OAKS PROJECT SITE,  
NAPA COUNTY, CALIFORNIA**

Prepared by:

Mark R. Jennings  
Rana Resources  
P.O. Box 2185  
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For  
Gary Deghi  
The Huffman-Broadway Group, Inc.  
828 Mission Avenue  
San Rafael, CA 94901

February 11, 2011

## EXECUTIVE SUMMARY

A habitat assessment was conducted for the California red-legged frog (*Rana draytonii*; CRLF) during 01 February 2011 on the 80.64-acre Napa Oaks Project site (at 3095 Old Sonoma Road) in Napa, Napa County, California. Results showed that although the site lies within the native range for this species (and there are two historic 1912 museum records for 2 miles southwest of the city), it is currently not within any of the U.S. Fish and Wildlife Service critical habitat areas designated for CRLF, and it lacks any suitable breeding habitat for CRLF. Although there are a number of adjacent vineyard irrigation ponds in the vicinity of the site, none of these water bodies appear to harbor CRLF due to the presence of dense populations of introduced bullfrogs (*Rana catesbeiana*) and introduced predatory fishes. The high summer and fall air temperatures of the vicinity make the local aquatic habitats optimal for bullfrog reproduction and growth, which has presumably resulted in the localized extinction of CRLF in the vicinity of Napa. The closest known CRLF population is currently located approximately 8 miles to the south-southeast of the site in the hills in the vicinity of Napa Junction, Napa County. In-between the project site and this closest known population are extensive areas of natural waterways (including the Napa River), urbanization, freeways, and agricultural areas. It is my professional opinion that CRLF do not occur on site or within at least 6 miles of the project location.

## INTRODUCTION

The Napa Oaks Project is a proposed development on 80.64 acres in the low hills just west of the current city of Napa at 3095 Old Sonoma Road in Napa County (Figure 1). The project boundary lies just within the current city limits. Because this project site is located within the historic native range of the California red-legged frog (*Rana draytonii*; CRLF) [Jennings and Hayes 1994], the following habitat assessment was conducted to see if this species could potentially occur on site. The common and scientific names utilized in this report follow Jennings (2004), as per recent taxonomic revisions.

## STUDY AREA

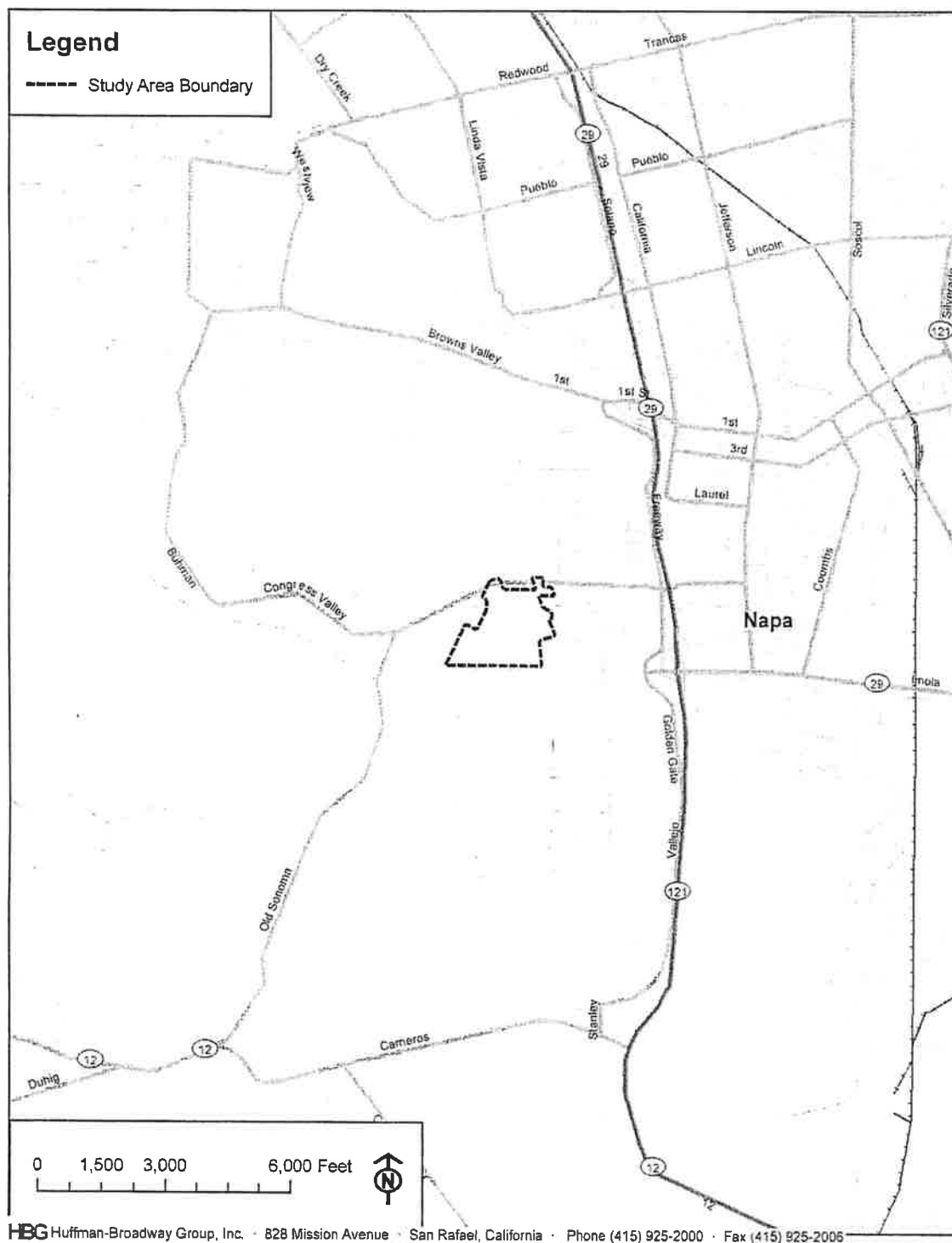
The Napa Oaks Project is located at 3095 Old Sonoma Road within the City of Napa, Napa County (Figure 1). The 80.64-acre site lies within the western edge of the city limits of Napa in the low hills of a partly-wooded oak (*Quercus* spp.) area. The site is bounded on the east by the City of Napa, to the north by Old Sonoma Road, and to the south and west by extensive vineyards. The site contains a house, barn, corrals, and other associated structures, and a mixed grassland-oak woodland area that is used for grazing domestic cows (*Bos taurus*) and horses (*Equus caballus*). There are piped watering troughs for livestock on the property. However, all drainages and wetland areas on the site are intermittent and only hold water for up to several weeks after periods of rainfall.

The vineyards to the west and south are largely cleared of natural vegetation and contain numerous large irrigation ponds. I counted 4 such irrigation ponds (including 1 immediately south of the project site) within 0.25 miles of the project boundary. There are many other vineyard irrigation ponds that lie further away from the four ponds alluded to above. These ponds provide suitable aquatic and riparian habitat for a number of wildlife which forage on the adjacent project site (e.g., Pacific treefrogs (*Hyla regilla*), raccoons (*Procyon lotor*), mule deer (*Odocoileus hemionus*), great egrets (*Ardea alba*), etc.).

## MATERIALS AND METHODS

Prior to commencing field surveys, aerial photographs, the California Natural Diversity Data Base (California Department of Fish and Game 2011), and pertinent literature published by the U.S. Fish and Wildlife Service were consulted. I also examined my field notes for information about amphibians observed during previous surveys in the vicinity of the City of Napa during the past 20 years.

The entire site was examined by me on 01 February 2011. I looked at the overall area of the proposed development, as well as the adjacent areas by the use of public roads and the views (via binoculars) from the heights of the project site. All areas were assessed for potential habitat of CRLF by following the guidance provided by the U.S. Fish and Wildlife Service (2005). Additionally, I reviewed the most recent pertinent



**Figure 1. Project Area Location Map**  
 Napa Oaks Project  
 City of Napa, Napa County, California

Figure 1. Location of the Project within the City of Napa.

locality information for CRLF via the California Natural Diversity Data Base (California Fish and Game 2011).

## RESULTS AND DISCUSSION

There are no wetlands or water bodies located on the project site that are suitable for CRLF breeding. All of the areas that naturally hold water for any period of time are very shallow (only 1-3 inches deep) and completely dry after only a few weeks when rainfall ceases. The livestock watering troughs I examined have vertical sides and the tops are relatively high off the ground thus making them unsuitable for CRLF to use. However, there are numerous irrigation ponds within the vineyards adjacent to the property that are potentially suitable for CRLF breeding. Close examination of the irrigation pond closest to the property revealed the presence of introduced western mosquitofish (*Gambusia affinis*) and I observed two men fishing with rod and reel in one of the other adjacent ponds nearby. Although there are two old CRLF museum records at the Museum of Vertebrate Zoology for “2 miles southwest of Napa” which are almost 100 years old (collected in 1912), previous habitat assessments by me (and many other biologists since the frog was listed in 1996) in the vicinity of Napa and lower Napa River during the past 20 years have shown introduced bullfrogs (*Rana catesbeiana*) to have completely replaced CRLF along the lower Napa River sometime during the 20<sup>th</sup> Century (e.g., see Jennings 2000, and Jennings and Padgett-Flohr 2004). The high summer and fall air temperatures of the vicinity make the local aquatic habitats optimal for bullfrog reproduction and growth, hence their total replacement of CRLF in this part of Napa County.

Additionally, the project site is not within the Current or Proposed Critical Habitat for the CRLF (U.S. Fish and Wildlife Service 2006, 2008, 2009a, 2009b). The closest Critical Habitat units are CRLF – Nap 1 (~10 miles to the northeast) and Proposed CRLF SOL-2 (~6 miles to the south). The project location is not within Core Areas as designated in the Recovery Plan (U.S. Fish and Wildlife Service 2002). The closest Core Area is #15 Jameson Canyon – Lower Napa River (~6 miles to the southeast), where I have previously observed CRLF in suitable habitats in Jameson Canyon proper.

The closest known CRLF population is currently located approximately 8 miles to the south-southeast of the site in the hills in the vicinity of Napa Junction, Napa County. In-between the project site and this closest known population are extensive areas of natural waterways (including the Napa River) that contain many bullfrogs and introduced predatory fishes, urbanization, freeways, and agricultural areas. It is my professional opinion that CRLF do not occur on site or within at least 6 miles of the project location.

In summary, it appears that the Napa Oak Project site lacks suitable aquatic habitat for CRLF and the species is presently extinct in this part of Napa County. It is my professional opinion that the project will have no negative effects on CRLF within the City of Napa.

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# **ATTACHMENT 8**

**ATTACHMENT 8**

**Letter Report on Western Pond Turtle  
Napa Oaks Project Site, Napa County, California  
Prepared by Mark Jennings of Rana Resources  
February 12, 2011**

RANA RESOURCES  
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(530) 753-2727  
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#15,291  
February 12, 2011

Mr. Gary Deghi  
Huffman and Associates, Inc.  
828 Mission Avenue  
San Rafael, CA 94901-3209

Dear Gary:

This letter is in regards to my observation of western pond turtles (*Actinemys marmorata*; WPT) in vineyard irrigation ponds adjacent to the Napa Oaks Project site within the City of Napa. During my site survey on 01 February 2011, I was able to observe (with binoculars) basking or swimming adult WPTs in every irrigation pond adjacent to the property within a distance of about a quarter of a mile. Although the project site is totally unsuitable for WPT nesting and estivation due to the rocky nature of the soil, the very close proximity of one of these irrigation ponds to the southern boundary of the site makes it likely that WPT might move across a small part of the property. In order to avoid any potential negative effects to WPT with this project, it is suggested that the client conduct the following avoidance measures: 1) create at least a 200-foot buffer between the project development boundary and the high water edge of the irrigation pond; and 2) that black silt fencing be installed at the southern edge of the development area to prevent WPT from potentially entering the construction area (and being crushed by vehicles, etc). The fence could be examined by a qualified biologist on a regular basis during the construction period to make sure that it is functioning properly.

Thanks for allowing me to be involved with this project. Please let me know if you have any questions on the above.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark R. Jennings", with a horizontal line underneath.

Mark R. Jennings  
President and  
Herpetologist/Fisheries Biologist