BIOLOGICAL RESOURCES ASSESSMENT
FOR THE

±17-ACRE BEAVER CREEK STUDY AREA

GRANITE BAY, PLACER COUNTY, CALIFORNIA

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INTRODUCTION

Project Location

Salix Consulting, Inc. (Salix) has prepared an updated Biological Resources Assessment for the ±17-acre Beaver Creek Study Area (study area) located in the community of Granite Bay, Placer County, California. The study area is located on the south side of Douglas Boulevard, just east of Sierra College Boulevard and Woodgrove Way. It is situated in Section 9, Township 10 North and Range 7 East on the Folsom, California 7.5-minute USGS topographic quadrangle (Figure 1). The approximate latitude and longitude for the center of the property are: 38° 44′ 31″ N and 121° 13′ 00″ W.

Project Setting

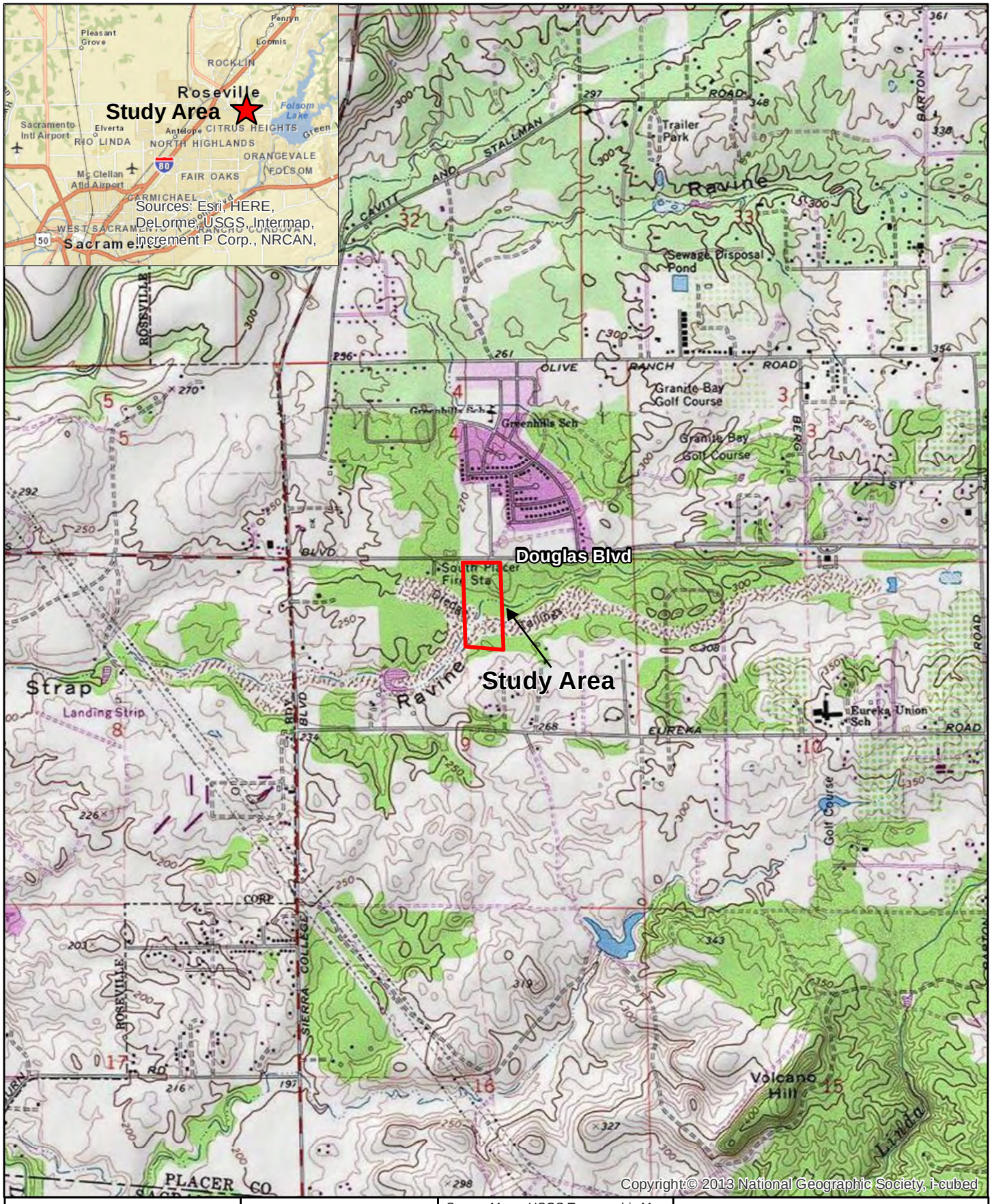
The site occurs at the lower edge of the western foothills of the Sierra Nevada at approximately 270 feet. The study area supports mostly foothill woodland and topography is highly variable due to the presence of historic dredge tailings throughout the site. Strap Ravine, a regionally intermittent stream, bisects the property and flows in a west and southwesterly direction. The study area is surrounded by newer residential subdivisions, rural residential properties, and undeveloped properties (Figure 2).

Project Background

In 2004 North Fork Associates conducted a wetland delineation and prepared a Biological Resources Assessment (BRA) for this site, the ±17-acre Douglas Events Center Project Site, Granite Bay, California (NFA 2004a and 2004b). Salix recently conducted an additional field assessment. This report updates the 2004 BRA and provides current information on biological resources of the study area. Information from previous reports has been incorporated into this BRA where appropriate.

Objectives of Biological Resources Assessment

- Identify and describe the biological communities present in the study area
- Record plant and animal species observed in the study area
- Evaluate and identify sensitive resources and special-status plant and animal species that could be affected by project activities
- Provide conclusions and recommendations.



Salix consulting, inc.

N

0 1,000 2,000
Feet

Source Maps: USGS Topographic Map, Folsom (1978) and Rocklin (1981), CA Quadrangle, 1:24,000

Study Area (±17 ac)

Figure 1

VICINITY MAP

Beaver Creek

Granite Bay, Placer County, CA

September 11, 2014

Salix consulting, inc.

N

0 100 200
Feet

Study Area (±17 ac)

Figure 2

AERIAL PHOTO

Beaver Creek

Granite Bay, Placer County, CA

September 11, 2014

METHODS

Literature Review

As part of this assessment, Salix biologists reviewed aerial photographs, USGS maps, and site maps for the study area. Standard publications were reviewed to provide information on life history, habitat requirements, and distribution of regionally occurring animal species. They include published books, peer-reviewed articles, field guides, and the California Wildlife Habitats Relationships Program. Chapter 5 of the Granite Bay Community Plan (Placer County 2012) and the Placer County Natural Resources Report (Placer County 2004) were also reviewed as part of this assessment for additional information on natural resources of the study area and surrounding region. Publications utilized in this assessment are included in the References section of this document.

The Wetland Delineation (NFA 2004a) and Biological Resources Assessment (NFA 2004b) previously prepared for the property were reviewed and information was incorporated into this BRA where appropriate. More recent studies on the known ranges and preferred habitats of special-status species known from the region were reviewed and the potential for occurrence of identified species within the study area was updated based on this information.

Special-Status Species Reports

To determine which special-status species could occur within or near the study area Salix biologists queried the California Natural Diversity Data Base (CDFW 2014) and the California Native Plant Society Inventory (CNPS 2014) for reported occurrences of special-status fish, wildlife, and plant species in the region surrounding the study area. The nine-quadrangle search area included the Folsom, Roseville, Rocklin, Pilot Hill, Citrus Heights, Clarksville, Carmichael, Buffalo Creek, and Folsom Southeast USGS quadrangles. Salix biologists also reviewed the following special-status species lists for the project vicinity:

- U.S. Fish and Wildlife Service (USFWS) list of Federal Endangered and Threatened Species for the Folsom USGS quadrangle;
- USFWS list of Federal Endangered and Threatened Species for Placer County; and
- California Department of Fish and Wildlife list of Species of Special Concern.

For the purposes of this report, special-status species are those that fall into one or more of the following categories:

- Listed as endangered or threatened under the federal Endangered Species Act (or candidate species, or formally proposed for listing);
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);

- Designated as rare, protected, or fully protected pursuant to California Fish and Game Code;
- Designated a Species of Special Concern by the California Department of Fish and Wildlife, or
- Designated as Ranks 1 or 2 on lists maintained by the California Native Plant Society.

Field Assessments

The field assessment of the study area was conducted by Jeff Glazner (plants and wetlands) and Gaylene Tupen (wildlife) on August 20, 2014, to provide information on sensitive plant and wildlife resources present on site. During the field assessment, plants and animals observed on site were listed, habitat types were determined, and the potential for the site to support special-status species known from the region was assessed. Biological communities and sensitive habitats of the study area were mapped and are shown in Figure 3. Representative site photographs are presented in Figure 4. Appendix A is a list of plants observed, and Appendix B is a list of wildlife observed onsite. Plant names are according to *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et. al. 2012). Standard manuals were used to identify wildlife species observed.

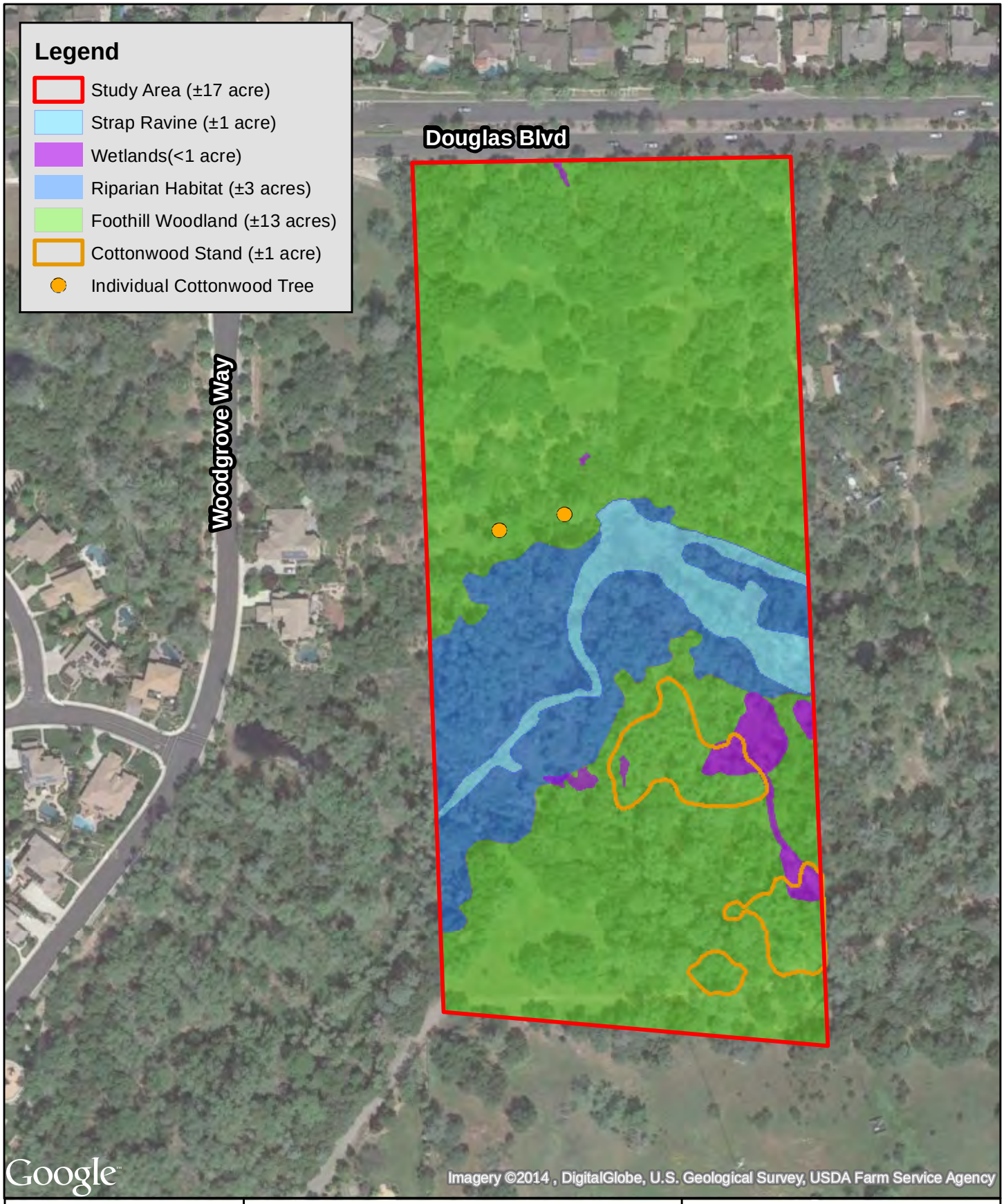
SURVEY AND LITERATURE SEARCH RESULTS

Biological Communities

Areas designated as "waters of the U.S." throughout the Study Area, including streams and wetlands, are discussed below under **Waters of the U.S**. Appendix A lists the plant species that were observed during the field assessment. Biological communities and sensitive habitats of the study area were also mapped and are shown in Figure 3. Representative site photographs are presented in Figure 4.

Table 1.
Biological Communities/Habitat Types within the Beaver Creek Study Area

Biological Community	Approximate Acreage
Foothill woodland (including ±1 acre of embedded cottonwood stands)	13
Riparian woodland	3
Strap Ravine	1
Wetlands	<1
Total	**17**



Salix consulting, inc.

N

0 100 200
Feet

1 inch = 200 feet

Figure 3

HABITAT MAP

Beaver Creek

Granite Bay, Placer County, CA

December 8, 2014

Foothill Woodland in northwestern portion of study area.

Strap Ravine corridor in western portion of study area.

Seasonal wetland in southeastern portion of study area.

Salix consulting, inc.

Figure 4

SITE PHOTOS

Beaver Creek
Granite Bay, Placer County, CA

Foothill Woodland

Foothill woodland is the primary habitat type within the Beaver Creek study area, occupying approximately 13 acres of the site. Tree cover is variable throughout the site, and tree density is highest in the central and southeastern portions of the property, generally in areas near Strap Ravine. The dominant trees within foothill woodland include interior live oak (*Quercus wislizeni*) and blue oak (*Quercus douglasii*). Valley oak (*Quercus lobata*) occur in a few locations. Gray pine (*Pinus sabiniana*) also occurs as part of the woodland overstory throughout the site, mostly in the northern portion.

The shrub layer includes poison oak *(Toxicodendron diversilobum*), coyote brush (*Baccharis pilularis*), toyon (*Heteromeles arbutifolia*), buckbrush (*Ceanothus cuneatus*), Himalayan blackberry (*Rubus armeniacus*), oak saplings, and an occasional olive tree (*Olea europaea*). Common herbaceous species within the understory include field hedge parsley (*Torillis arvensis*), Italian thistle (*Carduus pycnocephalus*), yellow star thistle (*Centaurea solstitialis),* Italian rye grass (*Festuca perennis*), hedgehog dogtail (*Cynosurus echinatus*), soap plant (*Chlorogalum pomderidianum*), vetch (*Vicia* spp.), wild oat (*Avena fatua*), and ripgut grass (*Bromus diandrus*).

Approximately one acre of mature Fremont cottonwood (*Populus fremontii*) stands are included in the foothill woodland habitat in the southeastern portion of the study area and are associated with historic placer mining.

Riparian Woodland

Within the study area, approximately three acres of riparian woodland occurs in association with Strap Ravine and consists of a mixed overstory of mature Fremont cottonwoods, Gooding's willow (*Salix gooddingii*), red willow (*Salix laevigata*), and some oak trees. This habitat type occurs in the central portion of the site and covers approximately 3 acres. Some areas along Strap Ravine have been heavily influenced by historic placer-mining and the understory is highly variable. Himalayan blackberry is a common understory species and occurs in dense thickets in many locations. In some reaches adjacent to the channel, wide fringe wetlands support herbaceous marsh species including cocklebur (*Xanthium strumarium*), willow weed (*Persicaria lapathifolia),* water plantain (*Alisma triviale*), broad-leaved cattail (*Typha latifolia*), and black sand spikerush *(Eleocharis pachycarpa).* Moisture persists in the fringe wetlands well into the dry season.

Strap Ravine and the seasonal wetlands area described below in the waters of the U.S. section.

Waters of the U.S

Wetlands on this property were mapped by us in 2004. The original wetland delineation identified four categories of waters of the United States and include: seasonal wetland, wetland swale, seasonal pond, and the Strap Ravine Complex totaling ±1.48-acres. Within the study area, waters of the U.S. are embedded in the foothill woodland, riparian woodland, and cottonwood stands that are shown in Figure 3.

The Strap Ravine complex is a mosaic of fringe wetland and active stream channel that runs through the central portion of the study area. A relatively narrow low flow channel (5 to 6 feet wide in most reaches) flows through the site in a westerly and southwesterly direction. The channel was dry at the time of the August 2014 site visit. Large trees, including valley oak and Fremont cottonwood, and shrubs, including Goodding's black willow and Himalayan blackberry, are abundant.

Seasonal wetlands occur in depressions between placer tailings where enough fine material has collected to impede the percolation of water. All of the seasonal wetlands observed were dry at the time of the August 2014 field assessment. They support curly dock (*Rumex crispus*), baltic rush (*Juncus balticus*), tall flatsedge (*Cyperus eragrostis*), common spikerush (*Eleocharis pachycarpa*), black sand spikerush, along with many other wetland generalist species.

Wildlife Occurrence and Use

The study area supports a wide diversity of wildlife due to the abundance of trees that provide roosting and nesting sites and escape and thermal cover. In addition, Strap Ravine provides a source of seasonal water for wildlife of the area and may be used as a movement corridor between suitable habitats located on- and offsite. Several snags occur throughout the site, particularly in areas along Strap Ravine. Cavities within snags and mature trees provide nesting sites for birds such as woodpeckers, bluebirds, nuthatches, American kestrel, and western screech owl. Taller trees of the site, including mature cottonwoods, gray pines, willows and oaks, provide suitable nesting habitat for raptors such as great horned owl, red-shouldered hawk, and Cooper's hawk.

The following animals were either observed directly or sign was observed throughout the study area during the August 2014 field assessment: acorn woodpecker *(Melanerpes formicivorus*), black phoebe (*Sayornis nigricans*), California quail (*Callipepla californica*), northern flicker (*Colaptes auratus*), white-breasted nuthatch (*Sitta carolinensis*), wild turkey (*Meleagris gallopavo*), oak titmouse (*Baeolophus inornatus*), spotted towhee (*Pipilo maculatuss*), California towhee (*Pipilo crissalis*), Anna's hummingbird (*Calypte anna*), western scrub-jay (*Aphelocoma californica*), bushtit (*Psaltripatus minimus*), song sparrow (*Melospiza melodia*), Bewick's wren (*Thryomanes bewickii*), black-tailed jackrabbit (*Lepus californicus*), raccoon (*Procyon lotor*), and mule deer (*Odocoileus hemionus*). No surface water was present in the channel of Strap Ravine at the time of the August 2014 field assessment. However, a few Sierran treefrogs (*Psuedacris sierra*) were detected along the drainage and in the riparian area. One great-horned owl (*Bubo virginianus*) was observed roosting in a mature cottonwood near the seasonal wetland in the southeastern portion of the site. During the site visit an active acorn woodpecker granary was noted in the woodland located along Strap Ravine.

The Granite Bay Community Plan indicates that Strap Ravine is not likely to support anadromous salmonids, including Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead (*Oncorhynchus mykiss irideus*) (Placer County 2012). Anadromous salmonids may be absent from Strap Ravine, including the reach that runs through the study area, due to low instream flows and previous channel disturbance. Nearby tributaries within the Dry Creek system that are known to support salmon and steelhead include Miner's

Ravine and Linda Creek (Placer County 2012; Placer County 2004). When flow is sufficient, portions of Strap Ravine may support resident trout and warm-water fish species.

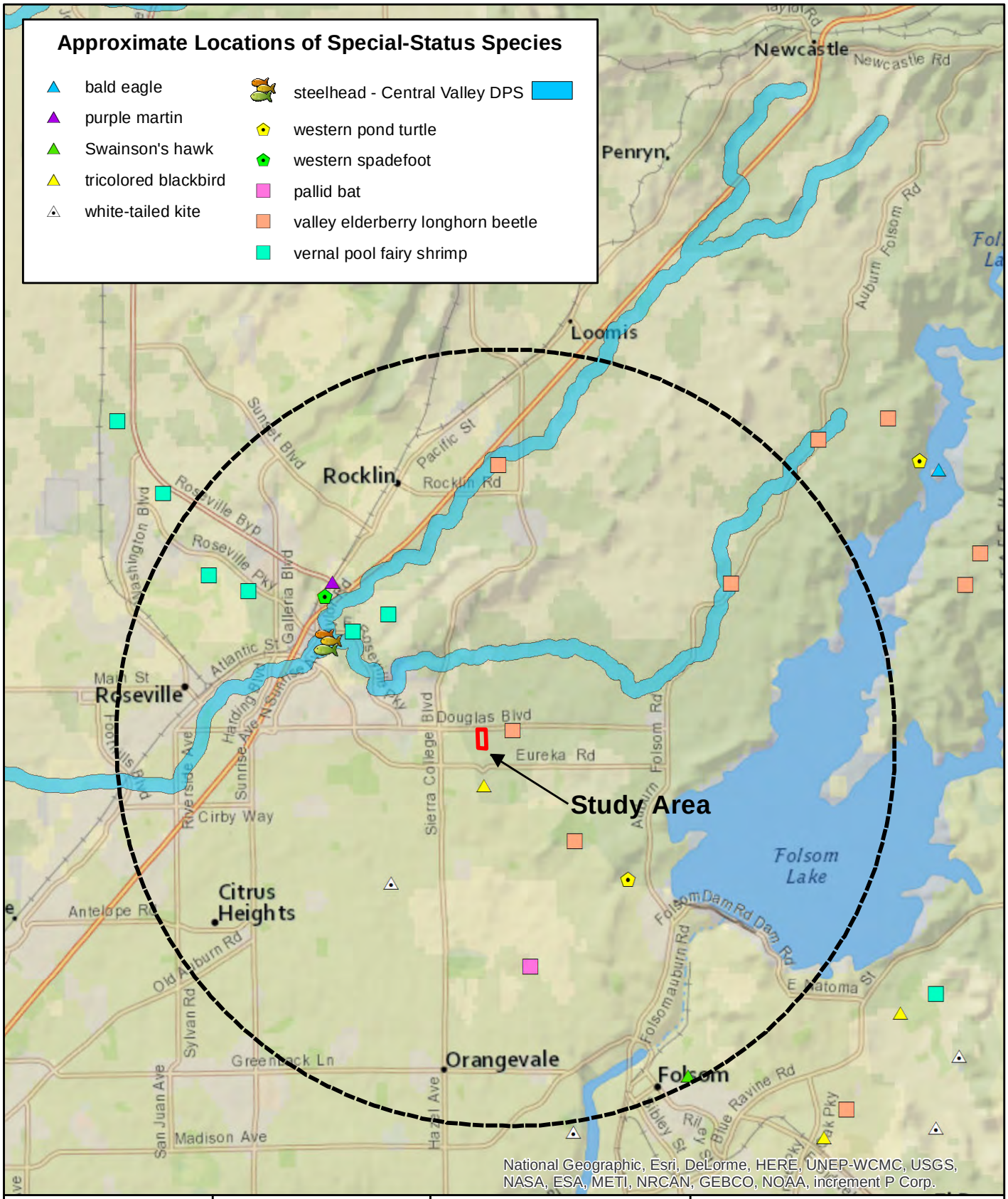
Although salmon are not expected to occur within Strap Ravine, the study area occurs within Hydrologic Unit 18020111, which is mapped as Essential Fish Habitat (EFH) for Chinook salmon (*Oncorhynchus tshawytscha*) (NOAA 2008). Under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), Pacific Coast salmon EFH includes all water bodies occupied or historically accessible in Washington, Oregon, Idaho, and California that occur within selected USGS Hydrologic Units identified by the National Marine Fisheries Service (NOAA 2008). The MSA requires consultation with the National Marine Fisheries Service (NMFS) for projects that include a federal action or federal funding and may adversely modify EFH. If activities implemented within the study area will result in disturbance of Secret Ravine (mapped EFH) and require a permit from a federal agency (i.e., the Corps), consultation with NMFS may be required.

Special-Status Species

To determine potentially-occurring special-status species, the standard databases from the USFWS, CDFW (the CNDDB), and CNPS were queried and reviewed. These searches provided a comprehensive list of regionally-occurring species and were used to determine which species have some potential to occur within or near the study area. Appendix C lists potentially-occurring special-status plants, and Appendix D lists special-status animals compiled from our queries as described above. The field survey and the best professional judgment of Salix biologists were used to further refine the tables in Appendices C and D. Additionally, plant species found on the CNPS List 3 and 4 are not considered further in the document. Figures 5 and 6 show approximate locations of reported occurrences of CNDDB special-status wildlife and plants, respectively, within a five-mile radius of the study area.

Of the 24 animal species in Appendix D, 11 were identified as occurring within the 5-mile radius of the study area (Figure 5). Five of the animal species occurring within the 5-mile radius, as well as 12 of the remaining species in Appendix D, were determined to have no potential for occurring onsite due to the absence of suitable aquatic habitats including perennial streams, ponds, vernal pools, or marshes. These are summarized in Table 2 below.

Of the 19 potentially-occurring plant species in Appendix C, eight were identified as occurring within the 5-mile radius of the study area (Figure 6). Six of the species occurring within the 5-mile radius, as well as the remainder of the potentially-occurring plant species (11 species) that do not occur within the 5-mile radius, were determined have no potential for occurring onsite due to the absence of suitable habitat or substrates. These are summarized in Table 2 below.



Salix consulting, inc.

N

Miles
0 2

Study Area(±17 ac)

5-Mile Buffer

Data: California Natural Diversity Database GIS California Department of Fish and Wildlife, June 2014.

Figure 5

CNDDB WILDLIFE SPECIES OCCURRENCE LOCATIONS

Beaver Creek

Granite Bay, Placer County, CA

September 11, 2014

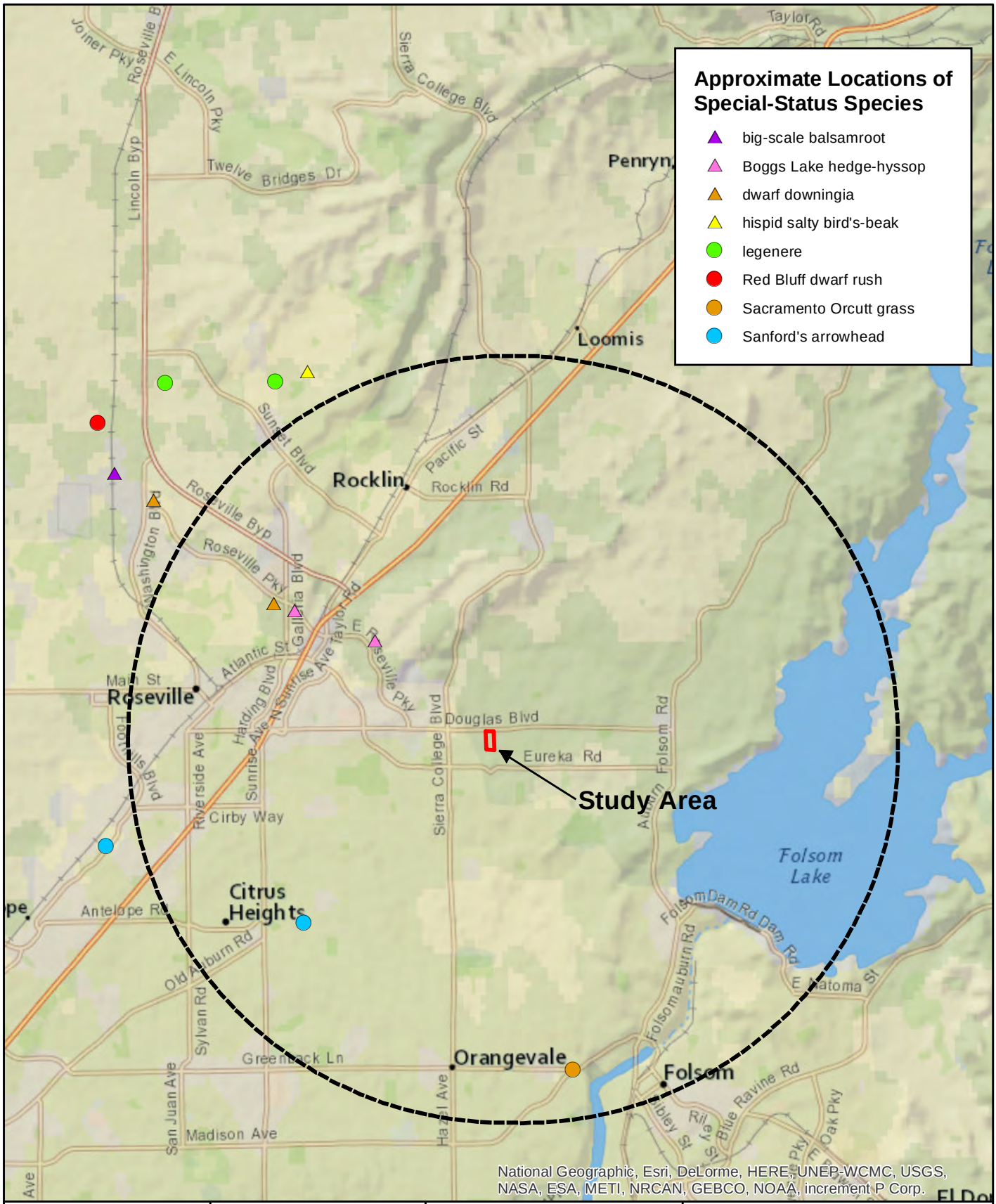


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Figure 6

CNDDB PLANT SPECIES OCCURRENCE LOCATIONS

Beaver Creek

Granite Bay, Placer County, CA

June 6, 2014

Table 2 below provides a summary of the 17 plant species and 17 animal species determined to have no potential for occurring onsite.

Table 2.
Special Status Species Determined to have NO POTENTIAL to Occur Within the Beaver Creek Study Area

Species	Status* Federal	State	CNPS	Habitat	Reason for NO POTENTIAL to occur
Plants					
Red Hills soaproot *Chlorogalum grandiflorum*	FSW	-	1B.2	Chaparral; cismontane woodland[serpentinite or gabbroic].;	Site lacks gabbro/serpentine soils.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	-	CE	1B.2	Marshes and swamps. Shallow water habitats and margins of vernal pools.	No suitable habitat present onsite.
Sacramento Orcutt grass *Orcuttia viscida*	FE	CE	1B.1	Vernal pools in valley grasslands of the Central Valley.	No suitable habitat present onsite.
Tuolumne button-celery *Eryngium pinnatisectum*	-	-	1B.2	Cismontane woodland; lower montane coniferous forest; vernal pools; [mesic].	Site lacks suitable habitat.
Layne's ragwort *Packera layneae*	FT	CR	1B.2	Chaparral; cismontane woodland [serpentinite or gabbroic].	Site lacks gabbro/serpentine soils.
El Dorado County mules ears *Wyethia reticulata*	FE	CR	1B.2	Chaparral; cismontane woodland; [gabbroic or serpentinite].	Site lacks gabbro/serpentine soils.
Dwarf downingia *Downingia pusilla*	-	-	2B.2	Valley and foothill grassland (mesic); vernal pools.	Site lacks suitable habitat.
Legenere *Legenere limosa*	-	-	1B.1	Vernal pools and similar wetlands.	Site lacks suitable habitat.
Stebbins' morning-glory *Calystegia stebbinsii*	FE	CE	1B.1	Chaparral (openings); cismontane woodland; [serpentinite or gabbroic].	Site lacks gabbro/serpentine soils.
Ahart's dwarf rush *Juncus leiospermus ahartii*	-	-	1B.2	Vernal pools.	Site lacks suitable habitat.
Red Bluff dwarf rush *Juncus leiospermus leiospermus*	-	-	1B.1	Vernal pools and similar wetlands.	Site lacks suitable habitat.
Pine Hill flannelbush *Fremontodendron decumbens*	FE	CR	1B.2	Chaparral; cismontane woodland; [gabbroic or serpentinite].	Site lacks gabbro/serpentine soils.
Hispid salty bird's-beak *Chloropyron molle hispidum*	-	-	1B.1	Meadows; playas; [alkaline].	Site lacks saline soils.

Table 2.
Special Status Species Determined to have NO POTENTIAL to Occur Within the Beaver Creek Study Area

Species	Status* Federal	State	CNPS	Habitat	Reason for NO POTENTIAL to occur
Bogg's Lake hedge-hyssop *Gratiola heterosepala*	-	CE	1B.2	Vernal pools	Site lacks suitable habitat.
Slender Orcutt grass *Orcuttia tenuis*	FT	CE	1B.1	Vernal pools	Site lacks suitable habitat.
Invertebrates					
Vernal pool fairy shrimp *Branchinecta lynchi*	FT	-	-	Vernal pools	No suitable aquatic habitat (vernal pools) present onsite.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE			Vernal pools	No suitable habitat (vernal pools) present onsite.
Conservancy fairy shrimp *Brachinecta conservatio*	FE			Vernal pools	No suitable habitat (vernal pools) present onsite.
Fish					
Central Valley spring-run Chinook salmon *Oncorhynchus tshawytscha*	FT	CT		Spring-run in Sacramento River. Primarily found in Butte, Big Chico, Deer, and Mill creeks and the Feather River tributaries	No suitable habitat present. Site located outside of species' range.
Delta smelt *Hypomesus transpacificus*	FT	CT		Endemic to the Sacramento-San Joaquin Delta in coastal and brackish waters.	No suitable habitat present. Located outside of species' range.
Amphibians					
California tiger salamander *Ambystoma californiense*	FT	CT		Annual grassland habitat (<1500 feet) and occasionally in grassy understory of valley-foothill hardwood habitats where lowland aquatic sites are available for breeding. Breeds primarily in vernal pools.	No suitable habitat present onsite or in surrounding area. No known occurrences in Placer County.
California red-legged frog *Rana draytonii*	FT	SSC	-	Ponds along streams with emergent or overhanging vegetation.	No suitable habitat present onsite. Only one documented occurrence in Placer County.

Table 2.
Special Status Species Determined to have NO POTENTIAL to Occur Within the Beaver Creek Study Area

Species	Status* Federal	State	CNPS	Habitat	Reason for NO POTENTIAL to occur
Western spadefoot *Spea hammondii*	-	SSC	-	Requires vernal pools, seasonal wetlands, or stock ponds for breeding in grassland, sandy washes, or open woodlands.	None. No suitable aquatic breeding habitat observed. Generally known from seasonal wetlands in valley floor to west.
Reptiles					
Giant garter snake *Thamnophis gigas*	FT	CT		Primarily associated with marshes and sloughs, less with slow- moving creeks, and absent from larger rivers.	No suitable aquatic habitat present onsite or in the surrounding region. No known occurrences in region.
Birds					
Bald eagle *Haliaeetus leucocephalus*		CE, CFP		Occurs along shorelines, lake margins, and rivers. Nests in large old-growth or dominant trees with open branches.	No suitable nesting or foraging habitat present onsite.
Swainson's hawk (nesting) *Buteo swainsoni*	-	CT	-	Riparian woodlands and oak savannah with adjacent grassland or agricultural fields, generally in the Central Valley	No suitable nesting or foraging habitat onsite or in vicinity. Site located outside of typical range of species.
Golden eagle *Aquila chrysaetos*		CFP		Found in rolling foothill grassland with scattered trees. Nests on cliffs and in large trees in open areas.	No suitable nesting habitat present onsite.
Burrowing owl *Athene cunicularia*		SSC		Primarily Central Valley grasslands. Nests in burrows dug by small mammals, primarily ground squirrels.	No suitable habitat present onsite.
Bank swallow *Riparia riparia*		CT		Colonial nester near riparian and other lowland habitats. Requires vertical banks or cliffs with fine-textured, sandy soils near streams, rivers, and lakes.	No suitable nesting habitat present onsite.

Table 2.
Special Status Species Determined to have NO POTENTIAL to Occur Within the Beaver Creek Study Area

Species	Status* Federal	State	CNPS	Habitat	Reason for NO POTENTIAL to occur
Grasshopper sparrow *Ammodramus savannarum*		SSC		Breeds in grasslands and savannahs in rolling hills and lower mountain hillsides up to 5000 feet elevation.	No suitable nesting habitat. Prefers expansive areas of grassland for nesting.
Mammals					
Pallid bat *Antrozous pallidus*	-	SSC	-	Open, dry areas with rocky outcrops for roosting.	No suitable roosting habitat present on site. No structures or significant rock features to support roosting of species.
American badger *Taxidea taxus*		SSC		Occurs in dry, open soils in herbaceous, shrub, and forest habitats. Needs friable, uncultivated soil. Preys on rodents.	No suitable habitat. No evidence of species occurrence observed.

***Status Codes:**

Federal

FE	Federal Endangered
FT	Federal Threatened

State

CE	California Endangered
CFP	California Fully Protected
CT	California Threatened
SSC	California Species of Concern

CNPS

Rank 1B	Rare, Threatened, or Endangered in California
Rank 2	R, T, or E in California, more common elsewhere
	1- Seriously threatened in California
	2- Fairly threatened in California

Table 3 below provides a summary of those species that have been determined to have some potential to occur within the study area based on the analysis of potential to occur presented in Appendices C and D. Discussions for the identified species are provided following Table 3.

Table 3.
Special Status Species Determined to Have SOME POTENTIAL to Occur Within Beaver Creek Study Area

Species	Status* Federal	State	CNPS	Habitat	Potential for Occurrence Within Study Area**
Plants					
Big-scale balsamroot *Balsamorhiza macrolepis var. macrolepis*	-	-	1B.2	Valley grassland and foothill woodland. Often on serpentine	Unlikely. Marginal habitat occurs onsite.
Sanford's arrowhead *Sagittaria sanfordii*	-	-	1B.2	Marshes and slow moving water.	Unlikely. Marginal habitat only in areas that sustain shallow water well into the dry season.
Invertebrates					
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT	-	-	Elderberry shrubs	Unlikely. No elderberry shrubs observed onsite in 2014 (see comments below in text)
Fish					
Steelhead – Central Valley DPS *Oncorhynchus mykiss irideus*	FT	-	-	Sacramento River and tributaries including portions of Dry Creek system (Secret Ravine and Miner's Ravine).	Unlikely. Strap Ravine provides marginal quality habitat for species. Known occurrences throughout Dry Creek system.
Reptiles					
Western pond turtle *Emys marmorata*	-	SSC	-	Permanent aquatic habitats with suitable basking sites and adjacent upland habitat.	Unlikely. No suitable aquatic habitat present within the study area. May use portions of Strap Ravine as a movement corridor between suitable habitats located offsite.

Table 3.
Special Status Species Determined to Have SOME POTENTIAL to Occur Within Beaver Creek Study Area

Species	Status* Federal	State	CNPS	Habitat	Potential for Occurrence Within Study Area**
Birds					
Tricolored blackbird (nesting colonies) *Agelaius tricolor*	-	SSC	-	Requires open accessible water through nesting season, a protected nesting substrate, and nearby foraging areas. Nests in cattails, tules or blackberry thickets	Unlikely. Marginal quality nesting habitat available on site. Limited amount of open foraging habitat available.
White-tailed kite (nesting) *Elanus leucurus*	-	CFP	-	Open grassland, meadows, and farmlands. Nests in tall trees near foraging areas.	Unlikely. Prefers nesting closer to larger tracts of open foraging habitat.
California black rail *Laterallus jamaicensis coturniculus*	-	CT CFP	-	In the Sierra Nevada foothills, occurs in freshwater emergent wetlands with shallow persistent water.	Unlikely. Marginal quality habitat present onsite. Wetlands lack persistent shallow water preferred by the species.
Purple martin (nesting) *Progne subis*	-	SSC	-	Summer visitor of woodlands and low-elevation coniferous forests.	Unlikely. Prefers large trees with cavities on hillsides and along ridgetops.

*Status Codes:
Federal
FE Federal Endangered
FT Federal Threatened

State
CE California Endangered
CT California Threatened
SSC California Species of Concern

CNPS
Rank 1B Rare, Threatened, or Endangered in California
Rank 2 R, T, or E in California, more common elsewhere
1- Seriously threatened in California
2- Fairly threatened in California

**Definitions for the Potential to Occur:
Unlikely: Minimal or marginal quality habitat in the study area.
Possible. Suitable habitat occurs within the study area.
Likely. Study area provides desirable habitat for species and there is a very high probability for its occurrence.
Observed: Species was observed within the study area.

Plants

Several special-status plants are known from the surrounding project region and are shown in Figure 5. All but two of the species require habitats that do not occur within the study area and therefore were eliminated from further consideration. As summarized in Table 2, the following species shown in Figure 5 occur in either vernal pools or saline marsh habitats in the Central Valley, generally to the west of the study

area: Boggs Lake hedge-hyssop (*Gratiola heterosepala)*, dwarf downingia (*Downingia pusilla)*, hispid bird's-beak (*Chloropyron molle ssp. hispidium)*, legenere (*Legenere limosa)*, Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermu*s), and Sacramento Orcutt grass (*Orcuttia viscida*). Based on the absence of suitable habitat, these species were determined to have no potential for occurring on site.

The project site contains marginal habitat for two special-status plant species (Table 3); both are discussed below.

Big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis*) is considered "unlikely" to occur due to the presence of only marginal quality habitat. Big-scale balsamroot is an herbaceous perennial member of the sunflower family (Asteraceae). It has no state or federal status, but has a California Rare Plant Rank of 1B.2. This species has large yellow flowering heads and leaves that arise from the ground. It differs, in part, from other balsamroots by having coarsely serrate leaves. Big-scale balsam-root grows in open woodlands and grasslands at widely scattered locations in Northern California. It blooms from March to June.

No members of the genus *Balsamorhiza* or similar genus *Wyethia*, were observed during the August 2014 field assessment nor during the 2004 surveys. The nearest recorded occurrence of big-scale balsam-root is from approximately 6 to 7 miles northwest of the site just west of Highway 65, between Roseville and Lincoln. Because only marginal quality habitat is present onsite and occurrence of the species is rare in the region, it is unlikely that big-scale balsam root occurs within the study area.

Sanford's arrowhead (*Sagittaria sanfordii*) is an herbaceous perennial member of the water-plantain family (Alismataceae). It has no state or federal status, but has a CNPS Rare Plant Rank of 1B.2 Preferred habitat includes marshes associated with slow-moving water in sloughs and ditches. It is also known to occur in concrete lines channels with only a few inches of soil. It has a long blooming period, starting as early as May and occasionally lasting through September.

No individuals of Sagitarria were observed during the August 2014 field assessment. The closest recorded occurrence of this species is from approximately 3 to 4 miles to the southwest in the Citrus Heights area (CNDDB 2014). This species was documented at this location in 1997 in a cattail-dominated freshwater marsh. Because only marginal habitat is present in areas that sustain shallow water well into the dry season, it is unlikely that Sanford's arrowhead occurs within the study area.

Wildlife

Of the 24 special-status animals identified through the database searches and other literature as occurring within the broader region surrounding the study area, none were determined to have a reasonable potential for occurring onsite. Many species were determined to have no potential for occurring within the study area due to the absence of suitable habitat or due to the site being located outside of the current range of a species (Table 2). In particular, the site lacks vernal pools, which support the Federal Threatened vernal pool fairy shrimp (*Branchinecta lynchi*), the Federal Endangered vernal

pool tadpole shrimp (*Lepidurus packardi*), and the western spadefoot (*Spea hammondii*), a California Species of Special Concern (SSC). These species are generally known from vernal pools located in open habitats of the Central Valley to the west and northwest. Swainson's hawk (*Buteo swainsonii*), a California threatened species, generally nests in riparian woodland habitats and oak savannah of the Central Valley, often near water. Nesting sites are usually located in isolated trees in open country within several miles of suitable foraging habitat. The study area occurs outside of the typical range of the species and does not provide suitable foraging or nesting habitat. Bald eagles *(Haliaeetus leucocephalus)* require large bodies of water, or free-flowing rivers with nearby perches, including snags, large-limbed tall trees, or rocks near water. Due to the lack of suitable nesting and foraging sites, this species is not expected to occur within the study area. There are no structures within the study area or significant rock features that would support roosting of special-status bats known from the region including pallid bat (*Antrozous pallidus*), a SSC species.

California red-legged frog (*Rana draytonii*), a federally threatened species and SSC species, prefers aquatic habitats with little or no flow, the presence of surface water for most of the year, surface water depths to at least 0.7 meter (2.3 feet), and the presence of fairly sturdy underwater supports such as cattails. Only isolated populations of California red-legged frog (CRLF) have been documented in the Sierra Nevada foothills region (USFWS 2002). The closest documented occurrence is from approximately 7 miles east of the study area, in the foothills along the east side of Folsom Lake (CDFW 2014). In addition, existing literature indicates that CRLF was likely extirpated from the floor of the Central Valley prior to the 1960s (USFWS 2002). Due to the lack of habitat and the study area occurring outside of the current range of the species, there is no potential for occurrence of California red-legged frog onsite.

Several of the identified animal species were ranked as "unlikely to occur" (Table 3); none were ranked as "Possible," "Likely," or "Occurs." The discussions below include these species or those that require further clarification.

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) is a federal threatened species. Live elderberry shrubs (*Sambucus nigra ssp. caerulea*) are this borer's exclusive host plant. Adult valley elderberry longhorn beetles (VELB) emerge from pupation inside the wood of these shrubs in the spring as their flowers begin to open. Exit holes made by the emerging adults are distinctive small oval openings (approx. ¼-inch width). Elderberry shrubs that contain live stems of one inch or greater at ground level (USFWS 1999) are considered potential habitat for the species by the U.S. Fish and Wildlife Service. Elderberry plants with no stems measuring 1.0 inch or greater at ground level are not considered habitat for the beetle. No suitable habitat for VELB (live elderberry shrubs) was observed during previous surveys (NFA 2004b) or during the recent 2014 field assessment within the study area. The absence of elderberry shrubs to date precludes the occurrence of VELB within the study area at this time; however, there is potential for new elderberry shrubs to grow and establish in the future and subsequently provide habitat for VELB. Based on the absence of elderberries, there is currently no suitable habitat for VELB present within the study area. In the event that elderberries become established onsite at any time in the future and stems grow to 1.0 inch or greater, occurrence of VELB would possible.

Central Valley Steelhead (*Oncorhynchus mykiss irideus*) is an anadromous form of rainbow trout that emigrates to sea and later returns to freshwater to spawn. Steelhead spawn in winter or early spring after salmon have typically spawned. They often require high water to provide access to upper watershed and spawning and rearing areas. Spawning occurs in clean, loose gravels and swift, shallow water. They generally prefer shallower stream depths and smaller gravel than salmon, but prefer similar water velocities. Juvenile steelhead often remain in freshwater for at least one year before out-migrating to the ocean. While in freshwater, young steelhead are typically found in cool, fast-flowing permanent streams and rivers where riffles predominate over pools and there is ample riparian and instream cover (NMFS 2009).

The CNDDB (2014) documents steelhead as occurring in the Dry Creek system, mainly in two of its tributaries to the north including Secret Ravine and Miner's Ravine. Although steelhead are documented as occurring within the Dry Creek Watershed, the Granite Bay Community Plan indicates that Strap Ravine is not expected to provide suitable habitat for anadromous salmonids, including steelhead (Placer County 2012). Nearby tributaries that are known to provide suitable steelhead habitat include Miner's Ravine and Linda Creek, which is located downstream of Strap Ravine (Placer County 2004). The portion of Strap Ravine within the study area does not provide suitable rearing habitat for steelhead due to the absence of perennial surface water and pools, and may only be used seasonally as a migration corridor if steelhead are present within the drainage and there are no barriers to their movement.

Strap Ravine is not mapped as Critical Habitat for Central Valley Steelhead (Federal Register 2005). The closest mapped Critical Habitat unit for central valley steelhead is the mainstem of Dry Creek and two of its tributaries to the north, Miner's Ravine and Secret Ravine (NOAA 2005). Therefore, no designated critical habitat for this species occurs within or adjacent to the study area.

Western pond turtle (*Emys marmorata*), a SSC species, occurs in association with streams, rivers, and ponds containing suitable cover and basking sites. This species is normally associated with ponds, streams, lakes, marshes, and permanent pools along intermittent streams. Suitable basking sites along streams or ponds include partially submerged logs, rocks, mats of floating vegetation, or open streambanks. Suitable upland habitat, such as sandy banks or grassy fields, located adjacent to the aquatic habitat is required for egg-laying. Nesting takes place in a variety of soil types from loose sandy soils to compact soils, and in a variety of habitat types.

Suitable habitat for western pond turtle, consisting of ponds or deeper pools along streams, does not occur within the study area. The channel of Strap Ravine within the study area is very shallow and lacks the perennial deep pool habitat that pond turtles require. Any occurrence of pond turtles within the study area would be limited to individuals that periodically move up or downstream between suitable aquatic habitats located offsite.

Tricolored blackbird (*Agelaius tricolor*) is a highly colonial species that primarily nests in freshwater emergent wetlands. Nesting colonies of this species are considered sensitive by CDFW. This species generally requires open water, with protected nesting habitat, and suitable foraging areas close to the colony. Breeding and nesting typically takes

place in dense cattails or tules, and may also occur in thickets of willow, blackberry, wild rose, and tall herbs (Shuford and Gardali 2008). Nest sites are usually located a few feet over, or near, freshwater. Nesting areas must be large enough to support a minimum colony of about 50 pairs. Colonies may vary in size from about 50 nests to over 20,000 in an area of 10 acres or less. Nesting typically occurs mid-April through late July.

The CNDDB documents nesting colonies of tri-colored blackbird within a 5-mile radius of the study area (CDFW 2014). The closest documented occurrence is from approximately one mile southwest just south of Eureka Road. The blackberry thickets present within the study area, primarily along Strap Ravine, provide suitable nesting substrate for the species, but the amount of suitable foraging habitat available nearby is limited. Due to the low quality of habitat available for the species, it is unlikely that tricolored blackbird would nest within the study area.

White-tailed kite (*Elanus leucurus*), a California fully protected species, is an uncommon to locally fairly common resident and is typically found in grassy foothill slopes interspersed with oaks (including interior live oak, agricultural areas, and marshy bottomlands). They generally forage in undisturbed open grasslands, farmlands, meadows, and emergent wetlands, in areas with a high prey base. Nest trees range from single isolated trees to trees within larger stands. Nests of white-tailed kite are constructed near the top of oaks, willows, or other tall trees from 20 to 100 feet above ground. Nesting activity takes place from February through summer.

The CNDDB documents nesting occurrences of white-tailed kite within the project region (CDFW 2014). The closest documented nesting occurrence is from approximately 2 miles to the southwest. Woodland areas located throughout the site provide marginal quality nesting habitat for white-tailed kite due to the limited amount of open foraging habitat (open woodland and annual grassland) in the surrounding area.

California black rail *(Laterallus jamaicensis coturnculus)* is a scarce and secretive resident bird that occurs in saline, brackish, and freshwater wetlands (Zeiner et al. 1990). Once mainly known from tidal marshes in the San Francisco Bay, it has recently been found in the Sierra Nevada foothills (Beedy and Pandolfino 2013). In the foothills region, it is known to occur in wetlands with dense emergent vegetation, such as cattails and bulrush, and having shallow, consistent water levels, often from irrigation or leaky canals. These birds regularly move around to new sites in response to changes in local conditions. Nesting generally takes place from mid-March through early June.

There are no documented occurrences of California black rail within a 5-mile radius of the study area (CNDDB 2014). The closest documented occurrence of this species is from the north in a large, cattail-dominated wetland associated with Clover Valley Creek (2006). The seasonal wetlands, wetland swale, and riparian corridor of the study area do not provide habitat components considered suitable for the species (shallow, persistent surface water and dense emergent vegetation). Based on the marginal quality of habitat available and the rarity of the species within the region, it is unlikely California black rail would occur in wetlands of the study area.

Purple martin (*Progne subis*) is an uncommon to rare breeder in the Sierra Nevada and foothill region. This species nests in large trees with sizable cavities generally found along ridgetops or on hillsides. Nesting typically occurs from April to August, with peak activity in June. The study area are does not provide preferred habitat for purple martin and therefore nesting is unlikely to occur.

RECOMMENDATIONS

Waters of the United States

The study area contains areas that qualify as waters of the United States. Activities that place fill in these areas would require a permit from the U.S. Army Corps of Engineers pursuant to Section 404 of the federal Clean Water Act. The project would also need to obtain a water quality certification from the California Regional Water Quality Control Board pursuant to Section 401 of the federal Clean Water Act.

Streams, Pond, and Riparian Habitat

Impacts to the bed, bank, or channel of streams or ponds require a Streambed Alteration Agreement with the California Department of Fish and Wildlife (CDFW). In addition, Strap Ravine occurs within a hydrologic unit (HUC 20820111) considered Essential Fish Habitat for Chinook salmon by the National Marine Fisheries Service (NMFS). The Magnuson-Stevens Fishery Conservation and Management Act requires consultation with NMFS for projects that include a federal action or federal funding that may adversely modify EFH. Generally, EFH consultation involves a federal agency notifying NMFS regarding an action that may affect EFH, such as in the issuance of a Section 404 permit.

The Granite Bay Community Plan (Placer County 2012) identifies measures for protecting natural resources throughout the community. Policy 5.3.11 specifies that "new construction shall not be permitted within 100 feet of the centerline of permanent streams and 50 feet of intermittent streams, or within the 100 year floodplain, whichever is greater." Other measures for protecting wetlands, riparian areas, and other sensitive habitats onsite are identified in Section 5.3 of the Granite Bay Community Plan.

Tree Conservation

Policy 5.3.15 of the Granite Bay Community Plan requires that Placer County's Tree Preservation Ordinance be implemented for all projects within the community of Granite Bay (Placer County 2012). The Tree Preservation Ordinance specifies requirements for the protection, preservation, and maintenance of native oak trees, trees of historic or cultural significance, groves and stands of mature trees, and mature trees in general, which are associated with proposals for development. The applicant should consult with the Placer County Planning Department to determine what provisions of the ordinance are applicable.

Special-Status Plants

The site contains marginal habitat for big-scale balsam-root and Sanford's arrowhead. Because both of these species are CNPS Rank 1B species, Placer County may require surveys to determine if any individuals are present on site. Should any individual special-status plant species be located within the study area, appropriate mitigation measures shall be developed in coordination with the Placer County Planning Department.

Special-Status Wildlife

Pre-Construction Nesting Surveys

Foothill woodland throughout the site provides suitable nesting habitat for common raptors known from the region, such as red-shouldered hawk, Cooper's hawk, and a few owls. Suitable raptor nesting habitat includes mature pines, oaks, willows, and cottonwoods scattered throughout the site. If tree removal activities take place during the associated breeding/nesting season for raptors (typically March 1 through August 31), disturbance of nesting activities could occur. Take of any active raptor nest is prohibited under California Fish and Game Code Section 3503.5. To avoid take of active raptor nests, necessary tree removal should occur outside of the typical nesting season for raptors and other bird species. If tree removal must occur at any time during the typical nesting season, a pre-construction survey should be conducted by a qualified biologist no more than 30 days prior to initiation of proposed development activities. Pre-construction surveys will focus on all raptors having potential to occur onsite, including those with minimal potential for occurrence (white-tailed kite for this site). If active nests are found on or immediately adjacent to the site, CDFW should be contacted to determine appropriate avoidance measures. If no nesting is found to occur, necessary tree removal could then proceed.

The quality of habitat available for purple martin, tricolored blackbird, and California black rail within the study area is considered marginal, and consequently, the potential for occurrence is very low. Although nesting of these species within the study area is highly unlikely, implementation of pre-construction surveys is recommended to avoid any potential disturbance of these species, should they occur onsite. Take or destruction of an active nest is prohibited under California Fish and Game Code Section 3503. Pre-construction surveys should be implemented by a qualified biologist if ground disturbance occurs at any time during the nesting season (generally March through August). If no nesting activity is detected within proposed work areas, construction activities could then proceed. If, however, active nests are found, construction should be avoided until after the young have fledged or upon approval from CDFW.

Additional Avoidance Measures

The study area lacks perennial pools and ponds preferred by western pond turtle, and therefore, any occurrence would be limited to individuals moving up or down the drainage between suitable habitats located off site. Although occurrence of western pond turtle is unlikely, implementation of Policy 5.3.11 of the Granite Bay

Community Plan (stream setbacks) would limit disturbance of any individual pond turtles that may use Strap Ravine as a movement corridor.

Strap Ravine is not likely to support steelhead due to the limited amount and low quality of habitat available throughout the drainage. It is unknown if barriers occur downstream that would prevent this species from making it upstream to the project site. In the unlikely event steelhead occur in the drainage, the portion of Strap Ravine within the study area would only be used as migration corridor when flows are sufficient. Implementation of Policy 5.3.11 of the Granite Bay Community Plan (stream setbacks) would limit disturbance of potential habitat for steelhead along Strap Ravine.

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Appendix A.
Plant Species Observed Within the Beaver Creek Study Area

Appendix A

Plants Observed - Beaver Creek - 2014

Ferns and Allies

Pteridaceae - Brake Family

Pentagramma triangularis subsp. triangularis	Goldback fern

Gymnosperms

Pinaceae - Pine Family

Pinus sabiniana	Gray pine

Angiosperms - Dicots

Anacardiaceae - Cashew or Sumac Family

Toxicodendron diversilobum	Western poison-oak

Apiaceae (Umbelliferae) - Carrot Family

**Anthriscus caucalis*	Bur-chervil
**Foeniculum vulgare*	Sweet fennel
Sanicula bipinnatifida	Purple sanicle
Sanicula crassicaulis	Gamble weed
**Torilis arvensis*	Field hedgeparsley

Apocynaceae - Dogbane/Milkweed Family

Asclepias fascicularis	Narrow-leaf milkweed

Aristolochiaceae - Pipevine Family

Aristolochia californica	California pipevine

Asteraceae (Compositae) - Sunflower Family

Ambrosia psilostachya	Western ragweed
Artemisia douglasiana	California mugwort
Baccharis glutinosa	Marsh baccharis
Baccharis pilularis	Coyote brush
Bidens frondosa	Sticktight
**Carduus pychnocephalus*	Italian thistle
**Centaurea solstitialis*	Yellow starthistle
**Chondrilla juncea*	Skeleton weed
**Cichorium intybus*	Chicory
**Cirsium vulgare*	Bull thistle
Euthamia occidentalis	Western goldenrod
Holocarpha virgata subsp. virgata	Virgate tarweed
**Hypochaeris glabra*	Smooth cat's-ear
**Lactuca serriola*	Prickly lettuce
Micropus californicus var. californicus	Cottontop
**Senecio vulgaris*	Common groundsel
**Sonchus asper subsp. asper*	Prickly sow-thistle
**Tragopogon dubius*	Yellow salsify
Wyethia angustifolia	Narrowleaf mule's-ears
Xanthium strumarium	Cocklebur

Brassicaceae (Cruciferae) - Mustard Family

**Hirschfeldia incana*	Short-podded mustard
**Raphanus sativus*	Wild radish

Caprifoliaceae - Honeysuckle Family

Symphoricarpos mollis	Creeping snowberry

Caryophyllaceae - Pink Family

**Cerastium glomeratum*	Sticky mouse-ear chickweed
**Petrorhagia dubia*	Grass-pink
**Stellaria media*	Common chickweed

Convolvulaceae - Morning-Glory Family

**Convolvulus arvensis*	Bindweed

Cucurbitaceae - Gourd Family

Marah fabacea	California manroot

Euphorbiaceae - Spurge Family

Croton setiger	Turkey mullein

Fabaceae (Leguminosae) - Legume Family

Acmispon americanus var. americanus	Spanish-clover
Lupinus bicolor	Miniature lupine
**Medicago polymorpha*	California burclover
**Trifolium hirtum*	Rose clover
**Vicia villosa*	Winter vetch

Fagaceae - Oak Family

Quercus douglasii	Blue oak
Quercus lobata	Valley oak
Quercus wislizeni var. wislizeni	Interior live oak

Gentianaceae - Gentian Family

Zeltnera muehlenbergii	June centaury

Geraniaceae - Geranium Family

**Erodium botrys*	Broad-leaf filaree
**Erodium cicutarium*	Red-stem filaree
**Geranium dissectum*	Cut-leaf geranium
**Geranium molle*	Dove's-foot geranium

Hypericaceae - St. John's Wort Family

**Hypericum perforatum subsp. perforatum*	Klamathweed

Lamiaceae (Labiatae) - Mint Family

**Lamium amplexicaule*	Deadnettle
**Marrubium vulgare*	White horehound
**Mentha pulegium*	Pennyroyal
Stachys ajugoides	Bugle hedge-nettle

Lythraceae - Loosestrife Family

**Lythrum hyssopifolia*	Hyssop loosestrife

Montiaceae - Miner's Lettuce Family

Calandrinia ciliata	Red maids
Claytonia perfoliata	Common miner's lettuce

Oleaceae - Olive Family

**Olea europaea*	Olive

Onagraceae - Evening Primrose Family

Clarkia purpurea subsp. purpurea	Purple clarkia

Epilobium brachycarpum	Summer cottonweed
Epilobium ciliatum	Hairy willow-herb
Epilobium densiflorum	Dense-flower spike-primrose

Papaveraceae - Poppy Family

Eschscholzia californica	California poppy

Phrymaceae - Lopseed Family

Diplacus aurantiacus	Orange bush monkeyflower
Erythranthe guttata	Common monkeyflower

Plantaginaceae - Plantain Family

**Plantago lanceolata*	English plantain

Polygonaceae - Buckwheat Family

Eriogonum nudum	Naked wild buckwheat
Persicaria lapathifolia	Willow weed
**Polygonum aviculare*	Common knotweed
Polygonum sp.	Polygonum
**Rumex acetosella*	Sheep sorrel
**Rumex crispus*	Curly dock
**Rumex pulcher*	Fiddle dock

Rhamnaceae - Buckthorn Family

Ceanothus cuneatus var. cuneatus	Buck brush
Frangula californica subsp. tomentella	Hoary coffeeberry

Rosaceae - Rose Family

Heteromeles arbutifolia	Toyon
Prunus sp.	Prunus
**Rubus armeniacus*	Himalayan blackberry

Rubiaceae - Madder Family

Galium aparine	Goose grass

Salicaceae - Willow Family

Populus fremontii subsp. fremontii	Fremont cottonwood
Salix exigua	Narrow-leaved willow
Salix gooddingii	Goodding's black willow
Salix laevigata	Red willow
Salix lasiandra var. lasiandra	Pacific willow

Saxifragaceae - Saxifrage Family

Micranthes californica	California saxifrage

Scrophulariaceae - Figwort Family

**Verbascum blattaria*	Moth mullein
**Verbascum thapsus*	Woolly mullein

Viscaceae - Mistletoe Family

Arceuthobium campylopodum	Western dwarf mistletoe

Angiosperms -Monocots

Agavaceae - Agave Family

Chlorogalum pomeridianum var. pomeridianum	Soap plant

Alismataceae - Water-Plantain Family

Alisma triviale	California water plantain

Araceae - Arum Family

Lemna sp.	Duckweed

Cyperaceae - Sedge Family

Carex praegracilis	Clustered field-sedge
Cyperus eragrostis	Tall flatsedge
Eleocharis macrostachya	Creeping spikerush
**Eleocharis pachycarpa*	Black sand spikerush

Juncaceae - Rush Family

Juncus balticus subsp. ater	Baltic rush
**Juncus effusus*	Soft rush
Juncus occidentalis	Slender rush
Juncus xiphioides	Iris-leaved rush

Poaceae (Gramineae) - Grass Family

**Aira caryophyllea*	Silver European hairgrass
**Avena fatua*	Wild oat
**Briza minor*	Small quaking grass
**Bromus diandrus*	Ripgut grass
**Bromus hordeaceus*	Soft chess
**Cynodon dactylon*	Bermudagrass
**Cynosurus echinatus*	Hedgehog dogtail
**Elymus caput-medusae*	Medusahead
**Festuca myuros*	Rattail sixweeks grass
**Festuca perennis*	Italian ryegrass
**Holcus lanatus*	Common velvet grass
**Hordeum marinum subsp. gussoneanum*	Mediterranean barley
**Hordeum murinum*	Wall barley
**Leersia oryzoides*	Rice cutgrass
Muhlenbergia rigens	Deer grass
Paspalum distichum	Knotgrass
**Poa annua*	Annual bluegrass
**Polypogon monspeliensis*	Annual beard grass

Themidaceae - Brodiaea Family

Brodiaea elegans subsp. elegans	Elegant harvest brodiaea
Dichelostemma capitatum subsp. capitatum	Bluedicks

Typhaceae - Cattail Family

Typha latifolia	Broad-leaved cattail

* Indicates a non-native species

Appendix B.
Wildlife Species Observed Within the Beaver Creek Study Area

Appendix B
Beaver Creek - Wildlife Observed - 2014

Amphibians

Sierran treefrog	*Pseudacris sierra*

Reptiles

Northwestern fence lizard	*Sceloporus occidentalis occidentalis*

Birds

Turkey vulture	*Cathartes aura*
Red-shouldered hawk	*Buteo lineatus*
Mourning dove	*Zenaida macroura*
Great horned owl	*Bubo virginianus*
Anna's hummingbird	*Calypte anna*
Acorn woodpecker	*Melanerpes formicivorus*
Nuttall's woodpecker	*Picoides nuttallii*
Northern flicker	*Colaptes auratus*
Black phoebe	*Sayornis nigricans*
Western scrub-jay	*Aphelocoma californica*
Oak titmouse	*Baeolophus inornatus*
White-breasted nuthatch	*Sitta carolinensis*
Bewick's wren	*Thryomanes bewickii*
Western bluebird	*Sialia mexicana*
Spotted towhee	*Pipilo maculatus*
California towhee	*Pipilo crissalis*
Song sparrow	*Melospiza melodia*
House finch	*Carpodacus mexicanus*

Mammals

Western gray squirrel	*Sciurus griseus*
Black-tailed jackrabbit	*Lepus californicus*
Coyote	*Canis latrans*
Raccoon	*Procyon lotor*
Mule deer	*Odocoileus hemionus*

Appendix C.
Potentially-Occurring Special-Status Plants in the Region of the Beaver Creek Study Area

Appendix C

Potentially-Occurring Special-Status Plants - Beaver Creek

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Agavaceae				
Chlorogalum grandiflorum Red Hills soaproot	Fed: FSW State: - CNPS: Rank 1B.2	May-June	Chaparral; cismontane woodland; [serpentinite or gabbroic].	None. Site lacks gabbro/serpentine soils.
Alismataceae				
Sagittaria sanfordii Sanford's arrowhead	Fed: - State: - CNPS: Rank 1B.2	May-October	Marshes and swamps (assorted shallow freshwater).	Unlikely. Marginal habitat in areas that sustain shallow water well into the dry season.
Apiaceae (Umbelliferae)				
Eryngium pinnatisectum Tuolumne button-celery	Fed: - State: - CNPS: Rank 1B.2	June-August	Cismontane woodland; lower montane coniferous forest; vernal pools; [mesic].	None. Site lacks suitable habitat.
Asteraceae (Compositae)				
Balsamorhiza macrolepis Big-scale balsam-root	Fed: - State: - CNPS: Rank 1B.2	March-June	Cismontane woodland; valley and foothill grassland; [sometimes serpentinite].	Unlikely. Marginal habitat present. Known from a few locations in the region.
Packera layneae Layne's ragwort	Fed: FT State: CR CNPS: Rank 1B.2	April-July	Chaparral; cismontane woodland; [serpentinite or gabbroic].	None. Site lacks gabbro/serpentine soils.
Wyethia reticulata El Dorado County mules ears	Fed: - State: - CNPS: Rank 1B.2	May-July	Chaparral; cismontane woodland; lower montane coniferous forest; [clay or gabbroic].	None. Site lacks gabbro/serpentine soils.

Appendix C

Potentially-Occurring Special-Status Plants - Beaver Creek

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Campanulaceae				
Downingia pusilla Dwarf downingia	Fed: - State: - CNPS: Rank 2B.2	March-May	Valley and foothill grassland (mesic); vernal pools.	None. Site lacks suitable habitat.
Legenere limosa Legenere	Fed: - State: - CNPS: Rank 1B.1	April-June	Vernal pools and similar wetlands.	None. Site lacks suitable habitat.
Convolvulaceae				
Calystegia stebbinsii Stebbins' morning-glory	Fed: FE State: CE CNPS: Rank 1B.1	May-June	Chaparral (openings); cismontane woodland; [serpentinite or gabbroic].	None. Site lacks gabbro/serpentine soils.
Juncaceae				
Juncus leiospermus ahartii Ahart's dwarf rush	Fed: - State: - CNPS: Rank 1B.2	March-May	Vernal pools.	None. Site lacks suitable habitat.
Juncus leiospermus leiospermus Red Bluff dwarf rush	Fed: - State: - CNPS: Rank 1B.1	March-May	Chaparral; cismontane woodland; valley and foothill grassland; vernal pools; [vernally mesic].	None. Site lacks suitable habitat.
Malvaceae				
Fremontodendron decumbens Pine Hill flannelbush	Fed: FE State: CR CNPS: Rank 1B.2	April-June	Chaparral; cismontane woodland; [gabbroic or serpentinite].	None. Site lacks gabbro/serpentine soils.

Appendix C

Potentially-Occurring Special-Status Plants - Beaver Creek

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Orobanchaceae				
Chloropyron molle hispidum Hispid salty bird's-beak	Fed: - State: - CNPS: Rank 1B.1	June-September	Meadows; playas; [alkaline]. 1-155m.	None. Site lacks saline soils.
Plantaginaceae				
Gratiola heterosepala Bogg's Lake hedge-hyssop	Fed: - State: CE CNPS: Rank 1B.2	April-August	Marshes and swamps (lake margins); vernal pools. Below 1200 m.	None. Site lacks suitable habitat.
Poaceae (Gramineae)				
Orcuttia tenuis Slender Orcutt grass	Fed: FT State: CE CNPS: Rank 1B.1	May-September	Vernal pools.	None. Site lacks suitable habitat.
Orcuttia viscida Sacramento Valley Orcutt grass	Fed: FE State: CE CNPS: Rank 1B.1	May-June	Vernal pools.	None. Site lacks suitable habitat.
Polemoniaceae				
Navarretia myersii myersii Pincushion navarretia	Fed: - State: - CNPS: Rank 1B.1	May-May	Vernal pools.	None. Site lacks suitable habitat.
Rhamnaceae				
Ceanothus roderickii Pine Hill ceanothus	Fed: FE State: CR CNPS: Rank 1B.1	May-June	Chaparral; cismontane woodland; [serpentinite or gabbroic].	None. Site lacks gabbro/serpentine soils.

Appendix C

Potentially-Occurring Special-Status Plants - Beaver Creek

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Rubiaceae				
Galium californicum sierrae Eldorado bedstraw	Fed: FE State: CR CNPS: Rank 1B.2	May-June	Chaparral; cismontane woodland; lower montane coniferous forest; [gabbroic].	None. Site lacks gabbro/serpentine soils.

***Status**

Federal:
FE - Federal Endangered
FT - Federal Threatened
FPE - Federal Proposed Endangered
FPT - Federal Proposed Threatened
FC - Federal Candidate
FSS - Forest Service Sensitive
FSW - Forest Service Watchlist

State:
CE - California Endangered
CT - California Threatened
CR - California Rare
CSC - California Species of Special Concern

CNPS (California Native Plant Society - List.RED Code):
Rank 1A - Extinct
Rank 1B - Plants rare, threatened, or endangered in California and elsewhere
Rank 2A- Plants extinct in California, but more common elsewhere
Rank 2B - Plants rare, threatened, or endangered in California, more common elsewhere
Rank 3 - Plants about which more information is needed, a review list
Rank 4 - Plants of limited distribution, a watch list
RED Code
1 - Seriously endangered (>80% of occurrences threatened)
2 - Fairly endangered (20 to 80% of occurrences threatened)
3 - Not very endangered (<20% of occurrences threatened)

Appendix D.
Potentially-Occurring Special-Status Animals in the Region of the Beaver Creek Study Area

Appendix D

Potentially-Occurring Special-Status Wildlife- Beaver Creek

	Status*	Habitat	Probability on Project Site
Invertebrates			
Vernal pool fairy shrimp *Branchinecta lynchi*	Fed: FT State: - Other: -	Vernal pools and other temporary bodies of water in southern and Central Valley of California. Most common in smaller grass or mud bottomed swales or basalt flow depression pools in unplowed grasslands.	None. No suitable habitat (vernal pools) present onsite. Known mainly from valley floor to west.
Vernal pool tadpole shrimp *Lepidurus packardi*	Fed: FE State: - Other: -	Found in vernal pools in the Central Valley of California and in the San Francisco Bay area. Inhabits vernal pools with clear to highly turbid water.	None. No suitable habitat (vernal pools) present onsite.
Conservancy fairy shrimp *Brachinecta conservatio*	Fed: FE State: - Other: -	Endemic to the Central Valley and southern coastal regions of California. Prefers larger, turbid, cool-water vernal pools located in alluvial swales.	None. No suitable habitat (vernal pools) present onsite.
Insects			
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	Fed: FT State: - Other: *	Requires host plant, elderberry (Sambucus spp.) for most of its life cycle. Shrubs must have stem diameters at ground level of 1.0 inch or greater and shrubs must be found less than 3,000 feet in elevation.Typically riparian and upland associated.	Unlikely. No suitable habitat (elderberry shrubs) observed in recent and previous site surveys.
Fish			
Steelhead, Central Valley ESU *Oncorhynchus mykiss irideus*	Fed: FT State: - Other: -	Occurs below man-made impassable barriers in the Sacramento and San Joaquin rivers and tributaries. Adults migrate from ocean to natal freshwater streams to spawn. Yuba River has essentially the only remaining wild steelhead fishery in Central Valley.	Unlikely. Strap Ravine provides marginal quality habitat for species. Known occurrences throughout Dry Creek system.
Central Valley spring-run Chinook salmon *Oncorhynchus tshawytscha*	Fed: FT State: CT Other: -	ESU covers spring-run salmon in Sacramento River and primarily found in the following tributaries: Butte, Big Chico, Deer, and Mill creeks and the Feather River.	None. No suitable habitat present. Site located outside of species'range.
Delta smelt *Hypomesus transpacificus*	Fed: FT State: CT Other: -	Endemic to the Sacramento-San Joaquin Delta in coastal and brackish waters. Occurs seasonally in Suisun and San Pablo bays. Spawning usually occurs in dead-end sloughs and shallow channels.	None. No suitable habitat present. Located outside of species' range.

Appendix D

Potentially-Occurring Special-Status Wildlife- Beaver Creek

	Status*	Habitat	Probability on Project Site
Amphibians			
California tiger salamander *Ambystoma californiense*	Fed: FT State: CT Other: -	Occurs in annual grassland habitat (<1500 feet) and occasionally in grassy understory of valley-foothill hardwood habitats where lowland aquatic sites are available for breeding. Breeds primarily in vernal pools.	None. No suitable habitat present onsite or in surrounding area. No known occurrences in Placer County.
Western spadefoot *Spea hammondii*	Fed: - State: SSC Other: -	Found primarily in grassland habitats, but may occur in valley and foothill woodlands. Requires vernal pools, seasonal wetlands, or stock ponds for breeding and egg laying. Prefers more turbid pools for predator avoidance.	None. No suitable aquatic breeding habitat observed. Generally known from seasonal wetlands in valley floor to west.
California red-legged frog *Rana draytonii*	Fed: FT State: SSC Other: -	Occurs in lowlands and foothills in deeper pools and slow-moving streams, usually with emergent wetland vegetation. Requires 11-20 weeks of permanent water for larval development.	None. No suitable habitat present onsite. Only one documented occurrence in Placer County. Site located outside of species' current range. Thought to be extirpated from valley floor.
Reptiles			
Western pond turtle *Emys marmorata*	Fed: - State: SSC Other: -	Inhabits ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs suitable basking sites and upland habitat for egg laying.	Unlikely. No suitable aquatic habitat observed within study area. Individuals may periodically occur along drainage when moving between suitable habitat located off site.
Giant garter snake *Thamnophis gigas*	Fed: FT State: CT Other: -	Primarily associated with marshes and sloughs, less with slow-moving creeks, and absent from larger rivers. Nocturnal retreats include mammal burrows and crevices. During the day, basks on emergent vegetation such as cattails and tules.	None. No suitable aquatic habitat present onsite or in the surrounding region. No known occurrences in region.
Birds			
White-tailed kite *Elanus leucurus*	Fed: - State: CFP Other: -	Found in lower foothills and valley margins with scattered oaks and along river bottomlands or marshes adjacent to oak woodlands. Nests in trees with dense tops.	Unlikely. Prefers nesting in woodlands or individuals trees closer to larger tracts of open foraging habitat.
Bald eagle *Haliaeetus leucocephalus*	Fed: - State: CE Other: CFP	Occurs along shorelines, lake margins, and rivers. Nests in large, old-growth or dominant trees with open branches.	None. No suitable nesting or foraging habitat present onsite.

Appendix D

Potentially-Occurring Special-Status Wildlife- Beaver Creek

	Status*	Habitat	Probability on Project Site
Swainson's hawk *Buteo swainsoni*	Fed: - State: CT Other: *	Breeds in open areas with scattered trees; prefers riparian and sparse oak woodland habitats. Requires nearby grasslands, grain fields, or alfalfa for foraging. Rare breeding species in Central Valley.	None. No suitable nesting or foraging habitat present onsite or in the vicinity of the study area. Known mainly from valley floor to the west.
Golden eagle *Aquila chrysaetos*	Fed: - State: CFP Other: -	Found in rolling foothill grassland with scattered trees. Nests on cliffs and in large trees in open areas.	None. No suitable nesting or foragin habitat present onsite.
California black rail *Laterallus jamaicensis coturnculus*	Fed: - State: CT Other: CFP	Inhabits salt, fresh, and brackish water marshes with little daily and/or annual water fluctuations. In freshwater habitats, preference is for dense bulrush and cattails. Several scattered populations documented from Butte Co. to southern Nevada Co.	Unlikely. Wetland habitats present onsite do not provide suitable habitat components for species. Wetlands lack persistent water levels preferred by species.
Burrowing owl *Athene cunicularia*	Fed: - State: SSC Other: *	Found in annual and perennial grasslands. Nests in burrows dug by small mammals, primarily ground squirrels.	None. No suitable burrowing habitat present onsite. Prefers open habitats such as grassland, agricultural areas, and open shrubland and woodland.
Purple martin *Progne subis*	Fed: - State: SSC Other: *	Breeds in riparian woodland, oak woodland, open coniferous forests. Secondary cavity nester. Requires nest sites close to open foraging areas of water or land.	Unlikely. Onsite woodlands provide marginal quality habitat for the species. Prefers large trees with cavities on hillsides or ridgetops with view of open foraging areas.
Bank swallow *Riparia riparia*	Fed: - State: CT Other: *	Colonial nester near riparian and oher lowland habitats. Requires vertical banks or cliffs with fine-textured, sandy soils near streams, rivers, and lakes.	None. No suitable nesting habitat present onsite.
Grasshopper sparrow *Ammodramus savannarum*	Fed: - State: SSC Other: -	Breeds in grasslands and savannahs in rolling hills and lower mountain hillsides up to 5000 feet elevation.	None. No suitable nesting habitat. Prefers expansive areas of grassland for nesting.
Tricolored blackbird *Agelaius tricolor*	Fed: - State: SSC Other: -	Colonial nester in dense cattails, tules, brambles or other dense vegetation. Requires open water, dense vegetation, and open grassy areas for foraging.	Unlikely. Marginal quality habitat present onsite. Site lacks open water areas for foraging. Very low potential to occur onsite.

Appendix D

Potentially-Occurring Special-Status Wildlife- Beaver Creek

	Status*	Habitat	Probability on Project Site
Mammals			
Pallid bat *Antrozous pallidus*	Fed: - State: SSC Other: *	Occurs in grasslands, woodlands, deserts & urban habitats; open habitat required for foraging. Common in dry habitats with rocky outcrops, cliffs, and crevices for roosting. Roosts include caves, mines, bridges & occasionally hollow trees, buildings.	None. No suitable roosting habitat observed onsite.
American badger *Taxidea taxus*	Fed: - State: CSC Other: -	Occurs in dry, open soils in herbaceous, shrub, and forest habitats. Needs friable, uncultivated soil. Preys on rodents.	None. No suitable habitat. No evidence of species occurrence observed.

***Status**

Federal:
FE - Federal Endangered
FT - Federal Threatened
FPE - Federal Proposed Endangered
FPT - Federal Proposed Threatened
FC - Federal Candidate
FPD - Federal Proposed for Delisting

State:
CE - California Endangered
CT - California Threatened
CR - California Rare
CC - California Candidate
CFP - California Fully Protected
CSC - California Species of Special Concern

Other:
Some species have protection under the other designations, such as the California Department of Forestry Sensitive Species, Bureau of Land Management Sensitive Species, U.S.D.A. Forest Service Sensitive Species, and the Migratory Bird Treaty Act. Raptors and their nests are protected by provisions of the California Fish and Game Code. Certain areas, such as wintering areas of the monarch butterfly, may be protected by policies of the California Department of Fish and Game.
WL - CDFG Watch List

BIOLOGICAL RESOURCES ASSESSMENT
FOR THE

±33-ACRE CREEKSIDE OAKS STUDY AREA

GRANITE BAY, PLACER COUNTY, CALIFORNIA

Prepared for:

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DECEMBER 2014

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APPENDICES

Biological Resources Assessment for the ±33-ACRE CREEKSIDE OAKS STUDY AREA

INTRODUCTION

Project Location

Salix Consulting, Inc (Salix) has prepared a Biological Resources Assessment Update for the ±33-acre Creekside Oaks Study Area (study area) located in the community of Granite Bay, Placer County, California The study area is located just west of Quartzite Circle, between Douglas Boulevard and Eureka Road, in the western portion of Granite Bay It is situated in Section 9, Township 10 North and Range 7 East on the Folsom, California 7 5-minute USGS topographic quadrangle (Figure 1) The approximate coordinates for the center of the property are 38°44 31" N and 121°12' 40" W

Project Setting

The site occurs at the lower edge of the western foothills of the Sierra Nevada at elevation ranging between 255 and 295 feet. The study area supports mostly foothill woodland and topography is highly variable due to the presence of historic dredge tailings throughout the site Strap Ravine, a regionally intermittent stream, runs in a westerly direction through the northern portion of the site The study area is surrounded by rural residential on three sides and Douglas Boulevard and higher density development to the north (Figure 2)

Project Background

In 2006 and 2007 North Fork Associates conducted a wetland delineation and prepared the *Biological Resources Assessment for the ±33-acre Creekside Oaks Project Site, Granite Bay, California* (NFA 2006, NFA 2007) Salix Consulting, Inc recently conducted an additional field assessment This report updates the 2007 BRA, provides current information on biological resources of the study area, and incorporates information from previous reports where appropriate

Objectives of Biological Resources Assessment

- Identify and describe the biological communities present in the study area
- Record plant and animal species observed in the study area
- Evaluate and identify sensitive resources and special-status plant and animal species that could be affected by project activities
- Provide conclusions and recommendations

Salix consulting, inc.

N

0 1,000 2,000 Feet

Source Maps: USGS Topographic Map, Folsom (1978) and Rocklin (1981), CA Quadrangle, 1:24,000

Study Area (±33 ac)

Figure 1

VICINITY MAP

Creekside Oaks

Granite Bay, Placer County, CA

Salix consulting, inc.

Legend

Study Area (±33 acres)

2013 Aerial Photo

N

0 150 300

Feet

Figure 2

AERIAL PHOTO

Creekside Oaks

Granite Bay, Placer County, CA

Literature Review

As part of this assessment, Salix biologists reviewed aerial photographs, USGS maps and site maps for the study area Standard publications were reviewed to provide information on life history, habitat requirements and distribution, of regionally occurring animal species They include published books, peer-reviewed articles, field guides, and the California Wildlife Habitats Relationships Program Chapter 5 of the Granite Bay Community Plan (Placer County 2012) was also reviewed as part of this assessment for additional information of natural resources of the study area and surrounding region Publications utilized in this assessment are included in the References section of this document

The Wetland Delineation (NFA 2006) and Biological Resources Assessment (NFA 2007) previously prepared for the Creekside Oaks Project Site were reviewed as part of this study and information was incorporated into this BRA where appropriate Most recent studies on the known ranges and preferred habitats of special-status species known from the region were reviewed and the potential for occurrence of identified species within the study area was updated based on this information

Special-Status Species Reports

To determine which special-status species could occur within or near the study area Salix biologists queried the California Natural Diversity Data Base (CDFW 2014) and the California Native Plant Society Inventory (CNPS 2014) for reported occurrences of special-status fish, wildlife, and plant species in the region surrounding the study area The nine-quadrangle search area included the Folsom, Roseville, Rocklin, Pilot Hill, Citrus Heights, Clarksville, Carmichael, Buffalo Creek, and Folsom Southeast USGS quadrangles Salix biologists also reviewed the following special-status species lists for the project vicinity

- U S Fish and Wildlife Service (USFWS) list of Federal Endangered and Threatened Species for the Folsom USGS quadrangle
- USFWS list of Federal Endangered and Threatened Species for Placer County and
- California Department of Fish and Wildlife list of Species of Special Concern

For the purposes of this report, special-status species are those that fall into one or more of the following categories

- Listed as endangered or threatened under the federal Endangered Species Act (or candidate species or formally proposed for listing),
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing),
- Designated as rare protected, or fully protected pursuant to California Fish and Game Code,

- Designated a Species of Special Concern by the California Department of Fish and Wildlife, or
- Designated as Ranks 1 or 2 on lists maintained by the California Native Plant Society

Field Assessments

A field assessment of the study area was conducted by Salix biologists, Jeff Glazner (plants and wetlands) and Gaylene Tupen (wildlife) in May and August, 2014 to provide information on sensitive plant and wildlife resources present on site During the field assessment, plants and animals observed on site were listed, habitat types were determined, and the potential for the site to support special-status species known from the region was assessed Appendix A is a list of plants observed, and Appendix B is a list of wildlife observed onsite Plant names are according to *The Jepson Manual Vascular Plants of California, Second Edition* (Baldwin et al 2012) Standard manuals were used to identify wildlife species observed

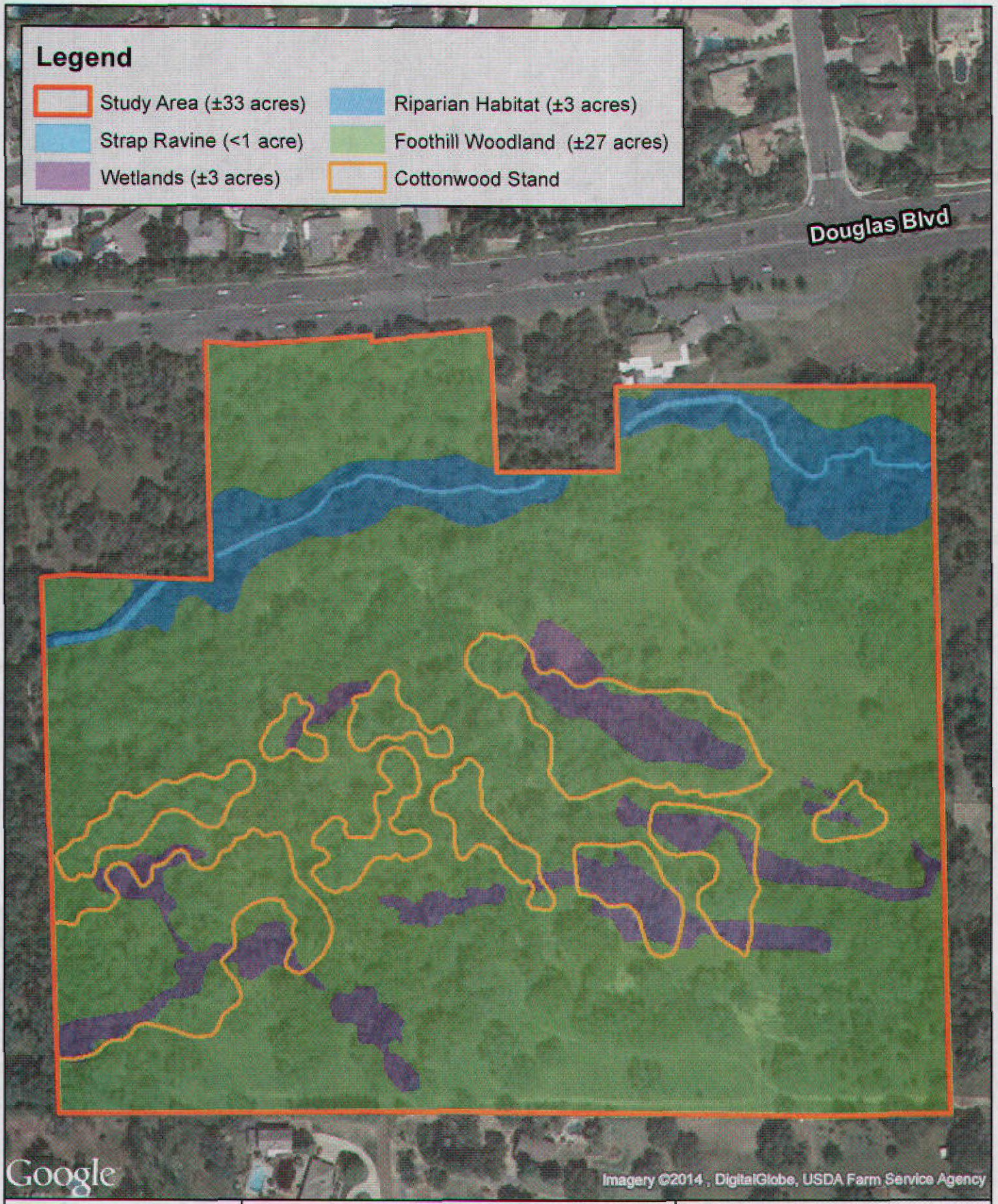
SURVEY AND LITERATURE SEARCH RESULTS

Biological Communities

Biological communities and sensitive habitats of the study area were mapped and are summarized in Table 1 and illustrated in Figure 3 Representative site photographs of the study area are presented in Figure 4 Areas designated as "waters of the U S" throughout the Study Area, including streams and wetlands, are discussed below under **Waters of the U S** Appendix A lists the plant species that were observed during field surveys

Table 1
Biological Communities/Habitat Types within the Creekside Oaks Study Area

Biological Community	Approximate Acreage
Foothill woodland (including ±6 acres of embedded cottonwood stands)	27
Riparian woodland	3
Wetlands	3
Strap Ravine	<1
Total	**33**



Salix consulting, inc.

N

0 100 200
Feet

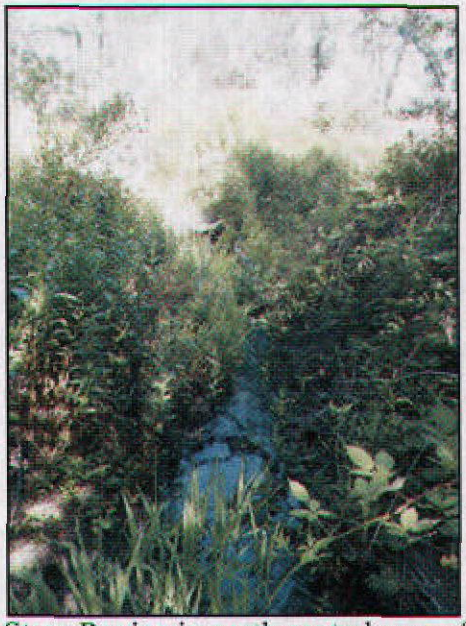
1 inch = 200 feet

Figure 3

HABITAT MAP

Creekside Oaks

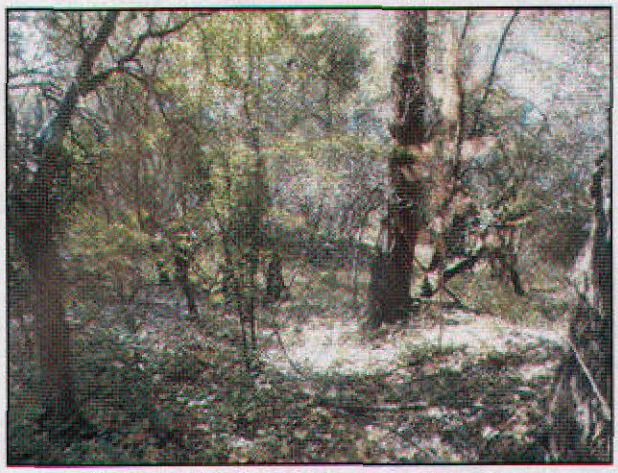
Granite Bay, Placer County, CA



Strap Ravine in north central area of site flowing approximately 1 cfs in early June 2014.

Seasonal Wetland (SW3) near center of site.

Cottonwood gallery associated with seasonal wetlands.



Dense vegetation in wooded area.

Photo Date June 3, 2014

Salix consulting, inc.

Figure 4

SITE PHOTOS

Creekside Oaks

Granite Bay, Placer County, CA

Foothill Woodland

Foothill Woodland is the primary habitat type within the Creekside Oaks study area, occupying approximately 27 acres Tree cover is variable throughout the site, ranging from dense to sparse The majority of the acreage has high canopy cover An area along the southern boundary and an area in the western middle of the site are the open canopied areas The most abundant trees within foothill woodland include interior live oak (*Quercus wislizenii*), blue oak (*Quercus douglasii*), and gray pine (*Pinus sabiniana*)

Understory shrubs include poison oak (*Toxicodendron diversilobum*), coyote brush (*Baccharis pilularis*) buckbrush (*Ceanothus cuneatus*), California coffeeberry (*Frangula californica*), buckeye (*Aesculus californica*) toyon (Heteromoles *arbutifolia*), hoary coffeeberry (*Frangula californica*), Himalayan blackberry (*Rubus armeniacus*), and California blackberry (*Rubus ursinus*) Common herbaceous species within the understory include field hedge parsley (*Torilis arvensis*) Italian thistle (*Carduus pycnocephalus*), yellow star thistle (*Centaurea solstitialis*), skeleton weed (*Chondrilla juncea*), bindweed (*Convolvulus arvensis*), broad-leaf filaree (*Erodium botrys*), soft chess (*Bromus hordeaceus*), hedgehog dogtail (*Cynosurus echinatus*), soap plant (*Chlorogalum pomeridianum*), turkey mullein (*Croton setigerus*), Klamathweed (*Hypericum perforatum*), rose clover (*Trifolium hirtum*), spanish clover (*Acmispon americanus*), vetch (*Vicia* spp), wild oat (*Avena fatua*), and ripgut grass (*Bromus diandrus*)

Approximately six (6) acres of mature Fremont cottonwood (*Populus fremontii*) stands occur in the southern half of the site as part of the foothill woodland These areas correspond to historic placer mining and disrupted local hydrology

A few willows including a red willow (*Salix laevigata*) occur within the study area, often in association with the cottonwoods These willows are generally restricted to lower-elevation areas scattered throughout the dredge tailings and occur as part of the foothill woodland community

Riparian Woodland

Within the study area, approximately three acres of riparian woodland occurs in a fairly consistent width along the Strap Ravine channel Canopy species include Fremont cottonwoods, Gooding's willow (*Salix gooddingii*), red willow (*Salix laevigata*), sandbar willow (*Salix exigua*) and valley oak Himalayan blackberry is the most common understory species and occurs in dense thickets along many reaches

Waters of the U S

Waters of the U S were mapped in 2005-2006 as shown on Figure 3 Wetlands are primarily associated with the placer-mined areas in the southern half of the site

Wetlands occupy approximately three acres of the project site Common species include broad-leaved cattail (*Typha latifolia*) spikerush (*Eleocharis pachycarpa*), Mexican rush (*Juncus mexicanus*), iris-leaf rush (*Juncus xiphioides*), clustered field sedge (*Carex praegracilis*), and cocklebur (*Xanthium strumarium*) The overstory commonly includes

mature cottonwoods and other typical foothill woodland species Wetland swales throughout the site contained minimal to no surface water at the time of the May 2014 field assessment

Strap Ravine is a seasonal (intermittent) stream The reach of Strap Ravine that runs through the study area is characterized as a relatively shallow channel, is 5 to 15 feet wide and is bounded on both sides by blackberry, willow, cottonwood and oaks Streamflow within Strap Ravine at the time of the May 2014 field assessment was a trickle

Wildlife Occurrence and Use

The study area supports a wide diversity of wildlife due to the abundance of trees that provide roosting and nesting sites, escape and thermal cover, and a variety of food sources In addition, Strap Ravine provides a source of water for wildlife of the area and may be used as a movement corridor between habitats located on and offsite A large number of snags are located throughout the site and provide nesting cavities for birds such as woodpeckers, bluebirds, nuthatches, American kestrel, and western screech owl Taller trees of the site, including mature cottonwoods, gray pines, and oaks, provide suitable nesting habitat for raptors such as great horned owl, red-shouldered hawk, and Cooper s hawk

The following animals were observed in association with foothill woodland of the study area during the May 2014 field assessment acorn woodpecker *(Melanerpes formicivorus)*, black phoebe (*Sayornis nigricans*), California quail (*Callipepla californica*), northern flicker (*Colaptes auratus*) white-breasted nuthatch (*Sitta carolinensis*), wild turkey (*Meleagris gallopavo*), Nuttall s woodpecker (*Picoides nuttallii*), oak titmouse (*Baeolophus inornatus*), orange-crowned warbler (*Vermivora celata*), spotted towhee (*Pipilo maculatuss*), ash-throated flycatcher (*Myiarchus cinerascens*), and California towhee (*Pipilo crissalis*) Red-shouldered hawks (*Buteo lineatus*) were vocalizing within and near the site during the field assessment however, no active nesting activity was observed

The Granite Bay Community Plan indicates that Strap Ravine is not likely to support anadromous salmonids, including Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead (*Oncorhynchus mykiss irideus*) (Placer County 2012) Anadromous salmonids may be absent from Strap Ravine, including the reach that runs through the study area, due to low instream flows and previous channel disturbance Nearby tributaries within the Dry Creek system that are known to support salmon and steelhead include Miner's Ravine and Linda Creek (Placer County 2012 Placer County 2004) When flow is sufficient, portions of Strap Ravine may support resident trout and warm-water fish species

Although salmon are not expected to occur within Strap Ravine the study area occurs within Hydrologic Unit 18020111, which is mapped as Essential Fish Habitat (EFH) for Chinook salmon (*Oncorhynchus tshawytscha*) (NOAA 2008) Under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) Pacific Coast salmon EFH includes all water bodies occupied or historically accessible in Washington, Oregon, Idaho and California that occur within selected USGS Hydrologic Units identified by the

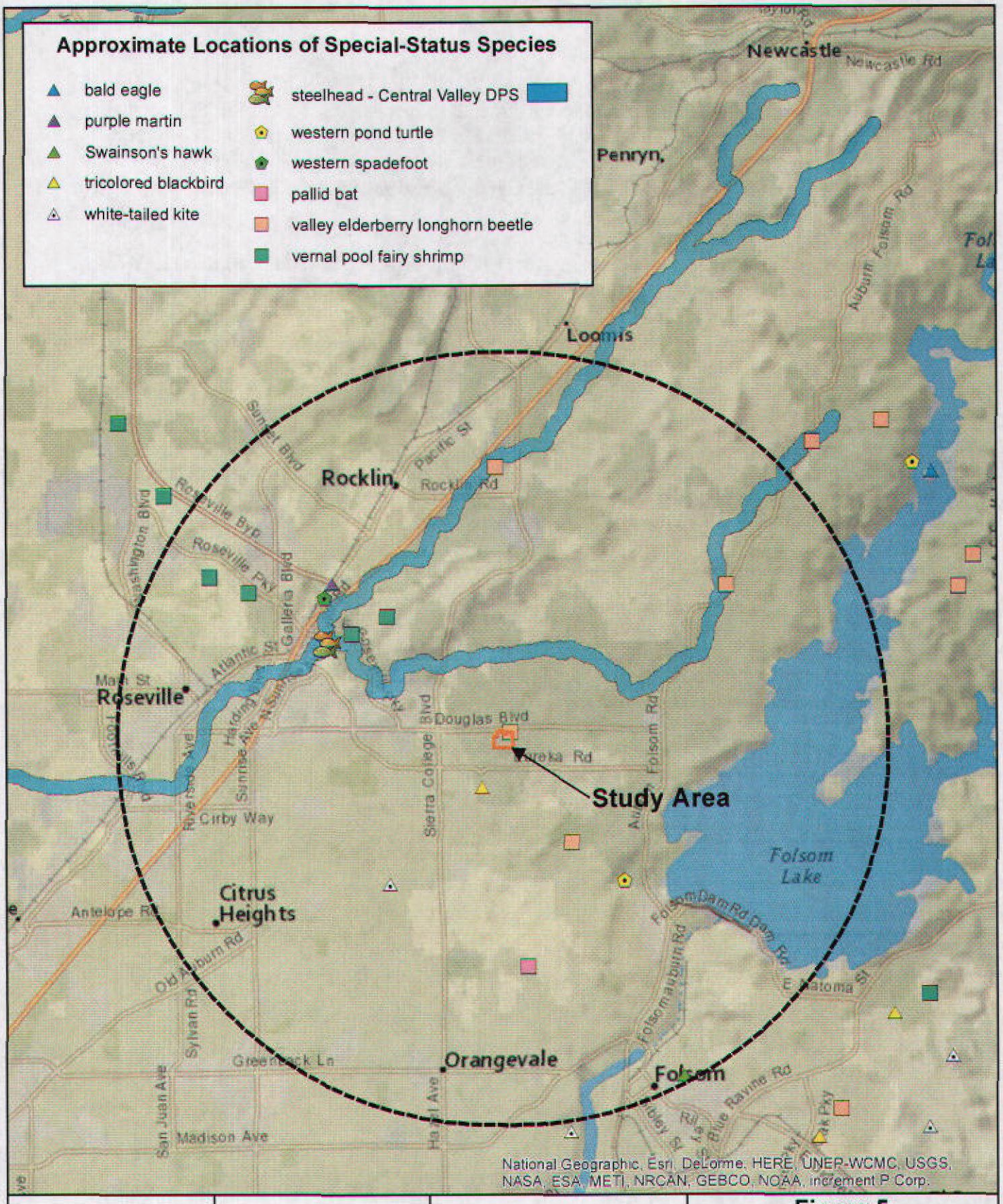
National Marine Fisheries Service (NOAA 2008). The MSA requires consultation with the National Marine Fisheries Service (NMFS) for projects that include a federal action or federal funding and may adversely modify EFH. If activities implemented within the study area will result in disturbance of Secret Ravine (mapped EFH) and require a permit from a federal agency (i.e., the Corps), consultation with NMFS may be required.

Special-Status Species

To determine potentially-occurring special-status species, the standard databases from the USFWS, CDFW (the CNDDB), and CNPS were queried and reviewed. These searches provided a comprehensive list of regionally occurring species and were used to determine which species have some potential to occur within or near the study area. Appendix C lists potentially-occurring special-status plants, and Appendix D lists special-status animals compiled from our queries as described above. The field survey and the best professional judgment of Salix biologists were used to further refine the tables in Appendices C and D. Additionally, plant species found on the CNPS List 3 and 4 are not considered further in the document. Figures 5 and 6 show approximate locations of reported occurrences of CNDDB special-status wildlife and plants, respectively, within a five-mile radius of the study area.

Of the 24 animal species in Appendix D, 11 were identified as occurring within or near the 5-mile radius of the study area (Figure 5). Five of the animal species occurring within the 5-mile radius, as well 12 of the remaining species in Appendix D, were determined to have no potential for occurring onsite due to the absence of suitable aquatic habitats including perennial streams, ponds, vernal pools, or marshes. These are summarized in Table 2 below.

Of the 19 potentially-occurring plant species in Appendix C, eight were identified as occurring within or near a 5-mile radius of the study area (Figure 6). Six of the species occurring within the 5-mile radius, as well as the remainder of the potentially-occurring plant species (11 species) that do not occur within the 5-mile radius, were determined have no potential for occurring onsite due to the absence of suitable habitat or substrates. These are summarized in Table 2 below.



Salix consulting, inc.

N

Miles

0 2

Study Area (±33 acres)

5-Mile Buffer

Data: California Natural Diversity Database GIS California Department of Fish and Wildlife, June 2014.

Figure 5

CNDDB WILDLIFE SPECIES OCCURRENCE LOCATIONS

Creekside Oaks

Granite Bay, Placer County, CA

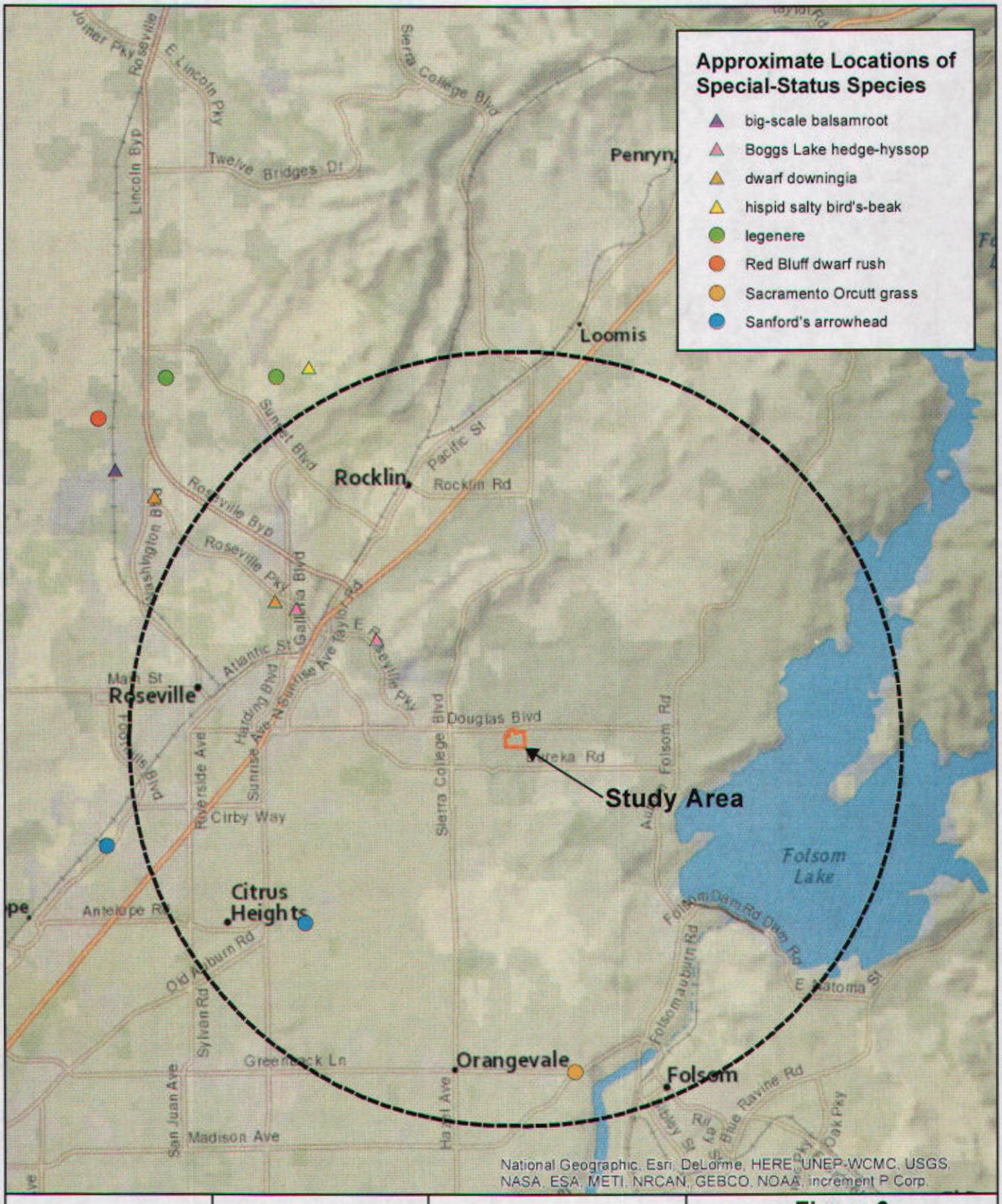

Approximate Locations of Special-Status Species
big-scale balsamroot
Boggs Lake hedge-hyssop
dwarf downingia
hispid salty bird's-beak
legenere
Red Bluff dwarf rush
Sacramento Orcutt grass
Sanford's arrowhead
Study Area
Rocklin
Loomis
Roseville
Citrus Heights
Orangevale
Folsom
Folsom Lake
Penryn
Douglas Blvd
Sierra College Blvd
Pacific St
Rocklin Rd
Roseville Pkwy
Atlantic St
Riverside Ave
Cirby Way
Antelope Rd
Old Auburn Rd
Greenback Ln
Madison Ave
Folsom Auburn Rd
Blue Ravine Rd
National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp
N
Miles
0
2
Study Area (±33 acres)
5-Mile Buffer
Data: California Natural Diversity Database GIS California Department of Fish and Wildlife, June 2014.
Salix consulting, inc.
Figure 6
CNDDB PLANT SPECIES OCCURRENCE LOCATIONS
Creekside Oaks
Granite Bay, Placer County, CA

Table 2 below provides a summary of the 17 plant species and 17 animal species determined to have no potential for occurring onsite.

Table 2.
Special Status Species Determined to have NO POTENTIAL to Occur Within the Creekside Oaks Study Area

Species	Status* Federal	State	CNPS	Habitat	Reason for NO POTENTIAL to occur
Plants					
Red Hills soaproot *Chlorogalum grandiflorum*	FSW	-	1B.2	Chaparral; cismontane woodland[serpentinite or gabbroic].;	Site lacks gabbro/serpentine soils.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	-	CE	1B.2	Marshes and swamps. Shallow water habitats and margins of vernal pools.	No suitable habitat present onsite.
Sacramento Orcutt grass *Orcuttia viscida*	FE	CE	1B.1	Vernal pools in valley grasslands of the Central Valley.	No suitable habitat present onsite.
Tuolumne button-celery *Eryngium pinnatisectum*	-	-	1B.2	Cismontane woodland; lower montane coniferous forest; vernal pools; [mesic].	Site lacks suitable habitat.
Layne's ragwort *Packera layneae*	FT	CR	1B.2	Chaparral; cismontane woodland [serpentinite or gabbroic].	Site lacks gabbro/serpentine soils.
El Dorado County mules ears *Wyethia reticulata*	FE	CR	1B.2	Chaparral; cismontane woodland; [gabbroic or serpentinite].	Site lacks gabbro/serpentine soils.
Dwarf downingia *Downingia pusilla*	-	-	2B.2	Valley and foothill grassland (mesic); vernal pools.	Site lacks suitable habitat.
Legenere *Legenere limosa*	-	-	1B.1	Vernal pools and similar wetlands.	Site lacks suitable habitat.
Stebbins' morning-glory *Calystegia stebbinsii*	FE	CE	1B.1	Chaparral (openings); cismontane woodland; [serpentinite or gabbroic].	Site lacks gabbro/serpentine soils.
Ahart's dwarf rush *Juncus leiospermus ahartii*	-	-	1B.2	Vernal pools.	Site lacks suitable habitat.
Red Bluff dwarf rush *Juncus leiospermus leiospermus*	-	-	1B.1	Chaparral; cismontane woodland; valley and foothill grassland; vernal pools; [vernally mesic].	Site lacks suitable habitat.
Pine Hill flannelbush *Fremontodendron decumbens*	FE	CR	1B.2	Chaparral; cismontane woodland; [gabbroic or serpentinite].	Site lacks gabbro/serpentine soils.
Hispid salty bird's-beak *Chloropyron molle hispidum*	-	-	1B.1	Meadows; playas; [alkaline].	Site lacks saline soils.
Bogg's Lake hedge-hyssop *Gratiola heterosepala*	-	CE	1B.2	Marshes and swamps (lake margins); vernal pools. Below 1200 m.	Site lacks suitable habitat.

Table 2
Special Status Species Determined to have NO POTENTIAL to Occur Within the Creekside Oaks Study Area

Species	Status* Federal	State	CNPS	Habitat	Reason for NO POTENTIAL to occur
Slender Orcutt grass *Orcuttia tenuis*	FT	CE	1B 1	Vernal pools	Site lacks suitable habitat.
Invertebrates					
Vernal pool fairy shrimp *Branchinecta lynchi*	FT	-	-	Vernal pools and seasonal wetlands	No suitable aquatic habitat (vernal pools) present onsite
Vernal pool tadpole shrimp *Lepidurus packardi*	FE			Vernal pools with clear to highly turbid water	No suitable habitat (vernal pools) present onsite
Conservancy fairy shrimp *Brachinecta conservatio*	FE			larger turbid cool water vernal pools located in alluvial swales	No suitable habitat (vernal pools) present onsite
Fish					
Central Valley spring-run Chinook salmon *Oncorhynchus tshawytscha*	FT	CT		Spring run in Sacramento River Primarily found in Butte Big Chico Deer, and Mill creeks and the Feather River tributaries	No suitable habitat present. Site located outside of species' range
Delta smelt *Hypomesus transpacificus*	FT	CT		Endemic to the Sacramento-San Joaquin Delta in coastal and brackish waters	No suitable habitat present. Located outside of species' range
Amphibians					
California tiger salamander *Ambystoma californiense*	FT	CT		Annual grassland habitat (<1500 feet) and occasionally in grassy understory of valley-foothill hardwood habitats where lowland aquatic sites are available for breeding Breeds primarily in vernal pools.	No suitable habitat present onsite or in surrounding area No known occurrences in Placer County
California red-legged frog *Rana draytonii*	FT	SSC		Ponds and deeper pools along streams with emergent or overhanging vegetation. Surface water to at least June	No suitable habitat present onsite Only one documented occurrence in Placer County

Table 2
Special Status Species Determined to have NO POTENTIAL to Occur Within the Creekside Oaks Study Area

Species	Status* Federal	State	CNPS	Habitat	Reason for NO POTENTIAL to occur
Western spadefoot *Spea hammondii*		SSC		Requires vernal pools seasonal wetlands, or stock ponds for breeding in grassland, sandy washes or open woodlands	None No suitable aquatic breeding habitat observed. Generally known from seasonal wetlands in valley floor to west
Reptiles					
Giant garter snake *Thamnophis gigas*	FT	CT		Primarily associated with marshes and sloughs, less with slow- moving creeks and absent from larger rivers	No suitable aquatic habitat present onsite or in the surrounding region No known occurrences in region
Birds					
Bald eagle *Haliaeetus leucocephalus*		CE CFP		Occurs along shorelines lake margins and rivers. Nests in large old growth or dominant trees with open branches	No suitable nesting or foraging habitat present onsite
Swainson s hawk (nesting) *Buteo swainsoni*		CT		Riparian woodlands and oak savannah with adjacent grassland or agricultural fields generally in the Central Valley	No suitable nesting or foraging habitat onsite or in vicinity Site located outside of typical range of species
Golden eagle *Aquila chrysaetos*		CFP		Found in rolling foothill grassland with scattered trees Nests on cliffs and in large trees in open areas	No suitable nesting habitat present onsite
Burrowing owl *Athene cunicularia*		SSC		Found in annual and perennial grasslands Nests in burrows dug by small mammals, primarily ground squirrels	No suitable burrowing habitat present onsite Prefers open habitats such as grassland, agricultural areas and open shrubland and woodland
Bank swallow *Riparia riparia*		CT		Colonial nester near riparian and oher lowland habitats Requires vertical banks or cliffs with fine-textured, sandy soils near streams, rivers and lakes	No suitable nesting habitat present onsite

Table 2
Special Status Species Determined to have NO POTENTIAL to Occur Within the Creekside Oaks Study Area

Species	Status* Federal	State	CNPS	Habitat	Reason for NO POTENTIAL to occur
Grasshopper sparrow *Ammodramus savannarum*		SSC		Breeds in grasslands and savannahs in rolling hills and lower mountain hillsides up to 5000 feet elevation	No suitable nesting habitat Prefers expansive areas of grassland for nesting
Mammals					
Pallid bat *Antrozous pallidus*	-	SSC		Open dry areas with rocky outcrops for roosting	No suitable roosting habitat present on site No structures or significant rock features to support roosting of species
American badger *Taxidea taxus*		SSC		Occurs in dry open soils in herbaceous, shrub and forest habitats Needs friable uncultivated soil. Preys on rodents	No suitable habitat No evidence of species occurrence observed

*Status Codes.
Federal
FE Federal Endangered
FT Federal Threatened

State
CE California Endangered
CFP California Fully Protected
CT California Threatened
SSC California Species of Concern

CNPS
Rank 1B Rare Threatened, or Endangered in California
Rank 2 R, T or E in California, more common elsewhere
1 Seriously threatened in California
2 Fairly threatened in California

Table 3 below provides a summary of those species that have been determined to have some potential to occur within the study area based on the analysis of potential to occur presented in Appendices C and D Discussions for the identified species are provided following Table 3

Table 3
Special Status Species Determined to Have Some Potential to Occur Within Creekside Oaks Study Area

Species	Status* Federal	State	CNPS	Habitat	Potential for Occurrence Within Study Area**
Plants					
Big-scale balsamroot *Balsamorhiza macrolepis var macrolepis*		-	1B 2	Valley grassland and foothill woodland Often on serpentine	Unlikely Marginal habitat occurs onsite
Sanford's arrowhead *Sagittaria sanfordii*		-	1B.2	Marshes and slow moving water	Unlikely Marginal habitat only in areas that sustain shallow water well into the dry season
Invertebrates					
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT	-	-	Elderberry shrubs	Unlikely No elderberry shrubs observed onsite in 2014 (see comments below in text)
Fish					
Steelhead - Central Valley DPS *Oncorhynchus mykiss irideus*	FT			Sacramento River and tributaries including portions of Dry Creek system (Secret Ravine and Miner's Ravine)	Unlikely Strap Ravine provides marginal quality habitat for species Known occurrences throughout Dry Creek system.
Reptiles					
Western pond turtle *Emys marmorata*		SSC		Permanent aquatic habitats with suitable basking sites and adjacent upland habitat.	Unlikely No suitable aquatic habitat present within the study area May use portions of Strap Ravine as a movement corridor between suitable habitats located off - site
Birds					
Tricolored blackbird (nesting colonies) *Agelaius tricolor*		SSC	-	Requires open accessible water through nesting season, a protected nesting substrate, and nearby foraging areas Nests in cattails, tules or blackberry thickets	Unlikely Marginal quality nesting habitat available on site Limited amount of open foraging habitat available

Table 3
Special Status Species Determined to Have Some Potential to Occur Within Creekside Oaks Study Area

Species	Status* Federal	State	CNPS	Habitat	Potential for Occurrence Within Study Area**
White-tailed kite (nesting) *Elanus leucurus*	-	CFP		Open grassland, meadows and farmlands Nests in tall trees near foraging areas.	Unlikely Prefers nesting closer to larger tracts of open foraging habitat.
California black rail *Laterallus jamaicensis coturniculus*		CT CFP	-	In the Sierra Nevada foothills occurs in freshwater emergent wetlands with shallow persistent water	Unlikely Marginal quality habitat present onsite Wetlands lack persistent shallow water preferred by the species
Purple martin (nesting) *Progne subis*		SSC	-	Summer visitor of woodlands and low elevation coniferous forests	Possible Numerous snags and cavities in mature trees throughout site provide suitable nesting habitat.

*Status Codes
Federal
FE Federal Endangered
FT Federal Threatened

State
CE California Endangered
CT California Threatened
SSC California Species of Concern

CNPS
Rank 1B Rare Threatened, or Endangered in California
Rank 2 R, T or E in California more common elsewhere
1 Seriously threatened in California
2- Fairly threatened in California

**Definitions for the Potential to Occur
Unlikely Minimal or marginal quality habitat in the study area
Possible. Suitable habitat occurs within the study area.
Likely Study area provides desirable habitat for species and there is a very high probability for its occurrence
Observed Species was observed within the study area.

Plants

Several special-status plants are known from the surrounding project region and are shown in Figure 5 All but two of the species require habitats that do not occur within the study area and therefore were eliminated from further consideration As summarized above, the following species shown in Figure 5 occur in either vernal pool or saline marsh habitats in the Central Valley generally to the west of the study area Boggs Lake hedge-hyssop (*Gratiola heterosepala*), dwarf downingia (*Downingia pusilla*), hispid bird's-beak (*Chloropyron molle ssp hispidum*), legenere (*Legenere limosa*), Red Bluff dwarf rush (*Juncus leiospermus* var *leiospermus*), and Sacramento Orcutt grass (*Orcuttia*

viscida) Based on the absence of suitable habitat, these species were determined to have no potential for occurring on site

The project site contains marginal habitat for two special-status plant species, both are discussed below

Big-scale balsamroot (*Balsamorhiza macrolepis* var *macrolepis*) was ranked as "unlikely" to occur due to the presence of only marginal quality habitat onsite Big-scale balsamroot is a herbaceous perennial member of the sunflower family (Asteraceae) It has no state or federal status, but has a California Rare Plant Rank of 1B 2 This species has large yellow flowering heads and leaves that arise from the ground It differs, in part, from other balsam-roots by having coarsely serrate leaves Big-scale balsam-root grows in open woodlands and grasslands at widely scattered locations in Northern California It blooms from March to June

No members of the genus Balsamorhiza or similar genus Wyethia, were observed during the May 2014 field assessment The nearest recorded occurrence of big-scale balsam-root is from approximately 6 to 7 miles northwest of the site just west of Highway 65, between Roseville and Lincoln Because only marginal quality habitat is present onsite and occurrence of the species is rare in the region, it is unlikely that big-scale balsam root occurs within the study area

Sanford's arrowhead (*Sagittaria sanfordii*) is an herbaceous perennial member of the water-plantain family (Alismataceae) It has no state or federal status, but has a CNPS Rare Plant Rank of 1B 2 Preferred habitat includes marshes associated with slow-moving water in sloughs and ditches It is also known to occur in concrete lines channels with only a few inches of soil It has a long blooming period, starting as early as May and occasionally lasting until August

No individuals of this species were observed during the May 2014 field assessment The closest recorded occurrence of this species is from approximately 3 to 4 miles to the southwest in the Citrus Heights area (CNDDB 2014) This species was documented at this location in 1997 in a cattail-dominated freshwater marsh No individuals of the genus Sagitarria were observed onsite during the May 2014 field assessment Because only marginal habitat is present in areas that sustain shallow water well into the dry season, it is unlikely that Sanford's arrowhead occurs within the study area

Wildlife

Of the 24 special-status animals identified through the database searches and other literature as occurring within the broader region surrounding the study area, only one was determined to have a reasonable potential for occurring on site, and several were ranked as "unlikely to occur " (Table 3) Many species were determined to have no potential for occurring within the study area due to the absence of suitable habitat or due to the site being located outside of the current range of a species (Table 2) In particular, the site lacks vernal pools, which support the Federal Threatened vernal pool fairy shrimp (*Branchinecta lynchi*), the Federal Endangered vernal pool tadpole shrimp (*Lepidurus packardi*), and the western spadefoot (*Spea hammondii*), a California Species of

Special Concern (SSC) These species are generally known from vernal pools located in open habitats of the Central Valley to the west and northwest Swainson's hawk (*Buteo swainsoni*), a California threatened species, generally nests in riparian woodland habitats and oak savannah of the Central Valley, often near water Nesting sites are usually located in isolated trees in open country within several miles of suitable foraging habitat. The study area occurs outside of the typical range of the species and does not provide suitable foraging or nesting habitat Bald eagles *(Haliaeetus leucocephalus)* require large bodies of water, or free-flowing rivers with nearby perches, including snags, large-limbed tall trees, or rocks near water Due to the lack of suitable nesting and foraging sites, this species is not expected to occur within the study area There are no structures within the study area or significant rock features that would support roosting of special-status bats known from the region including pallid bat (*Antrozous pallidus*), a SSC species

California red-legged frog (*Rana draytonii*), a federally threatened species and SSC species, prefers aquatic habitats with little or no flow, the presence of surface water to at least early June, surface water depths to at least 0 7 meter (2 3 feet), and the presence of fairly sturdy underwater supports such as cattails Only isolated populations of California red-legged frog (CRLF) have been documented in the Sierra Nevada foothills region (USFWS 2002) The closest documented occurrence is from approximately 7 miles east of the study area, in the foothills along the east side of Folsom Lake (CDFW 2014) In addition, existing literature indicates that CRLF was likely extirpated from the floor of the Central Valley prior to the 1960s (USFWS 2002) Due to the lack of habitat and the study area occurring outside of the current range of the species, there is no potential for occurrence of California red-legged frog onsite

Several of the identified animal species were ranked as "unlikely to occur" (Table 3), one was ranked as "Possible," and none were "Likely" or "Occurs " The discussions below include these species or those that require further clarification

Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) is a federal threatened species Live elderberry shrubs (*Sambucus nigra ssp caerulea*) are this borer's exclusive host plant Adult valley elderberry longhorn beetles (VELB) emerge from pupation inside the wood of these shrubs in the spring as their flowers begin to open Exit holes made by the emerging adults are distinctive small oval openings (approx ¼-inch width) Elderberry shrubs that contain live stems of one inch or greater at ground level (USFWS 1999) are considered potential habitat for the species by the U S Fish and Wildlife Service Elderberry plants with no stems measuring 1 0 inch or greater at ground level are not considered habitat for the beetle No suitable habitat for VELB (live elderberry shrubs) was observed during previous surveys (NFA 2004b) or during the recent 2014 field assessment within the study area The absence of elderberry shrubs to date precludes the occurrence of VELB within the study area at this time, however, there is potential for new elderberry shrubs to grow and establish in the future and subsequently provide habitat for VELB Based on the absence of elderberries, there is currently no suitable habitat for VELB present within the study area In the event that elderberries become established onsite at any time in the future and stems grow to 1 0 inch or greater, occurrence of VELB would possible

Central Valley Steelhead (*Oncorhynchus mykiss irideus*) is an anadromous form of rainbow trout that emigrates to sea and later returns to freshwater to spawn Steelhead spawn in winter or early spring after salmon have typically spawned They often require high water to provide access to upper watershed and spawning and rearing areas Spawning occurs in clean, loose gravels and swift, shallow water They generally prefer shallower stream depths and smaller gravel than salmon, but prefer similar water velocities Juvenile steelhead often remain in freshwater for at least one year before out-migrating to the ocean While in freshwater, young steelhead are typically found in cool, fast-flowing permanent streams and rivers where riffles predominate over pools and there is ample riparian and instream cover (NMFS 2009)

The CNDDB (2014) documents steelhead as occurring in the Dry Creek system, mainly in two of its tributaries to the north including Secret Ravine and Miner's Ravine Although steelhead are documented as occurring within the Dry Creek Watershed, the Granite Bay Community Plan indicates that Strap Ravine is not expected to provide suitable habitat for anadromous salmonids, including steelhead (Placer County 2012) Nearby tributaries that are known to provide suitable steelhead habitat include Miner's Ravine and Linda Creek, which is located downstream of Strap Ravine (Placer County 2004) The portion of Strap Ravine within the study area does not provide suitable rearing habitat for steelhead due to the absence of perennial surface water and pools, and may only be used seasonally as a migration corridor if steelhead are present within the drainage and there are no barriers to their movement

Strap Ravine is not mapped as Critical Habitat for Central Valley Steelhead (Federal Register 2005) The closest mapped Critical Habitat unit for central valley steelhead is the mainstem of Dry Creek and two of its tributaries to the north, Miner's Ravine and Secret Ravine (NOAA 2005) Therefore, no designated critical habitat for this species occurs within or adjacent to the study area

Western pond turtle (*Emys marmorata*), a SSC species, occurs in association with streams, rivers, and ponds containing suitable cover and basking sites This species is normally associated with ponds, streams, lakes, marshes, and permanent pools along intermittent streams Suitable basking sites along streams or ponds include partially submerged logs, rocks, mats of floating vegetation, or open streambanks Suitable upland habitat, such as sandy banks or grassy fields, located adjacent to the aquatic habitat is required for egg-laying Nesting takes place in a variety of soil types from loose sandy soils to compact soils, and in a variety of habitat types

Suitable habitat for western pond turtle, consisting of ponds or deeper pools along streams, does not occur within the study area The channel of Strap Ravine within the study area is very shallow and lacks the perennial deep pool habitat that pond turtles require Any occurrence of pond turtles within the study area would be limited to individuals that periodically move up or downstream between suitable aquatic habitats located offsite

Tricolored blackbird (*Agelaius tricolor*) is a highly colonial species that primarily nests in freshwater emergent wetlands Nesting colonies of this species are considered sensitive by CDFW This species generally requires open water, with protected nesting habitat, and suitable foraging areas close to the colony Breeding and nesting typically takes

place in dense cattails or tules, and may also occur in thickets of willow, blackberry, wild rose, and tall herbs (Shuford and Gardali 2008) Nest sites are usually located a few feet over, or near, freshwater Nesting areas must be large enough to support a minimum colony of about 50 pairs Colonies may vary in size from about 50 nests to over 20,000 in an area of 10 acres or less Nesting typically occurs mid-April through late July

The CNDDB documents nesting colonies of tri-colored blackbird within a 5-mile radius of the study area (CDFW 2014) The closest documented occurrence is from approximately one mile southwest just south of Eureka Road The blackberry thickets present within the study area, primarily along Strap Ravine, provide suitable nesting substrate for the species, but the amount of suitable foraging habitat available nearby is limited Due to the low quality of habitat available for the species, it is unlikely that tricolored blackbird would nest within the study area

White-tailed kite (*Elanus leucurus*), a California fully protected species, is an uncommon to locally fairly common resident and is typically found in grassy foothill slopes interspersed with oaks (including interior live oak, agricultural areas, and marshy bottomlands) They generally forage in undisturbed open grasslands, farmlands, meadows, and emergent wetlands, in areas with a high prey base Nest trees range from single isolated trees to trees within larger stands Nests of white-tailed kite are constructed near the top of oaks, willows, or other tall trees from 20 to 100 feet above ground Breeding takes place from February to October, with peak activity from May to August

The CNDDB documents nesting occurrences of white-tailed kite within the project region (CDFW 2014) The closest documented nesting occurrence is from approximately 2 miles to the southwest Woodland areas located throughout the site provide marginal quality nesting habitat for white-tailed kite due to the limited amount of open foraging habitat (open woodland and annual grassland) in the surrounding area

California black rail *(Laterallus jamaicensis coturniculus)* is a scarce and secretive resident bird that occurs in saline, brackish, and freshwater wetlands (Zeiner et al 1990) Once mainly known from tidal marshes in the San Francisco Bay, it has recently been found in the Sierra Nevada foothills (Beedy and Pandolfino 2013) In the foothills region, it is known to occur in wet meadows and wetlands with dense emergent vegetation, such as cattails and bulrush, and having shallow, consistent water levels These birds regularly move around to new sites in response to changes in local conditions Nesting generally takes place from mid-March through early June

There are no documented occurrences of California black rail within a 5-mile radius of the study area (CNDDB 2014) The closest documented occurrence of this species is from the north in a large, cattail-dominated wetland associated with Clover Valley Creek (2006) The seasonal wetlands, wetland swale, and riparian corridor of the study area do not provide habitat components considered suitable for the species (shallow, persistent surface water and dense emergent vegetation) Based on the marginal quality of habitat available and the rarity of the species within the region, it is unlikely California black rail would occur in wetlands of the study area

Purple martin (*Progne subis*) is an uncommon to rare, local summer resident in low-elevation woodlands of California (Shuford and Gardali 2008) They occur in a variety of woodlands, including oak woodland and riparian communities, as well as in low-elevation coniferous forests Nesting usually takes place in tall, old trees or snags located near water Nests are constructed in old woodpecker cavities, but are occasionally constructed in man-made structures such as culverts or under bridges Purple martins arrive from South America in late March. Breeding then takes place from April to August, with peak activity in June Depending on site availability, purple martins will sometimes nest colonially Young of this species fledge at approximately 24 to 31 days (Zeiner et al 1990)

The CNDDB documents only one known occurrence of purple martin within the project region This occurrence is from the northwest near the Highway 65 overpass over Taylor Road Snags and tree cavities located throughout the site provide suitable nesting habitat for purple martin Therefore, despite the rarity of this species within the region, nesting of purple martin within the study area is considered possible

RECOMMENDATIONS

Waters of the United States

The study area contains areas that qualify as waters of the United States Activities that place fill in these areas would require a permit from the U S Army Corps of Engineers pursuant to Section 404 of the federal Clean Water Act The project would also need to obtain a water quality certification from the California Regional Water Quality Control Board pursuant to Section 401 of the federal Clean Water Act.

Streams, Pond, and Riparian Habitat

Impacts to the bed, bank, or channel of streams or ponds require a Streambed Alteration Agreement with the California Department of Fish and Wildlife (CDFW) In addition, Strap Ravine occurs within a hydrologic unit (HUC 20820111) considered Essential Fish Habitat for Chinook salmon by the National Marine Fisheries Service (NMFS) The Magnuson-Stevens Fishery Conservation and Management Act requires consultation with NMFS for projects that include a federal action or federal funding that may adversely modify EFH Generally, EFH consultation involves a federal agency notifying NMFS regarding an action that may affect EFH, such as in the issuance of a Section 404 permit

The Granite Bay Community Plan (Placer County 2012) identifies measures for protecting natural resources throughout the community Policy 5 3 11 specifies that "new construction shall not be permitted within 100 feet of the centerline of permanent streams and 50 feet of intermittent streams, or within the 100 year floodplain whichever is greater ' Other measures for protecting wetlands, riparian areas, and other sensitive habitats onsite are identified in Section 5 3 of the Granite Bay Community Plan

Tree Conservation

Policy 5 3 15 of the Granite Bay Community Plan requires that Placer County's Tree Preservation Ordinance be implemented for all projects within the community of Granite Bay (Placer County 2012) The Tree Preservation Ordinance specifies requirements for the protection, preservation, and maintenance of native oak trees, trees of historic or cultural significance, groves and stands of mature trees, and mature trees in general, which are associated with proposals for development The applicant should consult with Placer County to determine what provisions of the ordinance are applicable

Special-Status Plants

The site contains marginal habitat for big-scale balsam-root and Sanford's arrowhead Because both of these species are CNPS Rank 1B species, Placer County may require surveys to determine if any individuals are present on site Should any individual special-status plant species be located within the study area, appropriate mitigation measures shall be developed in coordination with the Placer County Planning Department

Special-Status Wildlife

Pre-Construction Nesting Surveys

Foothill woodland throughout the site provides suitable nesting habitat for common raptors known from the region, such as red-shouldered hawk, Cooper's hawk and a few owls Suitable raptor nesting habitat includes mature pines, oaks, willows, and cottonwoods scattered throughout the site If tree removal activities take place during the associated breeding/nesting season for raptors (typically March 1 through August 31), disturbance of nesting activities could occur Take of any active raptor nest is prohibited under California Fish and Game Code Section 3503 5 To avoid take of active raptor nests, necessary tree removal should occur outside of the typical nesting season for raptors and other bird species If tree removal must occur at any time during the typical nesting season, a pre-construction survey should be conducted by a qualified biologist no more than 30 days prior to initiation of proposed development activities Pre-construction surveys will focus on all raptors having potential to occur onsite, including those with minimal potential for occurrence (white-tailed kite for this site) If active nests are found on or immediately adjacent to the site, CDFW should be contacted to determine appropriate avoidance measures If no nesting is found to occur, necessary tree removal could then proceed

The quality of habitat available for purple martin, tricolored blackbird, and California black rail within the study area is considered marginal, and consequently, the potential for occurrence is very low It is possible that purple martin may nest within the study area due to the presence of numerous snags and cavities in mature trees throughout site Although nesting of these three species within the study area is unlikely, implementation of pre-construction surveys is recommended to avoid any potential disturbance of these species Take or destruction of an active nest of any bird is prohibited under California Fish and Game Code Section 3503 Pre-

construction surveys should be implemented by a qualified biologist if ground disturbance occurs at any time during the typical nesting season (generally March through July depending on species) If no nesting activity is detected within proposed work areas, construction activities could then proceed If, however, active nests are found, construction should be avoided until after the young have fledged or upon approval from CDFW

Additional Avoidance Measures

The study area lacks perennial pools and ponds preferred by western pond turtle, and therefore, any occurrence would be limited to individuals moving up or down the drainage between suitable habitats located off site Although occurrence of western pond turtle is unlikely, implementation of Policy 5 3 11 of the Granite Bay Community Plan (stream setbacks) would limit disturbance of any individual pond turtles that may use Strap Ravine as a movement corridor

Strap Ravine is not likely to support steelhead due to the limited amount and low quality of habitat available throughout the drainage In the unlikely event steelhead occur in the drainage, the portion of Strap Ravine within the study area would only be used as migration corridor when flows are sufficient. Implementation of Policy 5 3 11 of the Granite Bay Community Plan (stream setbacks) would limit disturbance of potential habitat for steelhead along Strap Ravine

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Appendix A.
Plant Species Observed Within the Creekside Oaks Study Area

Appendix A

Plants Observed - Creekside Oaks - 2014

Ferns and Allies

Equisetaceae - Horsetail Family

Equisetum arvense	Common horsetail

Gymnosperms

Pinaceae - Pine Family

Pinus sabiniana	Gray pine

Angiosperms - Dicots

Anacardiaceae - Cashew or Sumac Family

Toxicodendron diversilobum	Western poison-oak

Apiaceae (Umbelliferae) - Carrot Family

**Anthriscus caucalis*	Bur chervil
**Daucus carota*	Queen Anne s lace
**Foeniculum vulgare*	Sweet fennel
Sanicula bipinnatifida	Purple sanicle
**Torilis arvensis*	Field hedgeparsley

Apocynaceae - Dogbane/Milkweed Family

Asclepias fascicularis	Narrow leaf milkweed

Aristolochiaceae - Pipevine Family

Aristolochia californica	California pipevine

Asteraceae (Compositae) - Sunflower Family

Ambrosia psilostachya	Western ragweed
Artemisia douglasiana	California mugwort
Baccharis pilularis	Coyote brush
Bidens frondosa	Sticktight
**Carduus pychnocephalus*	Italian thistle
**Centaurea solstitialis*	Yellow starthistle
Centromadia fitchii	Fitch s spikeweed
**Chondrilla juncea*	Skeleton weed
**Cichorium intybus*	Chicory
**Cirsium vulgare*	Bull thistle
Erigeron canadensis	Canadian horseweed
Euthamia occidentalis	Western goldenrod
**Helminthotheca echioides*	Bristly ox-tongue
Holocarpha virgata subsp virgata	Virgate tarweed
**Lactuca serriola*	Prickly lettuce
**Matricaria discoidea*	Pineapple-weed
Micropus californicus var californicus	Cottontop
**Senecio vulgaris*	Common groundsel
**Silybum marianum*	Milk thistle
**Sonchus asper subsp asper*	Prickly sow thistle
**Tragopogon dubius*	Yellow salsify

* Indicates a non native species

Wyethia angustifolia	Narrowleaf mule's-ears
Xanthium strumarium	Cocklebur

Brassicaceae (Cruciferae) - Mustard Family

**Brassica nigra*	Black mustard
**Hirschfeldia incana*	Short podded mustard
**Raphanus sativus*	Wild radish

Caprifoliaceae - Honeysuckle Family

Symphoricarpos mollis	Creeping snowberry

Caryophyllaceae - Pink Family

**Petrorhagia dubia*	Grass pink
**Silene gallica*	Windmill-pink
**Stellaria media*	Common chickweed

Chenopodiaceae - Goosefoot Family

**Chenopodium album*	White pigweed

Convolvulaceae - Morning-Glory Family

**Convolvulus arvensis*	Bindweed

Euphorbiaceae - Spurge Family

Croton setiger	Turkey mullein

Fabaceae (Leguminosae) - Legume Family

**Lotus corniculatus*	Bird s foot trefoil
Lupinus bicolor	Miniature lupine
**Medicago polymorpha*	California burclover
**Trifolium dubium*	Little hop clover
**Trifolium hirtum*	Rose clover
**Vicia sativa*	Common vetch
**Vicia villosa*	Winter vetch

Fagaceae - Oak Family

Quercus douglasii	Blue oak
Quercus lobata	Valley oak
Quercus wislizeni	Interior live oak

Geraniaceae - Geranium Family

**Erodium botrys*	Broad leaf filaree
Erodium cicutarium	Red-stem filaree
**Geranium molle*	Dove s foot geranium

Haloragaceae - Water-Milfoil Family

**Myriophyllum aquaticum*	Parrot s feather

Hypericaceae - St. John's Wort Family

**Hypericum perforatum subsp perforatum*	Klamathweed

Lamiaceae (Labiatae) - Mint Family

**Lamium amplexicaule*	Deadnettle
**Marrubium vulgare*	White horehound
**Mentha pulegium*	Pennyroyal
Stachys ajugoides	Bugle hedge-nettle

Lythraceae - Loosestrife Family

**Lythrum hyssopifolia*	Hyssop loosestrife

Montiaceae - Miner's Lettuce Family

Calandrinia ciliata	Red maids
Claytonia perfoliata	Common miner's lettuce

Myrsinaceae - Myrsine Family

**Lysimachia arvensis*	Scarlet pimpernel

Onagraceae - Evening Primrose Family

Clarkia purpurea subsp purpurea	Purple clarkia
Clarkia unguiculata	Canyon clarkia
Epilobium brachycarpum	Summer cottonweed
Epilobium ciliatum	Hairy willow herb
Epilobium densiflorum	Dense flower spike primrose
**Ludwigia peploides*	Water Primrose

Papaveraceae - Poppy Family

Eschscholzia californica	California poppy

Phrymaceae - Lopseed Family

Diplacus aurantiacus	Orange bush monkeyflower
Erythranthe guttata	Common monkeyflower

Phytolaccaceae - Pokeweed Family

**Phytolacca americana var americana*	Pokeweed

Plantaginaceae - Plantain Family

**Plantago lanceolata*	English plantain

Polygonaceae - Buckwheat Family

Eriogonum nudum	Naked wild buckwheat
Persicaria lapathifolia	Willow weed
**Polygonum aviculare*	Common knotweed
**Rumex acetosella*	Sheep sorrel
**Rumex crispus*	Curly dock
**Rumex pulcher*	Fiddle dock

Ranunculaceae - Buttercup Family

**Ranunculus muricatus*	Spiny fruit buttercup

Rhamnaceae - Buckthorn Family

Ceanothus cuneatus var cuneatus	Buck brush
Frangula californica subsp tomentella	Hoary coffeeberry

Rosaceae - Rose Family

Heteromeles arbutifolia	Toyon
Prunus sp	Prunus
**Pyracantha angustifolia*	Firethorn
**Rubus armeniacus*	Himalayan blackberry
Rubus ursinus	California blackberry

Rubiaceae - Madder Family

Galium aparine	Goose grass
Galium porrigens var tenue	Climbing bedstraw

Salicaceae - Willow Family

Populus fremontii subsp fremontii	Fremont cottonwood
Salix exigua	Narrow leaved willow
Salix laevigata	Red willow
Salix lasiandra var lasiandra	Pacific willow

Scrophulariaceae - Figwort Family

**Verbascum blattaria*	Moth mullein
**Verbascum thapsus*	Woolly mullein

* Indicates a non-native species

Verbenaceae - Vervain Family

**Verbena bonariensis*	South American vervain

Viscaceae - Mistletoe Family

Phoradendron leucarpum subsp tomentosum	Oak mistletoe

Angiosperms -Monocots

Agavaceae - Agave Family

Chlorogalum pomeridianum var pomeridianum	Soap plant

Alismataceae - Water-Plantain Family

Alisma triviale	California water plantain

Cyperaceae - Sedge Family

Carex praegracilis	Clustered field sedge
Carex sp	Sedge
**Cyperus difformis*	Variable flatsedge
Cyperus eragrostis	Tall flatsedge
Eleocharis macrostachya	Creeping spikerush
**Eleocharis pachycarpa*	Black sand spikerush
Schoenoplectus acutus var occidentalis	Common tule

Juncaceae - Rush Family

Juncus bufonius	Toad rush
**Juncus effusus*	Soft rush
Juncus mexicanus	Mexican rush
Juncus xiphioides	Iris leaved rush

Poaceae (Gramineae) - Grass Family

**Aira caryophyllea*	Silver European hairgrass
**Avena fatua*	Wild oat
**Briza minor*	Small quaking grass
**Bromus diandrus*	Ripgut grass
**Bromus hordeaceus*	Soft chess
**Cynodon dactylon*	Bermudagrass
**Cynosurus echinatus*	Hedgehog dogtail
Deschampsia danthonioides	Annual hairgrass
**Elymus caput-medusae*	Medusahead
Elymus glaucus	Blue wildrye
**Festuca myuros*	Rattail sixweeks grass
**Festuca perennis*	Italian ryegrass
**Holcus lanatus*	Common velvet grass
**Hordeum marinum subsp gussoneanum*	Mediterranean barley
**Hordeum murinum*	Wall barley
**Leersia oryzoides*	Rice cutgrass
Muhlenbergia rigens	Deer grass
Paspalum distichum	Knotgrass
**Poa annua*	Annual bluegrass
**Polypogon monspeliensis*	Annual beard grass

Themidaceae - Brodiaea Family

Brodiaea elegans subsp. elegans	Elegant harvest brodiaea
Dichelostemma capitatum subsp capitatum	Bluedicks

Typhaceae - Cattail Family

Typha latifolia	Broad leaved cattail

* Indicates a non native species

Appendix B
Wildlife Species Observed Within the Creekside Oaks Study Area

Appendix B

Wildlife Observed - Creekside Oaks 2014

Amphibians	
Sierran treefrog	*Pseudacris sierra*
Reptiles	
Northwestern fence lizard	*Sceloporus occidentalis occidentalis*
Birds	
Red-shouldered hawk	*Buteo lineatus*
Wild turkey	*Meleagris gallopavo*
California quail	*Callipepla californica*
Mourning dove	*Zenaida macroura*
Acorn woodpecker	*Melanerpes formicivorus*
Nuttall s woodpecker	*Picoides nuttallii*
Northern flicker	*Colaptes auratus*
Black phoebe	*Sayornis nigricans*
American crow	*Corvus brachyrhynchos*
Oak titmouse	*Baeolophus inornatus*
White-breasted nuthatch	*Sitta carolinensis*
Orange-crowned warbler	*Vermivora celata*
Spotted towhee	*Pipilo maculatus*

Appendix C
Potentially-Occurring Special-Status Plants in the Region of the Creekside Oaks Study Area

Appendix C

Potentially-Occurring Special-Status Plants - Creekside Oaks

Family Taxon Common Name	Status*		Flowering Period	Habitat	Probability on Project Site
Agavaceae					
Chlorogalum grandiflorum Red Hills soaproot	Fed State CNPS	FSW - Rank 1B 2	May June	Chaparral cismontane woodland [serpentinite or gabbroic]	None Site lacks gabbro/serpentine soils
Alismataceae					
Sagittaria sanfordii Sanford's arrowhead	Fed State CNPS	 Rank 1B 2	May-October	Marshes and swamps (assorted shallow freshwater)	Unlikely Marginal habitat in areas that sustain shallow water well into the dry season
Apiaceae (Umbelliferae)					
Eryngium pinnatisectum Tuolumne button celery	Fed State CNPS	 Rank 1B 2	June August	Cismontane woodland lower montane coniferous forest vernal pools [mesic]	None Site lacks suitable habitat
Asteraceae (Compositae)					
Balsamorhiza macrolepis Big-scale balsam root	Fed State CNPS	 Rank 1B 2	March June	Cismontane woodland valley and foothill grassland [sometimes serpentinite]	Unlikely Marginal habitat present Known from a few locations in the region
Packera layneae Layne's ragwort	Fed State CNPS	FT CR Rank 1B 2	April-July	Chaparral cismontane woodland [serpentinite or gabbroic]	None Site lacks gabbro/serpentine soils
Wyethia reticulata El Dorado County mules ears	Fed State CNPS	 Rank 1B 2	May July	Chaparral cismontane woodland lower montane coniferous forest [clay or gabbroic]	None Site lacks gabbro/serpentine soils

Appendix C

Potentially-Occurring Special-Status Plants - Creekside Oaks

Family Taxon Common Name	Status*		Flowering Period	Habitat	Probability on Project Site
Campanulaceae					
Downingia pusilla Dwarf downingia	Fed State CNPS	 Rank 2B 2	March May	Valley and foothill grassland (mesic) vernal pools	None Site lacks suitable habitat
Legenere limosa Legenere	Fed State CNPS	 Rank 1B 1	April June	Vernal pools and similar wetlands	None Site lacks suitable habitat
Convolvulaceae					
Calystegia stebbinsii Stebbins morning-glory	Fed State CNPS	FE CE Rank 1B 1	May June	Chaparral (openings) cismontane woodland [serpentinite or gabbroic]	None Site lacks gabbro/serpentine soils
Juncaceae					
Juncus leiospermus ahartii Ahart's dwarf rush	Fed State CNPS	 Rank 1B 2	March-May	Vernal pools	None Site lacks suitable habitat.
Juncus leiospermus leiospermus Red Bluff dwarf rush	Fed State CNPS	 - Rank 1B 1	March May	Chaparral cismontane woodland valley and foothill grassland vernal pools [vernally mesic]	None Site lacks suitable habitat
Malvaceae					
Fremontodendron decumbens Pine Hill flannelbush	Fed State CNPS	FE CR Rank 1B 2	April June	Chaparral, cismontane woodland [gabbroic or serpentinite]	None Site lacks gabbro/serpentine soils

Appendix C

Potentially-Occurring Special-Status Plants - Creekside Oaks

Family Taxon Common Name	Status*		Flowering Period	Habitat	Probability on Project Site
Orobanchaceae					
Chloropyron molle hispidum Hispid salty bird's beak	Fed State CNPS	 Rank 1B 1	June-September	Meadows playas [alkaline] 1 155m	None Site lacks saline soils
Plantaginaceae					
Gratiola heterosepala Boggs Lake hedge hyssop	Fed State CNPS	 CE Rank 1B 2	April August	Marshes and swamps (lake margins) vernal pools Below 1200 m	None Site lacks suitable habitat
Poaceae (Gramineae)					
Orcuttia tenuis Slender Orcutt grass	Fed State CNPS	FT CE Rank 1B 1	May-September	Vernal pools	None Site lacks suitable habitat
Orcuttia viscida Sacramento Valley Orcutt grass	Fed State CNPS	FE CE Rank 1B 1	May June	Vernal pools	None Site lacks suitable habitat.
Polemoniaceae					
Navarretia myersii myersii Pincushion navarretia	Fed State CNPS	- - Rank 1B 1	May May	Vernal pools	None Site lacks suitable habitat
Rhamnaceae					
Ceanothus roderickii Pine Hill ceanothus	Fed State CNPS	FE CR Rank 1B 1	May-June	Chaparral cismontane woodland [serpentinite or gabbroic]	None Site lacks gabbro/serpentine soils

Appendix C

Potentially-Occurring Special-Status Plants - Creekside Oaks

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Rubiaceae				
Galium californicum sierrae Eldorado bedstraw	Fed FE State CR CNPS Rank 1B 2	May-June	Chaparral cismontane woodland lower montane coniferous forest [gabbroic]	None Site lacks gabbro/serpentine soils

***Status**

Federal
FE - Federal Endangered
FT Federal Threatened
FPE Federal Proposed Endangered
FPT Federal Proposed Threatened
FC Federal Candidate
FSS Forest Service Sensitive
FSW Forest Service Watchlist

State
CE California Endangered
CT - California Threatened
CR - California Rare
CSC California Species of Special Concern

CNPS (California Native Plant Society List RED Code)
Rank 1A Extinct
Rank 1B Plants rare threatened or endangered in California and elsewhere
Rank 2A Plants extinct in California but more common elsewhere
Rank 2B Plants rare threatened or endangered in California more common elsewhere
Rank 3 Plants about which more information is needed a review list
Rank 4 Plants of limited distribution a watch list
RED Code
1 Seriously endangered (>80% of occurrences threatened)
2 Fairly endangered (20 to 80% of occurrences threatened)
3 Not very endangered (<20% of occurrences threatened)

Appendix D
Potentially-Occurring Special-Status Animals in the Region of the Creekside Oaks Study Area

Appendix D

Potentially-Occurring Special-Status Wildlife- Creekside Oaks

	Status*		Habitat	Probability on Project Site
Invertebrates				
Vernal pool fairy shrimp *Branchinecta lynchi*	Fed State Other	FT - -	Vernal pools and other temporary bodies of water in southern and Central Valley of California Most common in smaller grass or mud bottomed swales or basalt flow depression pools in unplowed grasslands	None No suitable habitat (vernal pools) present onsite
Vernal pool tadpole shrimp *Lepidurus packardi*	Fed State Other	FE	Found in vernal pools in the Central Valley of California and in the San Francisco Bay area Inhabits vernal pools with clear to highly turbid water	None No suitable habitat (vernal pools) present onsite
Conservancy fairy shrimp *Brachinecta conservatio*	Fed State Other	FE -	Endemic to the Central Valley and southern coastal regions of California Prefers larger turbid, cool water vernal pools located in alluvial swales	None No suitable habitat present onsite Located outside of known range
Insects				
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	Fed State Other	FT *	Requires host plant elderberry (Sambucus spp) for most of its life cycle Shrubs must have stem diameters at ground level of 1 0 inch or greater and shrubs must be found less than 3 000 feet in elevation Typically riparian and upland associated	Unlikely No suitable habitat (elderberry shrubs) observed during field surveys
Fish				
Steelhead Central Valley ESU *Oncorhynchus mykiss irideus*	Fed State Other	FT - -	Occurs below man made impassable barriers in the Sacramento and San Joaquin rivers and tributaries Adults migrate from ocean to natal freshwater streams to spawn Yuba River has essentially the only remaining wild steelhead fishery in Central Valley	Unlikely Marginal quality aquatic habitat observed onsite in association with Strap Ravine Known occurrences throughout Dry Creek system
Central Valley spring run Chinook salmon *Oncorhynchus tshawytscha*	Fed State Other	FT CT	ESU covers spring-run salmon in Sacramento River and primarily found in the following tributaries Butte Big Chico Deer and Mill creeks and the Feather River	None No suitable aquatic habitat present onsite Located outside of known range
Delta smelt *Hypomesus transpacificus*	Fed State Other	FT CT	Endemic to the Sacramento-San Joaquin Delta in coastal and brackish waters Occurs seasonally in Suisun and San Pablo bays Spawning usually occurs in dead-end sloughs and shallow channels	None No suitable habitat present onsite Located outside of species' range

Appendix D

Potentially-Occurring Special-Status Wildlife- Creekside Oaks

	Status*		Habitat	Probability on Project Site
Amphibians				
California tiger salamander *Ambystoma californiense*	Fed State Other	FT CT	Occurs in annual grassland habitat (<1500 feet) and occasionally in grassy understory of valley foothill hardwood habitats where lowland aquatic sites are available for breeding Breeds primarily in vernal pools	None No suitable habitat present onsite Located outside of species range No known occurrences in Placer County
Western spadefoot *Spea hammondii*	Fed State Other	SSC	Found primarily in grassland habitats, but may occur in valley and foothill woodlands Requires vernal pools seasonal wetlands or stock ponds for breeding and egg laying Prefers more turbid pools for predator avoidance	None No suitable aquatic breeding habitat onsite Generally known from valley floor to west and northwest
California red legged frog *Rana draytonii*	Fed State Other	FT SSC	Occurs in lowlands and foothills in deeper pools and slow-moving streams usually with emergent wetland vegetation Requires 11 20 weeks of permanent water for larval development	None No suitable habitat present onsite Only one documented occurrence in Placer County Site located outside of species current range Thought to be extirpated from valley floor
Reptiles				
Western pond turtle *Emys marmorata*	Fed State Other	SSC	Inhabits ponds marshes rivers streams and irrigation ditches with aquatic vegetation Needs suitable basking sites and upland habitat for egg laying	Unlikely No suitable aquatic habitat observed within study area Individuals may move up and down stream corridor and between suitable habitats located off site
Giant garter snake *Thamnophis gigas*	Fed State Other	FT CT	Primarily associated with marshes and sloughs, less with slow-moving creeks and absent from larger rivers Nocturnal retreats include mammal burrows and crevices During the day basks on emergent vegetation such as cattails and tules	None No suitable aquatic habitat present onsite Located outside of species range
Birds				
White tailed kite *Elanus leucurus*	Fed State Other	CFP -	Found in lower foothills and valley margins with scattered oaks and along river bottomlands or marshes adjacent to oak woodlands Nests in trees with dense tops	Unlikely Prefers nesting closer to open foraging areas including grassland and agricultural areas Not expected to next onsite.
Bald eagle *Haliaeetus leucocephalus*	Fed State Other	CE CFP	Occurs along shorelines lake margins and rivers Nests in large old-growth or dominant trees with open branches	None No suitable foraging habitat located in vicinity of study area and no suitable nesting onsite

Appendix D

Potentially-Occurring Special-Status Wildlife- Creekside Oaks

	Status*	Habitat	Probability on Project Site
Swainson s hawk *Buteo swainsoni*	Fed State CT Other *	Breeds in open areas with scattered trees prefers riparian and sparse oak woodland habitats Requires nearby grasslands grain fields or alfalfa for foraging Rare breeding species in Central Valley	None No suitable nesting or foraging habitat present onsite Located outside of typical range for species
Golden eagle *Aquila chrysaetos*	Fed - State CFP Other	Found in rolling foothill grassland with scattered trees Nests on cliffs and in large trees in open areas	None No suitable habitat present onsite.
California black rail *Laterallus jamaicensis coturniculus*	Fed State CT Other CFP	Inhabits salt, fresh, and brackish water marshes with little daily and/or annual water fluctuations In freshwater habitats preference is for dense bulrush and cattails Several scattered populations documented from Butte Co to southern Nevada Co	Unlikely Onsite wetlands do not provide habitat components preferred by species Wetlands are lacking persistent shallow surface water and suitable cover
Burrowing owl *Athene cunicularia*	Fed State SSC Other *	Found in annual and perennial grasslands Nests in burrows dug by small mammals primarily ground squirrels	None No suitable burrowing habitat present onsite
Purple martin *Progne subis*	Fed State SSC Other *	Breeds in riparian woodland oak woodland, open coniferous forests Secondary cavity nester Requires nest sites close to open foraging areas of water or land.	Possible Numerous snags and cavities in mature trees throughout site provide suitable nesting habitat Prefers sites located along ridgelines or on hillsides and near expansive open foraging areas
Bank swallow *Riparia riparia*	Fed State CT Other *	Colonial nester near riparian and other lowland habitats Requires vertical banks or cliffs with fine-textured, sandy soils near streams rivers and lakes	None No suitable nesting habitat present onsite No occurrences within 5 mile radius
Grasshopper sparrow *Ammodramus savannarum*	Fed State SSC Other	Breeds in grasslands and savannahs in rolling hills and lower mountain hillsides up to 5000 feet elevation	None No suitable nesting habitat present onsite Rare in project region
Tricolored blackbird *Agelaius tricolor*	Fed State SSC Other	Colonial nester in dense cattails, tules brambles or other dense vegetation Requires open water dense vegetation, and open grassy areas for foraging.	Unlikely Marginal quality nesting habitat onsite Limited amount of open foraging habitat available

Appendix D

Potentially-Occurring Special-Status Wildlife- Creekside Oaks

	Status*		Habitat	Probability on Project Site
Mammals				
Pallid bat *Antrozous pallidus*	Fed State Other	SSC *	Occurs in grasslands woodlands deserts & urban habitats open habitat required for foraging. Common in dry habitats with rocky outcrops cliffs and crevices for roosting Roosts include caves mines bridges & occasionally hollow trees, buildings	None No suitable roosting habitat present onsite
American badger *Taxidea taxus*	Fed State Other	CSC	Occurs in dry open soils in herbaceous shrub and forest habitats Needs friable uncultivated soil Preys on rodents	None No suitable habitat onsite No evidence of species occurrence observed No occurrences with 5-mile radius

*Status

Federal
- FE Federal Endangered
- FT - Federal Threatened
- FPE - Federal Proposed Endangered
- FPT Federal Proposed Threatened
- FC Federal Candidate
- FPD Federal Proposed for Delisting

State
- CE California Endangered
- CT California Threatened
- CR California Rare
- CC California Candidate
- CFP California Fully Protected
- CSC - California Species of Special Concern

Other
Some species have protection under the other designations such as the California Department of Forestry Sensitive Species Bureau of Land Management Sensitive Species U S D.A Forest Service Sensitive Species and the Migratory Bird Treaty Act Raptors and their nests are protected by provisions of the California Fish and Game Code Certain areas such as wintering areas of the monarch butterfly may be protected by policies of the California Department of Fish and Game
WL CDFG Watch List

MEMORANDUM

To: Rob Wilson

cc: Dave Cook

From: Jeff Glazner

Date: May 26, 2016

Subject: Pre-Fuel Load Reduction bird survey – Whitehawk I property, Granite Bay

At your request, Salix Consulting conducted a nesting bird survey on the ±17-acre Whitehawk I property located on the south side of Douglas Boulevard, just east of Sierra College Boulevard and Woodgrove Way in the community of Granite Bay, Placer County, CA. This survey was conducted at the direction of the County of Placer Community Development Resource Agency as directed in Tree Permit PLN16-00107.

Methodology

The survey was conducted by Salix Consulting's Wildlife Biologist and Assistant Biologist and consisted of two (2) site visits conducted on May 9 and 13, 2016. The May 9 site visit occurred from 5pm to 7pm. Skies were clear, and a slight breeze occurred throughout the survey. The May 13 visit occurred from 9 am to 3:30 pm. The temperature during the visit ranged from 70-85 degrees Fahrenheit, and the day was clear and calm.

During each site visit all habitats within the study area were walked to look for birds and potential nesting activity and to listen for bird vocalizations. All birds detected were identified and documented. Any potential nesting activity observed was also noted. Binoculars were used to scan the study area, particularly taller trees throughout the site, from various vantage points to identify birds present and any nesting activity. Many of the birds were identified through vocalizations.

Survey Results and Recommendations

The following birds were identified by direct observation and/or vocalization:

Acorn woodpecker
American robin
Anna's hummingbird
Black phoebe
Brewer's blackbird
Bushtit

California towhee
California valley quail
Cooper's hawk
European starling
Great horned owl (juvenile and adult)
Hairy woodpecker
House sparrow
House wren
Mallard
Mourning dove
Phainopepla
Red-tailed hawk
Red-shouldered hawk
Red-winged blackbird
Spotted towhee
Tree swallow
Turkey vulture
Western scrub jay
Wild turkey

The following nesting activity or active nests were observed, and their locations are shown by number on the attached exhibit. Recommendations are included with each observation.

Nest #1: Cooper's Hawk. Chicks present. Whitewash and molted feathers present. Nest is in live oak ±40 feet above ground, adjacent to small clearing.

> ***Recommendation:***
> Prior to the commencement of heavy work within a 500-foot buffer of nest, have a biological monitor check current status of nest. If the chicks have not yet fledged, avoid heavy work within the 500-foot buffer of nest. With a monitor present, it may be possible to conduct work closer than 500 feet, if needed. The monitor should closely monitor the hawks and have the authority to stop advancing work and set a boundary if necessary. Preferably, the longer that work can stay out of this area, the better. Estimated possible fledge date range: late May.

Nest #2: Red-tailed hawk. Chicks present. Rufous feathers seen from ground, and red-tailed hawk adult circling nest. Nest is ±80 feet high in cottonwood near edge of forest.

> ***Recommendation:***
> Prior to the commencement of heavy work within a 500–foot buffer of nest, have a biological monitor check current status of nest. If the chicks have not yet fledged, avoid heavy work within the 500 foot buffer of nest. With a monitor present, it may be possible to conduct work closer than 500 feet if needed. The monitor should closely monitor the hawks and have the authority to stop work if needed. Estimated possible fledge dates: May 26 - June 11.

Nest #3: Red-shouldered hawk. Whitewash present but no current activity within nest. Large juvenile nearby. Expected to be fully fledged within two weeks of last survey date (May 13).

> ***Recommendation:***
> No avoidance measures required.

Nest #4: Mallard pair with ducklings. Observed in riparian area.

> ***Recommendation:***
> Avoid riparian area as planned.

Nest #5: Turkey with five poults. Poults are mobile.

Recommendation:
Allow turkey and poults to flush from area if encountered.

Nest #6: Turkey with at least two poults. Poults are mobile.

Recommendation:
Allow turkey and poults to flush from area if encountered.

Salix consulting, inc.

N

0 100 200

Feet

Legend

Study Area (±17 ac)

Grading Limit

Imagery 5-10-16 Salix Consulting, Inc.

Nest Locations

RAPTOR AND MIGRATORY BIRD SURVEY

Whitehawk I

Granite Bay, Placer County, CA

MEMORANDUM

To: Rob Wilson

cc: Dave Cook

From: Jeff Glazner

Date: May 26, 2016

Subject: Pre-Fuel Load Reduction bird survey – Whitehawk II property, Granite Bay

At your request, Salix Consulting conducted a nesting bird survey on the ±33-acre Whitehawk II property located on the south side of Douglas Boulevard, just east of Sierra College Boulevard and Woodgrove Way in the community of Granite Bay, Placer County, CA. This survey was conducted at the direction of the County of Placer Community Development Resource Agency as directed in Tree Permit PLN16-00107.

Methodology

The surveys were conducted by Salix Consulting's Wildlife Biologist and Assistant Biologist and consisted of three (3) site visits conducted on May 10, 11, and 12. The May 10 visit occurred from 1 pm to 7pm. The May 11 visit occurred from 9:30 am to 7pm. The May 12 visit occurred from 9am to 2pm. Skies were clear, and a slight breeze occurred throughout the survey. The temperature during the visits ranged from 70-85 degrees Fahrenheit, and the days were clear and calm.

During each site visit all habitats within the study area were walked to look for birds and potential nesting activity and to listen for bird vocalizations. All birds detected were identified and documented. Any potential nesting activity observed was also noted. Binoculars were used to scan the study area, particularly taller trees throughout the site, from various vantage points to identify birds present and any nesting activity. Many of the birds were identified through vocalizations.

Survey Results and Recommendations

The following birds were identified by direct observation and/or vocalization:

Acorn woodpecker
American crow
American robin
Anna's hummingbird

Ash-throated flycatcher
Barn owl
Black phoebe
Brewer's blackbird
Bushtit
California towhee
California valley quail
Canada goose
Cooper's hawk
European starling
House finch
House sparrow
House wren
Hutton's vireo
Mourning dove
Oak titmouse
Red-shouldered hawk
Red-tailed hawk
Spotted towhee
Tree swallow
Turkey vulture
Western scrub jay
White crowned sparrow
White-tailed kite
Wild turkey
Wood duck and ducklings
Yellow warbler

The following nesting activity or active nests were observed, and their locations are shown by number on the attached exhibit. Recommendations are included with each observation.

Nest #1: Cooper's Hawk. Eggs present.

Recommendations:
Prior to the commencement of heavy work within a 500-foot buffer of nest, have a biological monitor check current status of nest. If the chicks have not yet fledged, avoid heavy work within the 500-foot buffer of nest. With a monitor present, it may be possible to conduct work closer than 500 feet if needed. The monitor should closely monitor the hawks and have the authority to stop advancing work and set a boundary if necessary. Preferably, the longer that work can stay out of this area, the better. Estimated fledge dates: June 21- July 13.

Nest #2: House wren. Chicks present in cavity nest in dead snag.

Recommendation:
Have a biological monitor confirm the nest is no longer active prior to start of work. If nest is still active, avoid heavy work within 50 foot buffer of nest, or a 25 foot buffer with a biological monitor present to monitor for signs of distress. Probable fledge dates: May 16-May 29.

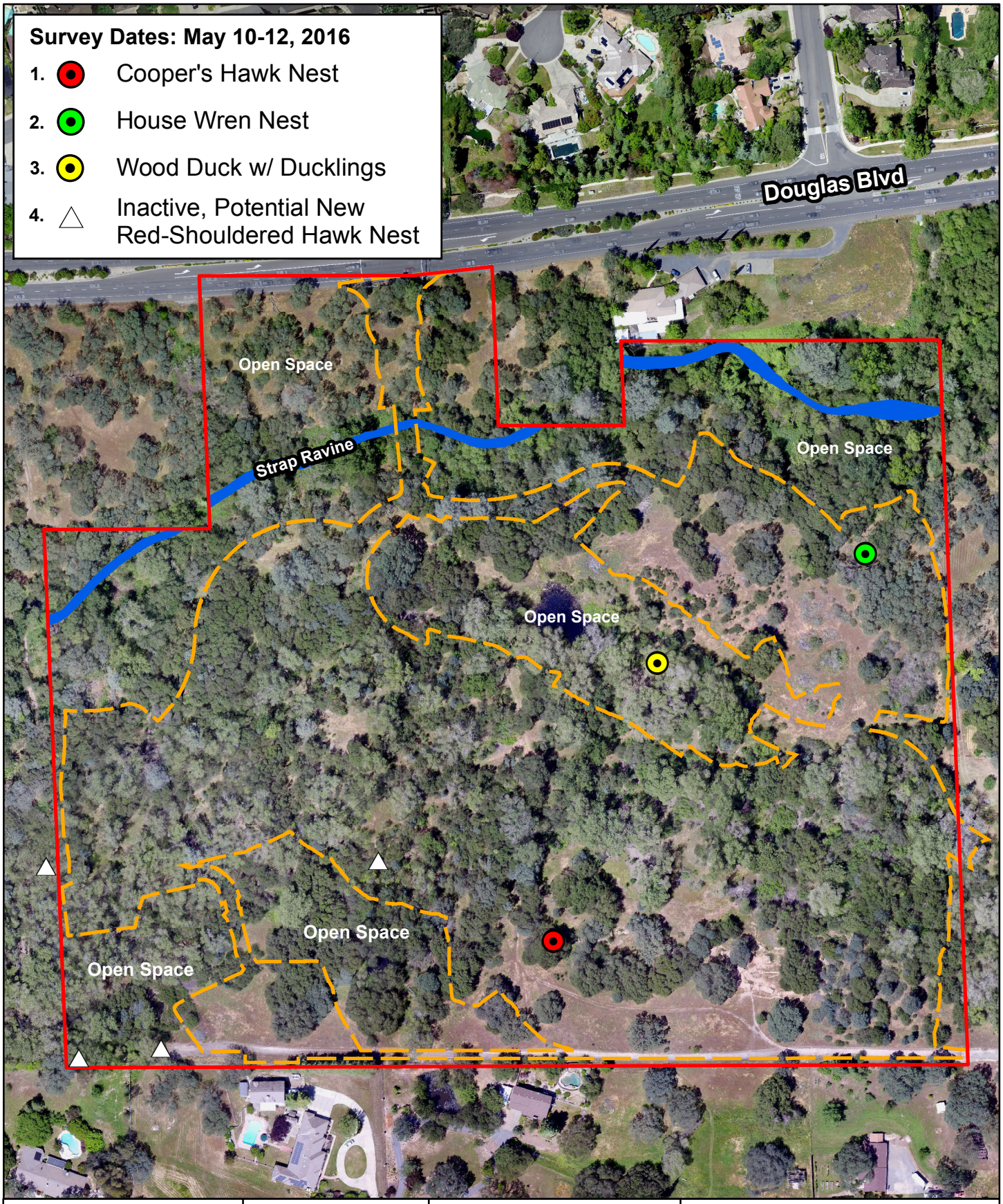
Nest #3: Wood duck with ducklings.

Recommendation:
Avoid the pond as planned. No additional avoidance measures required.

Possible new nest #4: Red-shouldered hawk. Pair observed copulating in southwest corner of site, with multiple unoccupied nest structures present. High likelihood of a new nest becoming active in the area prior to construction.

Recommendation:
Prior to commencement of work, have a biologist check area for newly occupied nests. Expect possible constraints for ±80 days if new nest becomes occupied. If

an active nest is found, avoid heavy work within a 500-foot buffer of nest. With a monitor present, it may be possible to conduct work closer than 500 feet, if needed. The monitor should closely monitor the hawks and have the authority to stop advancing work and set a boundary if necessary.



Salix consulting, inc.

N

0 100 200

Feet

Legend

Study Area (±33 acres)

Grading Limit

Imagery 5-10-16 Salix Consulting, Inc.

Nest Locations

RAPTOR AND MIGRATORY BIRD SURVEY

Whitehawk II

Granite Bay, Placer County, CA

ABACUS
CONSULTING ARBORISTS

P. O. Box 4248
Auburn, CA 95604
www.abacus-tree.com (530) 305-0165 E-mail: nicole@abacus-tree.com

Preliminary Arborist Report

&

Oak Tree Inventory & Assessment

Prepared at the request of:

Salix Consulting, Inc.

For

GB17

APN #048-151-001-000

Located

In

Placer County, California

Nicole Harrison
International Society of Arboriculture, Certified Arborist #WE-6500AM, TRAQ

October 15, 2014

Table of Contents

Executive Summary:

Jeff Glazner of Salix Consulting, Incorporated contracted **ABACUS** to evaluate and inventory the oak trees on the Creekside Oaks project site in Granite Bay, Placer County, California, and to produce the end product, an Arborist Report and Oak Tree Inventory.

ABACUS was on site from Tuesday, August 5th, 2014 to Tuesday, October 14, 2014; providing on-site tagging, identifications, number of trunks, DBH measurements, field condition notes, recommended actions, and ratings of the trees.

A total of **431 oak** trees which met the Placer County Tree Preservation qualifications were tagged and evaluated. **ABACUS** has provided guidance for each of the trees in the form of the action column of ***Chart B***, a discussions section, a specific recommendations section, a general recommendations section, and in the Tree Site Map at the end of this report.

1) **3** trees are rated a **0** ("dead") and should be removed immediately.

2) A total of **130** trees are rated **1** ("dangerous") and noted for immediate removal due to their poor condition.

3) There are **192** trees rated a **2** ("poor") and are noted for removal due to their poor condition. Trees in this category may be retained if all of the recommendations are followed to reduce risk.

4) **107** of the trees are rated **3** ("fair"), or **4** ("good").

5) There is **no** trees rated a **5** ("excellent").

There are **433** total trees inventoried, of which **2** are protected species but are too small for protection, **80** are Blue Oak, **25** are Valley Oak, and **324** are Interior Live Oak.

The community and Placer County want the trees protected by species and size and currently require the quality oak trees 6" dbh and greater to be protected at all times and accounted for **before** construction work has begun, and after completion. Our list of general recommendations and specific recommendations, as well as the action column in ***Chart B***, listed in this report are required for protection of these trees.

Assignment:

Pursuant to your request, **ABACUS** has completed an inventory and evaluation of trees located within the development area; providing on-site tagging, as well as species identification, number of stems, DBH measurements, field condition notes, recommended actions, and ratings. The trees are located on Douglas Boulevard in Placer County, California.

Observations:

Nicole Harrison, ISA Certified Arborist #WE-6500AM-TRAQ, Joey Bena, ISA Certified Arborist #WE-10409A, Julie McNamara, Arborists Assistant, Michael McNamara, Arborists Assistant, and Nicholas McNamara, Arborists Assistant, inventoried, evaluated and tagged all trees that were 6" in diameter measured at 4-1/2' above ground level or at Diameter Breast Height (DBH). The fieldwork was completed Tuesday, August 5th, 2014 to Tuesday, October 14, 2014.

The protected trees (on-site) tagged by **ABACUS** have a numbered tag, placed on each one that is 1-1/8" x 1-3/8", green anodized aluminum, "acorn" shaped, and labeled: **ABACUS**, Auburn, CA with 1/8" pre-stamped tree number, our phone number 530-889-0603, attached with a natural colored aluminum 10d (3") nail, installed at 6 feet above ground level. The tag should last ~10 – 20+ years depending on the species before it is enveloped by the trees' normal growth cycle, as the tags are not nailed flush to the trunk.

The proposed development map and tree locations were provided by TSD Engineering. All of the other information regarding the trees within this report and on the Tree Site Map was by **ABACUS**.

Chart B in this report is an inventory on the protected trees. The following terms, and ***Chart A*** will further explain our findings on ***Chart B*** and the trees in question.

Species of trees is listed by our local and correct common name and botanical name by genus (capitalized) and species (lower case). Oaks frequently cross-pollinate and hybridize, but the identification is towards the strongest characteristics.

 # Stems refers to the quantity of trunks or stems of a tree that have a significant connection. If one stem or trunk were to be removed, it would cause decay to harm an adjoining stem, making it one tree. All stems must be of the same species. (Also see "Tree SIZE Expressed by Trunk Diameter" at the end of this report)

DBH (diameter breast high) is normally measured at 4'6" (above the average ground height for "Urban Forestry"), but if that varies then the location where it is measured is noted here. A Swedish caliper [1] was used to measure the DBH for trees less than 26" in diameter and a steel diameter tape[2] for trees greater than 26"Ø.

Rating is subjective to health and structure = condition. All of the trees were also rated for condition, per the recognized national standard as set up by the Council of Tree and Landscape Appraisers and the International Society of Arboriculture (ISA) on a numeric scale of 5 (being the highest) to zero (the worst condition, dead) as in ***Chart A***. The rating was done in the field at the time of the measuring and inspection. The scale is as follows:

[1]DBH or dbh, "Diameter Breast high" is the diameter of the tree's trunk in inches, measured 4' 6" off the ground (for more information see "Tree SIZE Expressed by Trunk Diameter" at the end of this report).
[1]A large wooden sliding adjustable thickness gauge calibrated in 1/16" increments.
[2]Diameter Tape is used to figure the tree's diameter, by measuring the circumference, whereon the inches are pre- multiplied by 3.14 or π (π called pi) and shown to produce the diameter of the tree directly on the tape.

Chart A

No problem(s)	5	excellent
No apparent problem(s)	4	good
Minor problem(s)	3	fair
Major problem(s)	2	poor
Extreme problem(s)	1	hazardous or dangerous
Dead	0	dead

There is a very important line drawn between a tree rated a **3** and a **2**. A rating of **3 – 4 – 5** means that they are trees to be preserved and kept. A rating of a **0 – 1 – 2** is a tree that is recommended for removal and is a liability rather than an asset. On the following tree list **BLACK** marks are field notes and action items on trees that are to remain, and **RED** are trees that are recommended for removal. Trees rated a **2** may be retained but only if the recommendations are followed, otherwise the tree should be removed.

Rating #0: This indicates a tree that has no significant sign of life.

Rating #1: The problems are extreme. This rating is assigned to a tree that has structural and/or health problems that no amount of work or effort can change. The issues may or may not be considered a dangerous situation.

Rating #2: The tree has major problems. If the option is taken to preserve the tree, its condition could be improved with correct arboricultural work including, but not limited to: pruning, cabling, bracing, bolting, guying, spraying, mistletoe removal, vertical mulching, fertilization, etc. If the recommended actions are completed correctly, hazard can be reduced and the rating can be elevated to a 3. If no action is taken the tree is considered a liability and should be removed.

Rating #3: The tree is in fair condition. There are some minor structural or health problems that pose no immediate danger. When the recommended actions in an arborist report are completed correctly the defect(s) can be minimized or eliminated.

Rating #4: The tree is in good condition and there are no apparent problems that a Certified Arborist can see from a visual ground inspection. If potential structural or health problems are tended to at this stage future hazard can be reduced and more serious health problems can be averted.

Rating #5: No problems found from a visual ground inspection. Structurally, these trees have properly spaced branches and near perfect characteristics for the species. Highly rated trees are not common in natural or developed landscapes. No tree is ever perfect especially with the unpredictability of nature, but with this highest rating, the condition should be considered excellent.

Notes: explain why the tree should be removed or preserved. If it is to remain and be preserved the tree may need some form of work to limit future liability from partial or total failure. Lower deadwood may not be an immediate problem, but the same size wood at a much higher location on the trees could be dangerous and might cause a minor injury to a fatal blow if the branch failed.

Common Terms:

CDL: **C**o-**D**ominant **L**eader: Stems or trunks of the tree that are equal in size and relative importance.

NAA: **N**arrow **A**ttachment: A sharp "V" crotch, usually less than a 45° angle of attachment. Included bark is explained above and is common in branches with narrow attachments. In addition, these branches may not be attached to the trunk as well as others with wider angles of attachment, and can fail more frequently depending on the size of the branch.

TBR: **T**o **B**e **R**emoved: Tree to be removed due to health and/or structural reasons. Removal should be done carefully as to not harm the surrounding trees, branches, and/or trunks above or roots below ground. Do NOT rip out or push over the tree stumps if they are near other trees that are to be preserved. Cut them off close to ground level and leave the stumps and roots to decay, unless they are located within a proposed foundation or area to be paved/concrete surfaced.

UC: **U**nbalanced **C**anopy: Either the trunk is leaning and/or the canopy is phototropic and overly heavy on one side.

Compass Points: These are the standard 16 points of the compass as aligned with Geographic North or True North. In our area, True North (TN) is adjusted for declination 14°49' to the west of Magnetic North (MN).

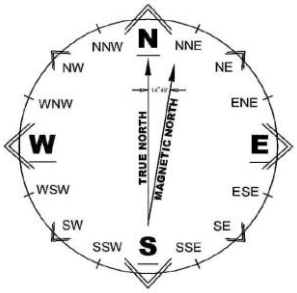


Chart B

On the following tree list **BLACK** marks are field notes and action items on trees that are to remain, and **RED** are trees that are recommended for removal. Trees rated a **2** may be retained but only if the recommendations are followed. Blue are trees which are not protected. Notes are explained further in the Discussion section of this report.

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3101	NT Missing	Interior Live Oak	*Quercus wislizenii*	2	12,14	20	Codominate leader at base, cavity at base of 14" stem, unbalanced canopy, Poor structure , decay at base of 12" stem	Crown clean, prune to balance, level 3 inspection	2
3102	NT	Interior Live Oak	*Quercus wislizenii*	5	3,4,6,6, 8	15	Stump sprout, decay at base, Poor structure, epicormic growth, multi-stem attachment	Remove dead wood, prune to balance, re-inspect every year	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3103	1117	Interior Live Oak	*Quercus wislizenii*	9	3,3,3,4, 4,4,5,5, 5	16	Stump Sprout, Large dead wood, fungi at base, epicormic growth, unbalanced canopy	Poison oak, Remove dead wood, prune to balance, Level 3 inspection	2
3104	573	Interior Live Oak	*Quercus wislizenii*	1	6	~	Very sparse canopy, epicormic growth, decay	To be Removed	1
3105	NT	Blue Oak	*Quercus douglasii*	2	5,5	12	Codominate leader at base, included bark at base, Large dead wood, unbalanced canopy	Remove dead wood, prune to balance	3
3106	NT	Interior Live Oak	*Quercus wislizenii*	7	4,4,4,4, 5,5,5	20	Stump sprout, poison oak, narrow angle attachments with included bark, decay at base, suppressed, poor structure, wounds with callous, unbalanced canopy	Prune to balance, Remove dead wood, level 3 inspection	2
3107	NT	Interior Live Oak	*Quercus wislizenii*	3	4,7,8	25	Codominate leader at base, unbalanced canopy, Poision Oak, past failure at base	Remove poision oak, re-inspect in 3 years, prune to balance	2
3108	NT Missing	Interior Live Oak	*Quercus wislizenii*	2	9,12	25	Codominate leader at 2', included bark, Poor structure, narrow angle attachments with included bark, Poision Oak, small cavity at base, large dead wood	Remove poision oak, prune to balance, Remove dead wood, re-inspect every year	2
3109	NT Missing	Interior Live Oak	*Quercus wislizenii*	2	6,7	25	Prostrate 6" stem, suppressed, large dead wood, Poor structure, epicormic growth, narrow angle attachments with included bark, cavity at base, sparse canopy	End weight reduction, prune to balance, Remove dead wood, re-inspect in 3 years	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3111	835	Interior Live Oak	*Quercus wislizenii*	5	6,7,8,8, 10	25	Very Poor structure, prostrate 10" and 6" stem, decay at base, epicormic growth, unbalanced canopy	End weight reduction, Remove dead wood, prune to balance, level 3 inspection	2
3112	836	Interior Live Oak	*Quercus wislizenii*	5	5,7,7,8, 9	28	Narrow angle attachments with included bark at base, Codominate leader at base, wounds with calous, small cavity at base	Crown clean, prune to balance, re-inspect in 3 years	2
3113	661-2117	Blue Oak	*Quercus douglasii*	2	11,12	15	Codominate leader at 2', Large dead wood, fungi at Codominate leader, limb tip die back, narrow angle attachments with included bark	Remove dead wood, Crown clean	2
3114	660-2117	Blue Oak	*Quercus douglasii*	3	5,6,7	18	Stump sprout, epicormic growth, sparse canopy low, narrow angle attachments with included bark	Remove dead wood, Crown clean	3
3115	659-2115	Interior Live Oak	*Quercus wislizenii*	20	38 @ base	30	Stump sprout with 20 stems, pockets of decay, large dead wood, narrow angle attachments with included bark, Poor structure, epicormic growth, sparse canopy	Crown clean, end weight reduction, level 3 inspection	2
3116	657	Interior Live Oak	*Quercus wislizenii*	1	7	15	Poision Oak, unbalanced canopy, narrow angle attachments with included bark, poor taper	Remove poision oak, prune to balance, re-inspect in 3 years	2
3117	NT	Interior Live Oak	*Quercus wislizenii*	1	8	18	Poision Oak, narrow angle attachments with included bark, Poor structure, poor taper, unbalanced	Prune to balance, Remove dead wood	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
							canopy		
3118	658	Interior Live Oak	*Quercus wislizenii*	5	3,4,4,8, 14	25	Multi stems branch at 3', epicormic growth, included bark, small decay pockets, sparse canopy, large dead wood, narrow angle attachments with included bark	Remove dead wood, prune to balance, re-inspect in 3 years	2
3119	649-1114	Interior Live Oak	*Quercus wislizenii*	7	4,4,5,8, 12,14,18	~	too much decay	To be Removed	1
3120	2098	Interior Live Oak	*Quercus wislizenii*	1	8	~	unbalanced canopy to North, cavity at base, too much decay	To be Removed	1
3121	648-2097	Interior Live Oak	*Quercus wislizenii*	4	6,7,8,9	~	Stump sprout, too much decay at base	To be Removed	1
3122	647-2099	Interior Live Oak	*Quercus wislizenii*	5	5,5,5,6, 9	~	Stump sprout, too much decay at base	To be Removed	1
3123	651-2096	Interior Live Oak	*Quercus wislizenii*	6	4,5,5,6, 6,7	~	Stump sprout, too much decay at base, Poision Oak, decay at base, Poor structure, prostrate stem	To be Removed	1
3124	604-2093	Interior Live Oak	*Quercus wislizenii*	8	3,4,5,6, 8,8,8,9	~	too much decay at base, stump sprout	To be Removed	1
3125	644-2012	Blue Oak	*Quercus douglasii*	1	12	15	Poision Oak, narrow angle attachments with included bark, sparse canopy low, large dead wood, Poor structure	Remove dead wood, prune to balance, Remove poision oak	2
3126	645-1012	Interior Live Oak	*Quercus wislizenii*	7	2,3,3,3, 4,4,11	~	Stump sprout, cavity at base, too much decay at base	To be Removed	1
3127	646-2100	Interior Live Oak	*Quercus wislizenii*	7	4,4,5,5, 6,7,9	~	Stump sprout, too much decay at base	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3128	641-2004	Blue Oak	*Quercus douglasii*	6	3,4,5,7, 7,8	20	Codominate leader at 1', large dead wood, Poor structure, poor taper, epicormic growth, narrow angle attachments with included bark	Crown clean	2
3129	642	Blue Oak	*Quercus douglasii*	1	13	25	Poision Oak, unbalanced canopy, large dead wood	Remove poision oak, Crown clean, prune to balance	3
3130	639	Interior Live Oak	*Quercus wislizenii*	5	4,6,7,7, 10	18	Cavity at base, included bark, epicormic growth, large dead wood, Poor structure, poor taper, unbalanced canopy	Remove dead wood, prune to balance, re-inspect every year	2
3131	602-2078	Blue Oak	*Quercus douglasii*	2	7,9	20	Codominate leader at base, sparse canopy, epicormic growth, Poor structure, unbalanced canopy, Past failures	Remove dead wood, end weight reduction, prune to balance	2
3132	603-2076	Blue Oak	*Quercus douglasii*	3	13,14,1 4	35	Codominate leader at 1', included bark, narrow angle attachments, small cavity at base, wound with calous	Add 2 cables, end weight reduction, prune to balance	3
3133	604-2077	Blue Oak	*Quercus douglasii*	2	14, 21	35	Codominate leader at 3', included bark, Large dead wood, unbalanced canopy, past wounds with calous	Remove lower 8" lateral to South with wounds, end weight reduction, add 1 cable, Crown clean, Remove dead wood, end weight reduction	3

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3134	606-2075	Blue Oak	*Quercus douglasii*	3	8,12,14	30	Narrow angle attachments with included bark, Codominate leader at base, epicormic growth, unbalanced canopy, suppressed to South East, Narrow angle attachments with included bark	Remove dead wood, end weight reduction, future cable	2
3135	NT Missing	Blue Oak	*Quercus douglasii*	2	10,11	18	Codominate leader at base, included bark at base, unbalanced canopy, poor taper, narrow angle attachments with included bark, large dead wood	Remove dead wood, prune to balance, add 2 cables	2
3136	604-2074	Blue Oak	*Quercus douglasii*	4	6,8,8,11	~	Stump sprout, cavity at base, too much decay at base	To be Removed	1
3137	634	Blue Oak	*Quercus douglasii*	2	11,27	20	Property line, embedded wire, suppressed, Codominate leader at 4', included bark, Large dead wood, unbalanced canopy, narrow angle attachments	Remove dead wood, end weight reduction, Future cable	3
3138	625-2069	Blue Oak	*Quercus douglasii*	1	10	18	Large dead wood, narrow angle attachments with included bark, epicormic growth, dead wood, poor taper	Future Cables	3
3139	629-2071	Interior Live Oak	*Quercus wislizenii*	2	11,17	15	Small cavity at base, narrow angle attachments with included bark, epicormic growth, very sparse canopy, unbalanced canopy, Decay in 11" stem	Remove 11" stem, 17" stem end weight reduction, Remove dead wood at cable, re-inspect in 3 years	2
3140	630	Interior Live Oak	*Quercus wislizenii*	1	9	~	unbalanced canopy, Cavity at base, epicormic growth,	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
							Poor structure		
3141	631-2070	Interior Live Oak	*Quercus wislizenii*	3	4,8,13	~	Stump sprout, too much decay	To be Removed	1
3142	627	Interior Live Oak	*Quercus wislizenii*	1	7	~	DUB, epicormic growth, Large dead wood	To be Removed	1
3143	626-2072	Interior Live Oak	*Quercus wislizenii*	2	7,13	~	too much decay at base	To be Removed	1
3144	628-2073	Interior Live Oak	*Quercus wislizenii*	2	6,11	~	too much decay at base	To be Removed	1
3145	633	Blue Oak	*Quercus douglasii*	2	4,8	12	Narrow angle attachments with included bark, Large dead wood, unbalanced canopy	Remove 4" stem, Crown clean	3
3146	636	Interior Live Oak	*Quercus wislizenii*	5	3,4,5,5,8	18	Stump sprout, narrow angle attachments with included bark, Poor structure, epicormic growth, small cavity at base	Prune to balance, Remove dead wood, re-inspect every year	2
3147	6	Interior Live Oak	*Quercus wislizenii*	6	3,3,3,4,5,5	~	too much decay at base	To be Removed	1
3148	638	Interior Live Oak	*Quercus wislizenii*	7	3,3,4,4,4,6,6	~	Stump sprout, too much decay	To be Removed	1
3149	635	Interior Live Oak	*Quercus wislizenii*	4	2,3,4,6	~	too much decay at base	To be Removed	1
3150	5	Interior Live Oak	*Quercus wislizenii*	16	4,4,4,4,4,4,6,6,6,6,7,8,8,9,11,12	~	Poor structure, stump sprout, Large dead wood, too much decay at base	To be Removed	1
3151	4	Blue Oak	*Quercus douglasii*	3	13,13,14	40	Large dead wood, narrow angle attachments with included bark, epicormic growth, unbalanced canopy, Codominate leader at 20'	End weight reduction, Remove dead wood, add 2 cables	3
3152	72	Interior Live Oak	*Quercus wislizenii*	2	4,7	18	Poision Oak, unbalanced canopy, Poor structure, epicormic growth,	Prune to balance, Remove dead wood	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
							narrow angle attachments with included bark		
3153	74	Interior Live Oak	*Quercus wislizenii*	5	3,3,4,5,5	15	Large dead wood, epicormic growth, Poor structure, suppressed to South, narrow angle attachments with included bark	Prune to balance, Remove dead wood, re-inspect every year	2
3154	73	Interior Live Oak	*Quercus wislizenii*	1	8	10	epicormic growth, unbalanced canopy, narrow angle attachments with included bark at 7'	Prune to balance, Remove dead wood	2
3155	834	Interior Live Oak	*Quercus wislizenii*	5	10,11,13,13,17	~	Property line, too much decay at base	To be Removed	1
3156	643-2103	Interior Live Oak	*Quercus wislizenii*	1	8	~	too much decay at base	To be Removed	1
3157	18	Interior Live Oak	*Quercus wislizenii*	2	8,9	15	Recent failure, sparse canopy, Codominate leader at base, narrow angle attachments with included bark, Poision Oak	Remove poision oak, prune to balance, Remove dead wood, Remove failed limb	2
3158	2111	Blue Oak	*Quercus douglasii*	3	4,4,10	~	too much decay	To be Removed	1
3159	655	Interior Live Oak	*Quercus wislizenii*	11	3,5,6,6,6,6,7,7,9,9,12	~	Stump sprout, too much decay	To be Removed	1
3160	654	Interior Live Oak	*Quercus wislizenii*	5	7,8,10,11,13	30	Poision Oak, Poor structure, prostrate, unbalanced canopy, epicormic growth, narrow angle attachments with included bark, Large dead wood	Level 3 inspection, end weight reduction, Remove dead wood, re-inspect every year	2
3161	NT	Interior Live Oak	*Quercus wislizenii*	6	3,3,4,5,8,8	~	too much decay at base	To be Removed	1
3162	NT Missing	Interior Live Oak	*Quercus wislizenii*	20	3,3,3,3,3,4,4,6,6,7,7,7,7,8,8,8,8,8,10,1	~	too much decay at base, weak stump sprout, included bark is sever	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
					0				
3163	NT	Interior Live Oak	*Quercus wislizenii*	2	3,7	~	Prostrate, past failures, too much decay	To be Removed	1
3164	NT Missing	Interior Live Oak	*Quercus wislizenii*	10	3,3,5,7, 10,10,1 1,12,12, 12	~	Stump sprout, too much decay in weak sPoision Oakts	To be Removed	1
3165	NT Missing	Interior Live Oak	*Quercus wislizenii*	3	3,4,6	18	Past failures, epicormic growth, stump sprout, unbalanced canopy, large dead wood	Prune to balance, Remove dead wood, re-inspect in 3 years	1
3166	NT	Interior Live Oak	*Quercus wislizenii*	6	3,4,4,5, 5,7	~	Stump sprout, too much decay at base	To be Removed	1
3167	NT	Interior Live Oak	*Quercus wislizenii*	1	7	~	too much decay at base	To be Removed	1
3168	NT	Interior Live Oak	*Quercus wislizenii*	7	6,7,10,1 0,11,13, 15	~	Poision Oak, stump sprout, cavity at base, weak attachments	To be Removed	1
3169	311	Blue Oak	*Quercus douglasii*	1	19	30	Property Line, unbalanced canopy, Large dead wood, epicormic growth,	Remove dead wood, end weight reduction, prune to balance	3
3170	NT Missing	Blue Oak	*Quercus douglasii*	1	22	40	Property Line	Crown clean	3
3171	NT	Interior Live Oak	*Quercus wislizenii*	7	4,4,5,6, 6,7,7	~	Property Line, stump sprout, epicormic growth, too much decay	To be Removed	1
3172	NT	Interior Live Oak	*Quercus wislizenii*	4	4,9,12,1 2	~	Stump sprout, too much decay, Propertly Line	To be Removed	1
3173	NT	Interior Live Oak	*Quercus wislizenii*	3	4,6,10	20	Narrow angle attachments, included bark at base, Poor structure, large dead wood, suppressed to South, Poision Oak	Remove poison oak, end weight reduction, Remove dead wood, re-inspect in 3 years	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3174	NT Missing	Interior Live Oak	*Quercus wislizenii*	7	4,6,6,7, 10,10,1 4	~	Poision Oak, stump sprout, too much decay at base	To be Removed	1
3175	NT Missing	Interior Live Oak	*Quercus wislizenii*	4	4,4,5,7	~	Stump sprout, past failures, too much decay	To be Removed	1
3176	NT	Interior Live Oak	*Quercus wislizenii*	10	3,3,4,5, 5,5,5,6, 7,8	~	epicormic growth, Stump sprout, too much decay, weak attachments	To be Removed	1
3177	NT	Interior Live Oak	*Quercus wislizenii*	2	4,7	~	too much decay	To be Removed	1
3178	NT	Blue Oak	*Quercus douglasii*	2	4,9	18	Poor structure, Poision Oak, large dead wood, epicormic growth	4" stem To be Removed, Remove poision oak, Remove dead wood, prune to balance	2
3179	NT	Interior Live Oak	*Quercus wislizenii*	4	3,4,4,4	~	Cavity at base, weak structure , included bark	To be Removed	1
3180	NT	Interior Live Oak	*Quercus wislizenii*	2	4,10	18	too much decay on 4" stem, 10" stem epicormic growth, narrow angle attachments with included bark, suppressed	4" stem To be Removed, 10" stem Remove dead wood, prune to balance, add 1 cable	2
3181	NT	Interior Live Oak	*Quercus wislizenii*	2	3,7	14	Very Poor structure, poor taper, suppressed, very sparse canopy, large dead wood, narrow angle attachments, included bark at Codominate leader	Remove dead wood, prune to balance	2
3182	31	Interior Live Oak	*Quercus wislizenii*	5	4,8,8,9, 12	~	Stump sprout, suppressed by Grey Pine, too much decay at base	To be Removed	1
3183	NT	Interior Live Oak	*Quercus wislizenii*	1	7	~	Large dead wood, partial decay at base, Poor structure, suppressed, unbalanced canopy, DUB	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3184	32	Interior Live Oak	*Quercus wislizenii*	3	3,7,8	~	Poor structure, Decay at base, suppressed, decay pockets, heart wood open	To be Removed	1
3185	NT	Blue Oak	*Quercus douglasii*	2	2,7	8	Codominate leader, included bark at 2'	2" stem To be Removed, Remove dead wood	3
3186	829	Interior Live Oak	*Quercus wislizenii*	7	2,4,5,6, 6,6,8	~	too much decay at base	To be Removed	1
3187	828	Blue Oak	*Quercus douglasii*	1	9	12	Poor attachments, epicormic growth, narrow angle attachments with included bark	Remove lower branches, Remove dead wood	3
3188	NT	Blue Oak	*Quercus douglasii*	2	2,6	10	Large dead wood, narrow angle attachments with included bark at 7'	Remove dead wood, future cable	3
3189	NT	Interior Live Oak	*Quercus wislizenii*	3	2,3,5	20	Poor structure, epicormic growth, narrow angle attachments with included bark, prostrate	Remove dead wood, prune to balance	2
3190	NT	Blue Oak	*Quercus douglasii*	1	8	~	limb tip die back, decay Poision Oakcket at base, epicormic growth, too much decayUB	To be Removed	1
3191	NT	Interior Live Oak	*Quercus wislizenii*	2	3,7	~	Past failures,Poor structure, too much decay	To be Removed	1
3192	NT	Interior Live Oak	*Quercus wislizenii*	2	4,12	21	Poor angle of attachments, epicormic growth, unbalanced canopy, narrow angle attachments	Remove dead wood, prune to balance	2
3193	NT	Interior Live Oak	*Quercus wislizenii*	6	2,2,2,4, 5,5	18	epicormic growth, stump sprout, Poor structure, poor taper, suppressed to SW	End weight reduction, prune to balance, Remove dead wood	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3194	NT	Interior Live Oak	*Quercus wislizenii*	1	7	15	Poision Oak, epicormic growth, Large dead wood, Poor structure,unbalanced canopy, narrow angle attachments with included bark	Remove poision oak, prune to balance, Remove dead wood	2
3195	NT	Interior Live Oak	*Quercus wislizenii*	4	5, 10,13,19	~	too much decay at Root flare, fungi at base	To be Removed	1
3196	NT	Interior Live Oak	*Quercus wislizenii*	3	2,3,5	15	suppressed by 3195, large dead wood, decay on 2" stem, epicormic growth, Poor structure, very sparse canopy	Remove 2" stem, prune to balance, Remove dead wood	2
3197	27	Interior Live Oak	*Quercus wislizenii*	13	3,3,3,3, 3,4,4,5, 5,5,6,7, 12	~	Stump sprout, too much decay at base	To be Removed	1
3198	NT	Blue Oak	*Quercus douglasii*	1	13	18	Large dead wood, Poor structure, narrow angle attachments, included bark, sparse canopy lower	Remove dead wood, Remove lower limbs, add 1 cable, prune to balance	2
3199	30	Interior Live Oak	*Quercus wislizenii*	5	4,7,7,9, 16	~	too much decay at base, Poor structure	To be Removed	1
3200	NT	Interior Live Oak	*Quercus wislizenii*	4	5,5,8,10	20	Limited root capasity, unbalanced canopy, unsound soil, narrow angle attachments, included bark at base	Remove dead wood, prune to balance	2
3201	20	Blue Oak	*Quercus douglasii*	5	7,7,8,9, 9	20	Codominate leader at base, narrow angle attachments with included bark, weak, poor taper, very sparse canopy lower, limb tip die back, epicormic growth, stunted	Remove dead wood, prune to balance, future cable	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
							growth		
3202	19	Interior Live Oak	*Quercus wislizenii*	5	4,7,11,11,10	22	Poision Oak, Poor structure, narrow angle attachments, included bark, large dead wood, wounds with calous	Remove dead wood, Remove poision oak, end weight reduction, prune to balance, re-inspect in 3 years	2
3203	NT	Interior Live Oak	*Quercus wislizenii*	6	4,5,7,7,8,12	~	DUB, too much decay, weak structure	To be Removed	1
3204	NT	Interior Live Oak	*Quercus wislizenii*	2	9,13	25	Codominate leader at 2', included bark, unbalanced canopy, narrow angle attachments with included bark, large dead wood, poor taper	Remove dead wood, prune to balance, future cable	2
3205	11	Interior Live Oak	*Quercus wislizenii*	1	8	20	Poor structure, suppressed,epicormic growth, very sparse canopy, narrow angle attachments with included bark	Remove dead wood, prune to balance	2
3206	10	Interior Live Oak	*Quercus wislizenii*	4	5,6,7,8	20	Narrow angle attachments with included bark, Large dead wood, epicormic growth	5" and 6" To be Removed, end weight reduction, prune to balance	2
3207	7	Interior Live Oak	*Quercus wislizenii*	3	3,5,6	14	epicormic growth, Large dead wood, 3" stem dead, very sparse canopy, limb tip die back	3" To be Removed	2
3208	831	Interior Live Oak	*Quercus wislizenii*	12	2,2,3,3,3,3,4,4,4,5,5,6	~	Stump sprout, too much decay at base	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3209	57	Interior Live Oak	*Quercus wislizenii*	4	3,3,4,8	~	Stump sprout, too much decay at base	To be Removed	1
3210	NT	Interior Live Oak	*Quercus wislizenii*	1	7	15	poor taper, Poor structure, narrow angle attachments with included bark	Remove poision oak, Remove dead wood	3
3211	NT	Interior Live Oak	*Quercus wislizenii*	3	3,4,6	~	Stump sprout, too much decay at base	To be Removed	1
3212	55	Interior Live Oak	*Quercus wislizenii*	4	6,6,6,7	~	Past failures, too much decay at base	To be Removed	1
3213	NT	Interior Live Oak	*Quercus wislizenii*	4	3,4,6,6	12	epicormic growth, unbalanced canopy, R lowest lateral limb	prune to balance	2
3214	NT	Interior Live Oak	*Quercus wislizenii*	2	5,6	15	Codominate leader at base, included bark, poor taper, unbalanced canopy, narrow angle attachments with included bark	prune to balance	2
3215	NT	Interior Live Oak	*Quercus wislizenii*	2	5,6	15	Narrow angle attachments with included bark at 3', Codominate leader, unbalanced canopy, limb tip die back	Remove dead wood, prune to balance	2
3216	NT	Interior Live Oak	*Quercus wislizenii*	1	6	18	Unstable soil, unbalanced canopy, narrow angle attachments with included bark	Remove lateral limb at base, prune to balance	2
3217	75	Interior Live Oak	*Quercus wislizenii*	2	2,7	15	Poision Oak, unbalanced canopy, suppressed, very sparse canopy, Large dead wood, narrow angle attachments with included bark	Remove dead wood, prune to balance, Remove lowest lateral	2
3218	76	Blue Oak	*Quercus douglasii*	1	21	40	Large dead wood, unbalanced canopy, narrow angle attachments with included bark, Codominate leader at 25', Sap sunbalanced	Crown clean, end weight reduction, add 1 cable	3

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
							canopyker holes		
3219	77	Blue Oak	*Quercus douglasii*	1	14	35	unbalanced canopy, large dead wood, suppressed to SE	Crown clean, end weight reduction	3
3220	78	Blue Oak	*Quercus douglasii*	1	13	25	Large dead wood, unbalanced canopy, suppressed to SE, poor taper, Rdead wood	Crown clean	2
3221	79	Blue Oak	*Quercus douglasii*	1	8	40	Large dead wood, unbalanced canopy, suppressed, Poor structure, poor taper	End weight reduction by 40%, Remove dead wood	2
3222	80	Blue Oak	*Quercus douglasii*	2	10,17	45	Codominate leader at 3', narrow angle attachments with included bark, Codominate leader at 7', included bark, unbalanced canopy	Remove dead wood, end weight reduction, add 2 cables	3
3223	81	Blue Oak	*Quercus douglasii*	1	11	41	epicormic growth, embedded wire, Poor structure, unbalanced canopy	Remove wire, Remove dead wood, end weight reduction	2
3224	82	Blue Oak	*Quercus douglasii*	1	17	25	Root system exPoision Oaksed, unstable, Large dead wood, wound with calous, sparse canopy, suppressed	Remove dead wood, level 3 inspection	2
3225	83	Blue Oak	*Quercus douglasii*	1	18	20	Poor structure, unbalanced canopy, poor taper, wounds with calous	Remove dead wood, prune to balance, end weight reduction	2
3226	NT	Blue Oak	*Quercus douglasii*	1	10	~	Past failures	To be Removed	1
3227	NT	Interior Live Oak	*Quercus wislizenii*	5	3,4,5,6, 6	~	Stump sprout, epicormic growth, Decay at base, wide spread decay	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3228	100	Interior Live Oak	*Quercus wislizenii*	1	11	10	Hit by Grey Pine failure, large dead wood, large wound with calous, US, narrow angle attachments with included bark	Crown clean	2
3229	NT	Interior Live Oak	*Quercus wislizenii*	1	7	20	Poision Oak, unbalanced canopy, Poor structure, sparse canopy	Remove poision oak, prune to balance	2
3230	104	Interior Live Oak	*Quercus wislizenii*	4	9,10,11, 12	~	too much decay though out	To be Removed	1
3231	103	Blue Oak	*Quercus douglasii*	1	8	15	poor taper, unbalanced canopy, suppressed, narrow angle attachments with included bark at 20'	Remove dead wood, prune to balance, future cable	3
3232	102	Interior Live Oak	*Quercus wislizenii*	2	4,9	30	Top failure, epicormic growth, unbalanced canopy, multi-failures	prune to balance, make proper cuts on failures, re-inspect in 3 years, Depends on plans	2
3233	70	Blue Oak	*Quercus douglasii*	2	18,19	50	Codominate leader at 1', narrow angle attachments with included bark, unbalanced canopy	Add cable, Crown clean, end weight reduction	3
3234	69	Interior Live Oak	*Quercus wislizenii*	2	4,9	~	too much decay	To be Removed	1
3235	68	Blue Oak	*Quercus douglasii*	1	15	35	Large dead wood, narrow angle attachments, unbalanced canopy, Codominate leader at 18', included bark	Remove dead wood, add 1 Cable, end weight reduction, prune to balance	3
3236	NT	Blue Oak	*Quercus douglasii*	1	7	25	unbalanced canopy, old wound with calous at 8', suppressed by 3235, very sparse canopy	End weight reduction, Remove dead wood	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3237	67	Blue Oak	*Quercus douglasii*	2	8,11	28	Codominate leader at base, cavity at base, unbalanced canopy, included bark, narrow angle attachments with included bark, very sparse canopy, poor taper, epicormic growth	Remove dead wood, end weight reduction, add 2 cables	2
3238	NT	Blue Oak	*Quercus douglasii*	2	5,6	~	Stump sprout, too much decay at base, weak	To be Removed	1
3239	66	Interior Live Oak	*Quercus wislizenii*	2	3,9	~	Prostrate, narrow angle attachments, unbalanced canopy, Poor structure, decay though out	To be Removed	1
3240	64	Interior Live Oak	*Quercus wislizenii*	3	5,5,7	~	too much decay, turkey tail fungus	To be Removed	1
3241	62	Interior Live Oak	*Quercus wislizenii*	6	3,4,5,6, 10,16	~	Codominate leader at 14', too much decay at base	To be Removed	1
3242	63	Blue Oak	*Quercus douglasii*	1	14	50	unbalanced canopy, epicormic growth	Remove dead wood, end weight reduction	3
3243	65	Blue Oak	*Quercus douglasii*	3	5,6,13	35	included bark, Codominate leader at 3', Large dead wood, poor taper, unbalanced canopy, narrow angle attachments	Future Cables, Remove dead wood, prune to balance	2
3244	NT	Interior Live Oak	*Quercus wislizenii*	10	2,2,2,2, 3,3,3,4, 4,4	~	Stump sprout with decay	To be Removed	1
3245	NT	Interior Live Oak	*Quercus wislizenii*	7	7,7,7,7, 8,9,10	~	Stump sprout with decay, half dead	To be Removed	1
3246	61	Blue Oak	*Quercus douglasii*	1	7	~	Attached to interior live oak at base, root rot, decay under base, limb tip die back	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3247	NT	Interior Live Oak	*Quercus wislizenii*	2	4,5	25	Large dead wood, limb tip die back, unbalanced canopy, epicormic growth, wound with calous, narrow angle attachments with included bark	Remove dead wood, prune to balance	2
3248	60	Blue Oak	*Quercus douglasii*	2	6,9	20	Large dead wood, limb tip die back, unbalanced canopy, epicormic growth, wound with calous, narrow angle attachments with included bark	Remove dead wood, prune to balance	2
3249	58	Interior Live Oak	*Quercus wislizenii*	5	3,4,5,6, 7	~	Stump sprout, Decay at base	To be Removed	1
3250	59	Interior Live Oak	*Quercus wislizenii*	3	8,8,10	~	Codominate leader at 3', included bark, cavity at base, past failures, cavity pockets	To be Removed	1
3251	832	Interior Live Oak	*Quercus wislizenii*	3	3,4,7	25	unbalanced canopy, on hill, poor taper, very sparse canopy	Remove 4" stem, Remove dead wood, prune to balance	2
3252	NT	Interior Live Oak	*Quercus wislizenii*	1	7	25	Narrow angle attachments with included bark at 8', poor taper, unbalanced canopy, Narrow angle attachments with included bark	Remove dead wood, prune to balance	2
3253	NT	Interior Live Oak	*Quercus wislizenii*	5	3,3,5,6, 8	30	Codominate leader at 2', Large dead wood, epicormic growth, unbalanced canopy, cavity at base, narrow angle attachments with included bark	Remove dead wood, prune to balance, re-inspect every year	2
3254	NT Grown over	Interior Live Oak	*Quercus wislizenii*	3	3,4,8	~	too much decay at base, cavity	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3255	NT Grown over	Interior Live Oak	*Quercus wislizenii*	3	2,3,4	15	Large dead wood, Poor structure, unbalanced canopy, poor taper	Remove dead wood, prune to balance	2
3256	NT Grown over	Interior Live Oak	*Quercus wislizenii*	6	4,4,5,5, 6,6	18	Mild cavity at base with calous, 4" stem dead, narrow angle attachments with included bark, large dead wood, poor taper, limb tip die back, epicormic growth	Remove 4" stem	2
3257	18	Interior Live Oak	*Quercus wislizenii*	3	5,5,9	15	Epicormic growth, very sparse canopy, limb tip die back, stunted growth, narrow angle attachments with included bark	Remove dead wood, prune to balance, re-inspect every year	1
3258	14	Blue Oak	*Quercus douglasii*	1	8	20	Narrow angle attachments with included bark, unbalanced canopy	Prune to balance, Future cable	3
3259	16	Interior Live Oak	*Quercus wislizenii*	16	2,3,3,3, 3,3,4,44 ,5,5,5,5, 6,6,6,6	20	Stump sprout, narrow angle attachments with included bark, Poision Oak, epicormic growth, Large dead wood, unbalanced canopy, poor taper, small cavity at base	Crown clean, re-inspect every year, Remove dead wood	2
3260	17	Valley Oak	*Quercus lobata*	1	9	15	unbalanced canopy, poor taper, suppressed to West	Remove dead wood, prune to balance	3
3261	1017	Interior Live Oak	*Quercus wislizenii*	5	2,2,3,8, 10	15	Decay under base, suppressed, limb tip die back, narrow angle attachments with included bark, poor taper, unbalanced canopy, epicormic growth	Remove 8" stem, Remove 3" and 2" stem	2
3262	118	Interior Live Oak	*Quercus wislizenii*	1	23 @ 1'	~	Too much decay at base	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3263	NT Grown over	Valley Oak	*Quercus lobata*	1	10	25	Poor taper, narrow angle attachments with included bark	Remove dead wood, prune to balance	2
3264	NT	Interior Live Oak	*Quercus wislizenii*	4	4,4,4,5	25	Stump sprout, small cavity at base, past damage from top failure, sparse canopy, unbalanced canopy, Poor taper	Remove dead wood, prune to balance, re-inspect in 3 years	2
3265	NT	Interior Live Oak	*Quercus wislizenii*	1	7	20	Unbalanced canopy, narrow angle attachments with included bark at 12'	Remove dead wood, prune to balance	2
3266	NT	Interior Live Oak	*Quercus wislizenii*	5	3,4,4,4, 5	~	Too much decay at base, Stump sprout, on hill	To be Removed	1
3267	111	Interior Live Oak	*Quercus wislizenii*	2	7,10	20	Codominate leader at 4', included bark, Large dead wood, epicormic growth, poor taper	Remove dead wood, prune to balance	2
3268	NT Grown over	Blue Oak	*Quercus douglasii*	1	12	20	Poor taper, Large dead wood	Remove dead wood, prune to balance	3
3269	112	Interior Live Oak	*Quercus wislizenii*	3	4,4,9	~	Hit by Grey Pine failure, too much decay, past failure	To be Removed	1
3270	107	Interior Live Oak	*Quercus wislizenii*	2	5,8	15	Epicormic growth, poor taper, unbalanced canopy	Remove dead wood, prune to balance	2
3271	NT	Valley Oak	*Quercus lobata*	1	13	35	Poor taper, unbalanced canopy, narrow angle attachments with included bark	end weight reduction, prune to balance, possible future cable	3
3272	108	Blue Oak	*Quercus douglasii*	1	8	25	Suppressed by cottonwood, epicormic growth, unbalanced canopy, Large dead wood	Remove dead wood, end weight reduction	2
3273	106	Interior Live Oak	*Quercus wislizenii*	1	6	15	Poision Oak, unbalanced canopy, Large dead wood, poor taper, very sparse canopy	Remove dead wood	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3274	NT	Interior Live Oak	*Quercus wislizenii*	4	1,2,3,6	12	Codominate leader at 1', included bark, very sparse canopy, Poor structure, poor taper	Remove dead wood, prune to balance	2
3275	105	Blue Oak	*Quercus douglasii*	1	17	45	Narrow angle attachments with included bark, large dead wood, sparse canopy	Remove dead wood,end weight reduction, possible future cable	3
3276	NT	Valley Oak	*Quercus lobata*	1	9	25	poor taper, unbalanced canopy, large dead wood, suppressed	Remove dead wood, prune to balance	2
3277	98	Blue Oak	*Quercus douglasii*	1	18	40	very sparse canopy, unbalanced canopy, poor taper, large dead wood, past failures	Remove dead wood, end weight reduction	2
3278	95	Interior Live Oak	*Quercus wislizenii*	1	8	~	Codominate leader at 3', very sparse canopy, too much decay, too much decayead wood	To be Removed	1
3279	NT Grown over	Valley Oak	*Quercus lobata*	1	11	30	Poor structure, unbalanced canopy, unstable soil, buried base	Remove dead wood, end weight reduction, re-inspect in 3 years	2
3280	94	Valley Oak	*Quercus lobata*	1	13	25	Poor structure, unbalanced canopy, past failure, Poor attachment with included bark at 12'	Remove dead wood, prune to balance, end weight reduction, re-inspect every year	2
3281	NT	Valley Oak	*Quercus lobata*	1	17	50	Poor structure, unbalanced canopy, roots under by stream, heavy lean, epicormic growth	end weight reduction, Remove dead wood, re-inspect every year	2
3282	NT	Blue Oak	*Quercus douglasii*	1	9	15	Wounds with calous at 10', large dead wood,narrow angle attachments	Remove dead wood, prune to balance	3

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3283	88	Blue Oak	*Quercus douglasii*	1	9	15	poor taper, epicormic growth, large dead wood, stunted growth	prune to balance, Remove dead wood	2
3284	NT Grown over	Blue Oak	*Quercus douglasii*	1	8	15	Poor taper, suppressed, Codominate leader with narrow angle attachments	Remove dead wood, prune to balance, add 1 cable	2
3285	87	Blue Oak	*Quercus douglasii*	1	8	15	Stunted growth, large dead wood, sparse canopy	Remove dead wood	3
3286	NT	Blue Oak	*Quercus douglasii*	1	9	18	Embedded wire, poor taper, large dead wood	Remove dead wood, cut wire	3
3287	91	Valley Oak	*Quercus lobata*	1	25	50	Large dead wood, Codominate leader at 10', long heavy laterals	end weight reduction, Remove dead wood, Crown clean	3
3288	85	Interior Live Oak	*Quercus wislizenii*	3	7,10,12	~	very sparse canopy, Poision Oak, 7" stem dead, large dead wood, limb tip die back, old cut with decay on 10" stem	To be Removed	1
3289	NT	Interior Live Oak	*Quercus wislizenii*	2	4,8	~	Large dead wood, very sparse canopy, epicormic growth, Poor structure, unbalanced canopy, heavy lean, cavity at 3'	To be Removed	1
3290	NT	Interior Live Oak	*Quercus wislizenii*	1	14	~	Hit by Grey Pine failure, DUB, past failures	To be Removed	1
3291	NT Grown over	Interior Live Oak	*Quercus wislizenii*	1	7	~	Past failure with decay under base, epicormic growth, limb tip die back	To be Removed	1
3292	824	Interior Live Oak	*Quercus wislizenii*	8	2,2,3,4, 4,6,7,7	~	too much decay at base	To be Removed	1
3293	119	Interior Live Oak	*Quercus wislizenii*	3	2,7,8	~	too much decay at base	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3294	121	Interior Live Oak	*Quercus wislizenii*	3	6,7,9	25	Large dead wood, unbalanced canopy, poor taper, epicormic growth, sparse canopy, narrow angle attachments with included bark at 2', Codominate leader	Remove dead wood, prune to balance	2
3295	823	Interior Live Oak	*Quercus wislizenii*	5	2,2,4,4, 6	~	Too much decay at base	To be Removed	1
3296	825	Interior Live Oak	*Quercus wislizenii*	4	3,3,4,5	~	Large dead wood, cavity with decay, mostly dead, sever decay	To be Removed	1
3297	23	Blue Oak	*Quercus douglasii*	1	12	25	Codominate leader at 12', included bark, Large dead wood	Crown clean, add 1 cable	3
3298	122	Interior Live Oak	*Quercus wislizenii*	2	5,9	28	Poor taper, unbalanced canopy, large dead wood,very sparse canopy	Remove dead wood, prune to balance	2
3299	NT	Interior Live Oak	*Quercus wislizenii*	8	2,3,3,4, 4,6,7,8	30	Stump sprout, decay at base, weak attachment, Poor structure, laterals grown parallel to ground, epicormic growth, narrow angle attachments	end weight reduction, prune to balance, Remove dead wood	2
3300	41	Interior Live Oak	*Quercus wislizenii*	4	3,6,6,10	~	Multi past failures, open cavity	To be Removed	1
3301	24	Blue Oak	*Quercus douglasii*	4	3,7,7,9	15	Codominate leader at 2', included bark at base, large dead wood, narrow angle attachments with included bark	Crown clean, add 1 cable, future 2 cables	3
3302	NT	Blue Oak	*Quercus douglasii*	4	2,3,3,5	14	Narrow angle attachments with included bark at base, poor taper	Remove dead wood, prune to balance, future cable	3

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3303	22	Interior Live Oak	*Quercus wislizenii*	4	3,4,9,9	25	Narrow angle attachments with included bark at base, large dead wood, epicormic growth, unbalanced canopy	Remove dead wood, prune to balance, possible future cable	2
3304	NT	Blue Oak	*Quercus douglasii*	1	14	25	Narrow angle attachments with included bark at 5', Poor structure, heavy lean, sparse canopy	Remove dead wood, end weight reduction, prune to balance	2
3305	25	Interior Live Oak	*Quercus wislizenii*	1	14	30	Hit by failure near by tree, narrow angle attachments at Codominate leader at 10', unbalanced canopy, poor taper, very sparse canopy, large dead wood	Remove debree, prune to balance, Remove dead wood, re-inspect every year	2
3306	37	Interior Live Oak	*Quercus wislizenii*	3	4,4,6	13	Codominate leader at base, epicormic growth, narrow angle attachments, large dead wood, poor taper	Remove dead wood, prune to balance, future cable	2
3307	NT	Interior Live Oak	*Quercus wislizenii*	2	3,6	15	Narrow angle attachments with included bark at Codominate leader at 2', large dead wood, sparse canopy, poor taper, unbalanced canopy	Remove dead wood, prune to balance, future cable	2
3308	NT	Interior Live Oak	*Quercus wislizenii*	4	2,2,3,4	14	Unstable root system, large dead wood, epicormic growth, sparse canopy, suppressed, unbalanced canopy	Remove dead wood, prune to balance	2
3309	39	Interior Live Oak	*Quercus wislizenii*	3	3,5,8	16	epicormic growth, sparse canopy, metal bar though base, large dead wood, unbalanced canopy	Remove dead wood, prune to balance, Remove metal	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3310	38	Interior Live Oak	*Quercus wislizenii*	3	2,3,5	12	Past failure, epicormic growth, large dead wood, sparse canopy	Remove dead wood, prune to balance, make proper cuts on failure	1
3311	NT	Blue Oak	*Quercus douglasii*	1	7	12	sparse canopy, poor taper	Remove dead wood	3
3312	35	Interior Live Oak	*Quercus wislizenii*	2	6,7	~	Past failures	To be Removed	1
3313	NT	Interior Live Oak	*Quercus wislizenii*	1	8	15	Poision Oak, sparse canopy, poor taper	Remove poision oak, Remove dead wood, prune to balance	2
3314	33	Interior Live Oak	*Quercus wislizenii*	3	6,6,10	25	Codominate leader with included bark at base, unbalanced canopy, large dead wood, epicormic growth, past failure	Remove dead wood, prune to balance, end weight reduction, make proper cuts on failure	2
3315	34	Interior Live Oak	*Quercus wislizenii*	3	3,5,5	~	Prostrate, too much decay at base	To be Removed	1
3316	53	Interior Live Oak	*Quercus wislizenii*	1	11	20	Large dead wood, narrow angle attachments with included bark at 5', poor taper, epicormic growth, unbalanced canopy	Remove dead wood, prune to balance, re-inspect every year	2
3317	NT	Interior Live Oak	*Quercus wislizenii*	4	4,5,5,6	~	Epicormic growth, sparse canopy, Poor structure at 15', cavity at base	To be Removed	1
3318	54	Interior Live Oak	*Quercus wislizenii*	1	7	20	Narrow angle attachments with included bark at 7', poor taper, epicormic growth, sparse canopy	Remove dead wood, prune to balance	2
3319	826	Interior Live Oak	*Quercus wislizenii*	6	3,3,3,4, 4,5	~	too much decay at base	To be Removed	1
3320	43	Interior Live Oak	*Quercus wislizenii*	2	5,9	25	Epicormic growth, unbalanced canopy, suppressed, included bark with narrow angle	Remove dead wood, make proper cuts, end weight reduction,	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
							attachments at 2', past damage, large dead wood	prune to balance	
3321	42	Interior Live Oak	*Quercus wislizenii*	1	8	~	Decay at base, unstable root system	To be Removed	1
3322	44	Interior Live Oak	*Quercus wislizenii*	2	3,14	20	Codominate leader at 5', included bark, narrow angle attachments, large dead wood, epicormic growth, sparse canopy, poor taper	Remove dead wood, prune to balance	2
3323	NT	Interior Live Oak	*Quercus wislizenii*	2	7,12	30	Large dead wood, sparse canopy, poor taper, Poor structure, unbalanced canopy, epicormic growth, narrow angle attachments with included bark	Remove dead wood, prune to balance	2
3324	2132	Interior Live Oak	*Quercus wislizenii*	1	8	24	Poor structure, unbalanced canopy, heavy lean, epicormic growth	prune to balance, Remove dead wood	2
3325	NT	Interior Live Oak	*Quercus wislizenii*	2	2,6	20	large dead wood, suppressed, poor taper, epicormic growth	Remove dead wood, prune to balance	2
3326	NT	Interior Live Oak	*Quercus wislizenii*	1	8	20	unbalanced canopy, Poor structure	prune to balance	2
3327	NT Grown over	Interior Live Oak	*Quercus wislizenii*	2	2,9	20	Large dead wood, unbalanced canopy, Poor structure	Remove dead wood, prune to balance	2
3328	NT	Interior Live Oak	*Quercus wislizenii*	1	7	15	Poor structure, poor taper, sparse canopy, suppressed	Remove dead wood, prune to balance	2
3329	821	Interior Live Oak	*Quercus wislizenii*	3	3,5,6	18	narrow angle attachments with included bark at 2' and 3', poor taper, unbalanced canopy, suppressed to	Remove dead wood, prune to balance	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
							South, epicormic growth		
3331	NT	Interior Live Oak	*Quercus wislizenii*	2	5,6	10	Codominate leader with included bark, narrow angle attachments with included bark	Remove dead wood, future cable	2
3332	NT	Interior Live Oak	*Quercus wislizenii*	2	5,8	20	Codominate leader with included bark, narrow angle attachments with included bark, EG, unbalanced canopy	Remove dead wood, prune to balance	2
3333	49	Interior Live Oak	*Quercus wislizenii*	1	11	28	Unbalanced canopy, suppressed, narrow angle attachments with included bark, limb tip dieback	Remove dead wood, prune to balance	2
3334	60	Interior Live Oak	*Quercus wislizenii*	1	12	22	Large dead wood, epicormic growth, poor taper, unbalanced canopy	Remove dead wood, prune to balance	2
3335	51	Interior Live Oak	*Quercus wislizenii*	1	12	20	epicormic growth, unbalanced canopy, Poor structure, large dead wood, poor taper, heavy lean	Remove dead wood, prune to balance	2
3336	NT	Interior Live Oak	*Quercus wislizenii*	2	6,8	30	Large dead wood, Codominate leader, suppressed, unbalanced canopy, small cavity at base, epicormic growth	Remove dead wood, end weight reduction	2
3337	NT	Interior Live Oak	*Quercus wislizenii*	1	8	25	Large dead wood, Codominate leader with included bark at 12', epicormic growth, poor taper, unbalanced canopy	Remove dead wood, prune to balance	2
3338	NT	Interior Live Oak	*Quercus wislizenii*	2	5,9	30	Large dead wood, Codominate leader at 3;, unbalanced canopy, Poor	Remove dead wood, end weight reduction,	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
							structure, suppressed	Remove debree off tree	
3339	2127	Interior Live Oak	*Quercus wislizenii*	2	6,6	18	Codominate leader with included bark at ground, Large dead wood, Poor structure, BTDB	Remove dead wood, prune to balance, add 1 cable	2
3340	2126	Interior Live Oak	*Quercus wislizenii*	1	8	15	narrow angle attachments with included bark at 4', suppressed, unbalanced canopy, epicormic growth	Remove dead wood, prune to balance	2
3341	NT	Interior Live Oak	*Quercus wislizenii*	1	8	28	suppressed, unbalanced canopy, narrow angle attachments with included bark at 7'	Remove lower laterals, Remove dead wood, prune to balance, future cable	2
3342	NT	Interior Live Oak	*Quercus wislizenii*	1	7	18	suppressed, unbalanced canopy, narrow angle attachments with included bark	Remove lower laterals, Remove debri, prune to balance	2
3343	206	Blue Oak	*Quercus douglasii*	2	16,13	20	Codominate leader with included bark at 3', epicormic growth, unbalanced canopy, narrow angle attachments with included bark	Crown clean, add 1 cable, trim Grey Pine	3
3344	293	Blue Oak	*Quercus douglasii*	2	6,14	30	Codominate leader with included bark at 3', unbalanced canopy, suppressed, narrow angle attachments with included bark at 8;	Crown clean, add 2 cable, Remove debri	3
3345	294	Interior Live Oak	*Quercus wislizenii*	2	3,8	14	Cavity at base, large dead wood, BTDB, Poor structure, Poor health and suppressedressed, nice Blue Oak next to it	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3346	NT	Blue Oak	*Quercus douglasii*	1	8	15	poor taper, suppressed, epicormic growth, dead limbs, with Codominate leader	Remove dead wood, Remove Interior Live Oak next, prune to balance	2
3347	205	Interior Live Oak	*Quercus wislizenii*	1	7	28	Large dead wood, past damage, epicormic growth, declining	To be Removed	1
3348	NT	Valley Oak	*Quercus lobata*	1	15	45	unbalanced canopy, narrow angle attachments with included bark	Remove Debris, Crown clean, end weight reduction	3
3349	NT	Interior Live Oak	*Quercus wislizenii*	2	9,11	35	Codominate leader at base, Large dead wood, narrow angle attachments with included bark, unbalanced canopy, suppressed, past failures	Remove dead wood, prune to balance, end weight reduction, re-inspect every year	1
3350	NT	Interior Live Oak	*Quercus wislizenii*	1	6	22	unbalanced canopy, Large dead wood, epicormic growth, poor taper, Poor structure	Remove dead wood, prune to balance	2
3351	202	Interior Live Oak	*Quercus wislizenii*	1	8	20	Large dead wood, epicormic growth, suppressed, unbalanced canopy, Poor structure, sparse canopy	To be Removed	1
3352	203	Blue Oak	*Quercus douglasii*	1	10	15	Covered in Poision Oak, Large dead wood, narrow angle attachments with included bark	Remove PO, Remove dead wood, add 2 cables	3
3353	200	Interior Live Oak	*Quercus wislizenii*	2	4,10	20	Codominate leader at base, epicormic growth, large dead wood, poor taper, sparse canopy, declining health	Remove dead wood, prune to balance, re-inspect every year	1
3354	201	Interior Live Oak	*Quercus wislizenii*	3	4,6,8	20	Stump sprout, decay at base, large dead wood	Too much decay at critical locations, To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3355	NT	Interior Live Oak	*Quercus wislizenii*	1	6	15	Decay thoughout, sparse canopy, epicormic growth, decling	To be Removed	1
3356	199	Blue Oak	*Quercus douglasii*	1	8	15	epicormic growth, poor taper, unbalanced canopy	Remove dead wood, prune to balance	3
3357	198	Interior Live Oak	*Quercus wislizenii*	2	3,7	15	suppressed, epicormic growth, past damages, limited root capacity, large dead wood, Poor structure, unbalanced canopy	Remove dead wood, 3" stem To be Removed, prune to balance	1
3358	196	Interior Live Oak	*Quercus wislizenii*	2	7,8	25	Codominate leader with included bark at 2', poor taper, unbalanced canopy, narrow angle attachments with included bark, epicormic growth, suppressed	Remove dead wood, prune to balance, add 1 cable, re-inspect every year	2
3359	197	Interior Live Oak	*Quercus wislizenii*	1	7	25	Decay thoughout, epicormic growth, capoor taperenter ant damage	Too much decay, To be Removed	1
3360	195	Interior Live Oak	*Quercus wislizenii*	4	3,4,6,8	30	Stump sprout with decay at base, large dead wood	Too much decay at critical locations, To be Removed	1
3361	NT Grown over	Interior Live Oak	*Quercus wislizenii*	6	3,7,10,12,12,14	40	Stump sprout, decay under base, narrow angle attachments with included bark, large dead wood, EG	Crown clean, end weight reduction, re-inspect every year, future cable	2
3362	NT Grown over	Valley Oak	*Quercus lobata*	1	10	35	poor taper, suppressed, unbalanced canopy, narrow angle attachments with included bark at 25'	Crown clean, end weight reduction, add 1 cable	3
3363	192	Valley Oak	*Quercus lobata*	1	19	40	narrow angle attachments with included bark at 25'	Crown clean, add 1 cable	3

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3364	NT Grown over	Valley Oak	*Quercus lobata*	1	14	38	narrow angle attachments with included bark at 15', narrow angle attachments with included bark in canopy, unbalanced canopy	Remove dead wood, end weight reduction, add 1 cable, future cables, re-inspect every year	2
3365	190	Valley Oak	*Quercus lobata*	1	18	40	Past failure compromise, structural integrity and opened up wound for decay, epicormic growth,	Make heading cut on central leader to rebalance canopy weight on failure, end weight reduction, re-inspect every year, Level 3 inspection	2
3366	189	Interior Live Oak	*Quercus wislizenii*	6	2,4,5,8, 10,11	35	Codominate leader, various swell decay pockets, epicormic growth, large dead wood, narrow angle attachments with included bark, past failure	Crown clean, end weight reduction, re-inspect every year	1
3367	208	Interior Live Oak	*Quercus wislizenii*	8	4,4,5,5, 5,8,9,9	28	Large dead wood, Poor structure, unbalanced canopy, narrow angle attachments with included bark, epicormic growth	Remove dead wood, end weight reduction, re-inspect every year	2
3368	NT	Blue Oak	*Quercus douglasii*	1	8	15	Large dead wood, sparse canopy	Remove dead wood, prune to balance	3
3369	NT	Blue Oak	*Quercus douglasii*	1	13	15	Narrow angle attachments with included bark at 12', large dead wood	Remove dead wood, prune to balance, add 1 cable	3
3370	2137	Valley Oak	*Quercus lobata*	3	3,4,6	12	Codominate leader at ground, narrow angle attachments with included bark	Remove dead wood, prune to balance, future cables	3

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3371		Blue Oak	*Quercus douglasii*	1	10	16	poor taper, unbalanced canopy, Large dead wood	Remove dead wood, prune to balance	3
3372	155	Interior Live Oak	*Quercus wislizenii*	2	8,10	25	Codominate leader at base, unbalanced canopy, suppressed, epicormic growth, Large dead wood, decay at critical location on 10" stem, sparse canopy	To be Removed	1
3373	2138	Interior Live Oak	*Quercus wislizenii*	1	5	15	Stump sprout, other dead stems, too much decay	To be Removed	1
3374	183	Interior Live Oak	*Quercus wislizenii*	1	11	28	Small cavity with calous at 8', Codominate leader at 12', unbalanced canopy, Large dead wood	Remove dead wood, prune to balance, re-inspect every year	2
3375	182	Interior Live Oak	*Quercus wislizenii*	1	14	40	Dead spars at base, large dead wood, unbalanced canopy, suppressed, poor taper, partial decay at trunk flare	Remove dead wood, end weight reduction, level 3 inspection	2
3376	181	Interior Live Oak	*Quercus wislizenii*	3	4,13,16	45	unbalanced canopy, epicormic growth, decling vigor, large dead wood	Crown clean, end weight reduction, re-inspect every year	2
3377	180	Interior Live Oak	*Quercus wislizenii*	3	6,6,7	18	Stump sprout, decay at base and decling vigor	Too much decay at critical locations, To be Removed	1
3378	184	Interior Live Oak	*Quercus wislizenii*	1	7	20	Decay at base, BTDB, decling vigor	To be Removed	1
3379	60	Blue Oak	*Quercus douglasii*	2	11,14	30	Codominate leader with included bark at 4', large dead wood	Crown clean, add 1 cable	3
3380	209	Interior Live Oak	*Quercus wislizenii*	2	4,15	35	Stump sprouts, dead stems at base, unbalanced canopy, BTDB, declinging, sparse canopy	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3381	NT	Interior Live Oak	*Quercus wislizenii*	3	7,8,10	35	Stump sprouts, unbalanced canopy, epicormic growth, large dead wood, decling vigor	Remove dead wood, prune to balance, re-inspect every year	2
3382	220	Interior Live Oak	*Quercus wislizenii*	2	8,12	30	Codominate leader at 2', under root system, large dead wood, epicormic growth, redunbalanced canopyed vigor, decay on 8"stem	Remove dead wood, prune to balance, end weight reduction, re-inspect every year, Remove decayed lateral on 8" stem	2
3383	NT	Interior Live Oak	*Quercus wislizenii*	1	8	25	Decay at base, large dead wood, unbalanced canopy, epicormic growth, Poor structure, suppressed	To be Removed	1
3384	NT	Interior Live Oak	*Quercus wislizenii*	4	6,6,12,12	40	Stump sprout, epicormic growth, Large dead wood, decay at base	6" stems To be Removed, Remove dead wood, end weight reduction, prune to balance, re-inspect every year	2
3385	253	Interior Live Oak	*Quercus wislizenii*	1	8	15	Large dead wood, sparse canopy, Poor structure, poor taper, severely decling	To be Removed	1
3386	NT	Interior Live Oak	*Quercus wislizenii*	1	8	20	Decay at 4', epicormic growth, Poor structure	To be Removed	1
3387	254	Interior Live Oak	*Quercus wislizenii*	1	7	22	epicormic growth, old decayed stem at base, poor taper, unbalanced canopy	prune to balance, re-inspect every year	2
3388	NT	Interior Live Oak	*Quercus wislizenii*	3	4,6,8	22	Many dead stems at base, decau at trunk flare, Poor structure	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3389	NT	Blue Oak	*Quercus douglasii*	1	13	30	Poor structure, unbalanced canopy, suppressed, heavy lean, Codominate leader with included bark at 15;	end weight reduction, Remove dead wood, prune to balance, add 1 cable	2
3390	216	Interior Live Oak	*Quercus wislizenii*	5	6,6,7,7, 8	32	Stump sprouts, decay thoughout	Too much decay-To be Removed	1
3391	218	Interior Live Oak	*Quercus wislizenii*	4	9,11,12, 14	45	Stump sprouts, decay thoughout, decling vigor, Poor structure	Too much decay and decling, To be Removed	1
3392	212	Interior Live Oak	*Quercus wislizenii*	5	3,4,5,7, 12	30	Stump Sprout, Large dead wood, decay under base	To be Removed	1
3393	211	Interior Live Oak	*Quercus wislizenii*	5	9,12,13, 11,11	35	Stump sprout, small pockets of decay, narrow angle attachments with included bark, Poor structure, 9" too much decay	9" South To be Removed, Remove dead wood, end weight reduction, future cables, re-inspect every year	2
3394	210	Interior Live Oak	*Quercus wislizenii*	8	4,8,9,7, 10,10,1 1,12	32	Stump sprout, large dead wood, narrow angle attachments with included bark	Crown clean, raise Crown, Remove dead wood	2
3395	285	Interior Live Oak	*Quercus wislizenii*	2	9,13	20	Mostly dead, decay in Codominate leader attached at base	To be Removed	1
3396	NT Grown over	Interior Live Oak	*Quercus wislizenii*	2	5,10	30	too much decay	To be Removed	1
3397	288	Blue Oak	*Quercus douglasii*	1	7	16	Codominate leader with included bark at 7', Poor structure, unbalanced canopy, large dead wood	Remove dead wood, prune to balance, add 1 cable	3
3398	283	Interior Live Oak	*Quercus wislizenii*	1	13	32	epicormic growth, Poor structure, unbalanced canopy, heavy lean, narrow angle attachments	end weight reduction, Remove dead wood	3

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3399		Interior Live Oak	*Quercus wislizenii*	2	7,10	28	Codominate leader with included bark at 2', epicormic growth, Large dead wood, sparse canopy, borers in base	To be Removed	1
3400	284	Interior Live Oak	*Quercus wislizenii*	1	14	32	DUB on backside of tree, heavy lean	To be Removed	1
3401	289	Blue Oak	*Quercus douglasii*	2	17,20	35	Codominate leader at 2', narrow angle attachments with included bark, Large dead wood	Crown clean, future cables	3
3402	NT	Blue Oak	*Quercus douglasii*	1	8	10	narrow angle attachments with included bark in attachment at 4'	Remove NAA attachement at 4'	3
3403	281	Interior Live Oak	*Quercus wislizenii*	1	11	20	Poor structure, unbalanced canopy, suppressed, epicormic growth, Codominate leader with included bark at 7'	Remove lower laterals, prune to balance, end weight reduction	2
3404	280	Blue Oak	*Quercus douglasii*	1	31	40	narrow angle attachments with included bark, long over arching laterals	Crown clean, add cables	3
3405	275	Interior Live Oak	*Quercus wislizenii*	2	13,14	25	Codominate leader at 2', barb wire in tree, past failures, large dead wood	Remove wire, Remove dead wood, prune to balance make proper cuts at failures	2
3406	290	Interior Live Oak	*Quercus wislizenii*	3	10,11,12	25	Decay and past failures on 10" stem, western stem, unbalanced canopy	10" western stem - To be Removed, Remove dead wood prune to balance	2
3407	291	Interior Live Oak	*Quercus wislizenii*	2	6,8	10	Too much decay	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3408	NT	Interior Live Oak	*Quercus wislizenii*	2	7,9	22	narrow angle attachments with included bark at Codominate leader at 4', decay cavity at 1' with calous, unbalanced canopy, epicormic growth	Remove dead wood, prune to balance, future cable, re-inspect every year	2
3409	273	Blue Oak	*Quercus douglasii*	1	13	25	Large dead wood, poor taper, Codominate leader at 20'	Crown clean	3
3410	272	Blue Oak	*Quercus douglasii*	1	33 @2'	40	Too much decay	To be Removed	1
3411	264	Interior Live Oak	*Quercus wislizenii*	8	5,6,6,7, 7,8,10,1 0	25	Stump sprouts, large dead wood, decay throughout, epicormic growth, Poor structure	Too much decay, DW, To be Removed	1
3412	268	Interior Live Oak	*Quercus wislizenii*	5	7,8,10,1 1,12,15	30	Too much decay	To be Removed	1
3413	267	Interior Live Oak	*Quercus wislizenii*	3	8,9,17	32	Too much decay thoughout at critical locations	To be Removed	1
3414	NT	Interior Live Oak	*Quercus wislizenii*	3	4,6,7	15	Codominate leader with included bark at 1', epicormic growth, unbalanced canopy, poor taper, Poor structure	Remove dead wood, prune to balance	2
3415	NT Grown over	Interior Live Oak	*Quercus wislizenii*	1	17	25	Large dead wood, narrow angle attachments with included bark	Remove dead wood, prune to balance, add 1 cable	2
3416	266	Blue Oak	*Quercus douglasii*	1	14	22	Barbwire in tree, laterals with decay on South, unbalanced canopy, suppressed	Remove laterals with decay, Crown clean, Remove wire	2
3417	238	Blue Oak	*Quercus douglasii*	1	18	40	Barbwire in tree, unbalanced canopy, heavy lean, Poor structure	Remove wire, end weight reduction, Remove dead wood	2
3418	NT Grown over	Interior Live Oak	*Quercus wislizenii*	1	21	28	Various areas of decay, past failures, large dead wood, sparse canopy	Level 3 inspection, proper cuts, Crown clean	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3419	NT	Valley Oak	*Quercus lobata*	1	7	10	poor taper, narrow angle attachments with included bark at 15'	Raise Crown, future cable	3
3420	236	Interior Live Oak	*Quercus wislizenii*	2	25,57	50	Widespread decay, Poor attachmetns, past failures	To be Removed	1
3421	235	Interior Live Oak	*Quercus wislizenii*	3	10,16,17	32	Narrow angle attachments at codominate leader at 2', large dead wood, sparse canopy, decling vigor, unbalanced canopy on South	Remove dead wood, end weight reduction, Crown clean	2
3422	NT	Blue Oak	*Quercus douglasii*	3	3 11,13,14	42	Narrow angle attachments with included bark at codominate leader at base, unbalanced canopy, heavy lean, narrow angle attachments with included bark on 14" stem, Southern stem at 20'	Crown clean, end weight reduction, add 2 cables	3
3423	278	Interior Live Oak	*Quercus wislizenii*	2	8,13	40	Small cavity without calous at 5', unbalanced canopy, poor structure, large dead wood, epicormic growth	Remove dead wood, prune to balance, end weight reduction, re-inspect every year	2
3425	277	Interior Live Oak	*Quercus wislizenii*	14	3,3,4,4,6,6,7,8,9,9,10,11,13,15	40	Stump sprouts, poor structure, large dead wood, various pockets of decay throughout tree	level 3 inspection, Remove spars with decay, Remove dead wood, prune to balance, end weight reduction, re-inspect every year	2
3426	NT	Valley Oak	*Quercus lobata*	1	7	22	Poor taper, suppressed, codominate leader at 30'	Crown clean	3

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3427	252	Interior Live Oak	*Quercus wislizenii*	3	6,7,12	30	Poor attachments at base, decay on 6" stem, poor taper, suppressed, narrow angle attachments with included bark at 8' on 12" stem, large dead wood	6" stem on East To be Removed, Remove dead wood, prune to balance, re-inspect every year	2
3428	NT	Interior Live Oak	*Quercus wislizenii*	1	12	20	Sparse canopy, large dead wood at 3' to West, unbalanced canopy to South, included bark	Remove dead wood, prune to balance	3
3429	NT	Interior Live Oak	*Quercus wislizenii*	1	6	15	Poor structure at 15', slight lean	Needs corrective pruning	3
3430	NT	Interior Live Oak	*Quercus wislizenii*	1	6	12	understory	~	3
3431	NT	Interior Live Oak	*Quercus wislizenii*	2	10,21	30	Codominate leader at 1', codominate leader at 8' on 21" stem, included bark, dominant, over weight limb	Remove dead wood, prune to balance	3
3432	NT	Interior Live Oak	*Quercus wislizenii*	1	7@1'	10	Poor taper, codominate leader at 3'	~	3
3433	242	Valley Oak	*Quercus lobata*	1	21	30	Epicormic growth, good	~	4
3434	232	Interior Live Oak	*Quercus wislizenii*	3	15 @ 2', 6, 7	25	6" stem is dead, 7" stem is prostrate to South East, limb tip die back	Remove dead wood	3
3435	NT	Interior Live Oak	*Quercus wislizenii*	3	20 @ 1'	30	Codominate leader at 2' into 5, large dead wood	Remove dead wood and 2 lowest stems	3
3436	NT	Interior Live Oak	*Quercus wislizenii*	1	7	20	Suppressed, unbalanced canopy to North	Remove dead wood, prune to balance	2
3437	230	Interior Live Oak	*Quercus wislizenii*	2	16@3', 18@3'	30	Codominate leader at 2' with wide angle, Dominant	Remove dead wood, prune to balance, re-inspect in 3 years	3
3438	NT	Interior Live Oak	*Quercus wislizenii*	1	7 @ 3'	20	Suppressed, unbalanced canopy	Prune to balance	3

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
							to South West		
3439	NT	Interior Live Oak	*Quercus wislizenii*	2	8 @3', 21 @2'	30	Codominate leader on 21" stem at 3' into 3, included bark, 8" is prostrate to South, very sparse canopy	Remove dead wood, prune to balance, Remove 8" stem	2
3440	244	Interior Live Oak	*Quercus wislizenii*	1	12 @3'	30	Codominate leader at 4', epicormic growth	Remove dead wood, prune to balance	3
3441	245	Interior Live Oak	*Quercus wislizenii*	1	8	35	Leans to South, bows extremely	To be Removed	2
3442	246	Interior Live Oak	*Quercus wislizenii*	3	5,9,10	~	Large dead wood, poor structure	To be Removed	2
3443	247	Interior Live Oak	*Quercus wislizenii*	2	7,19	40	7" stem bows to North, dominate, 19" stem codominate leader at 5', included bark, 15' to South included bark	Remove 8" stem to South- dead, Remove dead wood, prune to balance, re-inspect in 3 years	3
3444	248	Interior Live Oak	*Quercus wislizenii*	1	10	20	Slightly suppressed	Remove dead wood, prune to balance	3
3445	260	Interior Live Oak	*Quercus wislizenii*	2	12@1', 10@1'	30	codominate leader at 1', understory, large dead wood, unbalanced canopy to North from base, hit by fallen Grey Pine	Remove dead wood, prune to balance	2
3446	NT	Interior Live Oak	*Quercus wislizenii*	1	7	15	unbalanced canopy to South East	Prune to balance	3
3447	259	Interior Live Oak	*Quercus wislizenii*	2	7,11	~	Codominate leader at 1', dead wood in crotch, poor structure, hit by Grey Pine failure	To be Removed	1
3448	257	Interior Live Oak	*Quercus wislizenii*	2	4,9	~	Hit by Grey Pine failure	To be Removed	1
3449	258	Interior Live Oak	*Quercus wislizenii*	3	7,13,14	~	Hit by Grey Pine failure	To be Removed	1

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3450	255	Interior Live Oak	*Quercus wislizenii*	3	5,7,11	30	5" stem is dead, poor structure, unbalanced canopy to South	Remove dead wood, prune to balance, re-inspect in 3 years	2
3451	NT	Interior Live Oak	*Quercus wislizenii*	7	2,3,3,4, 5,8,10	35	Stump sprout, unbalanced canopy to South, large dead wood, 10"stem has poor structure, bows to South	Remove all but 3 largest, Remove dead wood, prune to balance, re-inspect in 3 years for poor structure	2
3452	251	Interior Live Oak	*Quercus wislizenii*	6	3,3,3,4, 9,10	~	Stump sprout, 9" and 4" stem is prostrate to North, decay under base, poor structure	To be Removed	1
3453	252	Interior Live Oak	*Quercus wislizenii*	2	7,8	~	Too much dead wood	To be Removed	1
3455	178	Interior Live Oak	*Quercus wislizenii*	1	7	20	Slight lean and unbalanced canopy to South West, very sparse canopy	Remove dead wood, prune to balance	3
3456	NT Grown over	Interior Live Oak	*Quercus wislizenii*	1	6	~	Poor structure, bows at 7-10' to west, not correctable	To be Removed	1
3457	NT Grown over	Interior Live Oak	*Quercus wislizenii*	2	6,9	15	Codominate leader at 1', included bark, sparse canopy	Remove codomiante leader at 4' to South, Remove dead wood, prune to balance	3
3458	NT Grown over	Interior Live Oak	*Quercus wislizenii*	1	8	20	Bows at 10' to South West	Remove dead wood, prune to balance	3
3459	2145	Interior Live Oak	*Quercus wislizenii*	1	8 @ 1'	25	Codominate leader at 2', leans to North West	Remove South stem at codomiante leader at 2', prune to balance	2
3460	NT	Interior Live Oak	*Quercus wislizenii*	1	7	20	Poision oak, leans to South West	Remove dead wood, prune to balance	3

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3461	2143	Interior Live Oak	*Quercus wislizenii*	1	7	~	Prostrate from base to 4', poor structure	To be Removed	2
3462	2140	Interior Live Oak	*Quercus wislizenii*	1	8	20	Codominate leader at 15', narrow angle, included bark	Remove narrow angle limb at 2' to North West, suppress South stem above codominate leader, re-inspect in 3 years	3
3463	175	Interior Live Oak	*Quercus wislizenii*	1	7	20	Sparse canopy, limb tip die back, codominate leader at 6'	Remove dead wood, remove hanger, remove South stem at codominate leader at 6', re-inspect in 3 years	3
3464		Interior Live Oak	*Quercus wislizenii*	1	7 @ 3'	15	Limb crossing with Western Cottonwood, poor taper, suppressed	Remove limb crossing cottonwood, Remove dead wood	2
3465	2151	Valley Oak	*Quercus lobata*	1	8	15	Epicormic growth, Good	Remove dead wood	3
3466		Interior Live Oak	*Quercus wislizenii*	1	10	30	Poor structure, unbalanced canopy and bow to south west at 5 - 15'	Remove dead wood, prune to balance	2
3467		Interior Live Oak	*Quercus wislizenii*	1	6	15	Debris at base, lean and unbalanced canopy to south west	Remove debris, Remove dead wood, prune to balance	2
3468		Interior Live Oak	*Quercus wislizenii*	1	7	20	Slight lean, corrected	Remove dead wood, prune to balance	3
3469		Interior Live Oak	*Quercus wislizenii*	4	8 @3'	15	Codominant leader at 4', good	Remove dead wood	3
3470		Interior Live Oak	*Quercus wislizenii*	4	9, 4, 13, 5	30	Very sparse canopy, hanger	Remove hanger, Remove dead wood, prune to balance, re-inspect in 3 years	3

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3471	169	Interior Live Oak	*Quercus wislizenii*	1	6, 8, 7, 7	30	8" stem is upright with codominant leader at 5', very sparse canopy	Remove dead wood, re-inspect in 3 years	3
3472		Interior Live Oak	*Quercus wislizenii*	1	6	10	Suppressed by Western Cottonwood	Prune to balance	3
3473		Interior Live Oak	*Quercus wislizenii*	1	13	25	Prostrate limb at 1' to north east, sparse canopy, codominant leader at 10'	Rmeove 2 lowest limbs, re-inspect in 3 years	3
3474	240	Interior Live Oak	*Quercus wislizenii*	4	5, 8 @ 1', 8, 10	15	Large dead wood, included bark at 2' and 5' in 10" stem, poor taper, very sparse canopy	Remove dead wood, re-inspect in 3 years	2
3475		Interior Live Oak	*Quercus wislizenii*	3	7, 3, 4	18	Unbalanced canopy to south	Re-inspect in 3 years	3
3476		Interior Live Oak	*Quercus wislizenii*	1	6 @ 1'	14	Not Protected, suppressed, poor structure, crossing limbs, unbalanced canopy to south	Remove 1 stem at codominant leader at 5', prune to balance	2
3477		Interior Live Oak	*Quercus wislizenii*	1	6	16	understory	Remove north stem, prune to balance	2
3478		Interior Live Oak	*Quercus wislizenii*	3	6, 10, 4	-	Very sparse canopy, too much dead wood	To be Removed	2
3479	233	Interior Live Oak	*Quercus wislizenii*	1	8	-	Unbalanced canopy to east, very sparse canopy, too much dead wood	To be Removed	2
3480	234	Interior Live Oak	*Quercus wislizenii*	2	15, 11	14	Codominant leader at 1' with included bark	Remove dead wood	3
3481		Interior Live Oak	*Quercus wislizenii*	1	6	8	Poor taper, sparse canopy	Remove dead wood	3
3482		Interior Live Oak	*Quercus wislizenii*	1	11	15	Leans to south, on slope	Remove dead wood	3
3483		Interior Live Oak	*Quercus wislizenii*	1	7	8	Rocks at base, on slope, poor taper	~	3
3484		Interior Live Oak	*Quercus wislizenii*	1	7	12	On steep slope, unbalanced canopy to west	Remove dead wood prune to balance	3
3485		Valley Oak	*Quercus lobata*	1	8	15	Epicormic growth, sparse canopy,	~	3

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
							slight lean to north		
3486		Interior Live Oak	*Quercus wislizenii*	1	6 @ 1'	12	Unbalanced canopy ot south west, poor structure, understory	Remove dead wood, prune to balance	2
3487		Interior Live Oak	*Quercus wislizenii*	1	9	~	Imbedded fence wire, suppressed, unbalanced canopy to west	To be Removed	2
3488		Interior Live Oak	*Quercus wislizenii*	1	6	14	Poison oak wrapped tree, suppressed, unbalanced canopy to west	Remove dead wood, prune to balance	2
3489		Interior Live Oak	*Quercus wislizenii*	2	7, 6	20	Understory, unbalanced canopy to north west, codominant leader at 2', poor structure	Remove dead wood	2
3490		Interior Live Oak	*Quercus wislizenii*	1	6	~	Prostrate at 8 - 10' to west, poor structure	To be Removed	1
3491		Interior Live Oak	*Quercus wislizenii*	1	16 @ 3'	20	Codominant leader at 5' with included bark at narrow attachment, good	Remove dead wood, re-inspect in 3 years	3
3492		Valley Oak	*Quercus lobata*	2	5, 8	~	Imbedded fence wire, top failed	To be Removed	1
3493		Valley Oak	*Quercus lobata*	1	9	16	Diseased, very small leaves, poor structure	~	2
3494	161	Interior Live Oak	*Quercus wislizenii*	1	9	10	Understory, sparse canopy	Remove dead wood	2
3495		Interior Live Oak	*Quercus wislizenii*	3	4, 4, 7	15	Narrow attachment at 3' with included bark to base, poor taper, poor structure at top of 7" stem	~	2
3496		Valley Oak	*Quercus lobata*	1	18	30	~	~	3
3497		Interior Live Oak	*Quercus wislizenii*	1	9	~	Hit by grey pine failure, prostrate with correction	To be Removed	1
3498		Interior Live Oak	*Quercus wislizenii*	1	6	10	Imbedded fence wire, poor taper, very sparse canopy	Remove wire, Remove dead wood	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3499		Interior Live Oak	*Quercus wislizenii*	2	6, 3	16	Very sparse canopy	Remove dead wood, re-inspect in 3 years	3
3500		Interior Live Oak	*Quercus wislizenii*	1	6	16	Understory, poor structure, poor taper	Remove dead wood, prune to balance	2
3501		Interior Live Oak	*Quercus wislizenii*	1	11 @ 2'	22	Poor taper	Remove dead wood	3
3502		Interior Live Oak	*Quercus wislizenii*	2	9, 10	25	10" stem has failure stub with advanced decay at 5', poor structure, poor taper	~	2
3503		Interior Live Oak	*Quercus wislizenii*	2	6, 13	30	Unbalanced canopy to south	Remove dead wood, prune to balance	3
3504		Interior Live Oak	*Quercus wislizenii*	1	7	15	Understory, poor structure, unbalanced canopy to west	~	2
3505		Interior Live Oak	*Quercus wislizenii*	3	13, 13, 16	35	Codominant leader at 2' into 3 stems, included bark, 16" over weight to east	Remove dead wood, end weight reduction on 16, re-inspect annually	3
3506		Interior Live Oak	*Quercus wislizenii*	3	8, 12, 10	28	Codominant leader at 2' with very narrow angle, includedc bark and limbs cross at crotch	Needs corrective pruning	2
3507		Interior Live Oak	*Quercus wislizenii*	3	7, 5, 4	~	Poor structure, bows to north east	To be Removed	2
3508		Interior Live Oak	*Quercus wislizenii*	2	11, 8	15	Codominant leader at 1', included bark 1' to 5' in 11" stem, poor taper, very sparse canopy	Re-inspect in 3 years	2
3509	250	Interior Live Oak	*Quercus wislizenii*	2	7 @ 1', 11 @ 1'	35	11" stem has codominant leader at 3' with included bark, east stem is prostrate, 7" stem is mostly dead	Remove dead wood, Remove 7", Remove prostrate limb (8" cut)	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3510	225	Interior Live Oak	*Quercus wislizenii*	3	18, 17, 7	30	Codominant leader at 2' and 5' in both large stems, over weight limbs to south	Remove dead wood, end weight reduction to south, re-inspect in 3 years	3
3511		Interior Live Oak	*Quercus wislizenii*	2	9 @ 2', 9 @ 2'	~	Mostly dead	To be Removed	1
3512		Interior Live Oak	*Quercus wislizenii*	1	7	10	Prostrate at ground	Remove 2 lowest limbs, re-inspect in 3 years	2
3513	2148	Interior Live Oak	*Quercus wislizenii*	1	7 @ 3'	15	Poor structure, unbalanced canopy to west	Remove dead wood, prune to balance	2
3514		Interior Live Oak	*Quercus wislizenii*	1	6	10	Base leans to south, sparse canopy	Re-inspect in 3 years	3
3515		Interior Live Oak	*Quercus wislizenii*	2	5, 12 @2'	25	Top bows	Remove dead wood, prune to balance	3
3516		Interior Live Oak	*Quercus wislizenii*	1	6	10	Poor structure, mostly dead	~	2
3517		Interior Live Oak	*Quercus wislizenii*	2	8, 5	~	Hit by fallen grey pine	To be Removed	1
3518	145	Interior Live Oak	*Quercus wislizenii*	2	10, 9 @ 2'	30	Very sparse canopy, east stem is prostrate	Remove dead wood, re-inspect in 3 years	2
3519	146	Interior Live Oak	*Quercus wislizenii*	1	8	15	Suppressed, poor structure, prostrate to south	Remove dead wood, prune to balance	2
3520	149	Interior Live Oak	*Quercus wislizenii*	1	11 @ 3'	20	Poor taper, very sparse canopy	Remove dead wood, prune to balance	2
3521		Valley Oak	*Quercus lobata*	1	14	28	Dominant, good	Remove dead wood	4
3522		Valley Oak	*Quercus lobata*	1	9	20	Leans to south east, good	Prune to balance	4
3523		Interior Live Oak	*Quercus wislizenii*	3	11, 5, 5	23	Very sparse canopy	Remove dead wood	3
3524		Interior Live Oak	*Quercus wislizenii*	3	5, 5, 4	10	Codominant leader at 1', unbalanced canopy to south west, sparse canopy	Remove dead wood, prune to balance	2

Tag Number	Old Tag Number	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Actions	Rating
3525		Interior Live Oak	*Quercus wislizenii*	1	6	14	Suppressed, poor structure	Remove dead wood, prune to balance	2
3526	156	Interior Live Oak	*Quercus wislizenii*	1	11 @ 3'	16	Codominant leade at 5', unbalanced canopy to west	Remove dead wood, prune to balance, re-inspect in 3 years	3
3527		Interior Live Oak	*Quercus wislizenii*	1	10	20	Unbalanced canopy to west	Remove dead wood, prune to balance	3
3528		Interior Live Oak	*Quercus wislizenii*	1	8	10	Very sparse canopy	Remove dead wood, prune to balance	2
3529		Interior Live Oak	*Quercus wislizenii*	1	7	~	Poor structure, too much decay at base	To be Removed	1
3530		Valley Oak	*Quercus lobata*	1	15 @ 1'	~	Diseased, very small leaves, poor structure	To be Removed	2
3531		Interior Live Oak	*Quercus wislizenii*	2	9, 8	30	Unbalanced canopy to west, poor taper	Remove dead wood, prune to balance	3
3532		Blue Oak	*Quercus douglasii*	1	7	15	Very small leaves, poor taper	Re-inspect in 3 years	3
3533	147	Interior Live Oak	*Quercus wislizenii*	1	8 @ 1'	15	Under story, poor structure	Remove dead wood, prune to balance	2
3534	322	Interior Live Oak	*Quercus wislizenii*	5	8, 6, 10, 4, 9	24	Very sparse canopy, epicormic growth	Remove dead wood, Remove 4" stem, re-inspect in 3 years	2
3545	NT	Interior Live Oak	*Quercus wislizenii*	1	9	20	Slight lean and unbalanced canopy to West, very sparse canopy	Remove dead wood, prune to balance	3

Level of Inspection, Testing and Analysis:

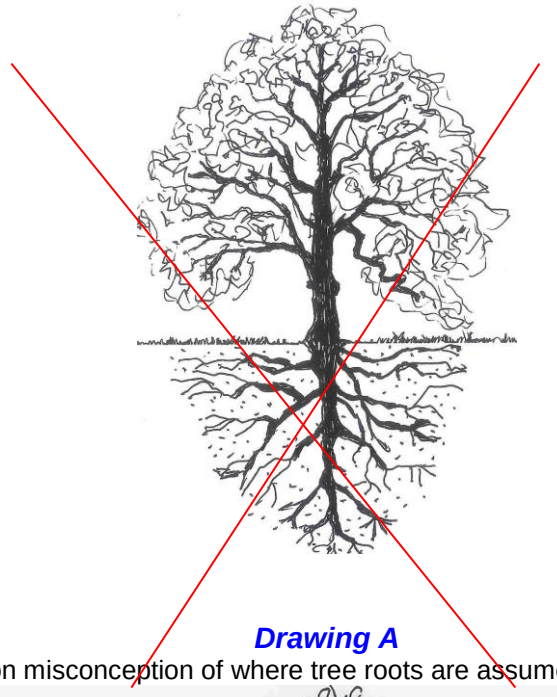
A Level 2 – Basic Visual Assessment was performed in accordance with the International Society of Arboriculture's best management practices. This assessment level is limited to the observation of conditions and defects which are readily visible. No laboratory or chemical testing and analysis was performed, only ground level observations.

A recommended Level 3 – Advanced Assessment should be performed on trees determined during the development process to have a target. Level 3 assessment includes aerial inspection

and evaluation of the structural defects of a tree including decay and load testing for purposes of risk analysis.

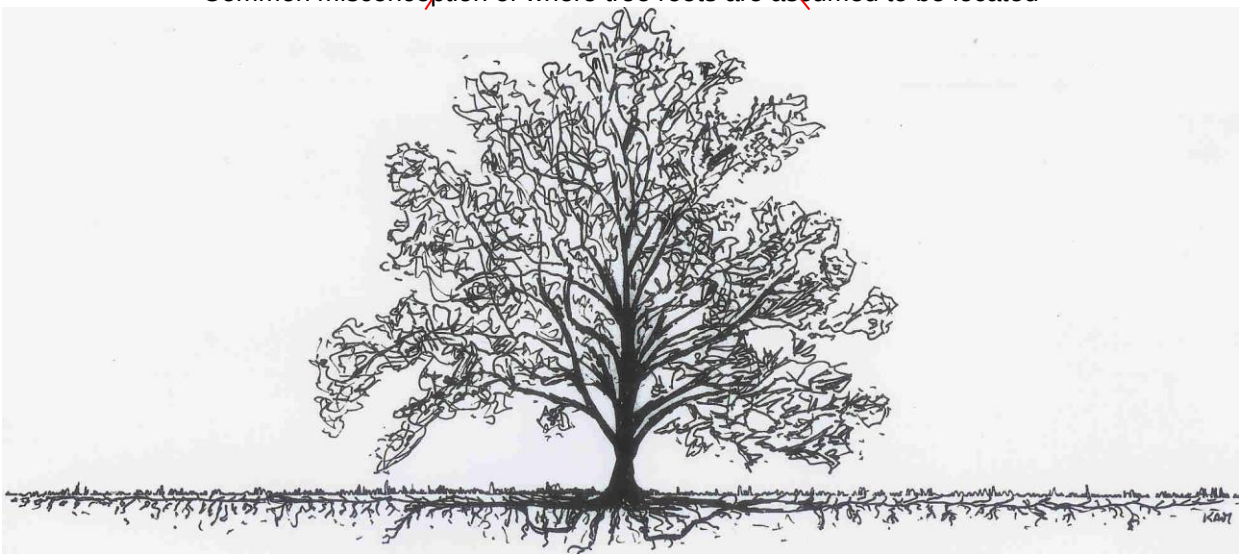
Discussion:

The majority of a tree's roots are contained in a radius from the main trunk outward approximately two to three times the canopy of the tree. These roots are located in the top 6" to 3' of soil. It is a common misconception that a tree underground resembles the canopy (see Drawing A below). The correct root structure of a tree is in Drawing B. All plants' roots need both water and air for survival. Surface roots are a common phenomenon with trees grown in compacted soil. Poor canopy development or canopy decline in mature trees is often the result of inadequate root space and/or soil compaction.



Drawing A

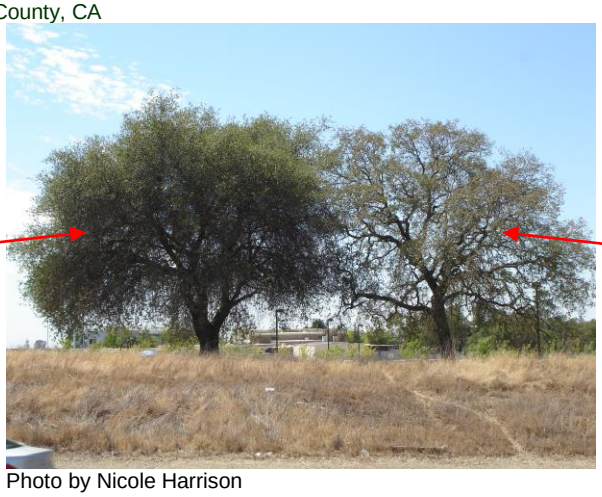
Common misconception of where tree roots are assumed to be located



Drawing B

The reality of where roots are generally located

Healthy Canopy



Sparse Canopy

Photo by Nicole Harrison

Epicormic growth is a trees response to loss of leave surface from either limb drop, over pruning, or stressful conditions. Epicormic growth is simply the release of latent buds, which begin rapid growth in order to provide as much new leaf surface in the shortest period of time to make up for the loss of leave surface. Epicormic growth prevents the death of the tree in stressful times, but creates a need for additional pruning. It is not the formation of a structurally intact new limb. The new limbs are weakly attached and need support and pruning.

Limited space for canopy development produces poor structure in trees. The largest tree in a given area, which is 'shading' the other trees is considered Dominant. The 'shaded' trees are considered Suppressed. The following picture illustrates this point. Suppressed trees are more likely to become a potential hazard due to their poor structure.

Dominant Tree

Growth is upright

Canopy is balanced by limbs and foliage equally

Suppressed Tree

Canopy weight all to one side

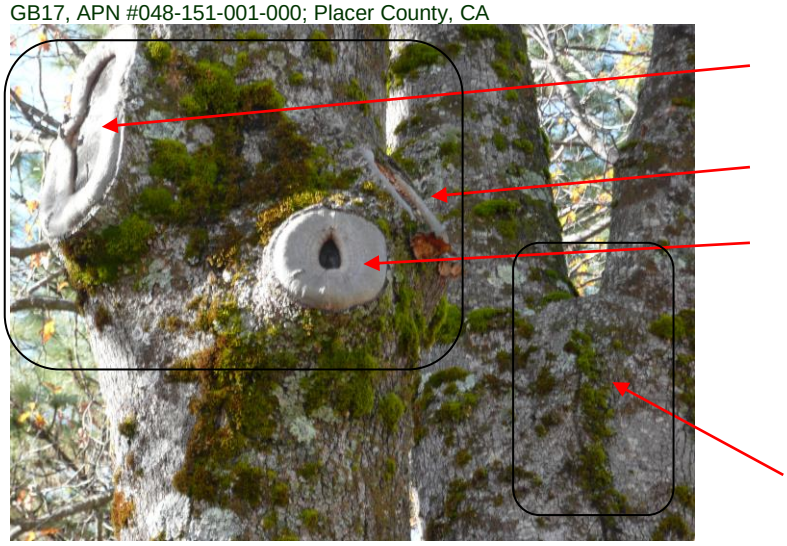
Limbs and foliage grow away from dominant tree

Pruning causes an open wound in the tree. Trees do not "heal" they compartmentalize. Any wound made today will always remain, but a healthy tree, in the absence of decay in the wound, will 'cover it' with callus tissue. Large, old pruning wounds with advanced decay are a likely failure point.

Two Potential Failure Points

Large pruning wound with callous, uneven surface as indication of decay

Large pruning wound with advanced decay



Co-dominant leaders are another common structural problem in trees.

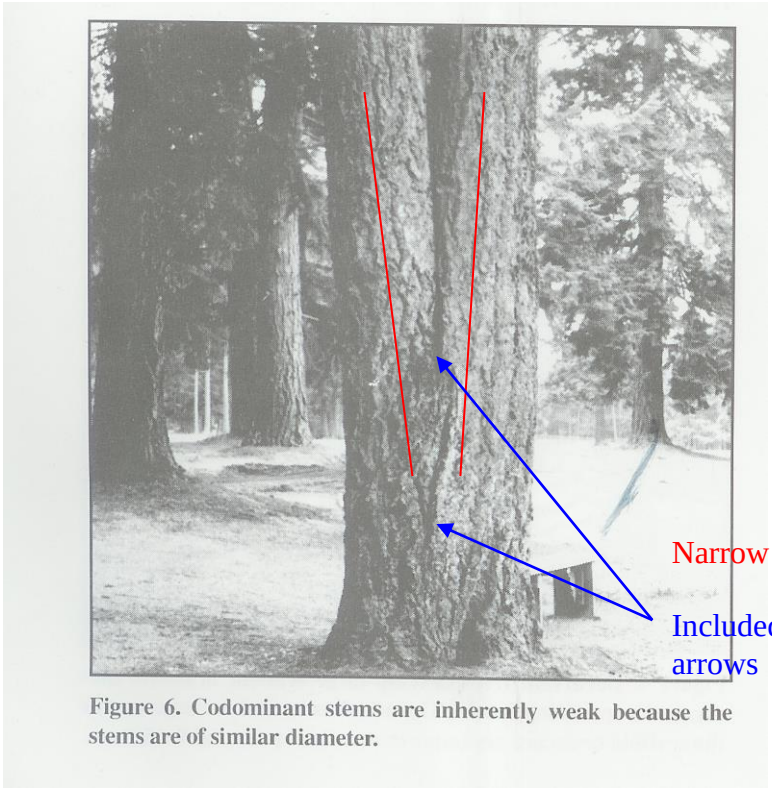


Figure 6. Codominant stems are inherently weak because the stems are of similar diameter.

The tree in this picture has a co-dominant leader at about 3' and included bark up to 7 or 8'. Included bark occurs when two or more limbs have a narrow angle of attachment resulting in bark between the stems – instead of cell to cell structure. This is considered a critical defect in trees and is the cause of many failures.

Narrow Angle

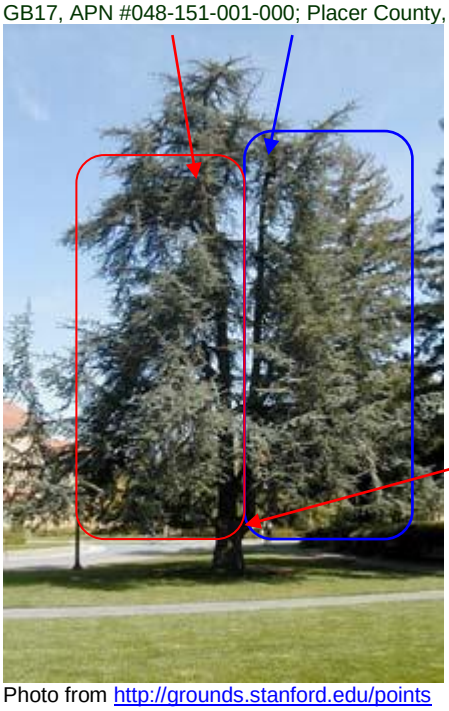
Included Bark between the arrows

Photo from Evaluation of Hazard Trees in Urban Areas by Nelda P. Matheny and James R. Clark, 1994 International Society of Arboriculture

Leader #2 and foliage grown away from #1

In addition, co-dominant leaders phototropically (due to sunlight) suppress each other's growth. All the limbs are grown away from the main trunk to one side. The weight of the foliage of the tree is distributed asymmetrically placing a greater amount of pressure on the already

Leader #1



Weak union with the excessive weight of asymmetrical canopies

Photo from http://grounds.stanford.edu/points/significanttrees/cedrusatlantica.html

Our native oak trees are easily damaged or killed by having the soil within the Critical Root Zone (CRZ) disturbed or compacted. All of the work initially performed around protected trees that will be saved should be done by people rather than by wheeled or track type tractors. Oaks are fragile giants that can take little change in soil grade, compaction, or warm season watering. Don't be fooled into believing that warm season watering has no adverse effects on native oaks. Decline and eventual death can take as long as 5-20 years with poor care and inappropriate watering. Oaks can live hundreds of years if treated properly during construction, as well as later with proper pruning, and the appropriate landscape/irrigation design.

Conclusion:

A total of **431 oak** trees which met the Placer County Tree Preservation qualifications were tagged and evaluated. **ABACUS** has provided guidance for each of the trees in the form of the action column of ***Chart B***, a discussions section, a specific recommendations section, a general recommendations section, and in the Tree Site Map at the end of this report.

1) **3** trees are rated a **0** ("dead") and should be removed immediately.

2) A total of **130** trees are rated **1** ("dangerous") and noted for immediate removal due to their poor condition.

3) There are **192** trees rated a **2** ("poor") and are noted for removal due to their poor condition. Trees in this category may be retained if all of the recommendations are followed to reduce risk.

4) **107** of the trees are rated **3** ("fair"), or **4** ("good").

5) There is **no** trees rated a **5** ("excellent").

There are **433** total trees inventoried, of which **2** are protected species but are too small for protection, **80** are Blue Oak, **25** are Valley Oak, and **324** are Interior Live Oak.

General Recommendations:

1) Follow all of the recommendations in the action column of ***Chart B*** immediately.

2) All trees to be saved shall have their root zones and trunk(s) protected with a four (4') foot high orange or yellow plastic, high visibility exclusionary fence surrounding the trees' root zone. The fence shall be staked 10'o.c. maximum spacing, with 5' steel "T" posts, 2" x 2" square or 2"+ ∅ wood posts. The exclusionary area shall be under the tree's branched canopy and extend out to the tree's longest dripline radius plus one foot, as a circle. Where new construction will be within the Protected Root Zone, the fencing shall be 4' away from the footings, and extend around the rest of the canopy of the tree from that point. The fencing shall be maintained and not removed until the completion of construction. The fencing shall completely surround the Protected Root Zone and not be "U" shaped or open at any point. Whenever possible, include as many trees that are to be saved into one fenced exclusionary Protected Root Zone. The fencing plan will be completed once the developer decides on driveway, utility, and structure placement.

3) As soon as the concrete is poured and the forms are stripped, backfill the footings and stem walls. The protected trees nearby that are to remain should be watered to the point of soil saturation.

4) Care must also be continued after the construction is over to select the right plants to live under and near the native oaks. Watered lawns and any frequent summer watering near California oaks will not mix well over a long period. This will cause the oaks to perish due to *Armillaria mellea* (oak root fungus). The demise of the native oaks due to *Armillaria mellea* may take 5 – 20 years. Oaks should live 200 - 300 years.

5) To help control root damage, utility-trenching paths are to be established away from the roots and branches of the oaks that are to remain.

6) Soil compaction shall be avoided by maintaining the exclusionary Protected Root Zone fencing, keeping material storage, people, portable outhouses, vehicles, and dogs out of this area.

7) Soil contamination shall be avoided by eliminating chemical dumping on the property that may infiltrate into the Protected Root Zone. **No**: washing, dumping, or contaminating the site including but not necessarily limited to the following: concrete from tools or trucks, paint materials, sheetrock mud or stucco materials, other chemicals, solvents, herbicides, etc. Limestone gravel should not be used as base material or for drain rock as it will change the pH to be more alkaline, and may harm the native oaks.

8) Do not nail, tie, screw, or fasten any signs, braces, etc. to the trees that are to remain.

9) The cut and fill material excavated from or added to the lot can kill an oak by removing too many roots, drying or wetting the soil or by suffocating the roots with too much soil. Care must be taken with the added soil as well as with the actual excavation. Roots need air as much as they need water to survive and for the whole tree to live and to flourish. If fill material is needed, properly designed aeration/ventilation systems made to protect the trees and allow for the fill material can be installed.

10) When deciding on a pruning arborist, inquire about a chipper and require them to utilize the chipped branches of the trees to be removed or pruned. The chips are to be used under the oaks that are to remain, as mulch in the Protected Root Zone. Other mulch may be used of arborist type woodchips (4 – 6" deep), but not redwood or cedar bark.

11) When the recommended pruning is completed, it is only advisable if a qualified ISA Certified Arborist is on site. No cutting of live wood over 2"∅ shall be made. All cutting, pruning, trimming, cabling, guying, bracing, and lightning protection systems shall conform to the most current standards of the American National Standards Institute (ANSI). The current ANSI Tree Care Standards are A300 (Parts 1-4) 2000 to 2002 (copies at: www.ansi.org). The BMPs are "Best Management Practices", as companion publications to the ANSI Tree Care Standards, printed by the International Society of Arboriculture (copies at: www.isa-arbor.com). The BMP booklets explain the details of the ANSI Tree Care Standards and how to follow them correctly. Pruning of branches under 3" in diameter should be made with sharp hand tools: pruners, loppers, and/or handsaws, not chainsaws.

Following the recommendations of our report will greatly increase the likelihood of survival for all of the trees that will remain. Improving the aesthetics, decreasing maintenance costs, and most importantly reducing potential hazard and liability are the main goals.

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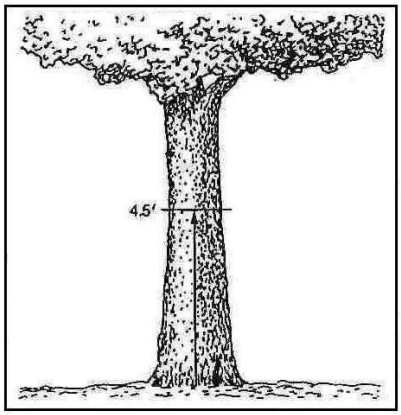
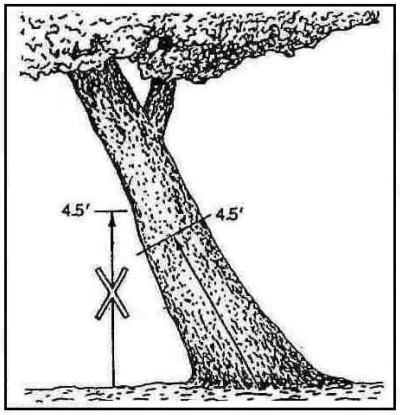
Tree SIZE Expressed by Trunk Diameter

"The height at which the trunk diameter of a tree is measured depends upon its size. The American Standard for Nursery Stock (ANSI, 1990) state that measurements shall be taken 6 inches (15 cm) above the ground for trunk diameters up to and including 4 inches (10 cm). Larger trees (assumed, but not stated, to be of transplantable size) are to be measured at 12 inches (30 cm). Trees normally considered too large to transplant are to be measured 4.5 feet [4'-6" is also called diameter breast high or dbh] (1.4 m) above the ground. Trees, like conifers, which have branches below 4.5 feet should be measured at a height that most effectively represents the size of the tree." The diameter is calculated by first measuring the circumference divided by 3.14 (π called pi) or by using a "diameter tape" whereon the inches are multiplied by π and shown to produce the diameter directly.

This is the dbh standard for measurement as shown in figure 4-2.



Figures 4-2. Trees with fairly straight, upright trunks with the lowest branch arising on the trunk higher than 6 feet (1.8 m) above the ground should be measured at 4.5 feet (1.4 m).



Figures 4-3 (top) and 4-4 (bottom). In each case, the trunk circumference should be measured at right angles to the trunk 4.5 feet (1.4 cm) along the center of the trunk axis so the height is the average of the s hortest and longest sides of the trunk.

There are some exceptions to the dbh standard as shown in the figures 4-3, 4-4, 4-5 & 4-6.

Figure 4-6. In a multi-stem tree, measure the trunk circumference of each trunk at 4.5 feet (1.4 m) above the ground. The area of each trunk is determined and then added together to obtain a trunk area that is representative of the size of the tree and each of the stems contribute its proportionate share to the canopy.

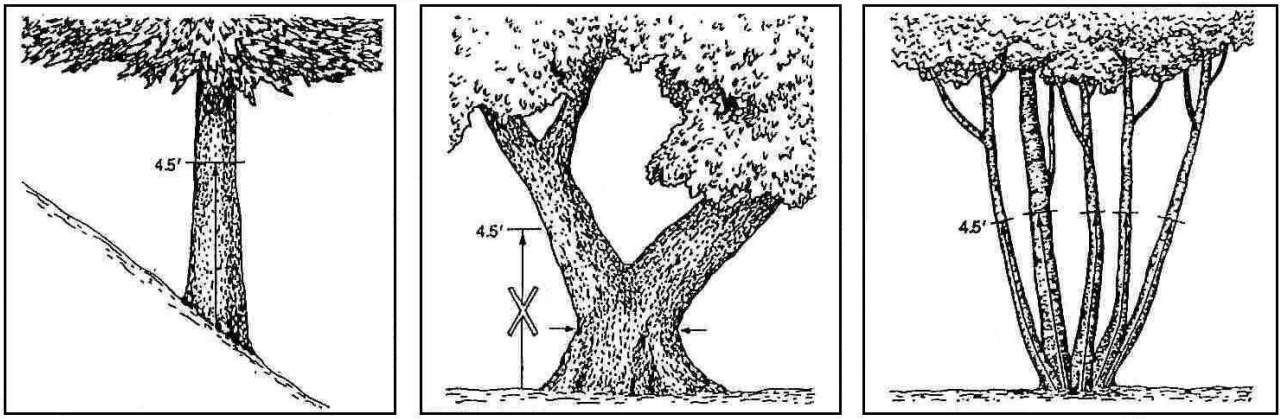


Figure 4-5. When low branches preclude measuring the trunk at 4.5 feet (1.4 m) measure the smallest circumference below the smallest branch. In this example, an alternative would be to determine the sum of the cross-sectional areas of the two stems measured about 12 inches (30 cm) above the crotch; then average the sum of the two branch areas and the smallest cross-sectional area below the branches. This may give a better estimate of tree size. Record the height of measurement(s) and the reasons the height or those heights were chosen.

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Tree SIZE Expressed by Trunk Diameter	
Scale: NTS	Drawing: TSE

ABACUS
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Disclosure, Assumptions and Disclaimer

1) I, Nicole Harrison, ISA Certified Arborist WE-6500A, with **"ABACUS"**, did personally inspect the site and investigated the tree(s) as mentioned in this report and I performed all aspects of this report unless noted otherwise in the report.

2) I have neither financial interest in the tree work that may or may not be done, nor financial interest in the property where the tree(s) is (are) located unless noted within the report.

3) All opinions and recommendations expressed herein this report are mine solely. I have used my specialized education, knowledge, training and experience to examine the tree(s) and to make my opinions and recommendations to enhance the beauty, health and longevity, with an attempt to reduce the risk of who and/or what is near these trees. I cannot guarantee or warranty that a tree will not be healthy or safe under all circumstances, nor for a specific period of time or that problems may not arise in the future.

4) My report with its opinions and recommendations are limited to the tree(s) inspected.

5) I attempt to be cognizant of the whole scope of a project, but many matters are beyond the scope of my professional consulting arborist services such as: exact property boundaries, property ownership, site lines, easements, codes, covenants & restrictions (CC&Rs), disputed between neighbors, and other issues.

6) I rely on the information disclosed to me and assume the information to be complete, true, and accurate.

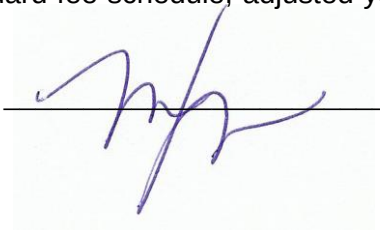
7) The inspection is limited to visual examination of accessible items of the tree(s), from the ground unless otherwise noted, without excavation, probing, boring, or dissection, unless noted otherwise. Only information covered in this report was examined, and reflects the condition of those inspected items at that specific time.

8) Clients may choose to accept or disregard these opinions and recommendations of the arborist or to seek additional advice.

9) This report is copyrighted. Any modification or partial use shall nullify the whole report. Do not copy without written permission. This report is for the client and the client's assignees.

10) Sketches, diagrams, graphs, drawings, and photographs within this report are intended as visual aids and are not necessarily to scale, and should not be construed as engineering or architectural detail, reports or surveys.

11) I shall not attend or give a deposition and/or attend court by reason of this report unless fees are contracted for in advance, according to our standard fee schedule, adjusted yearly, for such services as described.

Signed: 

Arborist Report by:

ABACUS

ABACUS
CONSULTING ARBORISTS

P. O. Box 4248
Auburn, CA 95604
www.abacus-tree.com (530) 305-0165 E-mail: nicole@abacus-tree.com

Preliminary Arborist Report

&

Oak Tree Inventory & Assessment

Prepared at the request of:

Salix Consulting, Inc.

For

GB33

(Previously known as Creekside Oaks)

APN #048-151-061-000

Located

In

Placer County, California

Nicole Harrison
International Society of Arboriculture, Certified Arborist #WE-6500AM, TRAQ

October 15, 2014

Table of Contents

Executive Summary:

Jeff Glazner of Salix Consulting, Incorporated contracted **ABACUS** to evaluate and inventory the oak trees on the Creekside Oaks project site in Granite Bay, Placer County, California, and to produce the end product, an Arborist Report and Oak Tree Inventory.

ABACUS was on site from Tuesday, August 5th, 2014 to Tuesday, October 14, 2014; providing on-site tagging, identifications, number of trunks, DBH measurements, field condition notes, recommended actions, and ratings of the trees.

A total of **1044 oak** trees which met the Placer County Tree Preservation qualifications were tagged and evaluated. **ABACUS** has provided guidance for each of the trees in the form of the action column of ***Chart B***, a discussions section, a specific recommendations section, a general recommendations section, and in the Tree Site Map at the end of this report.

1) **3** trees are rated a **0** ("dead") and should be removed immediately.

2) A total of **132** trees are rated **1** ("dangerous") and noted for immediate removal due to their poor condition.

3) There are **341** trees rated a **2** ("poor") and are noted for removal due to their poor condition. Trees in this category may be retained if all of the recommendations are followed to reduce risk.

4) **567** of the trees are rated **3** ("fair"), or **4** ("good").

5) There is **1** tree rated a **5** ("excellent").

There are **1053** total trees inventoried, of which **9** are protected species but are too small for protection, **323** are Blue Oak, **21** are Valley Oak, and **700** are Interior Live Oak.

The community and Placer County want the trees protected by species and size and currently require the quality oak trees 6" dbh and greater to be protected at all times and accounted for **before** construction work has begun, and after completion. Our list of general recommendations and specific recommendations, as well as the action column in ***Chart B***, listed in this report are required for protection of these trees.

Assignment:

Pursuant to your request, **ABACUS** has completed an inventory and evaluation of trees located within the development area; providing on-site tagging, as well as species identification, number of stems, DBH measurements, field condition notes, recommended actions, and ratings. The trees are located on Douglas Boulevard in Placer County, California.

Observations:

Nicole Harrison, ISA Certified Arborist #WE-6500AM-TRAQ, Joey Bena, ISA Certified Arborist #WE-10409A, Julie McNamara, Arborists Assistant, Michael McNamara, Arborists Assistant, and Nicholas McNamara, Arborists Assistant, inventoried, evaluated and tagged all trees that were 6" in diameter measured at 4-1/2' above ground level or at Diameter Breast Height (DBH). The fieldwork was completed Tuesday, August 5th, 2014 to Tuesday, October 14, 2014.

The protected trees (on-site) tagged by **ABACUS** have a numbered tag, placed on each one that is 1-1/8" x 1-3/8", green anodized aluminum, "acorn" shaped, and labeled: **ABACUS**, Auburn, CA with 1/8" pre-stamped tree number, our phone number 530-889-0603, attached with a natural colored aluminum 10d (3") nail, installed at 6 feet above ground level. The tag should last ~10 – 20+ years depending on the species before it is enveloped by the trees' normal growth cycle, as the tags are not nailed flush to the trunk.

The proposed development map and tree locations were provided by TSD Engineering. All of the other information regarding the trees within this report and on the Tree Site Map was by **ABACUS**.

Chart B in this report is an inventory on the protected trees. The following terms, and ***Chart A*** will further explain our findings on ***Chart B*** and the trees in question.

Species of trees is listed by our local and correct common name and botanical name by genus (capitalized) and species (lower case). Oaks frequently cross-pollinate and hybridize, but the identification is towards the strongest characteristics.

 # Stems refers to the quantity of trunks or stems of a tree that have a significant connection. If one stem or trunk were to be removed, it would cause decay to harm an adjoining stem, making it one tree. All stems must be of the same species. (Also see "Tree SIZE Expressed by Trunk Diameter" at the end of this report)

DBH (diameter breast high) is normally measured at 4'6" (above the average ground height for "Urban Forestry"), but if that varies then the location where it is measured is noted here. A Swedish caliper [1] was used to measure the DBH for trees less than 26" in diameter and a steel diameter tape[2] for trees greater than 26"Ø.

Rating is subjective to health and structure = condition. All of the trees were also rated for condition, per the recognized national standard as set up by the Council of Tree and Landscape Appraisers and the International Society of Arboriculture (ISA) on a numeric scale of 5 (being the highest) to zero (the worst condition, dead) as in ***Chart A***. The rating was done in the field at the time of the measuring and inspection. The scale is as follows:

[1]DBH or dbh, "Diameter Breast high" is the diameter of the tree's trunk in inches, measured 4' 6" off the ground (for more information see "Tree SIZE Expressed by Trunk Diameter" at the end of this report).
[1]A large wooden sliding adjustable thickness gauge calibrated in 1/16" increments.
[2]Diameter Tape is used to figure the tree's diameter, by measuring the circumference, whereon the inches are pre- multiplied by 3.14 or π (π called pi) and shown to produce the diameter of the tree directly on the tape.

Chart A

No problem(s)	5	excellent
No apparent problem(s)	4	good
Minor problem(s)	3	fair
Major problem(s)	2	poor
Extreme problem(s)	1	hazardous or dangerous
Dead	0	dead

There is a very important line drawn between a tree rated a **3** and a **2**. A rating of **3 – 4 – 5** means that they are trees to be preserved and kept. A rating of a **0 – 1 – 2** is a tree that is recommended for removal and is a liability rather than an asset. On the following tree list **BLACK** marks are field notes and action items on trees that are to remain, and **RED** are trees that are recommended for removal. Trees rated a **2** may be retained but only if the recommendations are followed, otherwise the tree should be removed.

Rating #0: This indicates a tree that has no significant sign of life.

Rating #1: The problems are extreme. This rating is assigned to a tree that has structural and/or health problems that no amount of work or effort can change. The issues may or may not be considered a dangerous situation.

Rating #2: The tree has major problems. If the option is taken to preserve the tree, its condition could be improved with correct arboricultural work including, but not limited to: pruning, cabling, bracing, bolting, guying, spraying, mistletoe removal, vertical mulching, fertilization, etc. If the recommended actions are completed correctly, hazard can be reduced and the rating can be elevated to a 3. If no action is taken the tree is considered a liability and should be removed.

Rating #3: The tree is in fair condition. There are some minor structural or health problems that pose no immediate danger. When the recommended actions in an arborist report are completed correctly the defect(s) can be minimized or eliminated.

Rating #4: The tree is in good condition and there are no apparent problems that a Certified Arborist can see from a visual ground inspection. If potential structural or health problems are tended to at this stage future hazard can be reduced and more serious health problems can be averted.

Rating #5: No problems found from a visual ground inspection. Structurally, these trees have properly spaced branches and near perfect characteristics for the species. Highly rated trees are not common in natural or developed landscapes. No tree is ever perfect especially with the unpredictability of nature, but with this highest rating, the condition should be considered excellent.

Notes: explain why the tree should be removed or preserved. If it is to remain and be preserved the tree may need some form of work to limit future liability from partial or total failure. Lower deadwood may not be an immediate problem, but the same size wood at a much higher location on the trees could be dangerous and might cause a minor injury to a fatal blow if the branch failed.

Common Terms:

CDL: **C**o-**D**ominant **L**eader: Stems or trunks of the tree that are equal in size and relative importance.

NAA: **N**arrow **A**ttachment: A sharp "V" crotch, usually less than a 45° angle of attachment. Included bark is explained above and is common in branches with narrow attachments. In addition, these branches may not be attached to the trunk as well as others with wider angles of attachment, and can fail more frequently depending on the size of the branch.

TBR: **T**o **B**e **R**emoved: Tree to be removed due to health and/or structural reasons. Removal should be done carefully as to not harm the surrounding trees, branches, and/or trunks above or roots below ground. Do NOT rip out or push over the tree stumps if they are near other trees that are to be preserved. Cut them off close to ground level and leave the stumps and roots to decay, unless they are located within a proposed foundation or area to be paved/concrete surfaced.

UC: **U**nbalanced **C**anopy: Either the trunk is leaning and/or the canopy is phototropic and overly heavy on one side.

Compass Points: These are the standard 16 points of the compass as aligned with Geographic North or True North. In our area, True North (TN) is adjusted for declination 14°49' to the west of Magnetic North (MN).

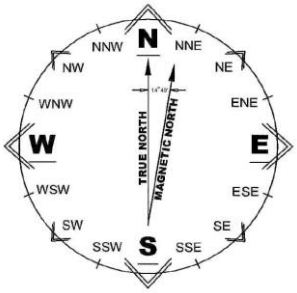


Chart B

On the following tree list **BLACK** marks are field notes and action items on trees that are to remain, and **RED** are trees that are recommended for removal. Trees rated a **2** may be retained but only if the recommendations are followed. Blue are trees which are not protected. Notes are explained further in the Discussion section of this report.

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1201	722	Blue Oak	*Quercus douglasii*	1	11	15	Very sparse canopy, closed codominant leader lost at base	~	3
1202	721	Blue Oak	*Quercus douglasii*	1	7	11	Average	~	3
1203	723	Blue Oak	*Quercus douglasii*	1	16	17	Good	Remove dead wood	4
1204	720	Blue Oak	*Quercus douglasii*	1	9	14	Very sparse canopy, early dormancy, poor health	~	2
1205	719	Blue Oak	*Quercus douglasii*	1	9	15	Cavity under base	If to remain: re-inspect in 1 year	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1206	718	Blue Oak	*Quercus douglasii*	1	6	~	Dead, top failure	To be removed	0
1207	717	Blue Oak	*Quercus douglasii*	2	9, 7	13	Codominant leader at 3', very sparse canopy, cavity under base, poor health	~	2
1208	696	Blue Oak	*Quercus douglasii*	1	6	13	Unbalanced canopy to west, suppressed	Remove dead wood, suppress co-dominant leader at 7'	3
1209	695	Blue Oak	*Quercus douglasii*	1	7 @ 2'	13	Codominant leader at 3', suppressed, unbalanced canopy to west	Remove dead wood, remove east stem at codominant leader	3
1210	694	Blue Oak	*Quercus douglasii*	2	10, 11	16	Codominant leader at base, included bark to 3', sparse canopy, epicormic growth	Add 1 cable, remove dead wood	3
1211	697	Blue Oak	*Quercus douglasii*	1	10 @ 2'	15	Codominant leader at 3', epicormic growth	Remove dead wood	3
1212	693	Blue Oak	*Quercus douglasii*	1	12	25	Slight lean to west, over weight limb to south	End weight reduction to south, re-inspect in 1 year	3
1213	692	Blue Oak	*Quercus douglasii*	2	8, 10	20	Codominant leader at 1', sparse canopy, epicormic growth	Remove dead wood, add 1 cable	3
1214	530	Blue Oak	*Quercus douglasii*	1	6	10	Suppressed by tree #1215	Prune to balance	3
1215	689	Blue Oak	*Quercus douglasii*	1	8	18	Codominant leader at 20', sparse canopy		3
1216	688	Blue Oak	*Quercus douglasii*	1	8	14	Sparse canopy, limb tip dieback, Innonotus canker	Remove dead wood	3
1217	690	Blue Oak	*Quercus douglasii*	1	7, 5	12	Cavity under base, codominant leader at 6"	To be removed	2
1218	691	Blue Oak	*Quercus douglasii*	1	6, 6	12	Good, needs corrective pruning	Prune to balance	4

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1219	698	Blue Oak	*Quercus douglasii*	2	17, 11	25	Mid canopy narrow angle attachments, included bark	End weight reduction to southwest on lower limb at narrow angle attachment, remove dead wood	4
1220	715	Blue Oak	*Quercus douglasii*	1	11	10	Codominant leader at 8', slight lean to west, epicormic growth, sparse canopy, large wound 1'-3' to east, cavity under base	To be removed	2
1221	716	Blue Oak	*Quercus douglasii*	3	9, 9, 9	16	Large failure to south, interesting form	Prune to balance	3
1223	724	Blue Oak	*Quercus douglasii*	1	6	~	Too much decay, diseased	To be removed	1
1224	725	Blue Oak	*Quercus douglasii*	1	7	10	Good canopy, too much decay at base	~	2
1225	726	Blue Oak	*Quercus douglasii*	1	8	12	Good canopy, diseased, Innonotus	~	2
1226		Blue Oak	*Quercus douglasii*	1	11	18	Poison oak wrapped up tree, epicormic growth, large wound with callous at base to north, good canopy	Remove poison oak, remove dead wood, re-inspect in 3 years	2
1227		Interior Live Oak	Quercus wislizenii	11	7, 7, 9, 10, 6, 2, 7, 8, 6, 8, 5	23	Stump sprout, sparse canopy, epicormic growth, poor structure, decay at base	~	2
1228	734	Blue Oak	*Quercus douglasii*	1	7	~	Dead	To be removed	0
1229	731	Blue Oak	*Quercus douglasii*	2	4, 7	14	Suppressed by poison oak	Remove poison oak, remove dead wood, re-inspect in 3 years	2
1230	730	Blue Oak	*Quercus douglasii*	1	9	15	Very sparse canopy, limb tip dieback	Provide summer irrigation	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1231	733	Interior Live Oak	Quercus wislizenii	1	6	14	Suppressed, unbalanced canopy to west	Remove dead wood, prune to balance	2
1232	732	Interior Live Oak	Quercus wislizenii	3	5, 4, 3	16	Smallest stem failed	Remove dead wood, prune to balance	2
1233	729	Blue Oak	*Quercus douglasii*	2	10, 9	17	Decay pocket under tree, mostly epicormic growth, limb tip dieback, poor health	To be removed	2
1234	728	Interior Live Oak	Quercus wislizenii	1	7	15	Very sparse canopy, leans to west	Remove dead wood, prune to balance, re-inspect in 3 years	2
1235	735	Blue Oak	*Quercus douglasii*	1	9	14	Poison oak wrapped tree	~	3
1236	736	Blue Oak	*Quercus douglasii*	1	8	14	Poison oak wrapped tree, no tag	~	3
1237	743	Blue Oak	*Quercus douglasii*	1	9	19	Too much decay under base, cavity	To be removed	2
1238	742	Blue Oak	*Quercus douglasii*	2	8, 9	14	Co-dominant leader at base, epicormic growth	Remove dead wood	3
1239		Blue Oak	*Quercus douglasii*	3	7, 7, 8	18	Poison oak wrapped tree, decay under base, over weight limb to north west	Remove dead wood, prune to balance	2
1240	739	Blue Oak	*Quercus douglasii*	1	11	17	Very sparse canopy, poison oak, large cavity	Remove dead wood, provide summer irrigation	2
1241	740	Blue Oak	*Quercus douglasii*	2	8, 8	11	Cavity under base, mostly epicormic growth	Remove dead wood, provide summer irrigation	2
1242	742	Blue Oak	*Quercus douglasii*	1	9	13	Poison oak wrapped tree, poor canopy, suppressed	Remove poison oak, remove dead wood, prune to balance	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1243	738	Interior Live Oak	*Quercus wislizenii*	3	4, 4, 3, 2, 2, 5	20	Poison oak, suppressed, lean and unbalanced canopy to north east	Remove dead wood, prune to balance	2
1244	737	Interior Live Oak	Quercus wislizenii	2	5, 4	13	Not protected, good	~	3
1245	699	Blue Oak	*Quercus douglasii*	3	4, 6, 7	9	4" stem is dead, irregular small leaves, poor health	Remove dead stem, provide summer irrigation, re-inspect in 3 years	2
1246	700	Blue Oak	*Quercus douglasii*	1	15	22	Large cavity under base	Re-inspect every year, clean cavity	2
1247	703	Blue Oak	*Quercus douglasii*	2	9, 6	12	6" stem is dead and failed, poor angle for closure, epicormic growth	Remove dead wood, remove 6" stem, re-inspect in 3 years	2
1248	706	Blue Oak	*Quercus douglasii*		9, 12	15	Codominant leader at 2', included bark, limb tip dieback	Remove dead wood, re-inspect in 3 years	3
1249	705	Blue Oak	*Quercus douglasii*	3	10, 10, 12	25	Codominant leader at base with large decay cavity, codominant leader at 2' with included bark, both stems are suppressed	~	2
1250	704	Blue Oak	*Quercus douglasii*		12	18	Suppressed, unbalanced canopy to south south east	Remove dead wood, prune to balance	3
1251	701	Blue Oak	*Quercus douglasii*		12, 11	24	Codominant leader at 1' with included bark, over weight limb to south east	Remove dead wood, prune to balance	3
1252	1230	Blue Oak	*Quercus douglasii*		8	20	Poison oak, leans to west	Prune to balance, remove dead wood, remove poison oak and re-inspect	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1253	533	Blue Oak	*Quercus douglasii*		12	15	Debris at base, epicormic growth	Remove debris and re-inspect	3
1254	557	Blue Oak	*Quercus douglasii*		9, 10, 10	28	9-10 pleached at 5-7'	Remove dead wood, add 2 cables and 1 bolt at pleach	3
1255	555	Blue Oak	*Quercus douglasii*	1	8	20	Poor structure, suppressed, unbalanced canopy and lean to south	~	2
1256	554	Blue Oak	*Quercus douglasii*	2	12, 10	18	Good, epicormic growth	~	4
1257	556	Blue Oak	*Quercus douglasii*		11	18	Closed stub at lost codominant leader at base	Remove dead wood, prune to balance	3
1258	702	Blue Oak	*Quercus douglasii*		12	15	Sparse canopy, decay at base	Remove dead wood	3
1259	711	Blue Oak	*Quercus douglasii*		7, 8, 8, 10, 11	18	Cavity at crotch, included bark, epicormic growth	Remove dead wood, add 3 cables, re-inspect annually	3
1260	712	Blue Oak	*Quercus douglasii*	3	9, 10, 11	20	9-11 has included bark base to 3', cavity, decay under base	Re-inspect every year, clean cavity	2
1261	865	Blue Oak	*Quercus douglasii*	1	7	9	Only epicormic growth	~	2
1262	864	Interior Live Oak	Quercus wislizenii	1	6	11	Good	~	4
1263		Blue Oak	*Quercus douglasii*		5, 3, 5, 3	13	Stump sprout	Remove dead wood, prune to balance	3
1264	866	Blue Oak	*Quercus douglasii*		8, 8	20	Codominant leader at base, included bark to 4'	Remove dead wood, future cable, clean out base and re-inspect	3
1265	863	Blue Oak	*Quercus douglasii*		10, 11	18	Poison oak, sparse canopy, codominant leader at 1'	Remove poison oak and re-inspect, remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1266	710	Blue Oak	*Quercus douglasii*	1	13	17	Sparse canopy, good	Remove dead wood	4
1268	708	Blue Oak	*Quercus douglasii*	1	11	16	Sparse canopy, good, codominant leader at base, included bark to 18"	Remove dead wood, prune to balance, re-inspect in 3 years for cabling	4
1269	707	Blue Oak	*Quercus douglasii*	1	10	22	Slight lean to north east, cavity under base	~	2
1270	709	Blue Oak	*Quercus douglasii*		19 @ 2'	22	Codominant leader at 5' with included bark, sparse canopy, limb tip dieback	Remove dead wood	3
1271	871	Blue Oak	*Quercus douglasii*		8, 8, 7, 9	25	Very sparse canopy, epicormic growth	End weight reduction to west, prune to balance, remove dead wood	3
1272	870	Blue Oak	*Quercus douglasii*		6	9	Epicormic growth	Remove dead wood	3
1273	868	Blue Oak	*Quercus douglasii*		11	21	Leans to east	Remove dead wood, prune to balance	3
1274	869	Blue Oak	*Quercus douglasii*		7	20	Suppressed, unbalanced canopy and lean to south	Remove dead wood, prune to balance	3
1275	867	Interior Live Oak	Quercus wislizenii	4	11, 7, 7, 8	25	8 is dead on ground, decay under base	Requires level 3 inspection if to remain	2
1276	872	Interior Live Oak	Quercus wislizenii	5	8, 6, 5, 7, 5	23	Stumps, hit by failure, decay under base	Remove dead wood, re-inspect every year	2
1277	873	Blue Oak	*Quercus douglasii*	1	20 @ 2'	18	Diseased, Innonotus, included bark base to 5'	Remove dead wood, add 1 cable, re-inspect every year	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1278	874	Blue Oak	*Quercus douglasii*	1	6	16	Suppressed	Prune to balance, remove dead wood	3
1279	875	Blue Oak	*Quercus douglasii*	2	12, 9	15	Diseased, Innonotus, sparse canopy, limb tip dieback, codominant leader @ base with included bark to 18"	Remove dead wood, re-inspect every year	3
1280	755	Interior Live Oak	Quercus wislizenii	1	11	~	Decay under base, leans to south, too much decay	To be removed	1
1281		Blue Oak	*Quercus douglasii*	1	13	24	Leans to east, good canopy	~	4
1282	537	Blue Oak	*Quercus douglasii*	2	11, 9	25	Codominant leader at 1', one stem removed, large decay cavity under tree and advanced decay at stub	~	2
1283	538	Interior Live Oak	Quercus wislizenii	5	8, 7, 7, 8, 8	~	Stump sprout, large hanger, too much dead wood	To be removed	1
1284	540	Interior Live Oak	Quercus wislizenii	2	7, 7	23	Suppressed, poor structure, large dead wood	Remove dead wood, prune to balance, re-inspect in 3 years	2
1285	541	Interior Live Oak	Quercus wislizenii	2	8, 10	23	Suppressed, codominant leader at 1' with included bark, smaller stem is dead	Remove dead wood, prune to balance, re-inspect in 3 years	2
1286	539	Blue Oak	*Quercus douglasii*	1	13	17	Good	~	4
1287	542	Blue Oak	*Quercus douglasii*	2	7, 9	15	Good	Remove dead wood	3
1288	536	Blue Oak	*Quercus douglasii*	2	12, 12	17	Decay at crotch at base, epicormic growth	Requires level 3 inspection, add 1 cable, remove dead wood	3
1289	545	Interior Live Oak	Quercus wislizenii	1	15	~	Very sparse canopy, mostly dead	To be removed	1

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1290	564	Blue Oak	*Quercus douglasii*	1	11	18	Diseased	~	2
1291	1229	Interior Live Oak	Quercus wislizenii	3	7, 4, 8	~	8 is dead and failed, too much decay at base	To be removed	1
1292	560	Blue Oak	*Quercus douglasii*	1	9	15	Sparse canopy, epicormic growth	~	3
1293	562	Blue Oak	*Quercus douglasii*	1	8	~	Leans to south, large failure, too much decay at base to 2'	To be removed	1
1294	537	Interior Live Oak	Quercus wislizenii	7	3, 7, 4, 5, 3, 5, 6	20	Stump sprout, poor taper on all stems	~	3
1295	548	Interior Live Oak	Quercus wislizenii	5	4, 4, 2, 4, 2	~	Mostly dead	To be removed	1
1296	549	Interior Live Oak	Quercus wislizenii	4	4, 2, 2, 3	12	Poor taper, suppressed	To be removed	2
1297	550	Interior Live Oak	Quercus wislizenii	5	3, 6, 3, 2, 6	14	Dead stems, crossing limbs	Remove all smaller stems, prune to balance	2
1298	578-577	Interior Live Oak	Quercus wislizenii	9	7, 6, 8, 11, 8, 6, 15, 8, 8	26	Poison oak wrapped tree, 4 crossing limbs, included bark, needs crown clean	Remove poison oak, remove dead wood, remove stubs, re-inspect	3
1299		Interior Live Oak	Quercus wislizenii	3	7, 2, 3	~	Poor structure, suppressed	To be removed	1
1300	566	Blue Oak	*Quercus douglasii*	1	16	28	Steep slope, cavity under base to west - closing	Remove dead wood, end weight reduction to south west, re-inspect in 3 years	3
1301	567	Blue Oak	*Quercus douglasii*	1	6	10	Sparse canopy, good	~	4
1302	582	Blue Oak	*Quercus douglasii*	1	7	10	Good, sparse canopy	Remove dead wood	4
1303	581	Blue Oak	*Quercus douglasii*	1	7	12	Sparse canopy, epicormic growth	Remove stub at base	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1304	565	Blue Oak	*Quercus douglasii*	1	8	16	Cavity under tree, dogleg at 20', suppressed	Remove dead wood, prune to balance	2
1305	553	Blue Oak	*Quercus douglasii*	4	8, 11, 6, 8	25	unbalanced canopy to south west, closed stub at base	Prune to balance	3
1306	569	Blue Oak	*Quercus douglasii*	2	11, 11	~	Too much decay	To be removed	1
1307	568	Blue Oak	*Quercus douglasii*	1	6	10	Good	~	4
1308		Blue Oak	*Quercus douglasii*	1	9	22	Lost codominant leader at 6", decay pocket at stub, unbalanced canopy to south	Prune to balance, re-inspect every year	3
1309	571	Blue Oak	*Quercus douglasii*	1	10	16	Sparse canopy, epicormic growth	Provide summer irrigation	3
1310	590	Blue Oak	*Quercus douglasii*	1	17	25	Mechanical damage at base and 2' to east, sparse canopy	Remove dead wood	3
1311	592	Blue Oak	*Quercus douglasii*	2	7, 12	16	7 is dead	Remove dead wood	3
1312	595	Blue Oak	*Quercus douglasii*	1	11	~	Debris at base, epicormic growth only	To be removed	1
1313	593	Blue Oak	*Quercus douglasii*	5	12-8, 8, 11-9	26	Dead wood at base and at critical junction, sparse canopy, epicormic growth	Remove dead wood, prune to balance, add 2 cables, re-inspect annually	2
1314	597	Blue Oak	*Quercus douglasii*	1	9	12	Good	~	4
1315	599	Blue Oak	*Quercus douglasii*	1	9	16	Leans to west, mechanical damage at 3", diseased	Remove dead wood, re-inspect in 3 years	2
1316	598	Blue Oak	*Quercus douglasii*	1	12	20	Sparse canopy, good	~	4
1317		Blue Oak	*Quercus douglasii*	2	8, 8	15	Poor taper, epicormic growth	~	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1318	604	Blue Oak	*Quercus douglasii*	1	7	13	Narrow angle attachment at 8', included bark, epicormic growth	~	3
1319	603	Blue Oak	*Quercus douglasii*	2	8, 3	~	Diseased, too much decay	To be removed	1
1320		Blue Oak	*Quercus douglasii*	2	14, 4	21	Poison oak wrapped tree, narrow angle attachment at 20'	Remove poison oak and re-inspect	3
1321	600	Interior Live Oak	Quercus wislizenii	3	10, 11, 11	~	Too much decay	To be removed	1
1322	2016	Blue Oak	*Quercus douglasii*	1	10	14	Sparse canopy, epicormic growth, good	~	3
1323	591	Interior Live Oak	Quercus wislizenii	1	18	26	Suppressed, poor structure, unbalanced canopy to south, large dead wood	Remove dead wood, prune to balance, re-inspect in 3 years	2
1324	2031	Interior Live Oak	Quercus wislizenii	1	6	13	Significant lean to west, suppressed	To be removed	2
1325	2030	Valley Oak	Quercus lobata	2	14, 39	40	~	~	3
1326		Interior Live Oak	Quercus wislizenii	1	7	~	Prostrate on ground 10'	To be removed	1
1327		Blue Oak	*Quercus douglasii*	2	12, 15	27	Codominant leader at base		3
1328		Blue Oak	*Quercus douglasii*	1	6	11	Sparse canopy, epicormic growth, codominant leader at 10' with included bark	Remove 1 stem at codominant leader, remove dead wood, prune to balance	3
1329	2021	Blue Oak	*Quercus douglasii*	1	10	15	Codominant leader at 20' with included bark	Prune to balance	3
1330	2022	Interior Live Oak	Quercus wislizenii	4	4, 9, 7, 7	17	4 is dead, large dead wood, sparse canopy, poor taper, decay pocket at base	Remove dead wood, re-inspect in 3 years	3
1331	2025	Blue Oak	*Quercus douglasii*	1	8	12	Slight lean, sparse canopy, epicormic growth	~	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1332	2026	Interior Live Oak	Quercus wislizenii	4	5, 5, 2, 9	20	2 is dead, decay under base, unbalanced canopy to south	~	2
1333	2024	Blue Oak	*Quercus douglasii*	1	8	17	Unbalanced canopy to south west	Prune to balance	3
1334		Blue Oak	*Quercus douglasii*	2	5, 16	18	Good	Remove dead wood	4
1335		Interior Live Oak	Quercus wislizenii	5	7, 8, 8, 10, 6	25	Stump sprout, 6 is dead, suppressed, unbalanced to west, large dead wood	Remove dead wood, prune to balance, re-inspect in 3 years	2
1336	2023	Blue Oak	*Quercus douglasii*	1	10	15	Sparse canopy, epicormic growth, poor health	~	2
1337	601	Blue Oak	*Quercus douglasii*	2	11, 10	20	Codominant leader at 4' with included bark, slight lean to south, over weight limb to west	Remove dead wood, end weight reduction to west	3
1338	618	Blue Oak	*Quercus douglasii*	2	12, 10	17	Closing stub to east, narrow attachment at codominant leader at base, sparse canopy, epicormic growth	Remove dead wood, prune to balance, add 1 cable	3
1339	617	Blue Oak	*Quercus douglasii*	1	9	20	Suppressed, poor structure	Prune to balance, re-inspect in 3 years	3
1340	616	Blue Oak	*Quercus douglasii*	5	4, 1`4, 9, 9, 10	28	Decay pocket under base, included bark	Remove dead wood, remove 4" stem, end weight reduction to south, add 2 cables, re-inspect annually	3
1341	615	Valley Oak	*Quercus lobata*	1	12	27	Good	Remove dead wood	3
1342		Blue Oak	*Quercus douglasii*	1	8	30	Suppressed, leans to north east	~	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1343	613	Blue Oak	*Quercus douglasii*	4	12, 11, 10, 6	~	6 is failed, too much decay at base, HAZARD	To be removed	1
1344	614	Interior Live Oak	Quercus wislizenii	10	6, 6, 9, 6, 8, 11, 10, 5, 6, 7	~	Stump sprout, too much decay at base	To be removed	1
1345	610	Blue Oak	*Quercus douglasii*	3	15, 15, 21	43	Included bark 2' - 4', over weight limb to north west and to east	Remove dead wood, prune to balance, add 2 cables, re-inspect annually	3
1346		Blue Oak	*Quercus douglasii*	3	17, 21,m 16	34	Codominant leader at 3' with included bark, epicormic growth, large stubs	Remove dead wood, remove stubs, prune to balance, add 2 cables, re-inspect every year	3
1347		Blue Oak	*Quercus douglasii*	1	10	21	Suppressed by #1348, unbalanced canopy to west	Prune to balance	3
1348		Blue Oak	*Quercus douglasii*	2	24, 17	34	Codominant leader at 3' with included bark, included bark at 20'	Remove dead wood, add 2 cables, prune to balance, re-inspect every year	3
1349	669	Interior Live Oak	Quercus wislizenii	1	6	10	Sparse canopy, codominant leader at 7' with included bark	~	3
1351		Blue Oak	*Quercus douglasii*	1	8	12	Unbalanced canopy to west	Prune to balance	3
1352		Interior Live Oak	*Quercus wislizenii*	1	9	22	Stump sprout, unbalanced canopy to West, sparse canopy, limb tip dieback	Prune to balance, remove dead wood, re-inspect in 3 years	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1353		Blue Oak	*Quercus douglasii*	2	9, 8	21	Codominate Leader at 2' with included bark, epicormic growth, unbalanced canopy to South East	Prune to balance, remove dead wood, Re-inspect in 3 years	3
1354		Blue Oak	*Quercus douglasii*	2	12, 7	17	Unbalanced canopy to South, epicormic growth, next to 247	Prune to balance, remove dead wood	3
1355	2047	Blue Oak	*Quercus douglasii*	2	9, 9	~	Codominate Leader at 6", Dead	To be removed	0
1356	2045	Blue Oak	*Quercus douglasii*	2	9, 11	15	Codominate Leader at 1', epicormic growth, unbalanced canopy to south west, limb tip dieback	Prune to balance, remove dead wood, Add 1	2
1357	2043	Blue Oak	*Quercus douglasii*	1	7	8	Poor taper, epicormic growth, limb tip dieback	Remove dead wood	3
1358	2044	Blue Oak	*Quercus douglasii*	1	14	23	Sparse canopy, slight lean, limb tip dieback	Remove dead wood, Re-inspect in 3 years	3
1359	2046	Interior Live Oak	*Quercus wislizenii*	2	9, 7@ 2'	~	Stump sprout, too much decay	To be removed	1
1360		Interior Live Oak	*Quercus wislizenii*	2	12, 12	35	over weight limb decay at base	End weight reduction, Re-inspect in 3 years	3
1361	2050	Interior Live Oak	*Quercus wislizenii*	3	6, 4, 3	10	Stump sprout, sparse canopy	Remove dead wood	2
1362	622	Interior Live Oak	*Quercus wislizenii*	3	14, 8, 10	30	Large dead wood, unbalanced canopy, decay at base	Remove dead wood, Prune to balance, End weight reduction to North	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1363		Interior Live Oak	*Quercus wislizenii*	6	13, 7, 9, 9, 7, 10	30	13" has decay cavity at 2', 7" has large dead wood, over weight limb, 7" poor structure, too much dead wood, 9" large dead wood, 9" Failure, 10" large dead wood, poor structure	Remove dead wood, remove 7 and 9, end weight reduction, re-inspect in 3 years	2
1364	522	Interior Live Oak	*Quercus wislizenii*	7	12, 8, 8, 3, 5, 11, 6	~	decay at base, too much dead wood	To be removed	1
1365	523	Blue Oak	*Quercus douglasii*	1	14	40	Large dead wood, Poor structure, Suppressed	Remove dead wood, re-inspect in 3 years	2
1366	525	Blue Oak	*Quercus douglasii*	1	13	35	Poor structure	Remove dead wood, Prune to balance, re-inspect annually	2
1367	524	Blue Oak	*Quercus douglasii*	1	18	35	Large dead wood, sparse canopy, epicormic growth, poison oak, Large cavity in MAIN at 30' with callous	Remove dead wood, Requires a level 3 inspection, End weight reduction to North	2
1368		Interior Live Oak	*Quercus wislizenii*	1	7 @2'	~	Dead wood at critical location	To be removed	1
1369		Interior Live Oak	*Quercus wislizenii*	1	17 @ 1'	15	Poor structure, 1b at 6'	Remove dead wood, Prune to balance	2
1370	1784	Interior Live Oak	*Quercus wislizenii*	2	13, 6 @ 1'	25	Codominate Leader at 6' 1B , narrow attachment's	Remove dead wood, Prune to balance, 6" stem needs corrective pruning	3
1371	1785	Blue Oak	*Quercus douglasii*	1	7	10	Poor taper	Remove dead wood, Re-inspect in 3 years	2
1372		Blue Oak	*Quercus douglasii*	1	6	12	Poor taper	Remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1373	1799	Interior Live Oak	*Quercus wislizenii*	1	21 @ ground	20	Codominate Leader at base with included bark, narrow attachment's	Crown clean	3
1374	527	Interior Live Oak	*Quercus wislizenii*	1	15 @ 3'	20	Codominate Leader at 4' with included bark	Remove dead wood, Re-inspect in 3 years	3
1375		Interior Live Oak	*Quercus wislizenii*	1	7	20	Poor structure, slight lean to West	Remove dead wood, Prune to balance	2
1376	526	Interior Live Oak	*Quercus wislizenii*	2	12, 11	35	Codominate leader at 1', included bark, suppressed, unbalanced canopy to west, 11" has poor structure	Remove dead wood, Prune to balance	3
1377		Blue Oak	*Quercus douglasii*	1	6	15	Poor taper, epicormic growth	Remove dead wood	3
1378	520	Interior Live Oak	*Quercus wislizenii*	2	8, 9	15	Codominate Leader at 1', included bark, unbalanced canopy to west	Prune to balance, remove dead wood	3
1379	497	Interior Live Oak	*Quercus wislizenii*	1	25 @ 1'	30	Codominate Leader's with included bark, numerous wounds with callous	Re-inspect in 3 years	2
1380	636	Interior Live Oak	*Quercus wislizenii*	2	11 @ 2', 8	25	11" has included bark at narrow attachment at 5' with decay	Remove dead wood, prune to balance	3
1381	629	Interior Live Oak	*Quercus wislizenii*	1	8	~	Poor structure, too much decay	To be removed	1
1382	628	Interior Live Oak	*Quercus wislizenii*	3	7, 8, 3	20	Codominate Leader at 1' included bark, poor structure, sparse canopy	Remove dead wood, prune to balance	2
1383	627	Interior Live Oak	*Quercus wislizenii*	3	15, 5, 4	~	Poor structure	To be removed	1
1385	624	Interior Live Oak	*Quercus wislizenii*	4	7, 8, 10, 9	~	Stump sprouts, too much decay	To be removed	1
1386		Interior Live Oak	*Quercus wislizenii*	1	13"	30	Decay at base, Poor structure	Remove dead wood, prune to balance	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1387	625	Interior Live Oak	*Quercus wislizenii*	4	16, 11, 7, 13	25	Stump sprouts, 7" stem dead, 16" decay with callous at 3', poison oak at base	7" To be removed, remove dead wood, re-inspect in 3 years	2
1388	626	Interior Live Oak	*Quercus wislizenii*	1	16	35	Decay at base with callous, Codominate Leader, included bark, unbalanced canopy to south west	Remove dead wood, Prune to balance	2
1389	635	Interior Live Oak	*Quercus wislizenii*	2	6, 6	~	1 stem dead, other stem mostly dead	To be removed	1
1390	645	Interior Live Oak	*Quercus wislizenii*	4	9 @ 2', 10, 10, 7	30	Decay at base, 7" stem dead, epicormic growth, Poor structure	7" To be removed, Prune to balance, remove dead wood, re-inspect annually	2
1391		Interior Live Oak	*Quercus wislizenii*	1	10	~	Severe decay up the entire tree	To be removed	1
1392	649	Interior Live Oak	*Quercus wislizenii*	3	8, 12, 14	30	Cavity at base with callous, narrow attachment's with 1B, vertical bark wounds, LG dead wood, Poor structure	Remove dead wood, prune to balance, requires a level 3 inspection	2
1393	650	Interior Live Oak	*Quercus wislizenii*	1	11	~	Decay at base with callous, suppressed with poor structure, cavity at 8' on main stem, sparse canopy	To be removed	1
1394	651	Valley Oak	*Quercus lobata*	1	14	40	Heavy lean to north east, suppressed, unbalanced canopy	End weight reduction to north east	2
1395	1741	Interior Live Oak	*Quercus wislizenii*	1	7	~	Past failure, sparse canopy	To be removed	1
1396		Interior Live Oak	*Quercus wislizenii*	1	17	25	Cavity at base with callous, included bark at codominate leader at ~30'	Remove dead wood, requires a level 3 inspection	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1397	647	Interior Live Oak	*Quercus wislizenii*	1	7	~	Decay at base, past failure of other stems, Poor structure, dead top	To be removed	1
1398	645	Interior Live Oak	*Quercus wislizenii*	3	13, 10, 13	35	Poison oak, decay at base, vertically spread decay on 10" and north east 13" stem, poor structure, unbalanced canopy	10" To be removed, requires a level 3 inspection on (2) 13" stems	2
1399	644	Interior Live Oak	*Quercus wislizenii*	1	12	~	Severe decay at base	To be removed	1
1401	641	Interior Live Oak	*Quercus wislizenii*	3	9, 14, 7	30	Narrow attachment's with included bark, poor structure, unbalanced canopy, decay with callous in 9" and 7", cavity 30' in 13"	Remove dead wood, End weight reduction, Requires a level 3 inspection	2
1402	638	Interior Live Oak	*Quercus wislizenii*	3	13, 12, 8	~	Multiple cavities with and without callous, narrow attachment's with included bark, sparse canopy, limb tip died back	To be removed	1
1403	634	Interior Live Oak	*Quercus wislizenii*	2	9, 5	~	Severe vertically spread decay	To be removed	1
1404	640	Interior Live Oak	*Quercus wislizenii*	1	9	~	Severe vertically spread decay, Poor structure, unbalanced cavity	To be removed	1
1405	448	Interior Live Oak	*Quercus wislizenii*	1	13	30	Included bark at 7', poor structure, unbalanced canopy, large dead wood	Remove dead wood, End weight reduction, Prune to balance, re-inspect annually	2
1406	447	Interior Live Oak	*Quercus wislizenii*	2	12, 11	25	Poor structure, suppressed, cavity at 11", cavity with callous 10' on 12" stem	10" To be removed, 12" remove dead wood, Prune to balance, End weight reduction	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1407		Valley Oak	*Quercus lobata*	1	6	6	Poor taper, codominate top 18' up with included bark	Remove dead wood, re-inspect annually	3
1408	496	Interior Live Oak	*Quercus wislizenii*	1	7	10	Narrow attachment's with included bark in canopy	Remove dead wood	3
1409	495	Interior Live Oak	*Quercus wislizenii*	2	8, 12	15	Codominate Leader with included bark at 2', poor taper	Remove dead wood, re-inspect annually	3
1410	494	Interior Live Oak	*Quercus wislizenii*		20 @ 1'	30	Codominate Leader with included bark at 5', unbalanced canopy to west	Remove dead wood, Prune to balance	3
1411	493	Interior Live Oak	*Quercus wislizenii*	2	10, 5	25	Codominate leader with included bark at 8', 5" stem mostly dead, Poor taper, Poor structure	5" To be removed, remove dead wood, Prune to balance, Re-inspect in 3 years	2
1412	491	Interior Live Oak	*Quercus wislizenii*	2	7, 13	20	narrow attachment's with included bark, large dead wood, poor structure, very sparse canopy	Remove dead wood, Prune to balance, Re-inspect in 3 years	2
1413	492	Interior Live Oak	*Quercus wislizenii*	2	9, 4	10	narrow attachment's with included bark at 3', Poor taper	Remove dead wood	3
1414	440	Interior Live Oak	*Quercus wislizenii*	1	7	8	5' long vertical wound with callous, Poor taper	Remove dead wood, Re-inspect in 3 years	2
1415	518	Interior Live Oak	*Quercus wislizenii*	3	14, 4, 4	25	4" stem dead, Poor structure on other 4" stem, Large dead wood, narrow attachment with included bark at 5', long vertical wound with callous	4" To be removed, remove dead wood, End weight reduction on other 4", Re-inspect in 3 years	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1416	517	Interior Live Oak	*Quercus wislizenii*	1	28 @ G	20	narrow attachment's with included bark at B, large dead wood, epicormic growth	Remove dead wood	3
1417	498	Interior Live Oak	*Quercus wislizenii*	2	8, 7	24	narrow attachment with included bark at 3', wound with callous, supp with unbalanced canopy to West	Remove dead wood, Prune to balance on West	3
1418	487	Interior Live Oak	*Quercus wislizenii*	1	12	15	Poor structure, epicormic growth	Remove dead wood, Prune to balance	3
1419		Interior Live Oak	*Quercus wislizenii*	2	6, 4	10	Poor taper, wound with callous at base	Remove dead wood	3
1420		Blue Oak		1	7	6	Small wounds with callous at base	Remove dead wood	3
1421		Interior Live Oak	*Quercus wislizenii*	2	6@ 2', 4	10	Poor taper	Remove dead wood	3
1422		Interior Live Oak	*Quercus wislizenii*	2	5, 3	15	Codominate leader with included bark, Poor structure Supp to West, limb tip dieback	Remove dead wood, Prune to balance on W	2
1423	449	Interior Live Oak	*Quercus wislizenii*	1	7	15	narrow attachment's with included bark, Poor structure	Remove dead wood	2
1424	451	Interior Live Oak	*Quercus wislizenii*	1	17	20	narrow attachment with included bark at 9', Poor structure, wounds with callous	Remove dead wood, Prune to balance	3
1425		Interior Live Oak	*Quercus wislizenii*	2	7, 4	12	Codominate leader with included bark at 1', Poor taper, unbalanced canopy to east	Remove dead wood, Prune to balance on East	3
1426	485	Interior Live Oak	*Quercus wislizenii*	1	7	8	Poor taper, Large dead wood	Remove dead wood	3
1427	486	Interior Live Oak	*Quercus wislizenii*	3	8, 6, 4	12	Codominate leader with included bark, 4" stem dead, Poor taper, narrow attachment with included bark, large dead wood	Remove dead wood, Re-inspect in 3 years	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1428		Valley Oak	*Quercus lobata*	1	12	15	Poor taper, mounding and lifted/ cracked soil at base	Remove dead wood	3
1429	481	Valley Oak	*Quercus lobata*	2	14, 4	25	narrow attachment with included bark at 1', included bark at attachment at 15'	Remove dead wood, Prune to balance limb on NE from 15' attachment	3
1430	483	Blue Oak	*Quercus douglasii*	1	6	8	Poor taper	Remove dead wood	3
1431	484	Interior Live Oak	*Quercus wislizenii*	1	7	10	Poor taper, large dead wood	Remove dead wood	3
1432	456	Interior Live Oak	*Quercus wislizenii*	1	7	12	Poor taper, very sparse canopy	Remove dead wood	2
1433	455	Interior Live Oak	*Quercus wislizenii*	1	8	15	Poor taper, large dead wood, very sparse canopy	Remove dead wood	2
1434	457	Interior Live Oak	*Quercus wislizenii*	1	13	20	Large dead wood	Remove dead wood	3
1435	454	Interior Live Oak	*Quercus wislizenii*	1	9	15	narrow attachment with included bark at 8', Poor taper, very sparse canopy	Remove dead wood	2
1436		Interior Live Oak	*Quercus wislizenii*	2	5, 4	10	Codominate leader, narrow attachment with included bark, Poor taper, large dead wood	Remove dead wood	2
1437	459	Interior Live Oak	*Quercus wislizenii*	1	12	15	Epicormic growth, large dead wood, Poor structure, narrow attachment's	Remove dead wood, Prune to balance on South West	3
1438	463	Interior Live Oak	*Quercus wislizenii*	1	11	20	Narrow attachment with included bark at 8', large dead wood, poor structure, unbalanced canopy to south east	Remove dead wood, Prune to balance	3
1439	458	Interior Live Oak	*Quercus wislizenii*	1	9	15	Wounds with callous at base, codominate leader with included bark at 6', poor taper	Remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1440		Interior Live Oak	*Quercus wislizenii*	1	16, 8	30	Wound with callous and included bark on 8" stem, poor structure and unbalanced canopy on 8' stem, narrow attachment's with included bark on 16" stem	8" stem needs end weight reduction and prune to balance, 16" stem - remove dead wood	3
1441		Blue Oak		1	6	10	Poor taper	Remove dead wood	3
1442	478	Interior Live Oak	*Quercus wislizenii*	1	9	25	Narrow attachment with included bark at 20', poor structure, unbalanced canopy, suppressed to north west	Prune to balance, remove dead wood	3
1443	476	Interior Live Oak	*Quercus wislizenii*	1	9	20	Unbalanced canopy to south west, limb tip die back mid canopy	Prune to balance, remove dead wood	3
1444		Interior Live Oak	*Quercus wislizenii*	1	11	20	Unstable root system (growing on old failing rock pile), unbalanced canopy, Poor structure	Prune to balance, re-inspect annually (root system)	2
1445	503	Interior Live Oak	*Quercus wislizenii*	1	7, 3	10	narrow attachment at base	Remove dead wood	3
1446		Interior Live Oak	*Quercus wislizenii*	1	6	6	Codominate leader with included bark at 6', sparse canopy	Remove dead wood	2
1447		Interior Live Oak	*Quercus wislizenii*	1	6, 4	10	Narrow attachment's in canopy with included bark	Remove dead wood	3
1448	502	Interior Live Oak	*Quercus wislizenii*	1	8, 4, 3	15	Narrow attachment with included bark at 6' on 8" stem, unbalanced canopy to south	Prune to balance on South	3
1449	501	Interior Live Oak	*Quercus wislizenii*	1	6, 9, 3	10	Narrow attachment with included bark at 3' between 9" and 6" stems, sparse canopy, limb tip dieback	Remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1450	504	Blue Oak	*Quercus lobata*	1	8	10	Narrow attachment with included bark at 15', growing on a rocky pile - unstable root system	Re-inspect in 3 years	3
1451	500	Interior Live Oak	*Quercus wislizenii*	1	6, 7	12	Codominate leader with included bark at 4', limb tip dieback	Remove dead wood	3
1452	508	Interior Live Oak	*Quercus wislizenii*	1	9, 4	15	narrow attachment with included bark, Poor taper, BAD included bark at attachment at 8'	Re-inspect in 3 years (for included bark)	3
1453	472	Interior Live Oak	*Quercus wislizenii*	1	9	15	limb tip dieback, sparse canopy, Poor taper	Remove dead wood	3
1454	464	Interior Live Oak	*Quercus wislizenii*	1	6, 7	15	Codominate leader, Supp- sparse canopy	Remove dead wood	3
1455	470	Interior Live Oak	*Quercus wislizenii*	1	6	20	Narrow attachment with included bark, large dead wood, poor taper, suppressed, poor structure, very sparse canopy	Remove dead wood, Prune to balance	3
1456	471	Interior Live Oak	*Quercus wislizenii*	1	7	15	Poison oak, codominate leader with included bark, sparse canopy	Remove dead wood, Re-inspect in 3 years	3
1457	469	Interior Live Oak	*Quercus wislizenii*	1	12, 9	20	Codominate leader, narrow attachment's with included bark	Crown clean, Re-inspect in 3 years	2
1458		Interior Live Oak	*Quercus wislizenii*	1	6, 5	10	Codominate leader, Poor taper, narrow attachment's with included bark	Remove dead wood	3
1459	466	Interior Live Oak	*Quercus wislizenii*	1	11	10	Wounds with callous, old cuts, narrow attachment's with included bark	Remove dead wood	3
1460	467	Interior Live Oak	*Quercus wislizenii*	1	6	10	Poison oak, poor taper	Remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1461	329	Interior Live Oak	*Quercus wislizenii*	2	13, 13	25	Codominate leader with included bark, narrow attachment's with included bark, unbalanced canopy to West	Crown clean, Prune to balance on West, Re-inspect in 3 years	3
1462	468	Interior Live Oak	*Quercus wislizenii*	1	7	8	Large dead wood, Poor taper, limb tip dieback, sparse canopy	Remove dead wood	2
1463		Blue Oak	*Quercus lobata*	1	6	8	Poor structure, unbalanced canopy to north east	Remove dead wood	4
1464		Interior Live Oak	*Quercus wislizenii*	1	6	12	Codominate leader with included bark	Prune to balance	3
1465		Interior Live Oak	*Quercus wislizenii*	2	5, 5	15	Poor structure, unbalanced canopy	Prune to balance, remove dead wood	3
1466		Blue Oak	*Quercus lobata*	2	5, 5	10	Codominate leader with severe included bark, nice full crown	Re-inspect in 3 years for included bark at Codominate leader at 1'	3
1467		Interior Live Oak	*Quercus wislizenii*	1	14	15	Codominate leader with included bark at 6', narrow attachment's	Remove dead wood, Re-inspect in 3 years for included bark	3
1468		Interior Live Oak	*Quercus wislizenii*	2	6, 12	30	Included bark at 6"-12" attachment, narrow attachment with included bark at 8' on 12" stem, poor structure, unbalanced canopy to north	End weight reduction to North	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1469	315	Interior Live Oak	*Quercus wislizenii*	1	32 @ base	30	Narrow attachment's with included bark throughout base and crown, poor structure, large dead wood	Crown clean, Prune to balance, End weight reduction to West, Re-inspect in 3 years	3
1470	316	Interior Live Oak	*Quercus wislizenii*	2	6, 5	~	Codominate leader with included bark, Poor structure, large dead wood	To be Removed	1
1471	318	Interior Live Oak	*Quercus wislizenii*	1	8	20	Codominate leader at 8', large dead wood, Poor taper, sparse canopy	Remove dead wood	2
1472	288	Interior Live Oak	*Quercus wislizenii*	1	7	20	Narrow attachment with included bark, large dead wood, Poor taper, Poor structure	Remove dead wood, Prune to balance	2
1473	284	Interior Live Oak	*Quercus wislizenii*	1	8	10	Large dead wood, limb tip dieback, epicormic growth	Remove dead wood	2
1474	291	Interior Live Oak	*Quercus wislizenii*	1	7	20	Large dead wood, Poor structure, unbalanced canopy to North, limb tip dieback	Remove dead wood, End weight reduction, Re-inspect in 3 years	2
1475		Interior Live Oak	*Quercus wislizenii*	3	7, 17, 13	30	Poison oak, narrow attachment's with included bark, poor structure, unbalanced canopy to east	Crown clean, End weight reduction to East	3
1476	292	Blue Oak	*Quercus lobata*	1	7	20	Epicormic growth, unbalanced canopy to south, narrow attachment with included bark in top of canopy	End weight reduction, Prune to balance	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1477		Interior Live Oak	*Quercus wislizenii*	1	20	30	Included bark in attachments at 6', suppressed to south east, unbalanced canopy	Remove dead wood, End weight reduction, Prune to balance	3
1478	293	Interior Live Oak	*Quercus wislizenii*	3	21, 14, 14	40	Large dead wood, poor structure, unbalanced canopy	Remove dead wood, crown clean, Prune to balance, End weight reduction	3
1479	286	Interior Live Oak	*Quercus wislizenii*	3	29, 32, 12	40	Narrow attachment's with included bark, large dead wood, unbalanced canopy	Remove dead wood, End weight reduction	3
1480		Interior Live Oak	*Quercus wislizenii*	1	17 @ 3'	30	Large dead wood, unbalanced canopy, poor structure	Crown clean, End weight reduction on lower lateral limb	2
1481	285	Interior Live Oak	*Quercus wislizenii*	7	9, 16, 13, 7, 13, 6, 8	35	Included bark in attachments at base, unbalanced canopy	Re-inspect in 3 years for included bark at base	3
1482	284	Interior Live Oak	*Quercus wislizenii*	5	15, 15, 20, 6, 14	35	Cavity with severe ant infestation, large dead wood	Requires a level 3 inspection, crown clean, End weight reduction	2
1483	283	Interior Live Oak	*Quercus wislizenii*	6	18, 19, 6, 6, 17, 24	30	Cavity at base, large dead wood, limb tip dieback, narrow attachment's with included bark	Requires a level 3 inspection, remove dead wood, crown clean	2
1484	282	Interior Live Oak	*Quercus wislizenii*	4	10, 8, 14, 6	20	weak attachment, large dead wood, limb tip dieback, narrow attachment's with included bark	Remove dead wood, 8' stem To be Removed, Prune to balance	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1485	281	Blue Oak	*Quercus lobata*	1	26	25	Large dead wood, wounds with callous, weak attachment at old failure 16' up, unbalanced canopy on lower laterals	Remove dead wood, End weight reduction, crown clean, Requires a level 3 inspection	3
1486	280	Interior Live Oak	*Quercus wislizenii*	1	26 @ ground	25	Large dead wood, supp with unbalanced canopy, included bark in some attachments	Remove dead wood, Prune to balance	3
1487	279	Blue Oak	*Quercus lobata*	2	15, 12	15	Codominate leader with included bark, vertical wound with decay and callous from 3 - 6', large cavity with heart rot at ground	Requires a level 3 inspection, crown clean, End weight reduction	2
1488	277	Interior Live Oak	*Quercus wislizenii*	1	17	25	Included bark at attachment at 7' - 10', unbalanced canopy	Remove dead wood, end weight reduction, prune to balance	3
1489	278	Interior Live Oak	*Quercus wislizenii*	7	10, 17, 6, 5, 4, 21, 4	35	Included bark in multiple attachments, unbalanced canopy, poor structure	Remove dead wood, End weight reduction, Prune to balance	3
1490		Interior Live Oak	*Quercus wislizenii*	1	17	~	Too much decay	To be removed	1
1491	360	Interior Live Oak	*Quercus wislizenii*	1	18	~	Too much decay	To be removed	1
1492	361	Interior Live Oak	*Quercus wislizenii*	3	12, 8, 14	~	Too much decay, past failure, poor structure	To be removed	1
1493		Interior Live Oak	*Quercus wislizenii*	4	15, 17, 12, 8	30	15" stem failed, poor structure, unbalanced canopy, suppressed to south east	15" To be removed, crown clean, End weight reduction	2
1494		Interior Live Oak	*Quercus wislizenii*	1	10	15	Poor taper, Supp	Remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1495		Interior Live Oak	*Quercus wislizenii*	2	8, 5	8	Narrow attachment with included bark 3', nice tree	Prune to balance lower laterals	4
1496		Interior Live Oak	*Quercus wislizenii*	3	30, 20, 11	~	All 3 stems failed at base and growing along the ground, narrow attachment's with included bark	Requires a level 3 inspection	1
1497		Interior Live Oak	*Quercus wislizenii*	3	5, 3, 7	15	Unbalanced canopy, Supp to Southeast	Prune to balance	3
1498		Blue Oak	*Quercus lobata*	1	6	10	Poor taper, narrow attachment with included bark in top of canopy, suppressed	Prune to balance, remove dead wood	3
1499		Blue Oak	*Quercus lobata*	1	7	12	Suppressed to south east	Remove dead wood	3
1601	356	Interior Live Oak	*Quercus wislizenii*	1	15 @ 1'		Poison oak, choked out by vines, narrow attachment's with included bark, unbalanced canopy, epicormic growth	Prune to balance, crown clean vines or remove	2
1602	357	Interior Live Oak	*Quercus wislizenii*	2	8, 6	15	Codominate leader with included bark at ground level, large dead wood	Remove dead wood	3
1603	355	Interior Live Oak	*Quercus wislizenii*	1	12	15	narrow attachment's with included bark, included bark at Codominate leader at 15'	Remove dead wood, Re-inspect in 3 years for included bark	3
1604	353	Blue Oak	*Quercus lobata*	1	9	~	Poor structure, epicormic growth, 75% of canopy dead	To be removed	1
1605	295	Interior Live Oak	*Quercus wislizenii*	3	10, 9, 5	20	Codominate leader with included bark, Poor taper, unbalanced canopy	Remove dead wood, Prune to balance	3
1606		Interior Live Oak	*Quercus wislizenii*	2	14, 11	25	Codominate leader with included bark, large dead wood, unbalanced canopy	Remove dead wood, Prune to balance, Re-inspect in 3 years for included bark	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1607		Blue Oak	*Quercus lobata*	1	6	15	Poor taper, suppressed	Remove dead wood	3
1608	297	Interior Live Oak	*Quercus wislizenii*	1	12	20	Choked by poison oak, unbalanced canopy, poor structure	Remove poison oak, Prune to balance, remove dead wood	3
1609	298	Interior Live Oak	*Quercus wislizenii*	1	16	35	Epicormic growth, past failure	End weight reduction, remove dead wood	2
1610	299	Interior Live Oak	*Quercus wislizenii*	1	21	30	Included bark in attachment at 4', suppressed, unbalanced canopy	End weight reduction, Prune to balance	3
1611	300	Interior Live Oak	*Quercus wislizenii*	4	13, 13, 8, 10	25	Included bark in attachment at base, limb tip dieback	Crown clean	2
1612	1748	Interior Live Oak	*Quercus wislizenii*	2	11, 8	25	Codominate leader with weak joint at ground, suppressed, poor structure, unbalanced canopy, epicormic growth	End weight reduction, remove dead wood, Prune to balance	3
1613		Interior Live Oak	*Quercus wislizenii*	2	5, 6	15	Codominate leader with included bark at 3', unbalanced canopy, Supp to South	Prune to balance, remove dead wood	2
1614	1744	Interior Live Oak	*Quercus wislizenii*	2	17, 14	25	Narrow attachment with included bark at base, unbalanced canopy, narrow attachment with included bark in canopy, epicormic growth	Prune to balance, End weight reduction, remove dead wood	2
1615	144	Interior Live Oak	*Quercus wislizenii*	2	12, 4	30	4" stem dead, narrow attachment with included bark, limb tip dieback, wound with callous at base, unbalanced canopy, supp to West	4" stem To be removed, End weight reduction, Prune to balance, RIEY	2
1616	140	Interior Live Oak	*Quercus wislizenii*	1	10	~	Past failure	To be removed	1

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1617	143	Interior Live Oak	*Quercus wislizenii*	4	10, 14, 5, 4	30	Included bark in attachment at base, narrow attachment's with included bark in canopy, large dead wood, supp to Northwest, unbalanced canopy, 4" past failure	4" stem To be removed, remove dead wood, End weight reduction, Prune to balance, RIEY	2
1618	142	Interior Live Oak	*Quercus wislizenii*	2	14, 9	20	Wounds with callous at base, large dead wood, included bark in attachment at base, limb tip dieback	Requires a level 3 inspection, remove dead wood, End weight reduction, Prune to balance, Re-inspect annually	2
1619	138	Interior Live Oak	*Quercus wislizenii*	1	8	12	Suppressed to East, unbalanced canopy	Prune to balance, remove dead wood	3
1620	139	Interior Live Oak	*Quercus wislizenii*	1	8	14	Unbalanced canopy	Prune to balance	3
1621	141	Interior Live Oak	*Quercus wislizenii*	1	7 @ base	~	Poor structure, unbalanced canopy, epicormic growth	To be removed	1
1622	137	Interior Live Oak	*Quercus wislizenii*	2	30 & 14 @ 1'	~	Too much decay, fungi, past failures	To be removed	1
1623	135	Interior Live Oak	*Quercus wislizenii*	2	17, 11	35	Cavity with decay and callous at base, included bark in attachment at 3', epicormic growth, severe included bark with decay at 15', unbalanced canopy, suppressed to north west	Requires a level 3 inspection, end weight reduction, prune to balance	2
1624	146	Interior Live Oak	*Quercus wislizenii*	1	13	30	Poor structure, unbalanced canopy, suppressed, large dead wood	End weight reduction, Prune to balance, remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1625		Interior Live Oak	*Quercus wislizenii*	1	6	20	Poor structure, unbalanced canopy, suppressed to south west	End weight reduction, Prune to balance, remove dead wood	3
1626	302	Interior Live Oak	*Quercus wislizenii*	1	13	15	Large dead wood, narrow attachment's with included bark	remove dead wood, crown clean, Re-inspect in 3 years for included bark	3
1627		Interior Live Oak	*Quercus wislizenii*	1	12	20	Suppressed to Southwest, unbalanced canopy	Prune to balance, remove dead wood	3
1628	303	Interior Live Oak	*Quercus wislizenii*	2	9, 5	20	unbalanced canopy, Poor taper, Suppressed, large dead wood	Prune to balance, remove dead wood	2
1629	304	Interior Live Oak	*Quercus wislizenii*	1	9	12	Large dead wood, epicormic growth, Poor taper, sparse canopy	Remove dead wood	2
1630		Interior Live Oak	*Quercus wislizenii*	1	9	20	Poor taper, unbalanced canopy, included bark in attachment at 15'	remove dead wood, Prune to balance, re-inspect annually for included bark	2
1631	174	Interior Live Oak	*Quercus wislizenii*	3	12, 10, 7	20	Narrow attachment with at base, unbalanced canopy to south west	Crown clean, re-inspect annually for included bark	3
1632		Blue Oak	*Quercus lobata*	1	7	10	Included bark in attachment at 12', Poor taper	Prune to balance lower laterals, remove dead wood, re-inspect annually for included bark	3
1633	172	Interior Live Oak	*Quercus wislizenii*	3	9, 3, 6	15	Poor taper, unbalanced canopy on 6" stem	Remove dead wood	3
1634	305	Interior Live Oak	*Quercus wislizenii*	1	16	15	Narrow attachment's with included bark	Crown clean	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1635		Interior Live Oak	*Quercus wislizenii*	2	4 & 6 @ 1'	14	Poor taper, Suppressed, lots of dead wood in lower canopy	Remove dead wood	3
1636	307	Blue Oak	*Quercus lobata*	1	8	15	Suppressed to Southwest, unbalanced canopy, Poor taper, epicormic growth, lots of dead wood in lower canopy	Remove dead wood, Prune to balance, End weight reduction	2
1637		Interior Live Oak	*Quercus wislizenii*	3	11, 14, 8	25	11" stem past failure, unbalanced canopy narrow attachment's with included bark	11" To be removed, Prune to balance, remove dead wood, RIEY for 11" wound closure	2
1638	145	Interior Live Oak	*Quercus wislizenii*	2	13, 3	30	Old failure at base with callous, unbalanced canopy to Northwest	Remove dead wood, Prune to balance	3
1639		Interior Live Oak	*Quercus wislizenii*	1	9 @ base	~	Poor structure, growing sideways with past failure of main stem	To be removed	1
1640	133	Interior Live Oak	*Quercus wislizenii*	1	16	25	Included bark in attachment at 8', unbalanced canopy	Remove dead wood, Prune to balance	3
1641		Interior Live Oak	*Quercus wislizenii*	1	6	~	Poor structure, epicormic growth, growing on ground, large dead wood, sparse canopy	To be removed	1
1642	132	Interior Live Oak	*Quercus wislizenii*	1	7	~	Past failure, too much decay, poor structure, growing on ground	To be removed	1
1643	131	Interior Live Oak	*Quercus wislizenii*	4	5, 7, 6, 4	20	Narrow attachment's, large dead wood, epicormic growth, unbalanced canopy, Poor structure, limb tip dieback, small wounds with callous	~	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1644	130	Interior Live Oak	*Quercus wislizenii*	1	13 @ 2'	20	Narrow attachment with included bark at 5', unbalanced canopy	Remove dead wood, Prune to balance, RIEY	3
1645	126	Interior Live Oak	*Quercus wislizenii*	1	7	20	Poor taper, unbalanced canopy, Poor structure, old stem failure at base	Remove dead wood, Prune to balance, Re-inspect in 3 years	2
1646	125	Interior Live Oak	*Quercus wislizenii*	5	12, 13, 13, 8, 8	35	Many past failures, decay at base, limb tip dieback	Requires a level 3 inspection	2
1647	124	Blue Oak	*Quercus lobata*	2	18, 18	20	Poison oak, very narrow attachment with severe included bark at base, narrow attachment with included bark in upper canopy	Remove poison oak vines, re-inspect annually	3
1648	136	Interior Live Oak	*Quercus wislizenii*	4	7, 4, 4, 5	~	Too much decay, too much dead wood	To be removed	1
1649	123	Interior Live Oak	*Quercus wislizenii*	2	23, 17	20	Decay at base, large dead wood, decay without callous at 8' to West	Requires a level 3 inspection, re-inspect annually, remove dead wood, prune to balance	2
1650	122	Interior Live Oak	*Quercus wislizenii*	1	38 @ base	~	9 stem, too much decay, epicormic growth, past failure	To be removed	1
1651		Interior Live Oak	*Quercus wislizenii*	6	9, 11, 6, 12, 11, 15	~	6 stem, too much decay, past failures	To be removed	1
1652	120	Interior Live Oak	*Quercus wislizenii*	2	4, 36	30	Decay at base, numerous decay spots throughout crown	Requires a level 3 inspection, end weight reduction, re-inspect annually	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1653	128	Interior Live Oak	*Quercus wislizenii*	2	4, 8	20	Narrow attachment's with included bark, epicormic growth, unbalanced canopy, Suppressed to Northwest	Remove dead wood, Prune to balance	3
1654		Interior Live Oak	*Quercus wislizenii*	5	7, 9, 8, 9, 6	20	Narrow attachment's with included bark, unbalanced canopy	~	3
1655		Blue Oak	*Quercus lobata*	2	13, 9	20	Included bark in attachment at 3', unbalanced canopy, narrow attachment's with included bark in canopy	Remove dead wood, Prune to balance, End weight reduction	3
1656	148	Interior Live Oak	*Quercus wislizenii*	2	26, 18	40	Large dead wood, unbalanced canopy, Severe ant infestation in small hole at 6' on 26" stem	Requires a level 3 inspection, End weight reduction, Prune to balance, remove dead wood	2
1657	149	Interior Live Oak	*Quercus wislizenii*	2	17, 5	40	Poor structure, unbalanced canopy, suppressed to growing horizontal to south west, narrow attachment with included bark	End weight reduction, Prune to balance, remove dead wood	2
1658	150	Interior Live Oak	*Quercus wislizenii*	3	9, 2, 2	20	Unbalanced canopy, lots of dead wood down low, Poor structure	Prune to balance, End weight reduction, remove dead wood	3
1659	151	Interior Live Oak	*Quercus wislizenii*	4	4, 13, 5, 6	25	Large dead wood, 6" stem is dead, unbalanced canopy, poor structure, suppressed, lots of dead wood	6" stem To be removed, Prune to balance, End weight reduction, remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1660	152	Interior Live Oak	*Quercus wislizenii*	2	16, 10	20	Narrow attachment with included bark at base, poison oak, unbalanced canopy	Remove dead wood, Prune to balance, remove poison oak	3
1661		Blue Oak	*Quercus lobata*	1	18	25	Poor health, bark partially scuffing, narrow attachment with included bark, lots of dead wood down low	Remove dead wood, re-inspect annually	2
1662	154	Interior Live Oak	*Quercus wislizenii*	2	10, 10	20	Included bark in Codominate leader attachment at 1', Poor taper, narrow attachment with included bark in canopy	Remove dead wood	3
1663	155	Interior Live Oak	*Quercus wislizenii*	2	12, 15	25	15" stem past failure at 5', epicormic growth, unbalanced canopy, Poor structure	End weight reduction on tall stem, Prune to balance, Re-inspect in 3 years	3
1664	2240	Blue Oak	*Quercus lobata*	1	7	10	Narrow attachment with included bark at 8'	Re-inspect in 3 years for included bark	3.5
1665	119	Blue Oak	*Quercus lobata*	1	28	35	Large dead wood, wounds with callous, small areas with bark scuffing	Crown clean, Re-inspect in 3 years	3
1666	118	Interior Live Oak	*Quercus wislizenii*	1	17 @ 3'	20	Ants in the base of the tree, narrow attachment's with included bark, Suppressed, large dead wood, crown dieback	Remove dead wood, prune to balance, re-inspect annually	2
1667	117	Blue Oak	*Quercus lobata*	1	41	35	Severe ant infestation, old cuts with callous	Requires a level 3 inspection, crown clean, re-inspect annually	3
1668	2248	Blue Oak	*Quercus lobata*	1	8	10	Poor taper	Remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1669	156	Interior Live Oak	*Quercus wislizenii*	1	14	20	Included bark in attachment at 5', unbalanced canopy, Suppressed, Poor taper	Remove dead wood, Prune to balance	3
1670		Interior Live Oak	*Quercus wislizenii*	4	6, 10, 2, 2	15	Narrow attachment with included bark at 2', lots of dead wood in lower canopy, wound with callous on Eastern lateral from rubbing	Remove dead wood, Prune to balance	3
1671		Interior Live Oak	*Quercus wislizenii*	3	9, 7, 8	25	Severe included bark in attachment at base, narrow attachment with included bark in canopy, unbalanced canopy	Remove dead wood, Prune to balance, Re-inspect in 3 years	3
1672	2249	Interior Live Oak	*Quercus wislizenii*	1	7 @ 3'	20	Narrow attachment's with included bark at 4', large dead wood, unbalanced canopy	Remove dead wood, prune to balance	2
1673		Interior Live Oak	*Quercus wislizenii*	1	12	15	Old cut with callous at base, included bark in attachment at 6', unbalanced canopy	Remove dead wood, End weight reduction, on laterals to South with included bark, Re-inspect in 3 years	3
1674	185	Interior Live Oak	*Quercus wislizenii*	2	9, 4	20	Poison oak, Suppressed, heavy canopy over tree, large dead wood	Remove dead wood, Prune to balance	3
1675		Interior Live Oak	*Quercus wislizenii*	1	7	15	Poor taper, narrow attachment's with included bark	Remove dead wood	3
1676	184	Interior Live Oak	*Quercus wislizenii*	1	13	25	Growing on small rock pile, large dead wood, narrow attachment's with included bark, unbalanced canopy	Remove dead wood, Prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1677	183	Interior Live Oak	*Quercus wislizenii*	2	5, 13	20	Included bark in attachment at base, narrow attachment's with included bark in canopy, lots of dead wood in lower canopy	Remove dead wood, Prune to balance	3
1678		Interior Live Oak	*Quercus wislizenii*	1	7	10	Large dead wood, poor taper, suppressed to south	Remove dead wood	2
1679	182	Blue Oak	*Quercus lobata*	1	7	8	Poor taper, epicormic growth	Remove dead wood	3
1680	158	Interior Live Oak	*Quercus wislizenii*	1	7	15	Poor taper, unbalanced canopy, Suppressed to West	Remove dead wood, prune to balance	3
1681	181	Interior Live Oak	*Quercus wislizenii*	1	6	20	Poor taper, Suppressed to West, unbalanced canopy, large dead wood, Poor structure	Remove dead wood, End weight reduction	3
1682	180	Interior Live Oak	*Quercus wislizenii*	3	5, 5, 2	15	Included bark in attachment at base, Poor taper, Suppressed to West	Remove dead wood, Prune to balance	2
1683	1558	Valley Oak	*Quercus lobata*	1	8	20	Poor structure, Suppressed to West, unbalanced canopy	End weight reduction	3
1684		Interior Live Oak	*Quercus wislizenii*	3	5, 2, 2	15	Included bark in attachment at base, Poor structure, unbalanced canopy, Suppressed to West	Prune to balance	2
1685		Interior Live Oak	*Quercus wislizenii*	2	5, 5	10	Codominate leader with included bark in attachment at base, lots of dead wood in lower canopy	Remove dead wood Re-inspect in 3 years for included bark	3
1686		Blue Oak	*Quercus lobata*	1	6	8	Poor taper	Remove dead wood	3
1687	1554	Interior Live Oak	*Quercus wislizenii*	1	10	15	Narrow attachment's with included bark throughout, large dead wood, unbalanced canopy to West	Remove dead wood, Prune to balance, Re-inspect in 3 years for included bark	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1688	187	Interior Live Oak	*Quercus wislizenii*	5	7, 7, 6, 11, 8	20	Included bark in attachment at base, large dead wood, poison oak, unbalanced canopy, epicormic growth, wound with callous and decay on tagged stem	Remove vines, End weight reduction, remove dead wood	3
1689	1557	Interior Live Oak	*Quercus wislizenii*	2	7, 6	15	Codominate leader with included bark, unbalanced canopy, included bark in attach in canopy	Remove dead wood, Prune to balance	3
1690	1556	Interior Live Oak	*Quercus wislizenii*	1	7	10	Narrow attachment's with included bark	Remove dead wood	3
1691		Interior Live Oak	*Quercus wislizenii*	2	8, 5	12	Codominate leader with included bark	Remove dead wood	3
1692		Interior Live Oak	*Quercus wislizenii*	1	7	14	Choked by poison oak, sparse canopy, suppressed to west	Remove poison oak	2
1693		Interior Live Oak	*Quercus wislizenii*	1	6	15	Choked by poison oak, unbalanced canopy, narrow attachment's with included bark	Remove poison oak	2
1694	168	Interior Live Oak	*Quercus wislizenii*	2	16, 7	20	narrow attachment's with included bark throughout, large dead wood, unbalanced canopy, epicormic growth	Remove dead wood, Prune to balance	3
1695		Interior Live Oak	*Quercus wislizenii*	1	7	10	Narrow attachment's with included bark in lower canopy, poor taper	Remove 2" - 3" diameter lower laterals with included bark	3
1696	176	Interior Live Oak	*Quercus wislizenii*	4	7, 10, 7, 4	15	Large burled base, epicormic growth, limb tip dieback in lower canopy, narrow attachment's with included bark	Crown clean, Re-inspect in 3 years for health appearance	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1697		Interior Live Oak	*Quercus wislizenii*	2	5, 6	10	Codominate leader with severe included bark, epicormic growth, limb tip dieback, unhealthy appearing tree	Re-inspect in 1 year for included bark and poor health	2
1698	1567	Interior Live Oak	*Quercus wislizenii*	1	9	10	Burled base, large dead wood, epicormic growth, limb tip dieback in lower canopy	Remove dead wood	3
1699		Interior Live Oak	*Quercus wislizenii*	1	7	10	Large dead wood, limb tip dieback in lower canopy	Remove dead wood	3
1700	177	Interior Live Oak	*Quercus wislizenii*	1	7	10	Limb tip dieback in lower canopy, narrow attachment with included bark at 10', unbalanced canopy	Remove dead wood, Prune to balance	3
1701	179	Interior Live Oak	*Quercus wislizenii*	1	10	15	Narrow attachment with included bark at 6', limb tip dieback, sparse canopy, epicormic growth, narrow attachment with included bark in canopy	Remove dead wood, re-inspect in 3 years for health	2
1702	178	Interior Live Oak	*Quercus wislizenii*	1	6	6	Epicormic growth, narrow attachment's with included bark	Remove dead wood	3
1703	192	Interior Live Oak	*Quercus wislizenii*	2	7, 15	15	Large dead wood, epicormic growth, sparse canopy on 7" stem, old wounds with callous, narrow attachment's with included bark	Remove dead wood, Re-inspect in 3 years	3
1705	191	Interior Live Oak	*Quercus wislizenii*	2	8, 7	15	Codominate leader with included bark in attachment at 1', large dead wood, unbalanced canopy	Remove dead wood, Prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1706	193	Interior Live Oak	*Quercus wislizenii*	1	7	12	Large dead wood, epicormic growth sparse canopy, limb tip dieback	Remove dead wood, re-inspect in 3 years for health	2
1707		Blue Oak	*Quercus lobata*	1	6	6	Narrow attachment with included bark at 10', Codominate leader	Remove dead wood, Re-inspect in 3 years for health	3
1708	190	Interior Live Oak	*Quercus wislizenii*	3	8, 11, 10	15	Narrow attachment's with included bark throughout	Crown clean, Re-inspect in 3 years for included bark	3
1709		Interior Live Oak	*Quercus wislizenii*	1	9	15	Poor taper	Remove dead wood	3
1710		Interior Live Oak	*Quercus wislizenii*	1	24	25	Corrected lean, narrow attachment's with included bark throughout canopy	Remove dead wood, End weight reduction for laterals with included bark, Re-inspect in 3 years for included bark	3
1711	201	Interior Live Oak	*Quercus wislizenii*	1	11	15	Epicormic growth, unbalanced canopy to West	Prune to balance	3
1712	202	Interior Live Oak	*Quercus wislizenii*	1	8	25	Narrow attachment's with included bark, Poor structure, unbalanced canopy, growing horizontal	Remove dead wood, end weight reduction, prune to balance	2
1713		Blue Oak	*Quercus lobata*	1	10	15	Narrow attachment's with included bark, limb tip dieback	Remove dead wood	2
1714	189	Interior Live Oak	*Quercus wislizenii*	2	7, 8	20	Codominate leader with included bark, unbalanced canopy, lots of dead wood in lower canopy	Remove dead wood, Prune to balance, Re-inspect in 3 years for included bark	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1715		Interior Live Oak	*Quercus wislizenii*	1	6	12	Poor taper	Remove dead wood	3
1716		Blue Oak	*Quercus douglasii*	1	6	6	Poor taper, Codominate leader with included bark at 20'	Remove dead wood	3
1717		Interior Live Oak	*Quercus wislizenii*	1	8	15	corrected lean, narrow attachment's with included bark, Poor taper, sparse canopy, large dead wood	Remove dead wood	2
1718	1547	Blue Oak	*Quercus douglasii*	1	7	14	Poor taper, corrected lean	Remove dead wood	3
1719	1550	Interior Live Oak	*Quercus wislizenii*	3	7, 4, 3	15	Choked by poison oak, narrow attachment's with included bark, unbalanced canopy	Remove poison oak, Prune to balance	2
1720		Interior Live Oak	*Quercus wislizenii*	1	7	12	narrow attachment's with included bark, epicormic growth, Poor taper	Remove epicormic growth down low	3
1721	513	Interior Live Oak	*Quercus wislizenii*	2	5, 4	12	Codominate leader with included bark, epicormic growth, limb tip dieback	Remove dead wood	2
1722	514	Interior Live Oak	*Quercus wislizenii*	1	19 @ base	20	Codominate leader with included bark at base, unbalanced canopy	Remove dead wood, Prune to balance, End weight reduction	3
1723	511	Interior Live Oak	*Quercus wislizenii*	2	6, 6	15	Codominate leader, epicormic growth, limb tip dieback	Remove dead wood, Prune to balance	2
1724	512	Interior Live Oak	*Quercus wislizenii*	1	17 @ 1'	20	Poor structure, decay with callous, unbalanced canopy, epicormic growth, dense dead lower canopy	Remove dead wood, Prune to balance	2
1725	509	Interior Live Oak	*Quercus wislizenii*	3	6, 8, 8	15	Codominate leader with included bark, epicormic growth, Poor taper	Remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1726	510	Interior Live Oak	*Quercus wislizenii*	2	6, 6	15	Codominate leader with included bark, limb tip dieback, epicormic growth	Remove dead wood, Re-inspect in 3 years for included bark at base	2
1727	1297	Interior Live Oak	*Quercus wislizenii*	4	7, 5, 4, 6	20	unbalanced canopy, epicormic growth, Poor taper	Prune to balance	3
1728	507	Interior Live Oak	*Quercus wislizenii*	1	8	15	epicormic growth, limb tip dieback, stunted growth	Prune to balance, remove dead wood	2
1729	506	Interior Live Oak	*Quercus wislizenii*	2	6, 4	10	Codominate leader with included bark, choked by poison oak, limb tip dieback, Poor taper, stunted growth	Remove poison oak, remove dead wood, RIEY	2
1730	474	Interior Live Oak	*Quercus wislizenii*	1	7	20	Heavy lean, Poor taper, Poor structure, narrow attachment, Codominate leader	Remove dead wood, Prune to balance	2
1731	473	Interior Live Oak	*Quercus wislizenii*	1	7	20	Heavy lean, wounds with callous at base, limb tip dieback, stunted by growth	Remove dead wood, Prune to balance	2
1732	1541	Valley Oak	*Quercus lobata*	1	9	14	Poor taper, Codominate leader	Remove dead wood	3.5
1733		Interior Live Oak	*Quercus wislizenii*	1	6	10	epicormic growth, limb tip dieback, Stunted growth, Poor taper	Remove dead wood	2
1734	475	Interior Live Oak	*Quercus wislizenii*	1	12 @ 1'	15	epicormic growth, Poor structure, narrow attachment's with included bark in canopy, large dead wood	Prune to balance, remove dead wood	3
1735		Valley Oak	*Quercus lobata*	1	9	15	Severe gall infestation, Poor taper	Remove dead wood	3.5

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1736		Blue Oak	*Quercus lobata*	1	7	8	Poor taper, Codominate leader with included bark at 15'	Remove dead wood, remove Codominate leader at 15' growing to West	3
1737	254	Blue Oak	*Quercus lobata*	1	7	8	Poor taper	Remove dead wood	3
1738	255	Interior Live Oak	*Quercus wislizenii*	2	7, 3	15	Codominate leader with included bark at 1', large dead wood, epicormic growth, limb tip dieback	Remove dead wood, Prune to balance	2
1739	1272	Interior Live Oak	*Quercus wislizenii*	2	9, 7	20	Codominate leader, large dead wood, unbalanced canopy, epicormic growth, limb tip dieback	Remove dead wood, Prune to balance	3
1740		Interior Live Oak	*Quercus wislizenii*	1	7 @ 3'	15	Codominate leader with included bark at 5', epicormic growth, Poor taper	Remove dead wood, Prune to balance	3
1741		Interior Live Oak	*Quercus wislizenii*	1	10	20	Large dead wood, narrow attachment's with included bark throughout canopy	Remove dead wood, Prune to balance, End weight reduction, Re-inspect in 3 years for included bark	3
1742	196	Interior Live Oak	*Quercus wislizenii*	1	10 @ 1'	15	Codominate leader with included bark grown around dead limb at 4', Poor taper	Remove dead wood, Re-inspect in 3 years for Codominate leader attachment	2
1743	197	Interior Live Oak	*Quercus wislizenii*	3	6, 7, 10	20	Narrow attachment's with included bark at 3' attachments for Codominate leader, epicormic growth	Remove dead wood, Prune to balance, End weight reduction	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1744	198	Interior Live Oak	*Quercus wislizenii*	1	12	20	Large dead wood, Codominate leader with included bark at 12', epicormic growth, limb tip dieback	Remove dead wood	3
1745		Interior Live Oak	*Quercus wislizenii*	1	7	10	Epicormic growth, Poor taper	Remove dead wood	3
1746		Interior Live Oak	*Quercus wislizenii*	1	13	20	Past failure at base with callous, narrow attachment's with included bark	Remove dead wood	3
1747		Valley Oak	*Quercus lobata*	1	20	25	Narrow attachment's with included bark	Remove dead hanging branch, Re-inspect in 3 years	3.5
1748		Blue Oak	*Quercus lobata*	1	7	10	Narrow attachment with included bark 15' up	Remove dead wood	3.5
1749		Interior Live Oak	*Quercus wislizenii*	1	9 @ 1'	15	Narrow attachment's with included bark in attachment at 2'-3', Poor taper, limb tip dieback	Remove dead wood	2
1750		Blue Oak	*Quercus lobata*	1	7	10	Narrow attachment at Codominate leader at 8' with included bark, Poor taper	Remove dead wood, Re-inspect in 3 years for included bark	3
1751		Interior Live Oak	*Quercus wislizenii*	1	8 @ 1'	10	Narrow attachment's with included bark, epicormic growth, sparse canopy, Poor taper, doesn't appear healthy	Remove dead wood	2
1752		Blue Oak	*Quercus lobata*	1	9	14	Narrow attachment with severe included bark at Codominate leader attachment	Remove dead wood	3
1753	251	Interior Live Oak		4	8, 4, 4, 5	15	Narrow attachment's with included bark, epicormic growth, Poor structure, Suppressed to South	Remove dead wood, Prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1754	252	Interior Live Oak	*Quercus wislizenii*	1	11 @ 2'	15	Included bark in attachment at 4' - 8', unbalanced canopy to west	Remove dead wood, Prune to balance	3
1755	253	Interior Live Oak	*Quercus wislizenii*	2	6, 3	15	3" stem dead, large dead wood, included bark in attachment, limb tip dieback, poor health	3" To be removed, remove dead wood, Re-inspect in 3 years	2
1756	256	Interior Live Oak	*Quercus wislizenii*	2	8, 3	15	Narrow attachment at 8" - 3" stems, included bark at 10', lots of dead wood	Remove dead wood	3
1757	266	Interior Live Oak	*Quercus wislizenii*	1	10	12	Narrow attachment's with included bark throughout	Crown clean	3
1758		Valley Oak	*Quercus lobata*	1	12	20	Narrow attachment's with included bark throughout, suppressed to north	Re-inspect annually for included bark	3.5
1759		Interior Live Oak	*Quercus wislizenii*	1	6	12	Poor taper, included bark in attachment at 8'	Remove dead wood	3
1760	516	Interior Live Oak	*Quercus wislizenii*	2	3, 10	15	Lots of dead wood down low, narrow attachment with included bark at 4', unbalanced canopy, suppressed to Southwest	Remove dead wood, Prune to balance	3
1761		Interior Live Oak	*Quercus wislizenii*	2	6, 5	15	Very narrow attachment at codominate leader with included bark, poor structure, unbalanced canopy to West	Prune to balance	2
1762		Blue Oak	*Quercus lobata*	1	7	10	Suppressed by large cottonwood, unbalanced canopy	Remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1763		Interior Live Oak	*Quercus wislizenii*	1	8 @ 1'	12	narrow attachment with included bark at Codominate leader attachment at 4', unbalanced canopy, Suppressed to West	Prune to balance, remove dead wood	2
1764		Blue Oak	*Quercus lobata*	1	7	10	Poor taper, nice tree	Remove dead wood	3.5
1765		Interior Live Oak	*Quercus wislizenii*	1	7	10	Poor taper, lots of dead wood in lower canopy	Remove dead wood	3
1766	276	Interior Live Oak	*Quercus wislizenii*	1	6	12	narrow attachment with included bark at 5', Poor taper, limb tip dieback, large dead wood	Remove dead wood	2
1767		Interior Live Oak	*Quercus wislizenii*	1	8 @ base	15	Poor structure, weak attachments, limbs fused together, unbalanced canopy, Suppressed to South	Prune to balance	2
1768	272	Interior Live Oak	*Quercus wislizenii*	2	7, 4	15	4" stem is dead, 7" stem has poor structure, unbalanced canopy, suppressed to north west	4" To be removed, 7" Prune to balance	2
1769	271	Interior Live Oak	*Quercus wislizenii*	1	11	20	Codominate leader with included bark at 6', unbalanced canopy, poor structure, narrow attachment with included bark throughout canopy, Poor taper	Remove dead wood, Prune to balance	2
1770	274	Interior Live Oak	*Quercus wislizenii*	2	9, 7	15	Epicormic growth, lots of dead wood down low in canopy	Crown clean	3
1771	275	Interior Live Oak	*Quercus wislizenii*	2	6, 4	20	Narrow attachment at Codominate leader at 3', unbalanced canopy, Suppressed to South	Remove dead wood, Prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1772	265	Interior Live Oak	*Quercus wislizenii*	1	12	20	Poor structure, weak attachment on lowest laterals, limb tip dieback, Poor taper, included bark in Codominate leader 25' up	Prune to balance lower lateral limbs	3
1773	264	Interior Live Oak	*Quercus wislizenii*	1	13 @ 2'	15	Codominate leader, included bark in attachment 15' up	Remove dead wood	3
1774	263	Interior Live Oak	*Quercus wislizenii*	3	4, 3, 8	25	Unbalanced canopy, Suppressed to West, narrow attachment's with included bark throughout, Poor taper	Prune to balance	2
1775	262	Interior Live Oak	*Quercus wislizenii*	1	11	25	Large dead wood, narrow attachment's with included bark throughout, unbalanced canopy, Suppressed to Northwest, some decay with callous 15' up on main leader	Prune to balance, remove dead wood	2
1776	209	Interior Live Oak	*Quercus wislizenii*	1	20 @ 1'	30	Included bark in all attachment down low, large dead wood, unbalanced canopy	Crown clean, Prune to balance, end weight reduction	3
1777	206	Interior Live Oak	*Quercus wislizenii*	1	10	15	Narrow attachment's with included bark in multiple Codominate leader attachment, limb tip dieback in lower canopy	Re-inspect in 3 years for included bark, remove dead wood	3
1778	245	Interior Live Oak	*Quercus wislizenii*	2	7 @ 1', 8 @ 1'	20	Unbalanced canopy, poor structure, suppressed to west, large dead wood	Prune to balance, remove dead wood	2
1779	246	Interior Live Oak	*Quercus wislizenii*	1	11	25	Codominate leader with included bark, unbalanced canopy	Remove dead wood, Prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1780		Blue Oak	*Quercus lobata*	1	8	10	Large dead wood, narrow attachment at 15' with included bark, poor taper, nice tree	Remove dead wood, remove limb at 15' with included bark	3
1781	248	Interior Live Oak	*Quercus wislizenii*	1	12	25	Large dead wood, poor structure, unbalanced canopy, corrected lean	Remove dead wood, prune to balance	3
1782	260	Interior Live Oak	*Quercus wislizenii*	2	18, 12	40	Past failure on 12" stem, narrow attachment on 18, unbalanced canopy	Remove dead wood, prune to balance 18" stem, remove 12	2
1783	261	Blue Oak	*Quercus lobata*	1	14	20	Codominant leader with included bark at 6', narrow attachments with included bark in mid and upper canopy	Re-inspect in 3 years for included bark	3
1784		Blue Oak	*Quercus lobata*	1	6	10	Poor taper	Remove dead wood	3
1785	671	Interior Live Oak	*Quercus wislizenii*	4	10, 13, 11, 4	25	Old cuts with callous, unbalanced canopy, narrow attachments with included bark throughout canopy	Crown clean, end weight reduction to east	3
1786	672	Interior Live Oak	*Quercus wislizenii*	2	8, 12	15	Codominant leader at 3' with included bark, unbalanced canopy, suppressed to west	Remove dead wood, prune to balance, re-inspect in 3 years	2
1787	673	Interior Live Oak	*Quercus wislizenii*	1	8	15	Large dead wood, narrow attachments with included bark, epicormic growth, poor structure, limb tip dieback	Remove dead wood, prune to balance	2
1788	674	Interior Live Oak	*Quercus wislizenii*	2	5, 4	15	Poor attachment at base, poor structure, unbalanced canopy, limb tip dieback	Remove dead wood, prune to balance	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1789	675	Interior Live Oak	*Quercus wislizenii*	1	8	12	Large dead wood, poor taper, poor structure	Remove dead wood	2
1790		Interior Live Oak	*Quercus wislizenii*	4	15, 11, 3, 4	40	Old dead stub at base, unbalanced canopy, narrow attachments with included bark, large dead wood	Remove dead wood, prune to balance, re-inspect in 3 years	3
1791	677	Interior Live Oak	*Quercus wislizenii*	4	3, 5, 4, 2	20	Large dead wood, epicormic growth, unbalanced canopy, poor structure, suppressed to west	Remove dead wood, prune to balance	2
1792		Valley Oak	*Quercus lobata*	1	13	25	Poor taper, narrow attachment with included bark at ~30'	Crown clean	3
1793		Interior Live Oak	*Quercus wislizenii*	1	10 @ ground	15	Poor structure, unbalanced canopy	Remove dead wood, prune to balance	2
1794	268	Interior Live Oak	*Quercus wislizenii*	1	15 @ ground	~	Past failure compromised entire tree	To be removed	1
1795	268	Interior Live Oak	*Quercus wislizenii*	2	19, 7	25	Past failure on 7" stem, epicormic growth, narrow attachments with included bark	Crown clean, re-inspect in 3 years for failed stem	3
1796	267	Interior Live Oak	*Quercus wislizenii*	1	16	35	Wound with callous at 4', unbalanced canopy, narrow attachments with included bark	Remove dead wood, end weight reduction	3
1797	270	Interior Live Oak	*Quercus wislizenii*	2	6, 3	15	3" stem is dead, unbalanced canopy, sparse canopy, poor taper	Remove 3" stem, remove dead wood, prune to balance	2
1798		Interior Live Oak	*Quercus wislizenii*	1	7	15	Narrow attachment with included bark at 7', unbalanced canopy	Remove dead wood, prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1799		Interior Live Oak	*Quercus wislizenii*	2	6, 7	20	Codominant leader at 1' with included bark, unbalanced canopy, small cavity at 6' on 7" stem	Prune to balance, re-inspect in 3 years	2
1801	2351	Interior Live Oak	*Quercus wislizenii*	1	9	18	~	Remove dead wood	3
1802	2259	Interior Live Oak	*Quercus wislizenii*	1	11	18	Significant lean to west	Remove dead wood	2
1803		Interior Live Oak	*Quercus wislizenii*	1	6 @ 2'	15	Unbalanced canopy to west	Remove dead wood, prune to balance	3
1805	103	Blue Oak	*Quercus lobata*	1	23	28	Canopy to ground, good	Remove dead wood	4
1806		Interior Live Oak	*Quercus wislizenii*	3	7, 4, 4	12	Codominant leader at 6", suppressed, poor structure, compacted soil at base - dirt track	Prune to balance, re-inspect in 3 years	2
1807		Interior Live Oak	*Quercus wislizenii*	1	18	18	Dominant, fill and compacted soil at base - dirt track	Remove compacted soil at base, prune to balance, re-inspect In 3 years	3
1808		Interior Live Oak	*Quercus wislizenii*	2	11, 5	18	Suppressed, unbalanced canopy to north east, compacted soil and fill at base	Remove dead wood, remove fill at base, prune to balance	2
1809		Interior Live Oak	*Quercus wislizenii*	1	10	15	Rip failure stub at 4', poor taper, compacted soil at base	Remove stub, re-inspect in 3 years	2
1810		Interior Live Oak	*Quercus wislizenii*	3	11, 13, 15	28	Codominant leader at 3', over weight limb to north east, compacted soil in critical root zone, evidence of borers, crossing limbs, included bark	Remove crossing limb, end weight reduction on stem to north east, remove dead wood	3
1811		Blue Oak	*Quercus lobata*	2	24, 23	~	All epicormic growth, failed - on the ground	To be removed	1

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1812		Blue Oak	*Quercus douglasii*	1	9	14	Narrow angle attachments	Suppress north stem, remove dead wood	3
1813		Blue Oak	*Quercus douglasii*	1	6	10	Unbalanced canopy to north	Remove dead wood, prune to balance	3
1814	2135?	Interior Live Oak	*Quercus wislizenii*	1	10	22	Unbalanced canopy to south west, poor structure, suppressed	Remove dead wood, prune to balance, re-inspect in 3 years	2
1815	2134	Interior Live Oak	*Quercus wislizenii*	2	9, 4	24	Suppressed, unbalanced canopy to west	Remove dead wood, prune to balance, re-inspect in 3 years	2
1816	2132	Interior Live Oak	*Quercus wislizenii*	1	17	30	Significant lean to west, debris at base to south east, included bark, stems growing together	Requires a level 3 inspection	2
1817	2136	Interior Live Oak	*Quercus wislizenii*	1	6	15	Very sparse canopy, dogleg at 1'	Remove dead wood	2
1818	2137	Interior Live Oak	*Quercus wislizenii*	2	5, 8	25	Codominant leader at 2', east stem has poor taper, over weight limb	Remove east stem, prune to balance	3
1819	2138	Interior Live Oak	*Quercus wislizenii*	2	3, 8	15	Poor taper	Remove 3" stem, remove dead wood	3
1820		Blue Oak	*Quercus douglasii*	1	9	16	Poor taper, good canopy	Remove dead wood	3
1821		Interior Live Oak	*Quercus wislizenii*	2	5, 5	~10	Codominant leader at 1' with included bark, unbalanced canopy to west	Prune to balance	3
1822	2140	Interior Live Oak	*Quercus wislizenii*	3	8, 9, 13	25	Suppressed, bow at top to west	Remove 2 smaller stems, prune to balance, re-inspect in 3 years	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1823	2141	Interior Live Oak	*Quercus wislizenii*	2	14, 12 @ 2'	26	Suppressed, bow at top to south west	Remove dead wood, prune to balance	3
1824	2142	Interior Live Oak	*Quercus wislizenii*	5	12, 7, 9, 8, 14	35	Decay pockets at base, included bark, over weight limb to west	Remove dead wood, prune to balance, requires a level 3 inspection	3
1825	2143	Interior Live Oak	*Quercus wislizenii*	2	7, 12	26	7" stem has poor structure, over weight to north, debris to north	Remove debris and re-inspect, remove dead wood, prune to balance	3
1826	2172	Blue Oak	*Quercus douglasii*	1	7	12	Poor taper, bows to west at top	Prune to balance	3
1827	2173	Interior Live Oak	*Quercus wislizenii*	3	10, 13, 11	28	Suppressed, prostrate to 4', poor structure, included bark	Remove dead wood, prune to balance	2
1828		Interior Live Oak	*Quercus wislizenii*	1	8	15	Good canopy	~	3
1829		Interior Live Oak	*Quercus wislizenii*	1	6	12	Slight lean to south west	Remove dead wood	3
1830		Interior Live Oak	*Quercus wislizenii*	1	11	22	Poor structure at 15', crossing limbs, unbalanced canopy to west	Remove dead wood, prune to balance, re-inspect in 3 years	2
1831		Interior Live Oak	*Quercus wislizenii*	1	10	-	Blue oak growing into base, poor structure, significant lean to south	~	2
1832	2190	Interior Live Oak	*Quercus wislizenii*	1	17 @ 6"	28	Narrow angle attachment at 4', included bark, sparse canopy	Remove dead wood, re-inspect in 3 years	3
1833		Interior Live Oak	*Quercus wislizenii*	1	7	15	Included bark at 5'	Suppress north stem	3
1834		Interior Live Oak	*Quercus wislizenii*	1	6	12	Dogleg at ground, narrow angle attachment at 10'	~	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1835		Interior Live Oak	*Quercus wislizenii*	2	7, 3	18	Unbalanced canopy to south west	Remove 3" stem, prune to balance	3
1836	2199	Blue Oak	*Quercus douglasii*	1	11	20	Codominant leader at 8', 10', and 12' all with included bark, epicormic growth	Remove dead wood, re-inspect in 3 years	3
1837		Interior Live Oak	*Quercus wislizenii*	1	7	18	Unbalanced canopy to south west, slight lean	~	3
1838		Interior Live Oak	*Quercus wislizenii*	1	11 @ 2'	18	Unbalanced canopy to south, narrow angle attachments, crossing limbs	Needs corrective pruning	3
1839		Interior Live Oak	*Quercus wislizenii*	1	7	15	Canker at base, upright growth	Remove dead wood	3
1840	2207	Blue Oak	*Quercus douglasii*	1	11 @ 2'	12	Poor structure, narrow angle attachments, hanger	Remove dead wood, remove hanger, remove 1 stem at narrow attachments, re-inspect in 3 years	2
1841		Interior Live Oak	*Quercus wislizenii*	2	6 @2', 4	15	Unbalanced canopy to south, included bark at 2'	Remove dead wood, prune to balance	3
1842		Blue Oak	*Quercus douglasii*	3	8, 14 @ 1', 13	-	Fill at base, dirt bike track, epicormic growth, crossing main stems, included bark in center stem 3 - 7'	Remove dead wood, remove fill, requires a level 3 inspection	2
1843		Blue Oak	*Quercus douglasii*	1	~40	34	Fill at base, dirt bike track, sign on tree, canopy to ground to sought, narrow attachments, black stain	Requires a level 3 inspection	3
1844		Interior Live Oak	*Quercus wislizenii*	1	~36	32	Fort in tree, large cavity at base - 3', poor structure	Requires a level 3 inspection	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1845	2210	Blue Oak	*Quercus douglasii*	2	11, 5	20	Unbalanced canopy to south east, fill to south from dirt bike track, included bark	Remove 5" stem, remove fill, remove dead wood, prune to balance	3
1846		Blue Oak	*Quercus douglasii*	2	10, 3	19	Good	Remove 3" stem	4
1847		Blue Oak	*Quercus douglasii*	1	6	10	Narrow angle attachment at 4'	Suppress north east stem	3
1848		Blue Oak	*Quercus douglasii*	1	6	10	Poor taper, codominant leader at 7' with included bark	Remove 1 stem at codominant leader	3
1849		Blue Oak	*Quercus douglasii*	1	26 @ 1'	32	Compacted soil at base from dirt bike track, unbalanced canopy to north, dead wood at base to west with Turkey tail fungus, large stubs, large dead wood	Requires a level 3 inspection	2
1850		Blue Oak	*Quercus douglasii*	1	22	35	Sparse canopy, large stubs, poor health	Remove dead wood, provide summer irrigation	3
1851		Interior Live Oak	*Quercus wislizenii*	1	7	13	Growing at the base of tree #1850	Remove for tree #1850	2
1852	107	Interior Live Oak	*Quercus wislizenii*	1	~58	40	Too much internal decay	To be removed or requires a level 3 inspection	2
1853		Interior Live Oak	*Quercus wislizenii*	2	~40, 7	45	Large dead wood, large cavity at 3' to south - almost closed, decay under base	End weight reduction to west, requires a level 3 inspection	2
1854		Blue Oak	*Quercus douglasii*	1	14 @ 2'	18	Codominant leader at 3', included bark, unbalanced canopy to south	Remove dead wood, prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1855	110	Interior Live Oak	*Quercus wislizenii*	3	6, 12, 3	36	6" stem failed, poor structure, too much decay	To be removed	2
1856	111	Interior Live Oak	*Quercus wislizenii*	4	11, 11, 20, 8	35	Poor structure, unbalanced canopy to southwest	Requires a level 3 inspection	3
1857	112	Interior Live Oak	*Quercus wislizenii*	2	20, 20	40	Beehive in cavity at base, large failure	To be removed, or level 3 inspection	2
1858	113	Blue Oak	*Quercus douglasii*	12	13, 11, 3,2, 9, 6, 3, 7, 8, 14, 10, 9 @ 1'	34	Large dead wood, canopy to the ground	Remove dead wood, requires level 3 inspection	3
1859	114	Blue Oak	*Quercus douglasii*	2	7, 12	10	Diseased at base to south-Ia, very sparse canopy	To be removed	2
1860	115	Blue Oak	*Quercus douglasii*	2	9, 1	15	Very sparse canopy, narrow angle attachment at 8'	Remove 1" stem, remove narrow angle, remove dead wood, re-inspect in 3 years	3
1861	116	Blue Oak	*Quercus douglasii*	2	9, 2	15	Good	Remove 2" stem, remove dead wood	4
1862	102	Blue Oak	*Quercus douglasii*	1	~37	38	Codominant leader at 7', sparse canopy, closed wounds, over weight limb to northeast, GOOD TREE	Remove dead wood, end weight reduction to north, requires a level 3 inspection	4
1863	101	Blue Oak	*Quercus douglasii*	1	23	30	Good canopy, codominant leader at 6' with included bark, canopy to the ground	Remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1864		Interior Live Oak	*Quercus wislizenii*	1	~33 @ 3'	32	Over weight limb to south with included bark at junction	Add 2 cables, end weight reduction to south, re-inspect annually	3
1865		Interior Live Oak	*Quercus wislizenii*	1	6	18	Poor structure, decay pocket at 1' with callous	~	2
1866		Blue Oak	*Quercus douglasii*	1	8	20	Suppressed, unbalanced canopy and lean to south, narrow angle attachments at 10'	Remove dead wood, prune to balance	3
1867	2238	Interior Live Oak	*Quercus wislizenii*	2	15, 11	30	Main stems cross from base to 3', over weight limb to north, large old pruning cuts at base and 6' to west - too much decay	Requires a level 3 inspection	2
1868	2237	Interior Live Oak	*Quercus wislizenii*	2	4, 10	19	Codominant leader at base, poor structure in main stem	Remove dead wood, prune to balance, re-inspect in 3 years	2
1869	2509	Interior Live Oak	*Quercus wislizenii*	1	6	~	Poor structure, too much decay at old pruning cut at 1' to west	To be removed	1
1870	2235	Interior Live Oak	*Quercus wislizenii*	1	15	22	Debris at base, codominant leader at 7' with included bark, sparse canopy	Remove dead wood, add 1 cable, re-inspect annually	3
1871	2234	Interior Live Oak	*Quercus wislizenii*	2	8, 7	14	Codominant leader at 1' with included bark	Remove dead wood	3
1872	2242	Interior Live Oak	*Quercus wislizenii*	2	7, 10	22	10" stem has codominant leader at 4' with included bark, 7" stem has poor structure	~	2
1873	2243	Blue Oak	*Quercus douglasii*	1	14	23	Dominant, good	Remove dead wood	4

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1874	2250	Blue Oak	*Quercus douglasii*	1	7	12	Sparse canopy, slight lean to south	Remove dead wood	3
1875	2251	Blue Oak	*Quercus douglasii*	1	7	20	Poor structure	Prune to balance, remove dead wood, re-inspect in 3 years	2
1876	2253	Interior Live Oak	*Quercus wislizenii*	3	3, 8, 7	22	Poor structure, large old pruning cuts	Remove dead wood, prune to balance, re-inspect every year	2
1877	2232	Interior Live Oak	*Quercus wislizenii*	2	9, 4	21	~	Remove dead wood, prune to balance	3
1878	2231	Interior Live Oak	*Quercus wislizenii*	2	13, 9	30	9 has poor structure	Remove 9, re-inspect in 3 years	2
1879	2233	Interior Live Oak	*Quercus wislizenii*	2	8, 4	-	Suppressed, poor structure	To be removed	2
1880	2230	Interior Live Oak	*Quercus wislizenii*	1	13	34	Suppressed, unbalanced canopy to west, narrow attachments, poor structure	To be removed	2
1881		Interior Live Oak	*Quercus wislizenii*	5	18, 14, 3, 9, 8	32	Dominant, codominant leader at 4' with included bark, prostrate limb at 2' wo south west and 3' to south	Remove dead wood, requires level 3 inspection	3
1882	2345	Interior Live Oak	*Quercus wislizenii*	4	6, 15, 5, 5	25	Codominant leader at 1', needs corrective pruning	Requires a level 3 inspection	3
1883		Blue Oak	*Quercus douglasii*	1	6	14	Slight lean to north, poor taper	~	3
1884		Blue Oak	*Quercus douglasii*	1	8	14	Very good	~	5
1885	2228	Blue Oak	*Quercus douglasii*	1	10 @ 2'	18	Codominant leader at 5' with included bark and 7' with included bark	Needs corrective pruning	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1886	2227	Blue Oak	*Quercus douglasii*	5	9, 11, 11, 5	28	Tree fort, epicormic growth, codominant leader, diseased, sparse canopy, epicormic growth, 9-11 stem has old wound with extensive decay 6" - 2'	Requires a level 3 inspection	2
1887	2225	Interior Live Oak	*Quercus wislizenii*	1	16	30	Good, slight lean	Remove dead wood	3
1888		Interior Live Oak	*Quercus wislizenii*	1	13 @ 1'	24	Wrapped in poison oak, unbalanced canopy to north west	Remove poison oak and re-inspect, remove dead wood	3
1889		Interior Live Oak	*Quercus wislizenii*	1	12	21	Old pruning cut at 5' to west	Remove dead wood	3
1890		Valley Oak	*Quercus lobata*	1	17	27	Good, closed wounds, upper canopy narrow angle attachments		3
1891	229	Valley Oak	*Quercus lobata*	1	20	32	Dominant, narrow attachment at 20', closed wounds, debris at base	Remove debris and re-inspect, requires a level 3 inspect, add 1 cable	3
1892	331	Interior Live Oak	*Quercus wislizenii*	1	7	~	Poor structure	To be removed	1
1893	233	Interior Live Oak	*Quercus wislizenii*	2	8, 5	20	Codominant leader at 2'	Remove dead wood, prune to balance	3
1894	234	Interior Live Oak	*Quercus wislizenii*	1	8	~	Suppressed, poor structure	To be removed	1
1895	235	Interior Live Oak	*Quercus wislizenii*	1	7 @ 2'	10	Poison oak, narrow angle attachment @ 2'	Remove 5" at 2', remove dead wood	2
1896		Interior Live Oak	*Quercus wislizenii*	1	9	16	Poison oak, slight lean	Remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1897	2258	Interior Live Oak	*Quercus wislizenii*	1	8	14	Limbs crossing with Western Cottonwood	Remove crossing limb, remove dead wood, prune to balance	3
1898	2337	Interior Live Oak	*Quercus wislizenii*	1	6	18	Poor structure, unbalanced canopy to south	Remove dead wood, prune to balance	3
1899		Interior Live Oak	*Quercus wislizenii*	1	7 @ 2'	14	Codominant leader at 3', good	~	4
1900		Interior Live Oak	*Quercus wislizenii*	1	6	14	Poor taper, very sparse canopy	~	3
1901	2041	Blue Oak	*Quercus douglasii*	1	16	24	Sparse canopy, failure stubs, epicormic growth	Re-prune stubs, remove dead wood	3
1902	2040	Blue Oak	*Quercus douglasii*	2	8, 5	10	5" stem is dead, epicormic growth	Remove 5" stem, remove dead wood	3
1903	2039	Blue Oak	*Quercus douglasii*	1	14	26	Very sparse canopy, poor structure, decay at base	Remove dead wood, prune to balance	2
1904	2038	Blue Oak	*Quercus douglasii*	1	21 @ 2'	~	Sparse canopy, epicormic growth, too much decay	To be Removed	1
1905	2037	Blue Oak	*Quercus douglasii*	1	6	12	Sparse canopy, early dormancy, completely defoliated	May not recover	2
1906	2042	Blue Oak	*Quercus douglasii*	2	7, 14	23	7" stem is mostly dead, narrow angle attachments mid and upper canopy	Remove dead wood, prune to correct structure	3
1907	630	Interior Live Oak	Quercus wislizenii	4	8, 8, 5, 8	26	Stump sprout, poor taper, included bark, large dead wood	To be Removed	2
1908	2059	Blue Oak	*Quercus douglasii*	1	14 @ 2'	18	Narrow angle attachment at codominant leader at 5' and 7', sparse canopy	Add 1 cable, remove dead wood, re-inspect annually	3
1909	2101	Blue Oak	*Quercus douglasii*	1	7	12	Bows at top to south east, suppressed	Remove dead wood, prune to balance	3
1910	2100	Blue Oak	*Quercus douglasii*	1	11	~	Top failure both stems	To be Removed	1

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1911	660	Valley Oak	*Quercus lobata*	1	24	30	Sparse canopy, dogleg and lean to south	Remove dead wood, re-inspect in 1 year	3
1912	2098	Blue Oak	*Quercus douglasii*	1	13	25	Sparse canopy, slight lean to north west	Remove dead wood	3
1913	2097	Interior Live Oak	Quercus wislizenii	4	7, 5, 7 @ 2'	~	5" stem is dead, large dead wood, too much decay	To be Removed	1
1914	2094	Blue Oak	*Quercus douglasii*	1	25 @ 2'	35	Codominant leader at 5' and 12', included bark, sparse canopy, epicormic growth, dominant	Remove dead wood	3
1915	2093	Interior Live Oak	Quercus wislizenii	2	8, 6	15	Suppressed, poor structure, decay at base	~	2
1916	2092	Blue Oak	*Quercus douglasii*	2	8, 9	16	Diseased	~	2
1917	New	Interior Live Oak	Quercus wislizenii	1	9	20	Stump sprout, poor structure, decay at base	~	2
1918	2089	Blue Oak	*Quercus douglasii*	2	10, 9	20	Suppressed, poor structure, decay under base	To be Removed	2
1919	2090	Blue Oak	*Quercus douglasii*	1	21		Off site at Fence, imbedded fence wire, dominant, good	Remove dead wood	3
1920	2088	Interior Live Oak	Quercus wislizenii	3	8, 6, 8	24	Suppressed, poor structure, decay pocket	~	2
1921	2096	Blue Oak	*Quercus douglasii*	1	27 @ 2'	38	Included bark base to 6', over weight limb to south	Add 1 cable, end weight reduction to south, remove dead wood	3
1922	420	Blue Oak	*Quercus douglasii*	3	8, 7, 13	34	Center stem is dead, poor structure, large dead wood	To be Removed	2
1923	419	Blue Oak	*Quercus douglasii*	3	14, 14, 15	30	Dominant	Remove dead wood, prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1924	422	Blue Oak	*Quercus douglasii*	1	14	25	Suppressed, unbalanced canopy to west, bow	Remove dead wood, prune to balance	3
1925	423	Blue Oak	*Quercus douglasii*	1	12	26	Leans to north, sparse canopy, epicormic growth	Remove dead wood, prune to balance	3
1926	421	Interior Live Oak	Quercus wislizenii	1	10	25	Poor structure, epicormic growth, suppressed, codominant leader failure closing at base	Prune to balance, re-inspect in 3 years	2
1927	425	Blue Oak	*Quercus douglasii*	1	12	27	Codominant leader with narrow angle at 15', suppressed, bows to north	Remove dead wood, prune to balance, re-inspect in 3 years	2
1928	426	Valley Oak	Quercus lobata	1	11	24	Poor taper, slight lean	~	3
1929	427	Valley Oak	Quercus lobata	1	24	26	Dominant, good	Remove dead wood	4
1930	653	Blue Oak	*Quercus douglasii*	1	9	16	Poor structure, epicormic growth, hanger (tree #1931)	Remove dead wood, remove hanger, prune to balance, re-inspect in 3 years	2
1931	643	Blue Oak	*Quercus douglasii*	1	7	~	Very poor structure, hanging on tree #1930	To be Removed	1
1932	642	Interior Live Oak	Quercus wislizenii	1	11	20	Leans to south west, decay pocket at 1' to south	Re-inspect in 3 years	2
1933	637	Interior Live Oak	Quercus wislizenii	3	7, 8, 15	23	Stump sprout, too much decay	To be Removed	2
1934	445	Interior Live Oak	Quercus wislizenii	6	11, 11, 7, 14, 5, 8	36	8" stem has too much decay, decay pockets at base, large dead wood, over weight limbs,	Remove dead wood, prune to balance, may require further assessment	2
1935	446	Interior Live Oak	Quercus wislizenii	1	7	~	Poor structure, bow to south	To be Removed	1
1936	442, 441	Interior Live Oak	Quercus wislizenii	2	6, 7	~	Stump sprout, mostly dead	To be Removed	1

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1937	443	Interior Live Oak	Quercus wislizenii	1	17	24	Codominant leader at 6' with included bark	Remove 3 dead stems at base, Remove dead wood, prune to balance, re-inspect every year	3
1938	440	Interior Live Oak	Quercus wislizenii	1	17	26	Decay pocket at base to south, leans to north	~	2
1939	439	Interior Live Oak	Quercus wislizenii	1	12 @ 2'	~	Poor structure at base, narrow angle attachment, decay pocket	To be Removed	1
1940	433	Interior Live Oak	Quercus wislizenii	4	12, 10 @ 2', 8 @ 2'	-	Stump sprout, poor structure, poor taper	To be Removed	2
1941	434	Interior Live Oak	Quercus wislizenii	6	14, 12, 7, 16, 8, 10	~	Large dead wood, too much decay	To be Removed	1
1942	435	Interior Live Oak	Quercus wislizenii	1	20	-	Significant dieback, large dead stub, decay under base	To be Removed	2
1943	436, 437	Interior Live Oak	Quercus wislizenii	4	7, 7, 8, 9	~	Poor structure, too much decay	To be Removed	1
1944	407	Blue Oak	*Quercus douglasii*	1	10	23	Leans to north	Remove dead wood, prune to balance	3
1945	428	Interior Live Oak	Quercus wislizenii	1	9 @ 1'	15	Included bark, crossing limbs		3
1946	406	Interior Live Oak	Quercus wislizenii	1	13 @ 2'	26	Codominant leader at 4' with included bark, sparse canopy, over weight limb to west	Remove dead wood, prune to balance	3
1947	405	Interior Live Oak	Quercus wislizenii	4	5, 11, 7, 14	25	Stump sprout, decay under base	Remove all stems except 11 and 14, remove dead wood, re-inspect in every year	2
1948	404	Interior Live Oak	Quercus wislizenii	4	11, 8, 6, 7	-	Decay under base, smaller stems have poor structure	To be Removed	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1949	403	Interior Live Oak	Quercus wislizenii	1	9	~	Poor structure, suppressed, large dead wood	To be Removed	1
1950	401	Blue Oak	*Quercus douglasii*	1	7	12	Hanger, leans to south, suppressed	Remove hanger, remove dead woo, prune to balance	3
1951	408	Interior Live Oak	*Quercus wislizenii*	4	10, 17, 20, 10	31	Codominant leader at 3' with included bark, poor pruning cut at 6' to south east, 10" stem to north has poor structure, epicormic growth, high canopy, large dead wood	Remove dead wood, reprune stub, requires a level 3 inspection, re-inspect annually	3
1952	409	Interior Live Oak	*Quercus wislizenii*	2	6, 8	~	Too much dead wood	To be removed	1
1953	410	Interior Live Oak	*Quercus wislizenii*	8	7, 7, 14, 12, 7, 8, 7, 11	32	Stump sprout, significant decay	Requires a level 3 inspection	2
1954	411	Interior Live Oak	*Quercus wislizenii*	2	4, 13	26	Poison oak, poor structure and lean to south east	To be removed	2
1955	388	Interior Live Oak	*Quercus wislizenii*	3	10, 10, 24	24	Included bark base to 12', black stain at included bark line	Requires a level 3 inspection	2
1956	392	Blue Oak	*Quercus douglasii*	1	12	~	Fence post at base, too much decay at base	To be removed	1
1957	389-390-391	Interior Live Oak	*Quercus wislizenii*	11	6, 5, 8, 5, 4, 6, 10, 7, 4, 5, 3	28	Stump sprout, poor structure	Remove dead wood, requires level 3 inspection	2
1958		Interior Live Oak	*Quercus wislizenii*	1	13 @ 1'	14	Poor structure, included bark	Remove dead wood, prune to balance, re-inspect in 3 years	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1959	387	Interior Live Oak	*Quercus wislizenii*	2	8 @ 3', 7 @ 3'	25	Attached to large cottonwood, poor structure, suppressed and lean to south	~	2
1960	385	Interior Live Oak	*Quercus wislizenii*	2	5, 7	14	Codominant leader at 3', large wound with callous to east, sparse canopy	~	2
1961	384	Interior Live Oak	*Quercus wislizenii*	3	11, 5, 2		Fair	~	3
1962	376	Interior Live Oak	*Quercus wislizenii*	2	8, 7 @ 2'		Sparse canopy, included bark	~	3
1963	450	Interior Live Oak	*Quercus wislizenii*	1	8	12	Slight lean, dogleg at 5'	Remove dead wood	3
1964	994	Interior Live Oak	*Quercus wislizenii*	3	18, 7, 16 @ 1'	30	Large failure, decay under base	Remove dead wood, requires level 3 inspection	2
1965	344	Interior Live Oak	*Quercus wislizenii*	1	6	12	Understory	Remove dead wood, prune to balance	3
1966	345	Interior Live Oak	*Quercus wislizenii*	2	9, 6	16	Codominant leader at 1' with included bark, future cable	Remove dead wood	3
1967		Interior Live Oak	*Quercus wislizenii*	3	6, 6, 3	15	Unbalanced canopy to south	Remove dead wood	3
1968		Interior Live Oak	*Quercus wislizenii*	2	8, 6	22	Suppressed, leans to sought narrow angle attachment at codominant leader, included bark at 1'	Remove dead wood, prune to balance	3
1969		Interior Live Oak	*Quercus wislizenii*	1	7	20	Suppressed, poor structure	Needs corrective pruning	2
1970	2121	Interior Live Oak	*Quercus wislizenii*	1	21 @ 1'	25	Large rip wound with extensive decay at 3' to north, large dead wood	Remove deadwood, remove stubs, prune to balance, re-inspect in 3 years	2
1970		Interior Live Oak	*Quercus wislizenii*	1	9 @2'	20	Suppressed, poor structure, too much decay	To be removed	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1971		Interior Live Oak	*Quercus wislizenii*	1	9 @ 3'	16	Included bark at 4', poor structure, suppressed		2
1973	2120	Interior Live Oak	*Quercus wislizenii*	1	14	26	Large wound at 1' to north, leans to south	Remove dead wood, prune to balance, re-inspect in 3 years	3
1974		Interior Live Oak	*Quercus wislizenii*	1	21	33	Significant included bark 7 - 9' at codominant leader, dominant	Add 2 cables, remove dead wood, prune to balance	3
1975	2128	Interior Live Oak	*Quercus wislizenii*	2	7, 4	14	Suppressed, large dead wood, poor taper	Remove dead wood, prune to balance	2
1976		Interior Live Oak	*Quercus wislizenii*	1	8	12	Good	Remove dead wood	3
1977		Interior Live Oak	*Quercus wislizenii*	1	9 @ 3'	24	Codominant leader at 4', unbalanced canopy to south west	Prune to balance	3
1978	2119	Interior Live Oak	*Quercus wislizenii*	1	8 @ 2'	~	Large wound at 4' with borers, poor structure	To be removed	1
1979		Interior Live Oak	*Quercus wislizenii*	2	6, 15 @ 2'	16	Large failure rip at 1', closed wounds on main stem	Remove failure, prune to balance, re-inspect in 3 years	2
1980		Blue Oak	*Quercus douglasii*	1	6	10	Suppressed, unbalanced canopy to south west	Prune to balance	3
1981		Interior Live Oak	*Quercus wislizenii*	1	12	23	Poison oak, unbalanced canopy to south west	Remove dead wood, prune to balance	3
1982		Blue Oak	*Quercus douglasii*	2	7, 14	20	Debris at base to south east, good	Remove debris	4
1983		Blue Oak	*Quercus douglasii*	2	6, 5	8	Too much included bark	Needs corrective pruning	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1984		Blue Oak	*Quercus douglasii*	1	7 @ 3'	8	Included bark at 4' and 5', crossing limbs	Remove deadwood, remove one of the crossing limbs, remove 1 stem at codominant leader at 4' and 5'	3
1985		Blue Oak	*Quercus douglasii*	1	9 @ 3'	16	Included bark at 10'	Suppress south stem at codominant leader	3
1986		Interior Live Oak	*Quercus wislizenii*	2	5 @ 1', 6 @ 1'	10	Codominant leader at 6" with included bark, narrow attachments	Remove dead wood	3
1987		Interior Live Oak	*Quercus wislizenii*	1	10 @ 2'	12	Codominant leader at 4' with included bark, narrow attachments	Needs corrective pruning	2
1988	2510	Interior Live Oak	*Quercus wislizenii*	1	12 @ 4'	14	Large deadwood at base, very sparse canopy	Remove dead wood, prune to balance, re-inspect in 3 years	3
1989		Interior Live Oak	*Quercus wislizenii*	1	14	~	Prostrate, failed at base, too much decay	To be removed	1
1990		Blue Oak	*Quercus douglasii*	1	7	10	Debris at base	Remove debris and re-inspect base, remove dead wood	3
1991	2511	Blue Oak	*Quercus douglasii*	1	12 @ 2'	20	Good	Remove dead wood	4
1992	2512	Interior Live Oak	*Quercus wislizenii*	1	11 @ 2'	17	Good	Remove dead wood	4
1993	2514	Interior Live Oak	*Quercus wislizenii*	1	10	~	Codominant leader failed at 1'	To be removed	1
1994		Interior Live Oak	*Quercus wislizenii*	1	23 @ 1'	22	Narrow attachment angles	Add 1 cable, remove dead wood	3
1995		Blue Oak	*Quercus douglasii*	1	9	~12	Slight dogleg at 1'	~	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
1996		Blue Oak	*Quercus douglasii*	1	8	16	Unbalanced canopy to north, sparse canopy, good	Remove debris at base	4
1997		Interior Live Oak	*Quercus wislizenii*	1	7	14	Unbalanced canopy to south, good	Remove dead wood	4
1998	2113	Interior Live Oak	*Quercus wislizenii*	1	9	14	Narrow angle attachments	Remove dead wood	3
1999	2114	Blue Oak	*Quercus douglasii*	1	9	12	Good, narrow attachment at top	Remove dead wood	4
2000	2116	Blue Oak	*Quercus douglasii*	1	9	14	Included bark at 10'	Remove 1 stem at codominant leader, re-inspect in 3 years, remove interior live oak stems at 4' that are crossing	3
2001		Interior Live Oak	*Quercus wislizenii*	1	15	~	Sprouts at base, main stem prostrate to west, too much decay	To be removed	1
2002		Interior Live Oak	*Quercus wislizenii*	1	6	12	Sparse canopy, slight lean, good	~	3
2003		Interior Live Oak	*Quercus wislizenii*	1	6	12	Good (near #2320)	~	3
2004		Interior Live Oak	*Quercus wislizenii*	1	8	16	Good canopy	Remove dead wood	3
2005	2207	Interior Live Oak	*Quercus wislizenii*	1	~30	34	Codominant leader at 3' and 6', wide angles	Remove dead wood, crown clean	4
2006	2269	Interior Live Oak	*Quercus wislizenii*	1	~27	35	Codominant leader at 4' with included bark, over weight limb to south, prostrate limb to south at 2'	Remove dead wood, re-inspect annually	3
2007	2185	Interior Live Oak	*Quercus wislizenii*	1	8 @ 3'	16	Codominant leader at 54', under story, poor structure	Remove dead wood, prune to balance, re-inspect in 3 years	2
2008	2183	Interior Live Oak	*Quercus wislizenii*	1	7	12	Growing over rock, very sparse canopy, slight lean	Remove dead wood, prune to balance	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2009	2184	Interior Live Oak	*Quercus wislizenii*	2	7, 5	16	Sparse canopy, 5" stem leans to south	Remove dead wood, prune to balance	3
2010		Interior Live Oak	*Quercus wislizenii*	2	9, 10	24	Codominant leader at 2', wide angle, good canopy	Remove dead wood, prune to balance	3
2011		Interior Live Oak	*Quercus wislizenii*	1	7	15	Good	Remove narrow angles, remove dead wood	3
2012		Interior Live Oak	*Quercus wislizenii*	1	11	~	Very sparse canopy, too much dead wood, west of old #2180	To be removed	1
2013	2180	Interior Live Oak	*Quercus wislizenii*	1	20 @ 1'	30	Very sparse canopy, codominant leader at 3' wide into 3 stems, poor structure, unbalanced canopy ot south	Remove dead wood, prune to balance, remove 6" stem at 2' to south east	2
2014	2181	Interior Live Oak	*Quercus wislizenii*	1	7	16	Suppressed, poor structure, diseased	To be removed	2
2015		Interior Live Oak	*Quercus wislizenii*	1	6	14	Suppressed, poor structure	Remove dead wood, prune to balance	3
2016		Interior Live Oak	*Quercus wislizenii*	1	6	~	Prostrate, poor structure	To be removed	1
2017	2182	Interior Live Oak	*Quercus wislizenii*	3	5, 12, 19	33	Large failure of main stem in 12	Remove 12" stem, re-inspect in 3 years	2
2018		Interior Live Oak	*Quercus wislizenii*	1	7	12	Very sparse canopy, good	~	4
2019		Blue Oak	*Quercus douglasii*	1	6	10	Small leaves, good structure	Remove dead wood	4
2021	New	Interior Live Oak	Quercus wislizenii	1	7 @ 3'	15	Limb crosses main stem at 4'	Remove 4" stem @ 2' to south, remove dead wood	3
2022	Grown Over, s of 801	Interior Live Oak	Quercus wislizenii	5	11, 17, 15, 18 @ 2', 18 @ 2'	35	Good tree, Canopy to ground, prostrate limbs to south, included bark at 1' and 2'and mid canopy	Remove dead wood, prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2023	801	Blue Oak	*Quercus douglasii*	1	13	16	Codominant multiple at 10' with included bark, crossing limbs	Needs corrective pruning, remove dead wood	3
2024	386	Interior Live Oak	*Quercus wislizenii*	1	7	10	Poor taper, codominant leader with included bark at 8', limb tip dieback	Remove dead wood, re-inspect in 3 years	3
2025		Interior Live Oak	*Quercus wislizenii*	1	8	16	Poor structure, unbalanced canopy, codominant leader with included bark @ 8'	End weight reduction, prune to balance, re-inspect in 3 years	2
2026	395	Interior Live Oak	*Quercus wislizenii*	1	8	20	Poor structure, unbalanced canopy, narrow attachment with included bark at 12'	Remove dead wood, prune to balance, end weight reduction	3
2027		Interior Live Oak	*Quercus wislizenii*	1	7	15	Poor structure, unbalanced canopy, narrow attachment with included bark	End weight reduction, prune to balance, re-inspect in 3 years	3
2028	429	Interior Live Oak	*Quercus wislizenii*	2	12, 13	30	Large dead wood, unbalanced canopy, suppressed to the north west, poor structure, narrow attachment with included bark	Remove dead wood, end weight reduction, prune to balance, re-inspect in 3 years	3
2029	430	Interior Live Oak	*Quercus wislizenii*	1	8	~	Too much decay, mostly dead	To be removed	1
2030	431	Interior Live Oak	*Quercus wislizenii*	4	6, 13, 11, 7	30	13 has cavity @ 3', 6 and 7 are mostly dead, suppressed to the west, narrow attachment at base with included bark	Remove 6 and 7, remove dead wood, prune to balance, re-inspect annually	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2031	453	Interior Live Oak	*Quercus wislizenii*	3	8, 6, 7	25	Poor structure, unbalanced canopy, suppressed to the west, narrow attachment with included bark	Remove dead wood, prune to balance	3
2032	452	Interior Live Oak	*Quercus wislizenii*	1	9	~	Decay at base, poor structure, unbalanced canopy, too much decay	To be removed	1
2033		Interior Live Oak	*Quercus wislizenii*	1	7	12	Old wound with callous at base, epicormic growth, unbalanced canopy	Remove dead wood, re-inspect in 3 years	2
2034	351	Interior Live Oak	*Quercus wislizenii*	1	7	15	Poor taper, large dead wood	Remove dead wood	3
2035	352	Interior Live Oak	*Quercus wislizenii*	1	12 @ ground	20	Large dead wood, epicormic growth, unbalanced canopy	Remove dead wood, prune to balance	3
2036	350	Interior Live Oak	*Quercus wislizenii*	1	7	20	Large dead wood, unbalanced canopy, narrow attachment with included bark	Remove dead wood, prune to balance, end weight reduction	3
2037	349	Interior Live Oak	*Quercus wislizenii*	2	5, 7	25	Codominant leader at base with included bark, poor taper, unbalanced canopy to south	Remove dead wood, prune to balance	2
2038	346	Interior Live Oak	*Quercus wislizenii*	3	6, 10, 5	20	Narrow attachment with included bark, epicormic growth, unbalanced canopy, limb tip dieback	Remove dead wood, prune to balance	2
2039	347	Interior Live Oak	*Quercus wislizenii*	1	7	15	Unbalanced canopy, suppressed to the west	Remove dead wood, prune to balance	3
2040	348	Interior Live Oak	*Quercus wislizenii*	1	6	15	Poor taper, unbalanced canopy, suppressed to the west, very sparse canopy	Remove dead wood, prune to balance	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2041	343	Interior Live Oak	*Quercus wislizenii*	2	3, 5	10	Not protected, codominant leader with included bark at 1', poor taper	Remove dead wood	3
2042		Interior Live Oak	*Quercus wislizenii*	1	6	15	Poor taper	Remove dead wood	3
2043		Interior Live Oak	*Quercus wislizenii*	1	6	10	Poor taper, epicormic growth	Remove dead wood	3
2044	342	Interior Live Oak	*Quercus wislizenii*	1	8	15	Wound with callous at 12', large dead wood, limb tip dieback	Remove dead wood, re-inspect annually	2
2045	341	Interior Live Oak	*Quercus wislizenii*	1	7	~	Crown dieback, bark sloughing, large dead wood	To be removed	1
2046		Interior Live Oak	*Quercus wislizenii*	1	6	15	Poor structure, unbalanced canopy	Remove dead wood, prune to balance	3
2047		Interior Live Oak	*Quercus wislizenii*	1	7	15	Poison oak, poor taper, limb tip dieback	Remove dead wood	3
2048	460	Interior Live Oak	*Quercus wislizenii*	2	6, 4	15	Large dead wood, poor structure, unbalanced canopy, epicormic growth	Remove dead wood, prune to balance	2
2049	462	Interior Live Oak	*Quercus wislizenii*	4	8, 4, 2, 2	15	Large dead wood, poor structure, epicormic growth, limb tip dieback	Remove dead wood, prune to balance, re-inspect in 3 years	2
2050	461	Interior Live Oak	*Quercus wislizenii*	1	12	17	Large dead wood down low, epicormic growth, narrow attachment with included bark	Remove dead wood	3
2051		Interior Live Oak	*Quercus wislizenii*	4	8, 8, 10, 5	30	Unbalanced canopy, poor taper at top	Remove dead wood, prune to balance	3
2052	1286	Interior Live Oak	*Quercus wislizenii*	2	6, 4	15	Codominant leader at base with included bark, poor taper, epicormic growth	Remove dead wood, re-inspect in 3 years	3
2053		Interior Live Oak	*Quercus wislizenii*	2	6, 4	12	Codominant leader at 3' with included bark	Remove dead wood, prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2054		Interior Live Oak	*Quercus wislizenii*	1	6	10	Codominant leader with severe included bark at 5', poor taper	Remove dead wood, re-inspect annually	2
2055	328	Interior Live Oak	*Quercus wislizenii*	1	7	12	Poor taper, sparse canopy	Remove dead wood	3
2056	331	Interior Live Oak	*Quercus wislizenii*	1	5	10	Not protected, epicormic growth, unbalanced canopy, suppressed to south west, narrow attachment with included bark	Remove dead wood, prune to balance	3
2057		Interior Live Oak	*Quercus wislizenii*	1	7	15	Suppressed, unbalanced canopy to west, narrow attachment with included bark	Remove dead wood, prune to balance, re-inspect in 3 years	3
2058	313	Interior Live Oak	*Quercus wislizenii*	1	7	12	Large dead wood, suppressed, unbalanced canopy to west, sparse canopy	Remove dead wood, prune to balance	2
2059		Interior Live Oak	*Quercus wislizenii*	1	6	10	Epicormic growth, poor structure, narrow attachment with included bark, unbalanced canopy	Remove dead wood, prune to balance, remove 2" stem with included bark at 6'	3
2060	287	Interior Live Oak	*Quercus wislizenii*	2	6, 3	15	Large dead wood, epicormic growth, unbalanced canopy to west	Remove dead wood, prune to balance	3
2061	311	Interior Live Oak	*Quercus wislizenii*	2	11, 4	25	Weak attachment at base, large dead wood, unbalanced canopy	Remove dead wood, prune to balance, re-inspect in 3 years	3
2062	310	Interior Live Oak	*Quercus wislizenii*	1	11	25	Unbalanced canopy, leans to south, large dead wood	Remove dead wood, end weight reduction	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2063	309	Interior Live Oak	*Quercus wislizenii*	1	7	15	Suppressed, unbalanced canopy to south west	Remove dead wood, prune to balance	3
2064		Interior Live Oak	*Quercus wislizenii*	1	7	12	Poor taper, sparse canopy, limb tip dieback	Remove dead wood, re-inspect in 3 years	2
2065	323	Interior Live Oak	*Quercus wislizenii*	1	13	25	Unbalanced canopy, narrow attachment with included bark at 6'	Remove dead wood, prune to balance, end weight reduction to west	3
2066	322	Interior Live Oak	*Quercus wislizenii*	1	8	15	Large dead wood, poor taper, unbalanced canopy	Remove dead wood, prune to balance	3
2067	320	Interior Live Oak	*Quercus wislizenii*	2	8, 2	20	Epicormic growth, narrow attachment with included bark at 6', poor taper, unbalanced canopy	Remove dead wood, prune to balance	3
2068	319	Interior Live Oak	*Quercus wislizenii*	1	12	15	Narrow attachment with included bark at 5'	Crown clean, re-inspect in 3 years	3
2069		Interior Live Oak	*Quercus wislizenii*	1	6	10	Poor taper, large dead wood	Remove dead wood	2
2070	321	Interior Live Oak	*Quercus wislizenii*	2	5,4	~	Very sparse canopy, crown dieback	To be removed	1
2071	324	Interior Live Oak	*Quercus wislizenii*	2	6, 7	25	Significant lean to west, epicormic growth, sparse canopy, large dead wood	Remove dead wood, end weight reduction	2
2072	326	Interior Live Oak	*Quercus wislizenii*	1	11	22	Epicormic growth, unbalanced canopy, leans to south, poor taper	Remove dead wood, prune to balance, end weight reduction	3
2073	325	Interior Live Oak	*Quercus wislizenii*	1	13	26	Unstable soil, unbalanced canopy, narrow attachment with included bark at 8'	Crown clean, re-inspect annually	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2074		Interior Live Oak	*Quercus wislizenii*	1	7	10	Poor taper, very sparse canopy, narrow attachment with included bark	Remove dead wood, re-inspect in 3 years	2
2075	354	Interior Live Oak	*Quercus wislizenii*	1	7	15	Epicormic growth, poor taper, unbalanced canopy	Remove dead wood, prune to balance	3
2076		Interior Live Oak	*Quercus wislizenii*	1	6	14	Poor taper, narrow attachment with included bark at 10', epicormic growth	Remove dead wood, prune to balance	2
2077	358	Interior Live Oak	*Quercus wislizenii*	1	8	20	Large dead wood, suppressed, unbalanced to west, narrow attachment with included bark at 8'	Remove dead wood, prune to balance	3
2078		Interior Live Oak	*Quercus wislizenii*	1	13	20	Epicormic growth, narrow attachment with severe included bark at 4', unbalanced canopy	Remove dead wood, prune to balance, re-inspect in 3 years	3
2079		Interior Live Oak	*Quercus wislizenii*	1	10	25	Narrow attachment with included bark, large dead wood, poor taper, unbalanced canopy	Remove dead wood, prune to balance, end weight reduction	3
2080		Interior Live Oak	*Quercus wislizenii*	1	6	15	Poor taper, suppressed to south, unbalanced canopy	Remove dead wood, prune to balance, end weight reduction	2
2081		Interior Live Oak	*Quercus wislizenii*	1	12	22	Numerous wounds with callous at base, narrow attachment with included bark, epicormic growth, unbalanced canopy	Remove dead wood, end weight reduction, re-inspect annually	2
2082		Interior Live Oak	*Quercus wislizenii*	1	7	15	Epicormic growth, leans to south	Remove dead wood, prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2083	2360	Blue Oak	*Quercus douglasii*	1	10	20	Poor taper, unbalanced canopy, narrow attachment with included bark in canopy	Remove dead wood, prune to balance	3
2084	2361	Interior Live Oak	*Quercus wislizenii*	1	13	22	Large dead wood, epicormic growth, limb tip dieback, sparse canopy	Remove dead wood, prune to balance, re-inspect in 3 years	3
2085	2362	Interior Live Oak	*Quercus wislizenii*	1	9	20	Large dead wood, poor taper	Remove dead wood, prune to balance	3
2086	2363	Interior Live Oak	*Quercus wislizenii*	4	9, 6, 4, 4	30	Poor structure, suppressed to south, narrow attachments with included bark in canopy, poor taper	Remove dead wood, end weight reduction	3
2087	2364	Blue Oak	*Quercus douglasii*	1	8	15	Poor taper, narrow attachment with included bark	Remove dead wood	3
2088	2359	Interior Live Oak	*Quercus wislizenii*	1	12	20	Large calloused base, unbalanced canopy	Prune to balance	3
2089	2365	Blue Oak	*Quercus douglasii*	1	8	15	Very poor taper, bark sloughing	Prune to balance	2
2090	2366	Interior Live Oak	*Quercus wislizenii*	1	8	20	Narrow attachment with included bark, suppressed, unbalanced canopy	Remove dead wood, prune to balance	3
2091	2380	Interior Live Oak	*Quercus wislizenii*	1	11 @ 1'	18	Narrow attachments with included bark, suppressed, unbalanced canopy, poor taper	Remove dead wood, prune to balance	3
2092		Interior Live Oak	*Quercus wislizenii*	1	6	10	Narrow attachment with included bark at 56', poor taper, sparse canopy, unbalanced canopy	Remove dead wood, prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2093		Interior Live Oak	*Quercus wislizenii*	1	7	20	Poor structure, suppressed to north, wound with callous on lateral limb at 15'	Remove limb with wound at 15', remove dead wood, prune to balance	2
2094	2381	Interior Live Oak	*Quercus wislizenii*	2	6, 6	15	Wound with callous at 2', codominant leader with included bark, poor taper, unbalanced canopy to west	Remove dead wood, prune to balance, re-inspect in 3 years	3
2095	2394	Interior Live Oak	*Quercus wislizenii*	2	9, 5	20	Large dead wood, narrow attachments with included bark, poor taper, poison oak	Remove 5" stem, remove poison oak, remove dead wood	3
2096		Interior Live Oak	*Quercus wislizenii*	1	6	10	Large dead wood, poor taper	Remove dead wood, remove barbed wire around base	3
2097	368	Interior Live Oak	*Quercus wislizenii*	1	8	15	Narrow attachments with included bark, multiple wounds with callous, large dead wood, imbedded fence wire	Remove dead wood	3
2098	2389	Interior Live Oak	*Quercus wislizenii*	1	11	20	Narrow attachments with included bark, epicormic growth, unbalanced canopy	Remove wire, remove dead wood, prune to balance, re-inspect in 3 years	3
2099		Blue Oak	*Quercus douglasii*	1	6	10	Epicormic growth, poor taper, narrow attachment with included bark	Remove lower limb with included bark at 8', remove dead wood	3
2100		Interior Live Oak	*Quercus wislizenii*	1	6	15	Unbalanced canopy to south, narrow attachment with included bark	Remove dead wood, prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2101		Interior Live Oak	*Quercus wislizenii*	1	6	10	Included bark in attachment at 5', poor taper	Remove limb at 5' with included bark, remove dead wood	3
2102		Blue Oak	*Quercus douglasii*	1	6	10	Epicormic growth, poor taper, wound with callous at base	Remove dead wood	3
2103		Interior Live Oak	*Quercus wislizenii*	2	6, 3	12	Various wound with callous, epicormic growth, poor taper	Remove dead wood, prune to balance	3
2104		Interior Live Oak	*Quercus wislizenii*	2	6, 2	10	Epicormic growth, unbalanced canopy	Remove dead wood, prune to balance	3
2105		Interior Live Oak	*Quercus wislizenii*	1	6	10	Large dead wood, poor taper, poor structure, narrow attachments with included bark	Remove dead wood	3
2106		Interior Live Oak	*Quercus wislizenii*	1	7	15	Epicormic growth, poor taper, narrow attachment with included bark at 6', limb tip dieback	Remove limb at 6' with included bark, remove dead wood	3
2107		Blue Oak	*Quercus douglasii*	1	7	10	Poor taper, nice tree, elongated growth at top	Remove dead wood	3
2108	365	Interior Live Oak	*Quercus wislizenii*	1	7	15	Codominant leader with included bark at 6', poor taper	Remove dead wood, prune to balance	3
2109		Interior Live Oak	*Quercus wislizenii*	1	6	14	Large dead wood, poor taper	Remove dead wood, prune to balance	3
2110		Interior Live Oak	*Quercus wislizenii*	1	6	15	Large dead wood, poor taper	Remove dead wood, prune to balance	3
2111		Interior Live Oak	*Quercus wislizenii*	1	6	12	Epicormic growth at base, large dead wood, limb tip dieback	Remove dead wood, re-inspect in 3 years	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2112		Interior Live Oak	*Quercus wislizenii*	2	5, 5	12	Included bark at codominant leader at 3', poor taper	Remove dead wood, prune to balance, re-inspect in 3 years	3
2113	363	Interior Live Oak	*Quercus wislizenii*	1	6	15	Poor taper, unbalanced canopy	Remove dead wood, prune to balance	3
2114	364	Interior Live Oak	*Quercus wislizenii*	2	6, 5	20	Suppressed, unbalanced canopy to north, large dead wood, sparse canopy	Remove dead wood, prune to balance	2
2115	1708	Interior Live Oak	*Quercus wislizenii*	4	5, 6, 3, 2	18	Included bark in 5 and 6" attachments at 2', epicormic growth, poor taper, unbalanced canopy	Remove dead wood, prune to balance, re-inspect in 3 years	3
2116	366	Interior Live Oak	*Quercus wislizenii*	1	9	15	Narrow attachments with included bark, poor taper, poor structure	Remove dead wood, re-inspect in 3 years	3
2117	362	Interior Live Oak	*Quercus wislizenii*	1	10	18	Narrow attachment with included bark at codominant leader at 10', unbalanced canopy	Remove dead wood, prune to balance	3
2118		Interior Live Oak	*Quercus wislizenii*	1	6	10	Weak attachments at 5 - 6', poor taper, narrow attachments in canopy	Remove dead wood, prune to balance	3
2119		Interior Live Oak	*Quercus wislizenii*	2	5, 5	15	Poor taper	Remove dead wood	3
2120		Interior Live Oak	*Quercus wislizenii*	1	6	12	Poor taper, large dead wood at base	Remove dead wood	3
2121		Interior Live Oak	*Quercus wislizenii*	2	7, 3	18	Large dead wood at base, unbalanced canopy, narrow attachment with included bark at 7" and 3"	Remove dead wood, prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2122		Interior Live Oak	*Quercus wislizenii*	1	7	12	Codominant leader at 5' with included bark, large dead wood, sparse canopy, limb tip dieback	Remove dead wood, re-inspect in 3 years	2
2123	1702	Interior Live Oak	*Quercus wislizenii*	2	9, 3	20	Large dead wood, unbalanced canopy, narrow attachments with included bark, limb tip dieback, unbalanced canopy, poor taper	Remove dead wood, prune to balance	2
2124		Interior Live Oak	*Quercus wislizenii*	3	6, 3, 5	~	Too much dead wood	To be removed	1
2125	359	Interior Live Oak	*Quercus wislizenii*	1	12 @ 1'	20	Narrow attachments with included bark, large dead wood, poor structure, unbalanced canopy	Remove dead wood, prune to balance	3
2126		Interior Live Oak	*Quercus wislizenii*	1	6	14	Large dead wood, decay in lateral limb at 3' with callous, sparse canopy, unbalanced canopy	Remove limb at 3', remove dead wood, prune to balance	3
2127		Interior Live Oak	*Quercus wislizenii*	2	6, 5	~	6" stem is mostly dead, 5" stem has poor taper, sparse canopy, large dead wood	To be removed	1
2128		Interior Live Oak	*Quercus wislizenii*	1	8	20	Large dead wood, buttress roots, narrow attachments, limb tip dieback, unbalanced canopy	Remove dead wood, prune to balance	2
2129		Interior Live Oak	*Quercus wislizenii*	1	6	12	Narrow attachment with included bark at 5', poor taper, large dead wood	Remove dead wood	2
2130	339	Interior Live Oak	*Quercus wislizenii*	1	6	15	Epicormic growth, large dead wood, poor taper, very sparse canopy	Remove dead wood, re-inspect in 3 years	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2131	340	Interior Live Oak	*Quercus wislizenii*	1	6	14	Poor taper, unbalanced canopy, sparse canopy	Remove dead wood, prune to balance	3
2132	338	Interior Live Oak	*Quercus wislizenii*	1	8	15	Unbalanced canopy, leans to west, poor taper, limb tip dieback	Remove dead wood, prune to balance	3
2133	12??	Interior Live Oak	*Quercus wislizenii*	1	10	30	Unbalanced canopy, suppressed to south, included bark in codominant leader at 15'	Remove dead wood, prune to balance, end weight reduction	3
2134	337	Interior Live Oak	*Quercus wislizenii*	1	12	30	Large dead wood, unbalanced canopy, wound with callous at 15', poor taper, poor structure	Remove dead wood, prune to balance, end weight reduction	3
2135	332	Interior Live Oak	*Quercus wislizenii*	1	18 @ Ground	~	Large dead wood, internal decay, canopy die back	To be removed	1
2136	333	Interior Live Oak	*Quercus wislizenii*	1	6	20	Poor structure, unbalanced canopy, significant lean, epicormic growth	Remove dead wood, prune to balance	2
2137	334	Interior Live Oak	*Quercus wislizenii*	1	9	24	Poor taper, unbalanced canopy, leans to south	Remove dead wood, prune to balance	3
2138	336	Interior Live Oak	*Quercus wislizenii*	1	15	30	Lots of dead wood, poor taper	Crown clean	3
2139	400	Interior Live Oak	*Quercus wislizenii*	2	8, 5	~	5 is dead, narrow attachment with decay	To be removed	1
2140	355	Interior Live Oak	*Quercus wislizenii*	1	9	28	Old pruning cuts with callous, poor structure, unbalanced canopy, significant lean to south west	Remove dead wood, prune to balance, end weight reduction	3
2141	399	Interior Live Oak	*Quercus wislizenii*	1	7	20	Small decay pocket at 7', poor structure, unbalanced canopy, epicormic growth, large dead wood	Remove dead wood, prune to balance, re-inspect annually	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2142	398	Interior Live Oak	*Quercus wislizenii*	2	6, 3	~	Epicormic growth, poor taper, borers in dead wood, narrow attachments, sparse canopy, poor structure, unbalanced canopy	Remove dead wood, prune to balance, re-inspect annually	1
2143	397	Interior Live Oak	*Quercus wislizenii*	1	6	15	Epicormic growth, narrow attachment with included bark, large dead wood, poor taper	Remove dead wood, prune to balance	2
2144		Interior Live Oak	*Quercus wislizenii*	2	5, 4	16	Codominant leader with included bark at 1', unbalanced canopy, sparse canopy	Remove dead wood, prune to balance	3
2145	396	Interior Live Oak	*Quercus wislizenii*	1	7	12	Epicormic growth, unbalanced canopy, poor taper	Remove dead wood, prune to balance	3
2146		Interior Live Oak	*Quercus wislizenii*	1	7	15	Poor taper, unbalanced canopy, leans to west	Remove dead wood, prune to balance	3
2147		Interior Live Oak	*Quercus wislizenii*	1	11 @ Ground	25	Large dead wood, unbalanced canopy, poor structure, suppressed to west	Remove dead wood, prune to balance, end weight reduction	2
2148		Interior Live Oak	*Quercus wislizenii*	1	8	20	Large dead wood, unbalanced canopy to west	Remove dead wood, prune to balance	3
2149	377	Interior Live Oak	*Quercus wislizenii*	1	8	22	Failure at base, narrow attachment with included bark, poor taper, unbalanced canopy	Remove dead wood, prune to balance, re-inspect annually	2
2150	378	Interior Live Oak	*Quercus wislizenii*	3	11, 6, 2	30	Narrow attachment with included bark, unbalanced canopy, suppressed to west	Remove dead wood, prune to balance, end weight reduction	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2151		Interior Live Oak	*Quercus wislizenii*	1	7	28	Unbalanced canopy, significant lean, narrow attachments, sparse canopy	Remove dead wood, prune to balance, end weight reduction	2
2152	380	Interior Live Oak	*Quercus wislizenii*	2	10, 8	28	Codominant leader with severe included bark at base, unbalanced canopy	Remove dead wood, prune to balance, re-inspect annually	3
2153	379	Interior Live Oak	*Quercus wislizenii*	2	7, 4	25	Epicormic growth, unbalanced canopy, large dead wood	Remove dead wood, prune to balance, end weight reduction	3
2154	381	Interior Live Oak	*Quercus wislizenii*	1	8	25	Epicormic growth, unbalanced canopy, significant lean to south	Remove dead wood, prune to balance, end weight reduction	3
2155		Interior Live Oak	*Quercus wislizenii*	1	7	20	Poor taper, unbalanced canopy, leans to west, sparse canopy, limb tip dieback	Remove dead wood, prune to balance	2
2156		Interior Live Oak	*Quercus wislizenii*	1	7	15	Epicormic growth, poor taper, narrow attachment with included bark at 25'	Remove dead wood	3
2157		Interior Live Oak	*Quercus wislizenii*	1	6	12	Poor taper, unbalanced canopy	Remove dead wood	3
2158		Interior Live Oak	*Quercus wislizenii*	2	6, 3	15	Poor taper, unbalanced canopy, epicormic growth, sparse canopy	Remove dead wood, prune to balance	2
2159	367	Interior Live Oak	*Quercus wislizenii*	2	7, 5	20	Codominant leader with included bark at 1', unbalanced canopy	Remove dead wood, prune to balance, re-inspect in 3 years	3
2160	370	Interior Live Oak	*Quercus wislizenii*	1	8	25	Small decay pocket at trunk flare, poor taper, large dead wood, sparse canopy	Remove dead wood, re-inspect annually	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2162		Interior Live Oak	*Quercus wislizenii*	1	6	10	Large dead limb at base, limb tip dieback	Remove dead wood, re-inspect in 3 years	3
2163	369	Interior Live Oak	*Quercus wislizenii*	2	6, 5	12	Narrow angle attachments in canopy, nice structure	Remove dead wood	4
2164		Interior Live Oak	*Quercus wislizenii*	1	6	15	Poor taper, unbalanced canopy	Remove dead wood, prune to balance	3
2165	2396	Interior Live Oak	*Quercus wislizenii*	1	8	15	Poor taper, unbalanced canopy	Remove dead wood, prune to balance	3
2166	372	Interior Live Oak	*Quercus wislizenii*	1	9 @ 1'	18	2" middle stem has decay, unbalanced canopy, poor taper	Remove dead wood, prune to balance, remove 2" stem with decay	3
2167	371	Interior Live Oak	*Quercus wislizenii*	2	8, 3	20	Poor taper, unbalanced canopy	Remove dead wood, prune to balance	3
2168	373	Interior Live Oak	*Quercus wislizenii*	1	11	35	Narrow attachment with included bark at 5', epicormic growth, unbalanced canopy	Remove dead wood, prune to balance, re-inspect in 3 years	3
2169	347	Interior Live Oak	*Quercus wislizenii*	1	9	30	Epicormic growth, large dead wood, poor structure, suppressed, unbalanced to the east, significant lean, crown dieback	Remove dead wood, prune to balance, end weight reduction	2
2170	383	Interior Live Oak	*Quercus wislizenii*	1	7	~	Too much decay	To be removed	1
2171	382	Interior Live Oak	*Quercus wislizenii*	1	8	25	Unbalanced canopy, leans to south west, narrow attachments, large dead wood at base	Remove dead wood, prune to balance	3
2172	1790	Blue Oak	*Quercus douglasii*	1	8	10	Vertical wounds on trunk with callous, poor taper	Remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2173	1789	Interior Live Oak	*Quercus wislizenii*	2	14, 4	20	Trunk fused with #2174 at base, narrow attachment with included bark at 5', epicormic growth, unbalanced canopy	Remove dead wood, prune to balance, re-inspect in 3 years	3
2174		Blue Oak	*Quercus douglasii*	1	8	15	Trunk fused with #2173 at base, poor taper, narrow attachments with included bark, loss of root capacity, leans to south	Remove dead wood, re-inspect in 3 years	3
2175	1788	Interior Live Oak	*Quercus wislizenii*	3	6, 4, 5	22	Narrow attachments with included bark, unbalanced canopy, suppressed to north west, epicormic growth, poor taper	Remove dead wood, prune to balance, re-inspect in 3 years	2
2176	1787	Interior Live Oak	*Quercus wislizenii*	1	8	~	Large dead wood, decay at base, unbalanced canopy, sparse canopy, suppressed	To be removed	1
2177	1791	Interior Live Oak	*Quercus wislizenii*	1	7	12	Poor taper, narrow attachment with included bark at 7', epicormic growth	Remove dead wood, prune to balance, remove limb at 7' with included bark	2
2178	1793	Interior Live Oak	*Quercus wislizenii*	1	10 @ 2'	15	Narrow attachment with included bark at 4' and 13', poor taper, epicormic growth, limb tip dieback	Remove dead wood, prune to balance, re-inspect in 3 years	2
2179	1794	Interior Live Oak	*Quercus wislizenii*	1	7	15	Large dead wood, epicormic growth, unbalanced canopy, sparse canopy, suppressed	Remove dead wood, prune to balance	2
2180		Interior Live Oak	*Quercus wislizenii*	2	8, 6 @ ground	12	Poor structure, suppressed to west, large dead wood, sparse canopy	Remove dead wood, prune to balance	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2181	1782	Interior Live Oak	*Quercus wislizenii*	1	14	25	Weak attachments at 5', unbalanced canopy, epicormic growth, limb tip dieback	Remove dead wood, prune to balance, end weight reduction, re-inspect in 3 years	2
2182	1796	Blue Oak	*Quercus douglasii*	1	6	14	Poor taper, unbalanced canopy, narrow attachment at codominant leader at 15'	Remove dead wood, prune to balance	3
2183		Blue Oak	*Quercus douglasii*	1	6	8	Poor taper, low dead wood, codominant leader	Remove dead wood	3
2184	1786	Interior Live Oak	*Quercus wislizenii*	1	16	20	Narrow angle attachment with included bark at 5', unbalanced canopy from lateral limb with included bark at 5'	Crown clean, Remove limb at 5' to west with included bark	3
2185		Interior Live Oak	*Quercus wislizenii*	1	8	15	Unbalanced canopy, large dead wood, declining vigor in canopy, sparse canopy	Remove dead wood, prune to balance	2
2186	1786	Blue Oak	*Quercus douglasii*	1	10	20	Codominant leader with included bark at 15', large dead wood, nice tree with good structure	Remove dead wood, re-inspect in 3 years for included bark	4
2187	1797	Interior Live Oak	*Quercus wislizenii*	1	12	20	Large dead wood, epicormic growth, poor taper, unbalanced canopy, declining vigor, limb tip dieback	Remove dead wood, prune to balance, re-inspect in 3 years	2
2188		Blue Oak	*Quercus douglasii*	1	8	12	Very poor taper, epicormic growth, poor structure, sparse canopy	Remove dead wood	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2189	1798	Interior Live Oak	*Quercus wislizenii*	1	15 @ ground	25	Severe included bark at lateral attachment at 2', unbalanced canopy, narrow attachments with included bark throughout canopy	Remove dead wood, end weight reduction, re-inspect in 3 years	2
2190		Blue Oak	*Quercus douglasii*	1	6	10	Poor taper, codominant leader with included bark at 10', sparse canopy	Remove dead wood, re-inspect in 3 years	2
2191		Blue Oak	*Quercus douglasii*	1	6	10	Poor taper, low dead wood, sparse canopy	Remove dead wood	3
2192	1783	Interior Live Oak	*Quercus wislizenii*	1	13 @ 1'	20	Large dead wood, unbalanced canopy, suppressed to south, poor structure, declining growth vigor	Remove dead wood, prune to balance	2
2193	1782	Interior Live Oak	*Quercus wislizenii*	1	12	30	Narrow angle attachments, poor structure, unbalanced canopy, leans to south	Remove dead wood, prune to balance, end weight reduction	3
2194		Interior Live Oak	*Quercus wislizenii*	1	7	20	Large dead wood poor taper, leans to south, narrow attachment with included bark at 14'	Remove dead wood, prune to balance	2
2195		Interior Live Oak	*Quercus wislizenii*	1	6	18	Epicormic growth, poor taper, unbalanced canopy, lean to south, narrow attachments with included bark, sparse canopy	Remove dead wood, prune to balance	2
2196		Interior Live Oak	*Quercus wislizenii*	1	9	15	Large dead wood, poor taper	Crown clean	3
2197		Interior Live Oak	*Quercus wislizenii*	2	3, 7	20	Epicormic growth, 3" stem is mostly dead, narrow attachment at 1' and 6' with included bark, limb tip dieback	Remove dead wood, prune to balance, remove 3" stem	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2198		Interior Live Oak	*Quercus wislizenii*	1	12 @ 3'	20	Narrow attachments with included bark at 4', poor taper, poor structure, sparse canopy, large dead wood, stunted growth	Remove dead wood, prune to balance	2
2199	529	Interior Live Oak	*Quercus wislizenii*	1	13	20	Narrow attachments with included bark throughout canopy, sparse canopy, limb tip dieback	Remove dead wood, prune to balance	2
2200	528	Blue Oak	*Quercus douglasii*	1	7	15	Epicormic growth, poor taper, codominant leader with included bark at 12', limb tip dieback	Remove dead wood, re-inspect in 3 years	2
2201		Interior Live Oak	*Quercus wislizenii*	1	6	14	Narrow attachments with included bark, poor taper, unbalanced canopy	Remove dead wood, prune to balance	3
2202	2304	Interior Live Oak	*Quercus wislizenii*	1	13 @ 1'	20	Epicormic growth, poor structure, suppressed, evidence of borers	Remove dead wood, prune to balance	2
2203		Interior Live Oak	*Quercus wislizenii*	1	10	20	Suppressed, unbalanced canopy	Remove dead wood, prune to balance	3
2204		Interior Live Oak	*Quercus wislizenii*	3	8, 7, 3	22	Epicormic growth, suppressed, unbalanced canopy, narrow attachment with included bark at 3'	Remove dead wood, prune to balance	3
2205		Blue Oak	*Quercus douglasii*	1	6	12	Poor taper	Remove dead wood	3
2206		Interior Live Oak	*Quercus wislizenii*	2	15, 7	25	Epicormic growth, narrow attachments with included bark	Crown clean	3
2207		Interior Live Oak	*Quercus wislizenii*	1	14	25	Epicormic growth, narrow attachments with included bark at 15'	Crown clean	3
2208	2314	Blue Oak	*Quercus douglasii*	1	13	30	Poor taper, unbalanced canopy, leans to east	Remove dead wood, prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2209	2315	Interior Live Oak	*Quercus wislizenii*	3	14, 6, 10	35	Unstable root system on slope, weak attachment at base, unbalanced canopy, narrow attachments with included bark	End weight reduction, crown clean, re-inspect annually	2
2210	2316	Interior Live Oak	*Quercus wislizenii*	1	14	30	Unbalanced canopy, suppressed to north east epicormic growth, significant lean, narrow attachments with included bark	Remove dead wood, prune to balance, end weight reduction	2
2211		Blue Oak	*Quercus douglasii*	1	7	10	Codominant leader with included bark at 8', nice tree, good canopy	Re-inspect in 3 years	4
2212	2241	Interior Live Oak	*Quercus wislizenii*	2	5, 8	15	Codominant leader at ground, unbalanced canopy	Remove dead wood, prune to balance	3
2213		Interior Live Oak	*Quercus wislizenii*	2	11, 5	20	Included bark at 5" attachment at 2', narrow attachments with included bark at 6' and 11' and throughout canopy, unbalanced canopy	Remove dead wood, prune to balance, re-inspect in 3 years	3
2214		Blue Oak	*Quercus douglasii*	1	7	15	Poor taper, unbalanced canopy, suppressed to north	Remove dead wood, prune to balance	3
2215	2295	Blue Oak	*Quercus douglasii*	1	8	30	Poor structure, significant lean, suppressed to north west, very sparse canopy	Remove dead wood, end weight reduction	2
2216		Interior Live Oak	*Quercus wislizenii*	2	8, 5	20	Epicormic growth, codominant leader with included bark at 2', poor structure, unbalanced canopy, suppressed to north	Remove dead wood, prune to balance, end weight reduction	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2217		Interior Live Oak	*Quercus wislizenii*	1	6	20	Narrow attachments with included bark, codominant leader with included bark at 6', unbalanced canopy, leans to north west	Remove dead wood, prune to balance, re-inspect in 3 years	3
2218		Blue Oak	*Quercus douglasii*	1	11	14	Narrow attachments with included bark throughout canopy and at codominant leader	Remove dead wood, prune to balance, remove small limbs with included bark, add 1 cable	3
2219		Blue Oak	*Quercus douglasii*	1	6	12	Narrow attachments with included bark throughout canopy	Remove dead wood, prune to balance, re-inspect in 3 years	3
2220		Blue Oak	*Quercus douglasii*	1	8	10	Codominant leader at 9' with included bark	Remove dead wood	4
2221		Interior Live Oak	*Quercus wislizenii*	2	8, 6	15	Codominant leader with narrow angle at 1', narrow attachments with included bark throughout canopy	Crown clean	3
2222	851	Blue Oak	*Quercus douglasii*	1	16	25	Multiple wounds with callous at base, bark sloughing, poison oak, small cavities from limb failures in canopy with callous	Remove dead wood, prune to balance, re-inspect annually	2
2223	850	Blue Oak	*Quercus douglasii*	2	12, 12	~	Too much decay at base	To be removed	1
2224	852	Blue Oak	*Quercus douglasii*	1	13	15	Decay cavity at trunk flare, unbalanced canopy, codominant leader at 25' with included bark	Remove dead wood, requires a level 3 inspection	2
2225	853	Blue Oak	*Quercus douglasii*	1	14	25	Burled base, epicormic growth, large dead wood, stunted growth	Remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2226	854	Blue Oak	*Quercus douglasii*	3	7, 7, 6	~	Too much decay at base	To be removed	1
2227	845	Blue Oak	*Quercus douglasii*	2	8, 7	30	Codominant leader with included bark at ground, poor taper, unbalanced canopy, epicormic growth	End weight reduction on south limb, add 1 cable	3
2228	846	Blue Oak	*Quercus douglasii*	1	8	~	Too much decay at base	To be removed	1
2229	847	Blue Oak	*Quercus douglasii*	2	11, 12	~	Too much decay at base	To be removed	1
2230	849	Blue Oak	*Quercus douglasii*	1	5	12	Large dead wood at base, poor structure, unbalanced canopy	Remove dead wood, prune to balance	2
2231	848	Blue Oak	*Quercus douglasii*	2	10, 13	~	Too much decay	To be removed	1
2232	844	Blue Oak	*Quercus douglasii*	1	8	~15	Wounds with callous at base, termites, epicormic growth, unbalanced canopy, suppressed to south	Remove dead wood, prune to balance, re-inspect annually	2
2233	843	Blue Oak	*Quercus douglasii*	1	7	7	Epicormic growth, poor taper, sparse canopy, very small canopy	Remove dead wood	2
2234	840	Blue Oak	*Quercus douglasii*	3	11, 10, 6	28	Narrow attachments with included bark at base, bark sloughing, limb tip dieback	Remove dead wood, re-inspect annually	2
2235	842	Blue Oak	*Quercus douglasii*	1	15	28	Past failure of old stem at base with callous, unbalanced canopy, large dead wood	Remove dead wood, prune to balance, re-inspect annually	2
2236	841	Blue Oak	*Quercus douglasii*	1	6	12	Codominant leader at 25'	Remove dead wood	3
2237	839	Blue Oak	*Quercus douglasii*	2	6, 7	14	Codominant leader with narrow attachment at ground, unbalanced canopy	Remove dead wood, re-inspect in 3 years	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2238	1241	Blue Oak	*Quercus douglasii*	1	10	12	Codominant leader at 12' with narrow attachment, large dead wood, epicormic growth, stunted, declining	Remove dead wood	2
2239	838	Blue Oak	*Quercus douglasii*	1	11	15	Codominant leader with narrow attachments, epicormic growth, unbalanced canopy	Remove dead wood, prune to balance	3
2240	837	Blue Oak	*Quercus douglasii*	3	10, 9, 11	~25	Narrow angle attachments with included bark at base, cavity at base at crotch, unbalanced canopy, suppressed to east	Remove dead wood, end weight reduction, requires a level 3 inspection	3
2241	1242	Blue Oak	*Quercus douglasii*	1	8	30	Decay cavity at ground level, unbalanced canopy, suppressed to south east	Remove dead wood, end weight reduction, re-inspect annually	3
2242	836	Blue Oak	*Quercus douglasii*	2	9, 10	26	Poison oak, old failed stem at ground level, unbalanced canopy, suppressed to south east, large dead wood	Remove dead wood, remove poison oak, end weight reduction, re-inspect annually	2
2243	835	Blue Oak	*Quercus douglasii*	2	19, 16	32	Codominant leader at 3', epicormic growth, unbalanced canopy	Remove dead wood, end weight reduction	3
2244	834	Blue Oak	*Quercus douglasii*	2	11, 15	24	15" stem has too much decay, unbalanced canopy, suppressed to west, epicormic growth	Remove dead wood, end weight reduction, remove 15" stem, re-inspect annually	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2245	832	Blue Oak	*Quercus douglasii*	1	17	25	Epicormic growth, narrow attachments at 8'	Crown clean	3
2246	833	Blue Oak	*Quercus douglasii*	1	14	18	Poor taper, epicormic growth, sparse canopy, large dead wood	Remove dead wood	3
2247	831	Blue Oak	*Quercus douglasii*	1	10	12	Poor taper, epicormic growth, large dead wood	Remove dead wood	3
2248	830	Blue Oak	*Quercus douglasii*	2	14, 13	34	Codominant leader at ground with cavity, large dead wood, unbalanced canopy, narrow attachments in canopy	Remove dead wood, end weight reduction, requires a level 3 inspection	2
2249		Blue Oak	*Quercus douglasii*	1	6	~	Top failure	To be removed	1
2250	829	Blue Oak	*Quercus douglasii*	2	11, 2	22	Codominant leader at base with cavity, large dead wood	Remove dead wood, requires a level 3 inspection	2
2251	827	Blue Oak	*Quercus douglasii*	1	12	25	Old dead stem with callous at collar at 8', codominant leader with included bark at 15', low vigor	Remove dead wood, re-inspect in 3 years	2
2252	826	Blue Oak	*Quercus douglasii*	1	22 @ Base	20	Weak attachments - 3 stems fused together, narrow attachment	Remove dead wood, end weight reduction to north, re-inspect annually	2
2253	824	Blue Oak	*Quercus douglasii*	1	9	12	Limb tip die back, epicormic growth, stunted	Remove dead wood	3
2254	823	Blue Oak	*Quercus douglasii*	1	17	20	Old cuts with callous, epicormic growth, large dead wood	Remove dead wood	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2255	822	Blue Oak	*Quercus douglasii*	1	9	16	Unbalanced canopy, suppressed to east, codominant leader at 8'	Remove dead wood, prune to balance, end weight reduction	3
2256	821	Blue Oak	*Quercus douglasii*	2	8, 9	15	Narrow attachment with included bark at 2', poor taper, sparse canopy, unbalanced canopy	Remove dead wood, prune to balance, add 1 cable	3
2257	819	Blue Oak	*Quercus douglasii*	2	10, 9	18	Narrow codominant leader at base, large dead wood, poor taper, stunted growth	Remove dead wood	3
2258	820	Blue Oak	*Quercus douglasii*	1	15	15	Large dead wood, sparse canopy, stunted growth	Remove dead wood, re-inspect in 3 years	2
2259	818	Interior Live Oak	*Quercus wislizenii*	3	10, 8, 10	20	Narrow attachment with included bark at base, poor taper, epicormic growth, unbalanced canopy, limb tip dieback	Remove dead wood, prune to balance, end weight reduction	2
2260	1243	Blue Oak	*Quercus douglasii*	1	7	12	Poor taper, epicormic growth, sparse canopy	Remove dead wood	3
2261	817	Blue Oak	*Quercus douglasii*	2	9, 10	18	Small cavity at base, epicormic growth, poor taper	Remove dead wood, re-inspect annually	3
2262	815	Blue Oak	*Quercus douglasii*	1	10	15	Poor taper, large dead wood, unbalanced canopy, narrow attachments	Remove dead wood	3
2263		Blue Oak	*Quercus douglasii*	1	7	9	Poor taper, poor structure, large dead wood	Remove dead wood	3
2264	816	Blue Oak	*Quercus douglasii*	1	7	10	Poor taper, large dead wood, sparse canopy, limb tip dieback, stunted growth	Remove dead wood, re-inspect annually	2
2265	813	Interior Live Oak	*Quercus wislizenii*	7	4, 5, 7, 5, 4, 4, 7	~	Too much decay, mostly dead	To be removed	1

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2266	814	Blue Oak	*Quercus douglasii*	2	9, 6	20	Narrow attachment at 3', unbalanced canopy, limb tip dieback, stunted growth	Remove dead wood, end weight reduction to east	2
2267	2521	Interior Live Oak	*Quercus wislizenii*	1	12	~	Too much decay	To be removed	1
2268		Blue Oak	*Quercus douglasii*	1	6	10	Poor taper, unbalanced canopy, suppressed to south	Remove dead wood, prune to balance	3
2269	811	Interior Live Oak	*Quercus wislizenii*	4	7, 11, 10, 9	~	Stump sprouts, too much decay	To be removed	1
2270	828	Blue Oak	*Quercus douglasii*	1	10	15	Poor taper, large dead wood, unbalanced canopy, suppressed to east	Remove dead wood, prune to balance	3
2271	810	Blue Oak	*Quercus douglasii*	2	19, 13	30	Narrow attachment with included bark at codominant leader at 3', large dead wood, narrow attachments throughout canopy	Crown clean	3
2272	809	Blue Oak	*Quercus douglasii*	1	13	22	Narrow attachment at 12' with included bark, unbalanced canopy, suppressed to west	Remove dead wood, end weight reduction	3
2273	808	Interior Live Oak	*Quercus wislizenii*	4	16, 9, 6, 13	~	Dead, past failure	To be removed	1
2274	807	Interior Live Oak	*Quercus wislizenii*	2	8, 10	~	Dead, past failure	To be removed	1
2275	805	Interior Live Oak	*Quercus wislizenii*	7	14, 13, 13, 6, 7, 10, 11	~	Severe decay throughout, past failures	To be removed	1
2276	806	Blue Oak	*Quercus douglasii*	1	26	30	Unbalanced canopy, weak attachment at base, poor structure, large dead wood	Crown clean, end weight reduction, re-inspect annually	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2277	2433	Blue Oak	*Quercus douglasii*	3	7, 7, 8	30	Narrow attachment angles with included bark at base, unbalanced canopy, suppressed to south	Remove dead wood, prune to balance, end weight reduction, remove west stem, re-inspect annually	2
2278	2434	Valley Oak	*Quercus lobata*	2	10, 11	~25	Codominant leader with narrow attachment at 2', unbalanced canopy, epicormic growth	End weight reduction, prune to balance, add 1 cable, re-inspect annually	3
2279	2435	Interior Live Oak	*Quercus wislizenii*	1	12	20	Epicormic growth at base, evidence of borers, unbalanced canopy	Remove dead wood, prune to balance, re-inspect annually	2
2280		Interior Live Oak	*Quercus wislizenii*	1	6	15	Poor taper, unbalanced canopy, suppressed to west	Remove dead wood, prune to balance	3
2281	2436	Interior Live Oak	*Quercus wislizenii*	5	7, 7, 9, 10, 8	~	Stump sprouts, too much decay	To be removed	1
2282		Interior Live Oak	*Quercus wislizenii*	1	7	15	Poison oak, heavy lean to west, sparse canopy	Remove poison oak, prune to balance	2
2283	2437	Interior Live Oak	*Quercus wislizenii*	1	6	~	Too much decay	To be removed	1
2284	2438	Interior Live Oak	*Quercus wislizenii*	3	6, 7, 8	~	Too much decay, stump sprout	To be removed	1
2285	2439	Interior Live Oak	*Quercus wislizenii*	1	8	~	Too much decay	To be removed	1
2286	2440	Interior Live Oak	*Quercus wislizenii*	1	10	~	Too much decay	To be removed	1
2287	2441	Interior Live Oak	*Quercus wislizenii*	1	11	~	Too much decay, stump sprout with past failures	To be removed	1
2288	862	Interior Live Oak	*Quercus wislizenii*	2	10, 8	~	Decay at critical junction	To be removed	1

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2289	2445	Interior Live Oak	*Quercus wislizenii*	1	9	~	Stump sprout, too much decay at critical junction, unbalanced canopy and heavy lean	To be removed	1
2290	861	Interior Live Oak	*Quercus wislizenii*	7	12, 13, 12, 7, 7, 6, 5	40	Stump sprout, advanced decay at junction of 7, 7, 6, 5, decay at base of 12, 12, 13, narrow attachments throughout canopy, unbalanced canopy	Remove stems on south side: 7, 7, 6, 5; requires a level 3 inspection for 12, 12, and 13	2
2291	858	Blue Oak	*Quercus douglasii*	1	10	18	Poor taper, limb tip dieback, reduced vigor, various deformations on trunk throughout canopy	Remove dead wood	3
2292	860	Interior Live Oak	*Quercus wislizenii*	1	17	~	Too much decay	To be removed	1
2293	859	Blue Oak	*Quercus douglasii*	1	12	20	Epicormic growth, unbalanced canopy, stunted growth	Crown clean	3
2294	2448	Blue Oak	*Quercus douglasii*	1	11	~	Too much decay	To be removed	1
2295	2447	Blue Oak	*Quercus douglasii*	1	7	18	Epicormic growth, unbalanced canopy, suppressed to east, wounds with callous in upper canopy	Remove dead wood, prune to balance, end weight reduction	2
2296	2449	Blue Oak	*Quercus douglasii*	1	9	18	Barbed wire in tree, epicormic growth, unbalanced canopy, heavy lean to east, large dead wood	Remove dead wood, remove barbed wire, end weight reduction	2
2297	2450	Blue Oak	*Quercus douglasii*	1	16	~15	Barbed wire in tree, unbalanced canopy	Remove barbed wire, end weight reduction	3
2298	2451	Blue Oak	*Quercus douglasii*	1	7	18	Unbalanced canopy, significant lean to north west	End weight reduction, prune to balance	3

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2299	2446	Interior Live Oak	*Quercus wislizenii*	1	7	~	Too much decay at base	To be removed	1
2300	2442	Interior Live Oak	*Quercus wislizenii*	1	13	~	Too much decay	To be removed	1
2334		Blue Oak	*Quercus lobata*	1	6	10	Unbalanced canopy to west	~	3
2335	2494	Blue Oak	*Quercus douglasii*	1	21	28	Large cavity at base, narrow attachment with included bark at codominant leader at 5'	Requires a level 3 inspection, end weight reduction, add 1 cable, remove dead wood	3
2336	2483	Interior Live Oak	*Quercus wislizenii*	1	6	~	Too much decay	To be removed	1
2337	2482	Valley Oak	*Quercus lobata*	1	13	16	Past failures with callous, large dead wood, heavy gall infestation	Crown clean	3
2338	2481	Interior Live Oak	*Quercus wislizenii*	1	6	~	Dead	To be removed	1
2339	2484	Interior Live Oak	*Quercus wislizenii*	4	5, 5, 4, 4	~	Too much decay at critical location	To be removed	1
2340		Blue Oak	*Quercus douglasii*	1	19	28	Codominant leader with narrow attachment and included bark at 8', large dead wood	Remove dead wood, add 1 cable, crown clean	3
2341		Blue Oak	*Quercus douglasii*	1	10	30	Bark sloughing off, unbalanced canopy poor taper, epicormic growth	Remove dead wood	2
2342		Interior Live Oak	*Quercus wislizenii*	1	11	~	Too much decay at critical location	To be removed	1
2343		Blue Oak	*Quercus douglasii*	1	15	24	Large dead wood	Crown clean	3
2344		Interior Live Oak	*Quercus wislizenii*	6	10, 12, 11, 9, 7, 11	~	Too much decay	To be removed	1
2345		Interior Live Oak	*Quercus wislizenii*	6	9, 12, 7, 5, 9, 7	~	Stump sprouts, too much decay	To be removed	1

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2346		Interior Live Oak	*Quercus wislizenii*	3	16, 10, 13	~	Stump sprouts, too much decay	To be removed	1
2347		Interior Live Oak	*Quercus wislizenii*	5	23, 10, 10, 13, 10	~	Past failures and decay in west stem, east stem has unbalanced canopy, poor structure, small wounds, large deadwood	Remove 2 west stems, end weight reduction on east stem, crown clean, re-inspect in 3 years	1
2348		Interior Live Oak	*Quercus wislizenii*	1	7	~10	Unbalanced canopy, heavy lean to south, epicormic growth, large dead wood	Remove dead wood, prune to balance, end weight reduction	2
2349		Interior Live Oak	*Quercus wislizenii*	2	13, 12	~	Too much decay in attachment at base	To be removed	1
2350		Interior Live Oak	*Quercus wislizenii*	1	16	~	Too much decay at critical location	To be removed	1
2351		Interior Live Oak	*Quercus wislizenii*	1	19	28	South stem has past failures and too much decay, large dead wood, epicormic growth, limb tip dieback	Remove south stem, crown clean, re-inspect in 3 years	2
2352		Interior Live Oak	*Quercus wislizenii*	1	6	~	Too much decay	To be removed	1
2353		Interior Live Oak	*Quercus wislizenii*	5	12, 7, 7, 5, 6	~	Too much decay at critical location	To be removed	1
2354		Interior Live Oak	*Quercus wislizenii*	1	8	32	Unbalanced canopy, heavy leant to west, suppressed	Remove dead wood, prune to balance, end weight reduction	2
2355		Interior Live Oak	*Quercus wislizenii*	1	8	34	Small deformation at trunk flare, wound at 3' without callus, unbalanced canopy, epicormic growth, leans to west, limb tip dieback	Remove dead wood, prune to balance, re-inspect in 3 years	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2356		Interior Live Oak	*Quercus wislizenii*	1	7	20	Epicormic growth, large dead wood, poor structure, heavy lean to west	Remove dead wood, prune to balance	2
2357		Interior Live Oak	*Quercus wislizenii*	1	12	30	Large dead wood, unbalanced canopy, poor structure, significant leant to west	Remove dead wood, end weight reduction	2
2358		Interior Live Oak	*Quercus wislizenii*	1	10	~	Large dead stem at 4', wounds with decay, poor structure, unbalanced canopy, sparse canopy	To be removed	1
2359		Interior Live Oak	*Quercus wislizenii*	2	11, 8	~	Too much decay and weak formation at attachment with exposed roots	To be removed	1
2360	2460	Interior Live Oak	*Quercus wislizenii*	1	12	32	Poor structure, unbalanced canopy, significant lean	Remove dead wood, end weight reduction	2
2361	2458	Valley Oak	*Quercus lobata*	1	29	55	Large dead wood. NICE TREE!	Crown clean, end weight reduction	4
2362	2459	Interior Live Oak	*Quercus wislizenii*	1	6	~	Too much decay and exposed roots	To be removed	1
2363		Interior Live Oak	*Quercus wislizenii*	3	7, 4, 5	14	5" stem has too much decay, 4" stem is mostly dead, 7" stem has narrow attachment with included bark at 7', poor taper, suppressed	Remove 5, 4, and remove dead wood on 7, re-inspect in 3 years	2
2364	2457	Interior Live Oak	*Quercus wislizenii*	1	7	18	Unbalanced canopy, poor structure, suppressed to south	Remove dead wood, end weight reduction	2
2365	2456	Interior Live Oak	*Quercus wislizenii*	1	7	~	Dead	To be removed	1
2366	2455	Interior Live Oak	*Quercus wislizenii*	1	6	15	Poor taper, sparse canopy, large dead wood	Remove dead wood	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2367	2454	Interior Live Oak	*Quercus wislizenii*	1	6	24	Poor structure, unbalanced, significant lean to north west	Remove dead wood, prune to balance, end weight reduction	2
2368	2453	Interior Live Oak	*Quercus wislizenii*	1	7	21	Unbalanced canopy, suppressed to west, narrow attachment with included bark at 6', large dead wood	Remove dead wood, prune to balance, end weight reduction	2
2369	2452	Valley Oak	*Quercus lobata*	1	28	55	Exposed roots with decay, unbalanced canopy, significant lean to south	Remove dead wood, prune to balance, end weight reduction, requires a level 3 inspection	3
2370	2464	Interior Live Oak	*Quercus wislizenii*	1	11	~	Too much decay	To be removed	1
2371	2465	Interior Live Oak	*Quercus wislizenii*	1	16	~	Large dead wood, old wounds with callous, large cavity	To be removed	1
2372	2463	Interior Live Oak	*Quercus wislizenii*	1	13	~	Too much decay from past failure	To be removed	1
2373	2466	Interior Live Oak	*Quercus wislizenii*	1	14	~	Too much decay throughout tree	To be removed	1
2381	2405	Interior Live Oak	Quercus wislizenii	3	10, 12, 13	21	Large dead wood, included bark at codominant leader at 1' and 2'	Remove dead wood, prune to balance, re-inspect in 3 years	3
2382	2406	Interior Live Oak	Quercus wislizenii	1	20 @ 2'	25	Sparse canopy, limb tip dieback, prostrate limb to north west	Remove dead wood, add 3 cables	2
2383	2407	Interior Live Oak	Quercus wislizenii	2	10, 8	~	Unbalanced canopy to south, large wound at 1' with advanced decay, large deadwood	To be Removed	1

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2384	784	Interior Live Oak	Quercus wislizenii	3	14, 10, 12	32	Unbalanced canopy to east, canopy to the ground to east, low prostrate limbs to north and south east	Remove dead wood, level 3 inspection required	2
2385	769	Interior Live Oak	Quercus wislizenii	3	10 @ 2', 7, 16 @ 2'	24	Crossing limbs, prostrate limb at 1' to east	Needs corrective pruning, remove dead wood	3
2386	2414	Interior Live Oak	Quercus wislizenii	2	18, 7	36	Dominant, sparse canopy, epicormic growth, smaller stem needs corrective pruning	Remove dead wood	3
2387	2415	Interior Live Oak	Quercus wislizenii	3	20, 10, 13	~	Large failure to south west - stress fracture mid canopy, too much decay, too much dead wood	To be Removed	1
2388	2416	Blue Oak	*Quercus douglasii*	1	9	30	Poor structure, suppressed		2
2389	2417	Interior Live Oak	Quercus wislizenii	7	5, 7, 16, 7, 7, 9, 10	30	Poison oak wrapped tree, large dead wood, poor structure	Remove poison oak, remove dead wood, level 3 inspection required	2
2390	2418	Interior Live Oak	Quercus wislizenii	1	8	~	Poor structure, large dead wood	To be Removed	1
2391	2419	Interior Live Oak	Quercus wislizenii	3	8, 10, 5	~	Sparse canopy, poor taper, stump sprout, too much decay	To be Removed	1
2392	2489	Interior Live Oak	Quercus wislizenii	1	8	~	Too much decay under base	To be Removed	1
2393	2490	Interior Live Oak	Quercus wislizenii	3	9, 7, 10	~	Too much decay under base	To be Removed	1
2394	Missing	Interior Live Oak	Quercus wislizenii	1	10	~	Poor structure, top failure	To be Removed	1
2395	2420	Interior Live Oak	Quercus wislizenii	3	19, 11, 19	32	Dominant, large deadwood, large failures, some decay under base	Level 3 inspection required	2

Tree #	Old Tree #	Common Name	Botanical Name	Stems	DBH	Canopy	Notes	Action	Rating
2396	2426	Blue Oak	*Quercus douglasii*	2	13, 7	24	Codominant leader at 2' - smaller stem is dead, unbalanced canopy to south	Needs corrective pruning, remove dead wood	2
2397	2425	Blue Oak	*Quercus douglasii*	1	20	25	Good, large dead wood	Remove dead wood	4
2398	2427	Blue Oak	*Quercus douglasii*	2	14, 10	22	Codominant leader at base with included bark to 6', sparse canopy, large stem has codominant leader at 12'	Remove dead wood, add 1 cable	3
2399	790	Interior Live Oak	Quercus wislizenii	16	8, 8, 12, 12, 12, 8, 13, 5, 11, 9, 7, 5, 13, 7, 7	30	Stump sprout, sparse canopy, minor decay under base, canopy to ground to south west and north west	Remove dead wood	2
2400	791	Blue Oak	*Quercus douglasii*	3	23, 12, 14	28	Failure of south limb (14) to south, sparse canopy, codominant leader at 7' with included bark, canopy to ground	Remove dead wood, prune to balance, level 3 inspection required	3
	632	Interior Live Oak	Quercus wislizenii	2	8 , 4	~	Wrapped in poison oak, poor structure, mostly dead	To be Removed	1
	521	Interior Live Oak	*Quercus wislizenii*			~	No tag, dangerous	To be removed	1
	631	Interior Live Oak	Quercus wislizenii	4	10, 12, 6, 9	-	Too much decay at base, poison oak wrapped tree	Remove dead wood, prune to balance, re-inspect after removal of poison oak	2
	670	Interior Live Oak	Quercus wislizenii	2	5, 7	14	Codominant leader at 1' with included bark , sparse canopy, poor structure	Remove dead wood, re-inspect in 3 years	3

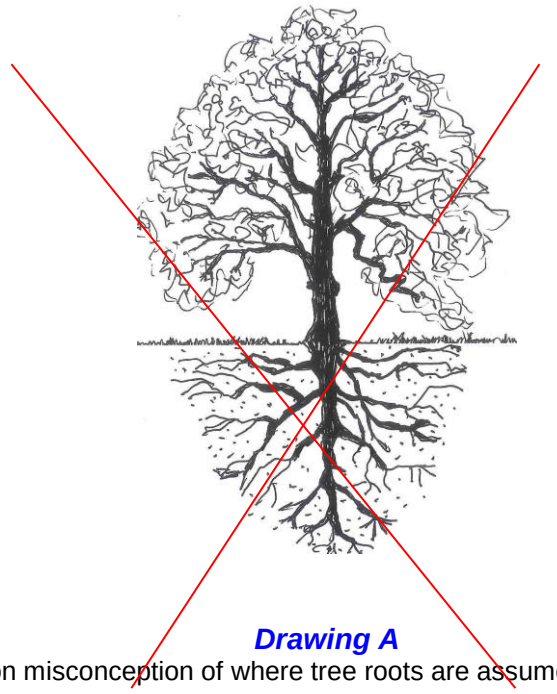
Level of Inspection, Testing and Analysis:

A Level 2 – Basic Visual Assessment was performed in accordance with the International Society of Arboriculture's best management practices. This assessment level is limited to the observation of conditions and defects which are readily visible. No laboratory or chemical testing and analysis was performed, only ground level observations.

A recommended Level 3 – Advanced Assessment should be performed on trees determined during the development process to have a target. Level 3 assessment includes aerial inspection and evaluation of the structural defects of a tree including decay and load testing for purposes of risk analysis.

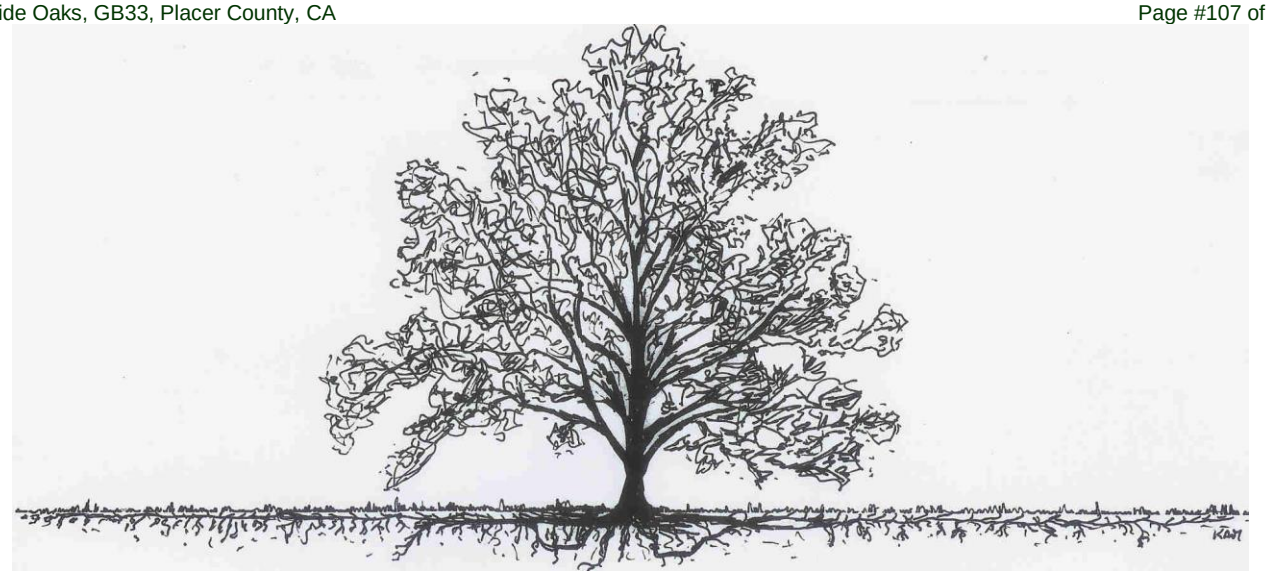
Discussion:

The majority of a tree's roots are contained in a radius from the main trunk outward approximately two to three times the canopy of the tree. These roots are located in the top 6" to 3' of soil. It is a common misconception that a tree underground resembles the canopy (see Drawing A below). The correct root structure of a tree is in Drawing B. All plants' roots need both water and air for survival. Surface roots are a common phenomenon with trees grown in compacted soil. Poor canopy development or canopy decline in mature trees is often the result of inadequate root space and/or soil compaction.



Drawing A

Common misconception of where tree roots are assumed to be located



Drawing B

The reality of where roots are generally located

Healthy Canopy

Sparse Canopy

Photo by Nicole Harrison

Epicormic growth is a trees response to loss of leave surface from either limb drop, over pruning, or stressful conditions. Epicormic growth is simply the release of latent buds, which begin rapid growth in order to provide as much new leaf surface in the shortest period of time to make up for the loss of leave surface. Epicormic growth prevents the death of the tree in stressful times, but creates a need for additional pruning. It is not the formation of a structurally intact new limb. The new limbs are weakly attached and need support and pruning.

Limited space for canopy development produces poor structure in trees. The largest tree in a given area, which is 'shading' the other trees is considered Dominant. The 'shaded' trees are considered Suppressed. The following picture illustrates this point. Suppressed trees are more likely to become a potential hazard due to their poor structure.

Dominant Tree

Growth is upright

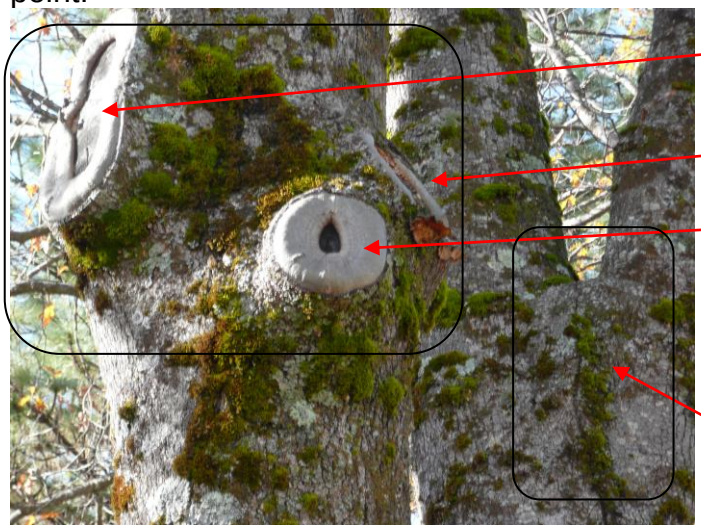
Canopy is balanced by limbs and foliage equally

Suppressed Tree

Canopy weight all to one side

Limbs and foliage grow away from dominant tree

Pruning causes an open wound in the tree. Trees do not "heal" they compartmentalize. Any wound made today will always remain, but a healthy tree, in the absence of decay in the wound, will 'cover it' with callus tissue. Large, old pruning wounds with advanced decay are a likely failure point.



Two Potential Failure Points

Large pruning wound with callous, uneven surface as indication of decay

Large pruning wound with advanced decay

Smaller pruning wound almost covered, black color could be an indication of decay

Co-dominant leaders are another common structural problem in trees.

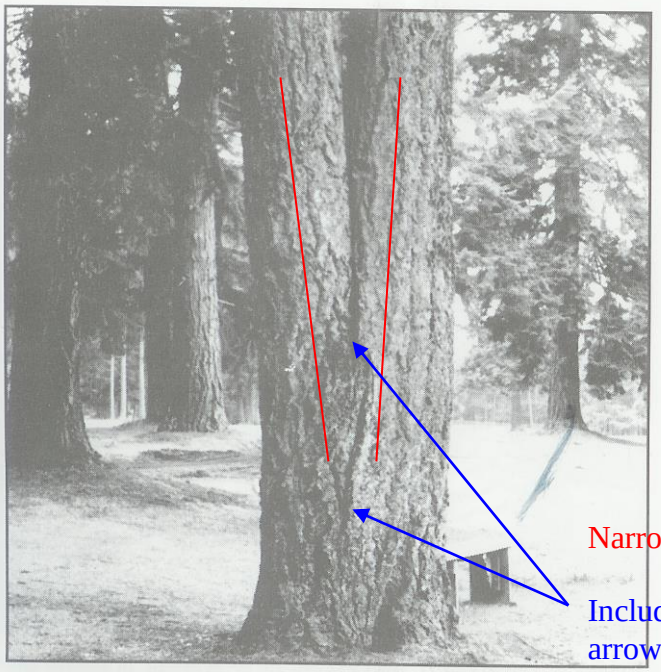


Figure 6. Codominant stems are inherently weak because the stems are of similar diameter.

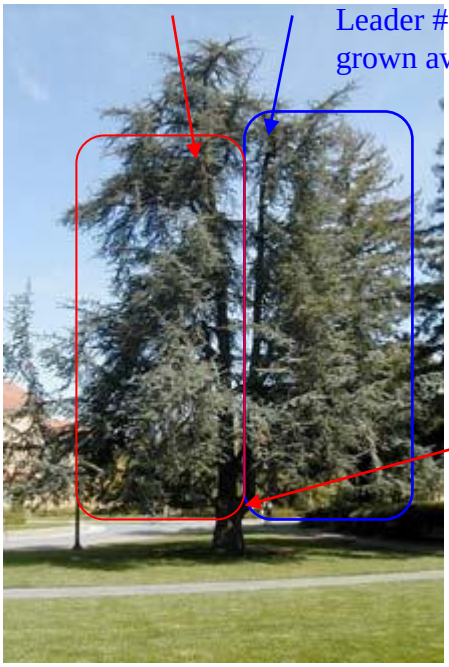
The tree in this picture has a co-dominant leader at about 3' and included bark up to 7 or 8'. Included bark occurs when two or more limbs have a narrow angle of attachment resulting in bark between the stems – instead of cell to cell structure. This is considered a critical defect in trees and is the cause of many failures.

Narrow Angle

Included Bark between the arrows

Photo from Evaluation of Hazard Trees in Urban Areas by Nelda P. Matheny and James R. Clark, 1994 International Society of Arboriculture

Leader #1



Leader #2 and foliage grown away from #1

In addition, co-dominant leaders phototropically (due to sunlight) suppress each other's growth. All the limbs are grown away from the main trunk to one side. The weight of the foliage of the tree is distributed asymmetrically placing a greater amount of pressure on the already weak union.

Weak union with the excessive weight of asymmetrical canopies

Photo from http://grounds.stanford.edu/points/significanttrees/cedrusatlantica.html

Our native oak trees are easily damaged or killed by having the soil within the Critical Root Zone (CRZ) disturbed or compacted. All of the work initially performed around protected trees that will be saved should be done by people rather than by wheeled or track type tractors. Oaks are fragile giants that can take little change in soil grade, compaction, or warm season watering. Don't be fooled into believing that warm season watering has no adverse effects on native oaks. Decline and eventual death can take as long as 5-20 years with poor care and inappropriate watering. Oaks can live hundreds of years if treated properly during construction, as well as later with proper pruning, and the appropriate landscape/irrigation design.

Conclusion:

A total of **1044 oak** trees which met the Placer County Tree Preservation qualifications were tagged and evaluated. **ABACUS** has provided guidance for each of the trees in the form of the action column of ***Chart B***, a discussions section, a specific recommendations section, a general recommendations section, and in the Tree Site Map at the end of this report.

1) **3** trees are rated a **0** ("dead") and should be removed immediately.

2) A total of **132** trees are rated **1** ("dangerous") and noted for immediate removal due to their poor condition.

3) There are **341** trees rated a **2** ("poor") and are noted for removal due to their poor condition. Trees in this category may be retained if all of the recommendations are followed to reduce risk.

4) **567** of the trees are rated **3** ("fair"), or **4** ("good").

5) There is **1** tree rated a **5** ("excellent").

There are **1053** total trees inventoried, of which **9** are protected species but are too small for protection, **323** are Blue Oak, **21** are Valley Oak, and **700** are Interior Live Oak.

General Recommendations:

1) Follow all of the recommendations in the action column of ***Chart B*** immediately.

2) All trees to be saved shall have their root zones and trunk(s) protected with a four (4') foot high orange or yellow plastic, high visibility exclusionary fence surrounding the trees' root zone. The fence shall be staked 10'o.c. maximum spacing, with 5' steel "T" posts, 2" x 2" square or 2"+ ∅ wood posts. The exclusionary area shall be under the tree's branched canopy and extend out to the tree's longest dripline radius plus one foot, as a circle. Where new construction will be within the Protected Root Zone, the fencing shall be 4' away from the footings, and extend around the rest of the canopy of the tree from that point. The fencing shall be maintained and not removed until the completion of construction. The fencing shall completely surround the Protected Root Zone and not be "U" shaped or open at any point. Whenever possible, include as many trees that are to be saved into one fenced exclusionary Protected Root Zone. The fencing plan will be completed once the developer decides on driveway, utility, and structure placement.

3) As soon as the concrete is poured and the forms are stripped, backfill the footings and stem walls. The protected trees nearby that are to remain should be watered to the point of soil saturation.

4) Care must also be continued after the construction is over to select the right plants to live under and near the native oaks. Watered lawns and any frequent summer watering near California oaks will not mix well over a long period. This will cause the oaks to perish due to *Armillaria mellea* (oak

root fungus). The demise of the native oaks due to *Armillaria mellea* may take 5 – 20 years. Oaks should live 200 - 300 years.

5) To help control root damage, utility-trenching paths are to be established away from the roots and branches of the oaks that are to remain.

6) Soil compaction shall be avoided by maintaining the exclusionary Protected Root Zone fencing, keeping material storage, people, portable outhouses, vehicles, and dogs out of this area.

7) Soil contamination shall be avoided by eliminating chemical dumping on the property that may infiltrate into the Protected Root Zone. **No**: washing, dumping, or contaminating the site including but not necessarily limited to the following: concrete from tools or trucks, paint materials, sheetrock mud or stucco materials, other chemicals, solvents, herbicides, etc. Limestone gravel should not be used as base material or for drain rock as it will change the pH to be more alkaline, and may harm the native oaks.

8) Do not nail, tie, screw, or fasten any signs, braces, etc. to the trees that are to remain.

9) The cut and fill material excavated from or added to the lot can kill an oak by removing too many roots, drying or wetting the soil or by suffocating the roots with too much soil. Care must be taken with the added soil as well as with the actual excavation. Roots need air as much as they need water to survive and for the whole tree to live and to flourish. If fill material is needed, properly designed aeration/ventilation systems made to protect the trees and allow for the fill material can be installed.

10) When deciding on a pruning arborist, inquire about a chipper and require them to utilize the chipped branches of the trees to be removed or pruned. The chips are to be used under the oaks that are to remain, as mulch in the Protected Root Zone. Other mulch may be used of arborist type woodchips (4 – 6" deep), but not redwood or cedar bark.

11) When the recommended pruning is completed, it is only advisable if a qualified ISA Certified Arborist is on site. No cutting of live wood over 2"∅ shall be made. All cutting, pruning, trimming, cabling, guying, bracing, and lightning protection systems shall conform to the most current standards of the American National Standards Institute (ANSI). The current ANSI Tree Care Standards are A300 (Parts 1-4) 2000 to 2002 (copies at: www.ansi.org). The BMPs are "Best Management Practices", as companion publications to the ANSI Tree Care Standards, printed by the International Society of Arboriculture (copies at: www.isa-arbor.com). The BMP booklets explain the details of the ANSI Tree Care Standards and how to follow them correctly. Pruning of branches under 3" in diameter should be made with sharp hand tools: pruners, loppers, and/or handsaws, not chainsaws.

Following the recommendations of our report will greatly increase the likelihood of survival for all of the trees that will remain. Improving the aesthetics, decreasing maintenance costs, and most importantly reducing potential hazard and liability are the main goals.

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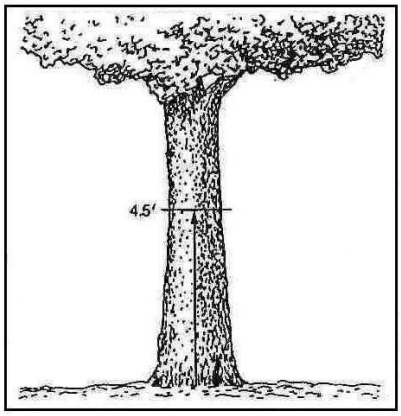
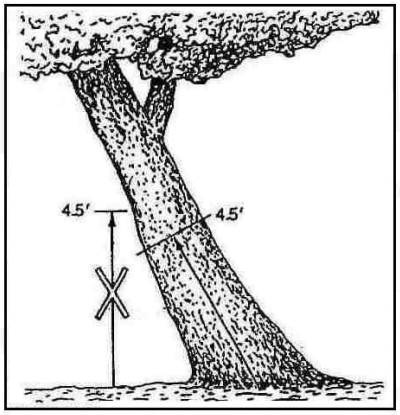
Tree SIZE Expressed by Trunk Diameter

"The height at which the trunk diameter of a tree is measured depends upon its size. The American Standard for Nursery Stock (ANSI, 1990) state that measurements shall be taken 6 inches (15 cm) above the ground for trunk diameters up to and including 4 inches (10 cm). Larger trees (assumed, but not stated, to be of transplantable size) are to be measured at 12 inches (30 cm). Trees normally considered too large to transplant are to be measured 4.5 feet [4'-6" is also called diameter breast high or dbh] (1.4 m) above the ground. Trees, like conifers, which have branches below 4.5 feet should be measured at a height that most effectively represents the size of the tree." The diameter is calculated by first measuring the circumference divided by 3.14 (π called pi) or by using a "diameter tape" whereon the inches are multiplied by π and shown to produce the diameter directly.

This is the dbh standard for measurement as shown in figure 4-2.



Figures 4-2. Trees with fairly straight, upright trunks with the lowest branch arising on the trunk higher than 6 feet (1.8 m) above the ground should be measured at 4.5 feet (1.4 m).



Figures 4-3 (top) and 4-4 (bottom). In each case, the trunk circumference should be measured at right angles to the trunk 4.5 feet (1.4 cm) along the center of the trunk axis so the height is the average of the s hortest and longest sides of the trunk.

There are some exceptions to the dbh standard as shown in the figures 4-3, 4-4, 4-5 & 4-6.

Figure 4-6. In a multi-stem tree, measure the trunk circumference of each trunk at 4.5 feet (1.4 m) above the ground. The area of each trunk is determined and then added together to obtain a trunk area that is representative of the size of the tree and each of the stems contribute its proportionate share to the canopy.

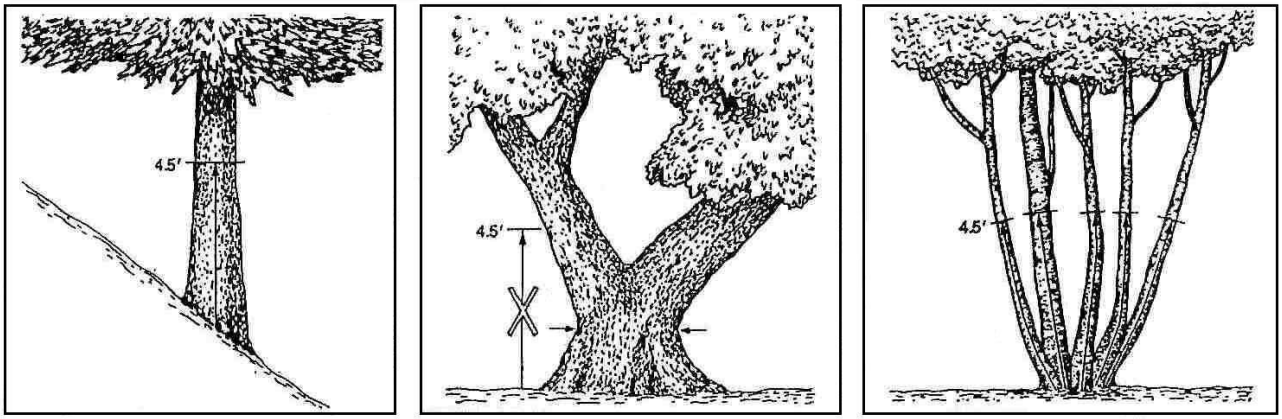


Figure 4-5. When low branches preclude measuring the trunk at 4.5 feet (1.4 m) measure the smallest circumference below the smallest branch. In this example, an alternative would be to determine the sum of the cross-sectional areas of the two stems measured about 12 inches (30 cm) above the crotch; then average the sum of the two branch areas and the smallest cross-sectional area below the branches. This may give a better estimate of tree size. Record the height of measurement(s) and the reasons the height or those heights were chosen.

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Tree SIZE Expressed by Trunk Diameter	
Scale: NTS	Drawing: TSE

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Disclosure, Assumptions and Disclaimer

1) I, Nicole Harrison, ISA Certified Arborist WE-6500A, with **"ABACUS"**, did personally inspect the site and investigated the tree(s) as mentioned in this report and I performed all aspects of this report unless noted otherwise in the report.

2) I have neither financial interest in the tree work that may or may not be done, nor financial interest in the property where the tree(s) is (are) located unless noted within the report.

3) All opinions and recommendations expressed herein this report are mine solely. I have used my specialized education, knowledge, training and experience to examine the tree(s) and to make my opinions and recommendations to enhance the beauty, health and longevity, with an attempt to reduce the risk of who and/or what is near these trees. I cannot guarantee or warranty that a tree will not be healthy or safe under all circumstances, nor for a specific period of time or that problems may not arise in the future.

4) My report with its opinions and recommendations are limited to the tree(s) inspected.

5) I attempt to be cognizant of the whole scope of a project, but many matters are beyond the scope of my professional consulting arborist services such as: exact property boundaries, property ownership, site lines, easements, codes, covenants & restrictions (CC&Rs), disputed between neighbors, and other issues.

6) I rely on the information disclosed to me and assume the information to be complete, true, and accurate.

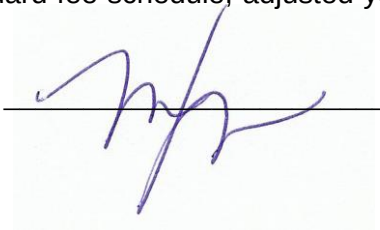
7) The inspection is limited to visual examination of accessible items of the tree(s), from the ground unless otherwise noted, without excavation, probing, boring, or dissection, unless noted otherwise. Only information covered in this report was examined, and reflects the condition of those inspected items at that specific time.

8) Clients may choose to accept or disregard these opinions and recommendations of the arborist or to seek additional advice.

9) This report is copyrighted. Any modification or partial use shall nullify the whole report. Do not copy without written permission. This report is for the client and the client's assignees.

10) Sketches, diagrams, graphs, drawings, and photographs within this report are intended as visual aids and are not necessarily to scale, and should not be construed as engineering or architectural detail, reports or surveys.

11) I shall not attend or give a deposition and/or attend court by reason of this report unless fees are contracted for in advance, according to our standard fee schedule, adjusted yearly, for such services as described.

Signed: 

Arborist Report by:

ABACUS

January 22, 2016

Rob Wilson
Forward Planning Manager
Meritage Homes
1671 E. Monte Vista Avenue, Suite 214
Vacaville, CA 95688

RE: Whitehawk II Project Rare Plant Survey

Dear Mr. Wilson:

Salix Consulting conducted a rare plant surveys at the ±33-acre Whitehawk II (a.k.a Creekside Oaks, Granite Bay 33) Study Area (study area) located in the community of Granite Bay, Placer County, California. The study area is located just west of Quartzite Circle, between Douglas Boulevard and Eureka Road, in the western portion of Granite Bay. It is situated in Section 9, Township 10 North and Range 7 East on the Folsom, California 7.5-minute USGS topographic quadrangle (Figure 1). The approximate coordinates for the center of the property are: 38° 44' 31" N and 121° 12' 40" W.

The site occurs at the lower edge of the western foothills of the Sierra Nevada at elevation ranging between 255 and 295 feet. The study area supports mostly foothill woodland, and topography is highly variable due to the presence of historic dredge tailings throughout the site. Strap Ravine, a regionally-intermittent stream, runs in a westerly direction through the northern portion of the site. The study area is surrounded by rural residential on three sides and Douglas Boulevard and higher density development to the north (Figure 2).

The database queries and off-season analysis conducted for the *Creekside Oaks Study Area Biological and Wetlands Resources Assessment* (Assessment) determined that marginal habitat for big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis)* and Sanford's arrowhead (*Sagittaria sanfordii),* both ranked 1B by the California Native Plant Society (CNPS), was present within the region of the study area. Figure 3 illustrates special-status plant species occurrences within a 5-mile radius of the study area. This rare plant survey was conducted to determine the species' presence or absence on the site.

Big-scale balsamroot was considered "unlikely" to occur due to the presence of only marginal quality habitat. Big-scale balsamroot is an herbaceous perennial member of the sunflower family (Asteraceae). It has no state or federal status. This species has large yellow flowering heads and leaves that arise from the ground. It differs, in part, from other balsamroots by having coarsely serrate leaves. Big-scale balsam-root grows in open woodlands and grasslands at widely scattered locations in Northern California. It blooms from March to June.

No members of the genus *Balsamorhiza* or similar genus *Wyethia*, were observed during previously conducted field assessments. The nearest recorded occurrence of big-scale balsam-root is from approximately 6 to 7 miles northwest of the site just west of Highway 65, between Roseville and Lincoln.

Sanford's arrowhead is an herbaceous perennial member of the water-plantain family (Alismataceae). It has no state or federal status. Preferred habitat includes marshes associated with slow-moving water in sloughs and ditches. It is also known to occur in concrete-lined channels with only a few inches of soil. It has a long blooming period, starting as early as May and occasionally lasting through September.

No individuals of *Sagittaria* were observed during previous field assessments. The closest recorded occurrence of this species is from approximately 3 to 4 miles to the southwest in the Citrus Heights area (CNDDB 2014). This species was documented at this location in 1997 in a cattail-dominated freshwater marsh.

METHODS

Field surveys were conducted on the site on April 20, May 1, and May 20, 2015 by Jeff Glazner and Barry Anderson. The timing of the surveys was selected to coincide with the blooming period of most springtime species, including, big-scale balsamroot and Sanford's arrowhead. The surveys were floristic in nature with the goal of identifying species observed to the taxonomic level necessary to determine if it was a special-status species or not. Most common species in the various areas of the site were identified. A list of all plant species observed is included with this report (Appendix A).

RESULTS

Biological Communities

The study area is comprised mostly of foothill woodland (including embedded cottonwood stands), riparian woodland, wetlands, and less than an acre of Strap Ravine. Biological communities are illustrated in Figure 4, and representative site photos are presented in Figure 5.

Foothill Woodland

Foothill Woodland is the primary habitat type within the Creekside Oaks study area, occupying approximately 27 acres. Tree cover is variable throughout the site, ranging from dense to sparse. The majority of the acreage has high canopy cover. An area along the southern boundary and an area in the western middle of the site are the open canopied areas. The most abundant trees within foothill woodland include interior live oak (*Quercus wislizeni*), blue oak (*Quercus douglasii*), and gray pine (*Pinus sabiniana*).

Understory shrubs include poison oak (*Toxicodendron diversilobum*), coyote brush (*Baccharis pilularis*), buckbrush (*Ceanothus cuneatus*), buckeye (*Aesculus californica*), toyon (*Heteromoles arbutifolia*), hoary coffeeberry (*Frangula californica*), Himalayan blackberry (*Rubus armeniacus*), and California blackberry (*Rubus ursinus*). Common herbaceous species within the understory include field hedge parsley (*Torillis arvensis*), Italian thistle (*Carduus pycnocephalus*), yellow star thistle (*Centaurea solstitialis*), skeleton weed (*Chondrilla juncea*), bindweed (*Convolvulus arvensis*), broad-leaf filaree (*Erodium botrys*), soft chess (*Bromus hordeaceus*), hedgehog dogtail (*Cynosurus echinatus*), soap plant (*Chlorogalum pomderidianum*), turkey mullein (*Croton setigerus*), Klamathweed (*Hypericum perforatum*), rose clover (*Trifolium hirtum*), spanish clover (*Acmispon americanus*), vetch (*Vicia sp.*), wild oat (*Avena*

fatua), and ripgut grass (*Bromus diandrus*).

Approximately six (6) acres of mature Fremont cottonwood (*Populus fremontii*) stands occur in the southern half of the site as part of the foothill woodland. These areas correspond to historic placer mining and disrupted local hydrology.

A few willows including red willow (*Salix laevigata*) occur within the study area, often in association with the cottonwoods. These willows are generally restricted to lower-elevation areas scattered throughout the dredge tailings and occur as part of the foothill woodland community.

Riparian Woodland

Within the study area, approximately three (3) acres of riparian woodland occur in a fairly consistent width along the Strap Ravine channel. Canopy species include Fremont cottonwoods, Gooding's willow (*Salix gooddingii*), red willow (*Salix laevigata*), sandbar willow (*Salix exigua*) and valley oak. Himalayan blackberry is the most common understory species and occurs in dense thickets along many reaches.

Wetlands and Strap Ravine

Wetlands occupy approximately three (3) acres of the project site. Common species include broad-leaved cattail (*Typha latifolia*), spikerush (*Eleocharis pachycarpa*), Mexican rush (*Juncus mexicanus*), iris-leaf rush (*Juncus xiphioides*), clustered field-sedge (*Carex praegracilis*), and cocklebur (*Xanthium stramarium)*. The overstory commonly includes mature cottonwoods and other typical foothill woodland species.

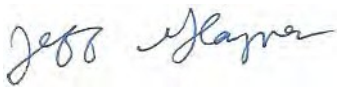
Strap Ravine is a seasonal (intermittent) stream. The reach of Strap Ravine that runs through the study area is characterized as a relatively shallow channel, is 5 to 15 feet wide, and is bounded on both sides by blackberry, willow, cottonwood and oaks. Water was flowing at a very low rate during the surveys.

CONCLUSION

Salix Consulting conducted rare plant surveys of the Whitehawk II study area in Granite Bay, CA. The three surveys were timed to determine the presence or absence of big-scale balsamroot and Sanford's arrowhead. Neither these two target special-status species, nor any others, were observed within the study area. In our opinion, the Whitehawk II study area does not support any special-status plant species.

Thank you for the opportunity to conduct this survey. Please contact me if you have any questions regarding the survey results.

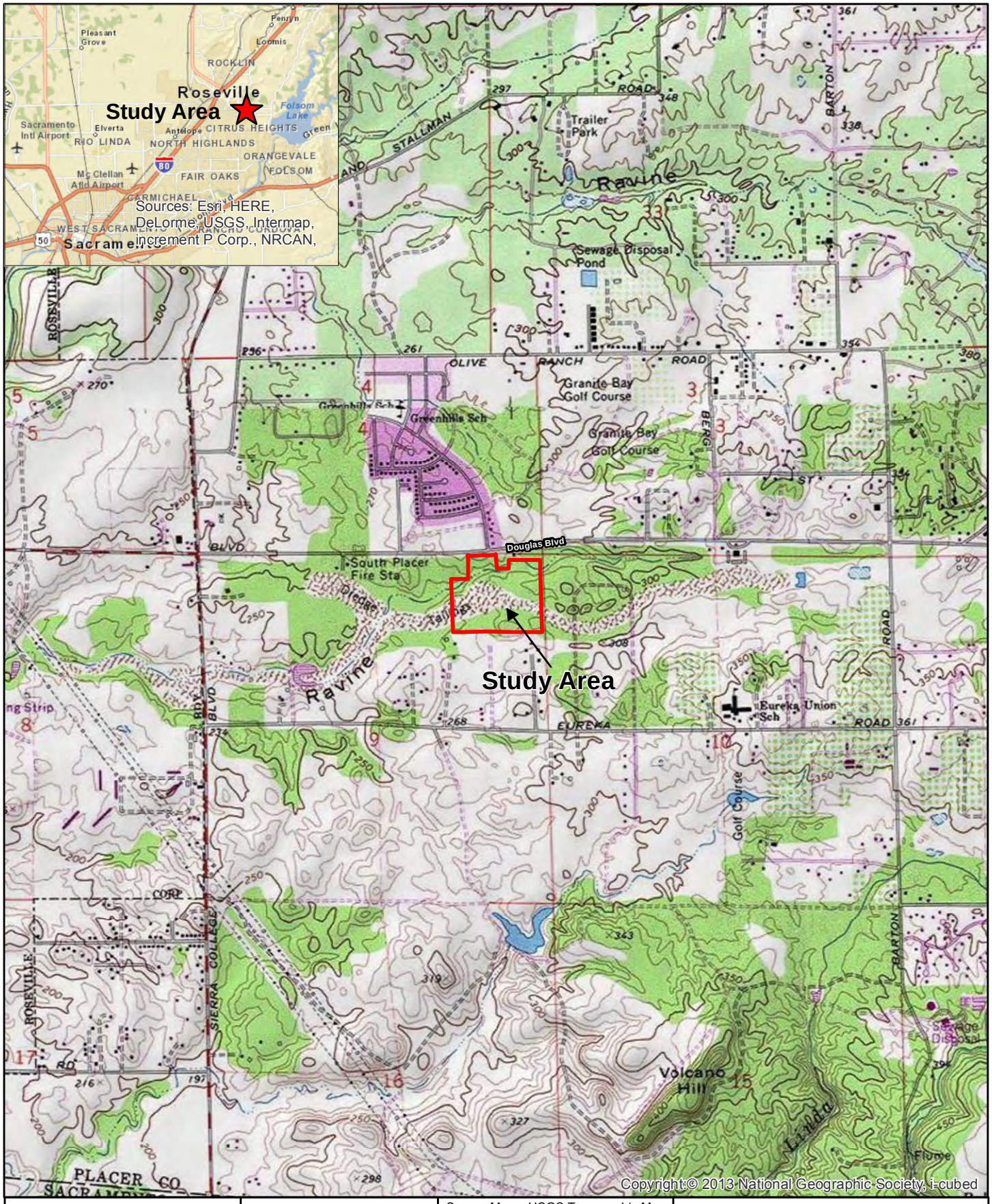
Sincerely,



Jeff Glazner
Principal Biologist

Attachments:

Figure 1. USGS Site & Vicinity Map
Figure 2. Aerial photo



Salix consulting, inc.

N

0 1,000 2,000
Feet

Source Maps: USGS Topographic Map, Folsom (1978) and Rocklin (1981), CA Quadrangle, 1:24,000

Study Area (±33 ac)

Figure 1

VICINITY MAP

Whitehawk II

Granite Bay, Placer County, CA

Salix consulting, inc.

Legend

Study Area (±33 acres)

2013 Aerial Photo

N

0 150 300

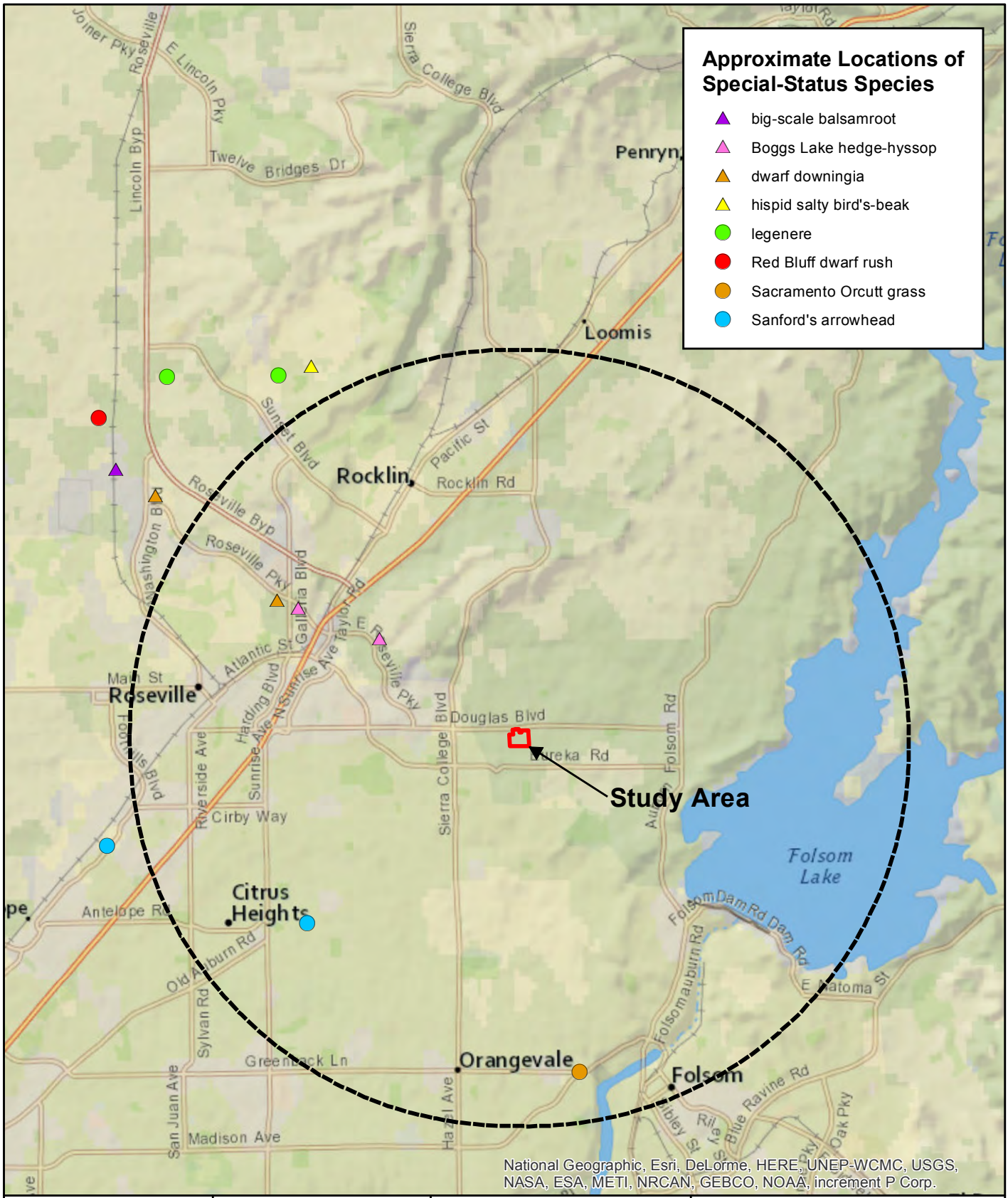
Feet

Figure 2

AERIAL PHOTO

Whitehawk II

Granite Bay, Placer County, CA



Salix consulting, inc.

N

Miles

0 2

Study Area (±33 acres)

5-Mile Buffer

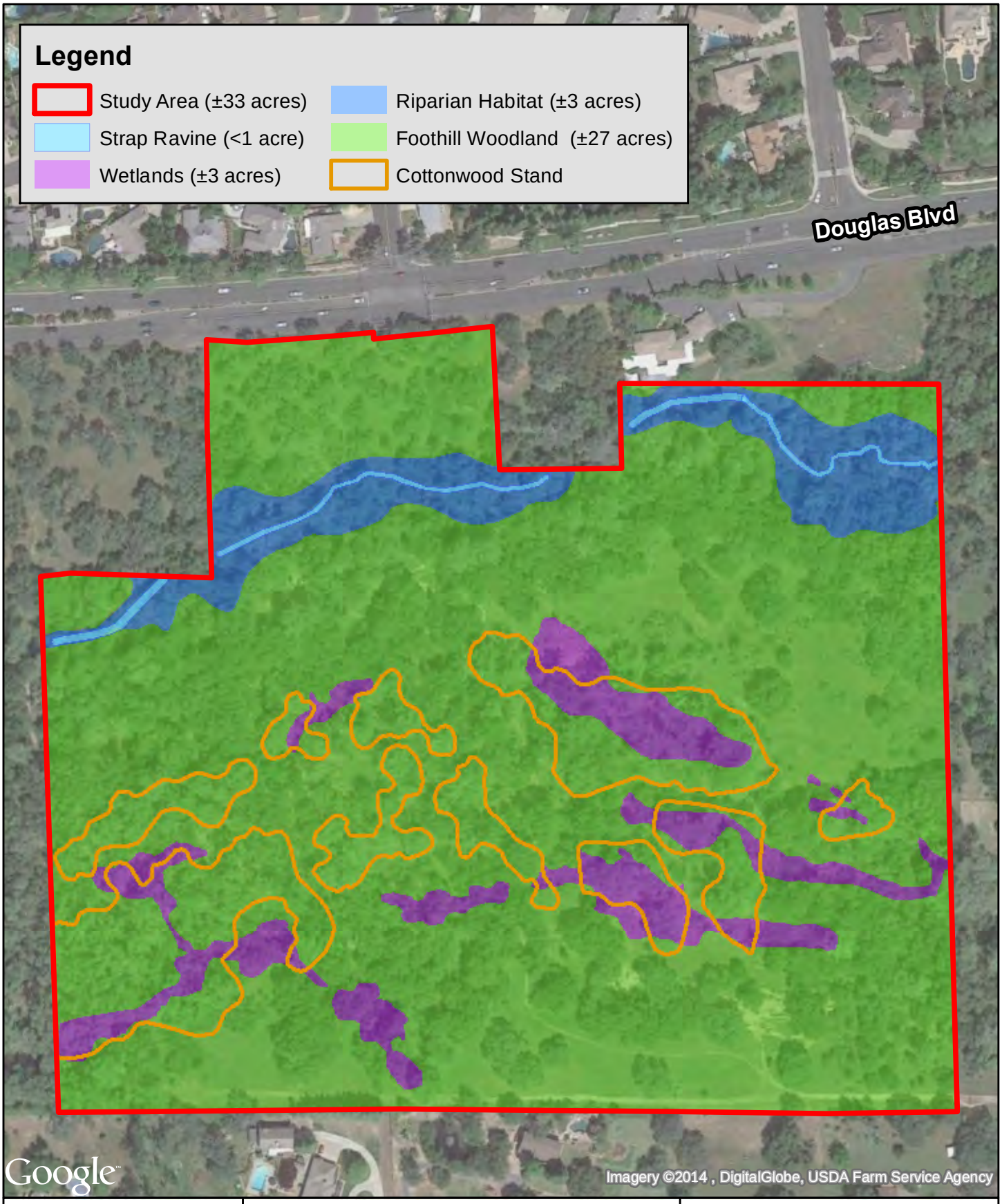
Data: California Natural Diversity Database GIS California Department of Fish and Wildlife, June 2014.

Figure 3

CNDDB PLANT SPECIES OCCURRENCE LOCATIONS

Whitehawk II

Granite Bay, Placer County, CA



Salix consulting, inc.

N

0 100 200
Feet

1 inch = 200 feet

Figure 4

HABITAT MAP

Whitehawk II

Granite Bay, Placer County, CA

Big scale balsamroot habitat in southern portion of study area.

Sanford's arrowhead habitat along Strap Ravine. The similar Alisma triviale is locally abundant in the stream.

Salix consulting, inc.	*Photo Dates 4-20-15*	**Figure 5** **SITE PHOTOS** *Whitehawk II* Granite Bay, Placer County, CA

Appendix A

Whitehawk II - Plants Observed - Spring 2015

Ferns and Allies

Equisetaceae - Horsetail Family

Equisetum arvense	Common horsetail

Pteridaceae - Brake Family

Adiantum jordanii	California maidenhair fern
Pentagramma triangularis subsp. triangularis	Goldback fern

Gymnosperms

Pinaceae - Pine Family

Pinus sabiniana	Gray pine
**Pinus sp.*	Ornamental Pine

Angiosperms - Dicots

Anacardiaceae - Cashew or Sumac Family

Toxicodendron diversilobum	Western poison-oak

Apiaceae (Umbelliferae) - Carrot Family

**Anthriscus caucalis*	Bur-chervil
**Daucus carota*	Queen Anne's lace
**Foeniculum vulgare*	Sweet fennel
Sanicula bipinnatifida	Purple sanicle
Sanicula crassicaulis	Gamble weed
**Torilis arvensis*	Field hedgeparsley

Apocynaceae - Dogbane/Milkweed Family

Asclepias fascicularis	Narrow-leaf milkweed
**Vinca major*	Periwinkle

Aristolochiaceae - Pipevine Family

Aristolochia californica	California pipevine

Asteraceae (Compositae) - Sunflower Family

Ambrosia psilostachya	Western ragweed
Artemisia douglasiana	California mugwort
Baccharis pilularis subsp. consanguinea	Coyote brush
Bidens frondosa	Sticktight
**Carduus pycnocephalus subsp. pycnocephalus*	Italian thistle
**Centaurea solstitialis*	Yellow starthistle
Centromadia fitchii	Fitch's spikeweed
**Chondrilla juncea*	Skeleton weed
**Cichorium intybus*	Chicory
**Cirsium vulgare*	Bull thistle
**Dittrichia graveolens*	Stinkwort
Erigeron canadensis	Canadian horseweed
Euthamia occidentalis	Western goldenrod
**Helminthotheca echioides*	Bristly ox-tongue
Holocarpha virgata subsp. virgata	Virgate tarweed

**Hypochaeris glabra*	Smooth cat's-ear
**Hypochaeris radicata*	Rough cat's-ear
**Lactuca serriola*	Prickly lettuce
**Leontodon saxatilis*	Long-beaked hawkbit
**Logfia gallica*	Narrowleaf cottonrose
Madia elegans	Common madia
**Matricaria discoidea*	Pineapple-weed
Micropus californicus var. californicus	Cottontop
**Senecio vulgaris*	Common groundsel
**Silybum marianum*	Milk thistle
**Sonchus asper subsp. asper*	Prickly sow-thistle
**Sonchus oleraceus*	Common sow-thistle
**Tragopogon dubius*	Yellow salsify
Wyethia angustifolia	Narrowleaf mule's-ears
Xanthium strumarium	Cocklebur

Boraginaceae - Borage Family

Amsinckia menziesii	Rancher's fireweed

Brassicaceae (Cruciferae) - Mustard Family

**Brassica nigra*	Black mustard
Cardamine oligosperma	Western bitter-cress
Draba verna	Spring whitlow-grass
**Hirschfeldia incana*	Short-podded mustard
**Raphanus sativus*	Wild radish

Caprifoliaceae - Honeysuckle Family

Lonicera interrupta	Chaparral honeysuckle

Caryophyllaceae - Pink Family

**Cerastium glomeratum*	Sticky mouse-ear chickweed
**Petrorhagia dubia*	Grass-pink
**Silene gallica*	Windmill-pink
**Spergularia rubra*	Ruby sand-spurrey
**Stellaria media*	Common chickweed

Chenopodiaceae - Goosefoot Family

**Chenopodium album*	White pigweed

Convolvulaceae - Morning-Glory Family

**Convolvulus arvensis*	Bindweed

Crassulaceae - Stonecrop Family

**Crassula tillaea*	Moss pygmy-weed

Cucurbitaceae - Gourd Family

Marah fabacea	California manroot

Euphorbiaceae - Spurge Family

Croton setiger	Turkey mullein

Fabaceae (Leguminosae) - Legume Family

Acmispon americanus var. americanus	Spanish-clover
**Lotus corniculatus*	Bird's-foot trefoil
Lupinus bicolor	Miniature lupine
Lupinus nanus	Sky lupine
**Medicago polymorpha*	California burclover
**Trifolium campestre*	Hop clover
**Trifolium dubium*	Little hop clover

**Trifolium hirtum*	Rose clover
**Vicia sativa*	Common vetch
**Vicia villosa*	Winter vetch

Fagaceae - Oak Family

Quercus douglasii	Blue oak
Quercus lobata	Valley oak
Quercus wislizeni	Interior live oak

Geraniaceae - Geranium Family

**Erodium botrys*	Broad-leaf filaree
**Erodium cicutarium*	Red-stem filaree
**Erodium moschatum*	White-stem filaree
**Geranium dissectum*	Cut-leaf geranium
**Geranium molle*	Dove's-foot geranium

Haloragaceae - Water-Milfoil Family

**Myriophyllum aquaticum*	Parrot's feather

Hypericaceae - St. John's Wort Family

**Hypericum perforatum subsp. perforatum*	Klamathweed

Juglandaceae - Walnut Family

Juglans sp.	Walnut

Lamiaceae (Labiatae) - Mint Family

**Lamium amplexicaule*	Deadnettle
**Marrubium vulgare*	White horehound
Mentha canadensis	American cornmint
**Mentha pulegium*	Pennyroyal
**Mentha x piperata*	Peppermint
Stachys ajugoides	Bugle hedge-nettle
Stachys stricta	Sonoma hedge-nettle
Trichostema lanceolatum	Vinegar weed

Lythraceae - Loosestrife Family

**Lythrum hyssopifolia*	Hyssop loosestrife

Montiaceae - Miner's Lettuce Family

Calandrinia ciliata	Red maids
Claytonia parviflora	Streambank springbeauty
Claytonia perfoliata	Common miner's lettuce

Myrsinaceae - Myrsine Family

**Lysimachia arvensis*	Scarlet pimpernel

Oleaceae - Olive Family

**Ligustrum sp.*	Privet
**Olea europaea*	Olive

Onagraceae - Evening Primrose Family

Clarkia purpurea	Winecup clarkia
Clarkia unguiculata	Canyon clarkia
Epilobium brachycarpum	Summer cottonweed
Epilobium ciliatum	Hairy willow-herb
Epilobium densiflorum	Dense-flower spike-primrose
Epilobium torreyi	Narrowleaf willowherb
**Ludwigia peploides*	Water Primrose

Orobanchaceae - Broomrape Family

Castilleja attenuata	Valley tassels

Papaveraceae - Poppy Family

Eschscholzia californica	California poppy

Phrymaceae - Lopseed Family

Diplacus aurantiacus	Orange bush monkeyflower
Erythranthe guttata	Common monkeyflower

Phytolaccaceae - Pokeweed Family

**Phytolacca americana var. americana*	Pokeweed

Plantaginaceae - Plantain Family

Keckiella breviflora	Gaping penstemon
**Plantago lanceolata*	English plantain

Polygonaceae - Buckwheat Family

Eriogonum nudum	Naked wild buckwheat
Persicaria lapathifolia	Willow weed
Persicaria sp.	Smartweed
**Polygonum aviculare*	Common knotweed
**Rumex acetosella*	Sheep sorrel
**Rumex crispus*	Curly dock
**Rumex pulcher*	Fiddle dock

Ranunculaceae - Buttercup Family

**Ranunculus muricatus*	Spiny-fruit buttercup

Rhamnaceae - Buckthorn Family

Ceanothus cuneatus var. cuneatus	Buck brush
Frangula californica subsp. tomentella	Hoary coffeeberry

Rosaceae - Rose Family

**Cotoneaster sp.*	Cotoneaster
Heteromeles arbutifolia	Toyon
**Prunus cerasifera*	Cherry plum
Prunus sp.	Prunus
**Pyracantha sp.*	Pyracantha
**Pyrus calleryana*	Callery pear
Rosa californica	Califronia rose
**Rubus armeniacus*	Himalayan blackberry
Rubus ursinus	California blackberry

Rubiaceae - Madder Family

Galium aparine	Goose grass
**Galium parisiense*	Wall bedstraw
Galium porrigens var. tenue	Climbing bedstraw

Salicaceae - Willow Family

Populus fremontii subsp. fremontii	Fremont cottonwood
Salix exigua	Narrow-leaved willow
Salix gooddingii	Goodding's black willow
Salix laevigata	Red willow
Salix lasiandra	Pacific willow
Salix lasiolepis	Arroyo willow

Sapindaceae - Soapberry Family

Aesculus californica	California buckeye

Scrophulariaceae - Figwort Family

**Verbascum blattaria*	Moth mullein
**Verbascum thapsus*	Woolly mullein

Simaroubaceae - Quassia Family

**Ailanthus altissima*	Tree of heaven

Verbenaceae - Vervain Family

**Verbena bonariensis*	South American vervain

Viscaceae - Mistletoe Family

Phoradendron leucarpum subsp. tomentosum	Oak mistletoe

Vitaceae - Grape Family

Vitis californica	California wild grape

Zygophyllaceae - Caltrop Family

**Tribulus terrestris*	Puncture vine

Angiosperms -Monocots

Agavaceae - Agave Family

Chlorogalum pomeridianum var. pomeridianum	Soap plant

Alismataceae - Water-Plantain Family

Alisma triviale	California water plantain

Cyperaceae - Sedge Family

Carex praegracilis	Clustered field-sedge
Carex sp.	Sedge
**Cyperus difformis*	Variable flatsedge
Cyperus eragrostis	Tall flatsedge
Eleocharis macrostachya	Creeping spikerush
**Eleocharis pachycarpa*	Black sand spikerush
Schoenoplectus acutus var. occidentalis	Common tule

Juncaceae - Rush Family

Juncus balticus subsp. ater	Baltic rush
Juncus bufonius	Toad rush
**Juncus effusus*	Soft rush
Juncus xiphioides	Iris-leaved rush

Poaceae (Gramineae) - Grass Family

**Aira caryophyllea*	Silver European hairgrass
**Avena barbata*	Slender wild oat
**Avena fatua*	Wild oat
**Briza minor*	Small quaking grass
**Bromus diandrus*	Ripgut grass
**Bromus hordeaceus*	Soft chess
Bromus sp.	Brome
**Cynodon dactylon*	Bermudagrass
**Cynosurus echinatus*	Hedgehog dogtail
Deschampsia danthonioides	Annual hairgrass
**Elymus caput-medusae*	Medusahead
Elymus glaucus	Blue wildrye
Elymus triticoides subsp. triticoides	Creeping wildrye
**Festuca arundinacea*	Tall fescue
**Festuca bromoides*	Brome fescue
Festuca microstachys	Small fescue
**Festuca myuros*	Rattail sixweeks grass
**Festuca perennis*	Italian ryegrass
**Holcus lanatus*	Common velvet grass

Hordeum brachyantherum	Meadow barley
**Hordeum marinum subsp. gussoneanum*	Mediterranean barley
**Hordeum murinum*	Wall barley
**Leersia oryzoides*	Rice cutgrass
Melica californica	California melic
Muhlenbergia rigens	Deer grass
**Paspalum dilatatum*	Dallis grass
Paspalum distichum	Knotgrass
**Phalaris aquatica*	Harding grass
**Poa annua*	Annual bluegrass
Poa secunda	Secund bluegrass
**Polypogon monspeliensis*	Annual beard grass
Stipa pulchra	Purple needlegrass

Themidaceae - Brodiaea Family

Brodiaea elegans subsp. elegans	Elegant harvest brodiaea
Dichelostemma capitatum subsp. capitatum	Bluedicks
Triteleia laxa	Ithuriel's spear

Typhaceae - Cattail Family

Typha angustifolia	Narrow-leaved cattail
Typha latifolia	Broad-leaved cattail

January 14, 2016

Rob Wilson
Forward Planning Manager
Meritage Homes
1671 E. Monte Vista Avenue, Suite 214
Vacaville, CA 95688

RE: Whitehawk I Project Rare Plant Survey

Dear Mr. Wilson:

At your request, Salix Consulting conducted a rare plant surveys at the ±17-acre Whitehawk I (a.k.a. Beaver Creek, Granite Bay 17) Study Area (study area) located in the community of Granite Bay, Placer County, California. The study area is located on the south side of Douglas Boulevard, just east of Sierra College Boulevard and Woodgrove Way. It is situated in Section 9, Township 10 North and Range 7 East on the Folsom, California 7.5-minute USGS topographic quadrangle (Figure 1). The approximate latitude and longitude for the center of the property are: 38° 44' 31" N and 121° 13' 00" W.

The site occurs at the lower edge of the western foothills of the Sierra Nevada at approximately 270 feet. The study area supports mostly foothill woodland and topography is highly variable due to the presence of historic dredge tailings throughout the site. Strap Ravine, a regionally intermittent stream, bisects the property and flows in a west and southwesterly direction. The study area is surrounded by newer residential subdivisions, rural residential properties, and undeveloped properties (Figure 2).

The database queries and site analysis conducted for the December 2014 *Beaver Creek Study Area Biological and Wetlands Resources Assessment* (BRA) determined that marginal habitat for big-scale balsamroot (*Balsamorhiza macrolepis* var. *macrolepis)* and Sanford's arrowhead (*Sagittaria sanfordii),* both ranked 1B by the California Native Plant Society (CNPS), was present within the study area, but surveys had been conducted for the Assessment after the bloom period for the species. This rare plant survey was conducted to determine the species' presence or absence on the site. Figure 3 illustrates special-status plant species occurrences within a 5-mile radius of the study area.

Big-scale balsamroot was considered "unlikely" to occur due to the presence of only marginal quality habitat. Big-scale balsamroot is an herbaceous perennial member of the sunflower family (Asteraceae). It has no state or federal status. This species has large yellow flowering heads and leaves that arise from the ground. It differs, in part, from other balsamroots by having coarsely serrate leaves. Big-scale balsam-root grows in open

woodlands and grasslands at widely scattered locations in Northern California. It blooms from March to June.

No members of the genus *Balsamorhiza* or similar genus *Wyethia*, were observed during field assessments conducted in 2004 and 2014. The nearest recorded occurrence of big-scale balsam-root is from approximately 6 to 7 miles northwest of the site just west of Highway 65, between Roseville and Lincoln.

Sanford's arrowhead is an herbaceous perennial member of the water-plantain family (Alismataceae). It has no state or federal status. Preferred habitat includes marshes associated with slow-moving water in sloughs and ditches. It is also known to occur in concrete lines channels with only a few inches of soil. It has a long blooming period, starting as early as May and occasionally lasting through September.

No individuals of *Sagittaria* were observed during the 2014 field assessment however, northern water plantain (*Alisma triviale*) does grow in Strap Ravine. Northern water plantain is similar to Sanford's arrowhead and grows in similar habitats. The closest recorded occurrence of Sanford's arrowhead is from approximately 4 miles to the southwest in the Citrus Heights area (CNDDB 2014). This species was documented at this location in 1997 in a cattail-dominated freshwater marsh.

METHODS

Two surveys were conducted on the site on April 20, 2015 and May 20, 2015 by Jeff Glazner and Barry Anderson. All areas of the site were walked with particular attention paid to the suitable habitat areas. To the extent possible, the creek thread was walked because of the suitable habitat for Sanford's arrowhead. The timing of the surveys was selected to coincide with the blooming period of most springtime species, and in particular, big-scale balsamroot and Sanford's arrowhead. The surveys were floristic in nature with the goal of identifying species observed to the taxonomic level necessary to determine if it was a special-status species or not. Most species in the various areas of the site were identified and are presented with this report as Appendix A.

RESULTS

Biological Communities

The study area is comprised mostly of foothill woodland (including embedded cottonwood stands), riparian woodland, wetlands and less than an acre of Strap Ravine. Biological communities are illustrated in Figure 4, and representative site photos are presented in Figure 5.

Foothill Woodland

Foothill woodland is the primary habitat type within the Beaver Creek study area, occupying approximately 13 acres of the site. Tree cover is variable throughout the site, and tree density is highest in the central and southeastern portions of the property, generally in areas near Strap Ravine. The dominant trees within foothill woodland include interior live

oak (*Quercus wislizeni*) and blue oak (*Quercus douglasii*). Valley oak (*Quercus lobata*) and foothill pine (*Pinus sabiniana*) are also common components across the study area.

The shrub layer includes poison oak *(Toxicodendron diversilobum*), coyote brush (*Baccharis pilularis*), toyon (*Heteromeles arbutifolia*), buckbrush (*Ceanothus cuneatus*), Himalayan blackberry (*Rubus armeniacus*), oak saplings, and an occasional olive tree (*Olea europaea*). Common herbaceous species within the understory include field hedge parsley (*Torillis arvensis*), Italian thistle (*Carduus pycnocephalus*), yellow star thistle (*Centaurea solstitialis),* Italian rye grass (*Festuca perennis*), hedgehog dogtail (*Cynosurus echinatus*), soap plant (*Chlorogalum pomderidianum*), vetch (*Vicia* spp.), wild oat (*Avena fatua*), and ripgut grass (*Bromus diandrus*).

Approximately one acre of mature Fremont cottonwood (*Populus fremontii*) stands are included in the foothill woodland habitat in the southeastern portion of the study area and are associated with historic placer mining.

Riparian Woodland

Within the study area, approximately three acres of riparian woodland occurs in association with Strap Ravine and consists of a mixed overstory of mature Fremont cottonwoods, Gooding's willow (*Salix gooddingii*), red willow (*Salix laevigata*), and some oak trees. This habitat type occurs in the central portion of the site and covers approximately 3 acres. Some areas along Strap Ravine have been heavily influenced by historic placer-mining and the understory is highly variable. Himalayan blackberry is a common understory species and occurs in dense thickets in many locations. In some reaches adjacent to the channel, wide fringe wetlands support herbaceous marsh species including cocklebur (*Xanthium strumarium*), willow weed (*Persicaria lapathifolia),* water plantain (*Alisma triviale*), broad-leaved cattail (*Typha latifolia*), and black sand spikerush *(Eleocharis pachycarpa)*. Moisture persists in the fringe wetlands well into the dry season.

Wetlands and Strap Ravine

The Strap Ravine channel is surrounded by a dense canopy of riparian species including Fremont cottonwood and several willows. Himalayan blackberry is the primary understory species in the woodland.

Wetlands occur on the site in several forms: wetland swale, seasonal wetland, and seasonal marsh. Wetland vegetation on the site consists of various species of rush, tall flatsedge (*Cyperus eragrostis)*, water plantain, broad-leaved cattail, and hairy willowherb (*Epilobium ciliatum).* Himalayan blackberry is a common component in the Strap Ravine corridor.

CONCLUSION

Salix Consulting conducted a rare plant survey of the Whitehawk I study area in Granite Bay, CA. The two seasonal surveys were timed to determine the presence or absence of big-scale balsamroot and Sanford's arrowhead. Neither these two target special-status species, nor any others, were observed within the study area. In our opinion, the Whitehwak I study area does not support any special-status plant species.

Should you need any additional information, please contact me at any time.

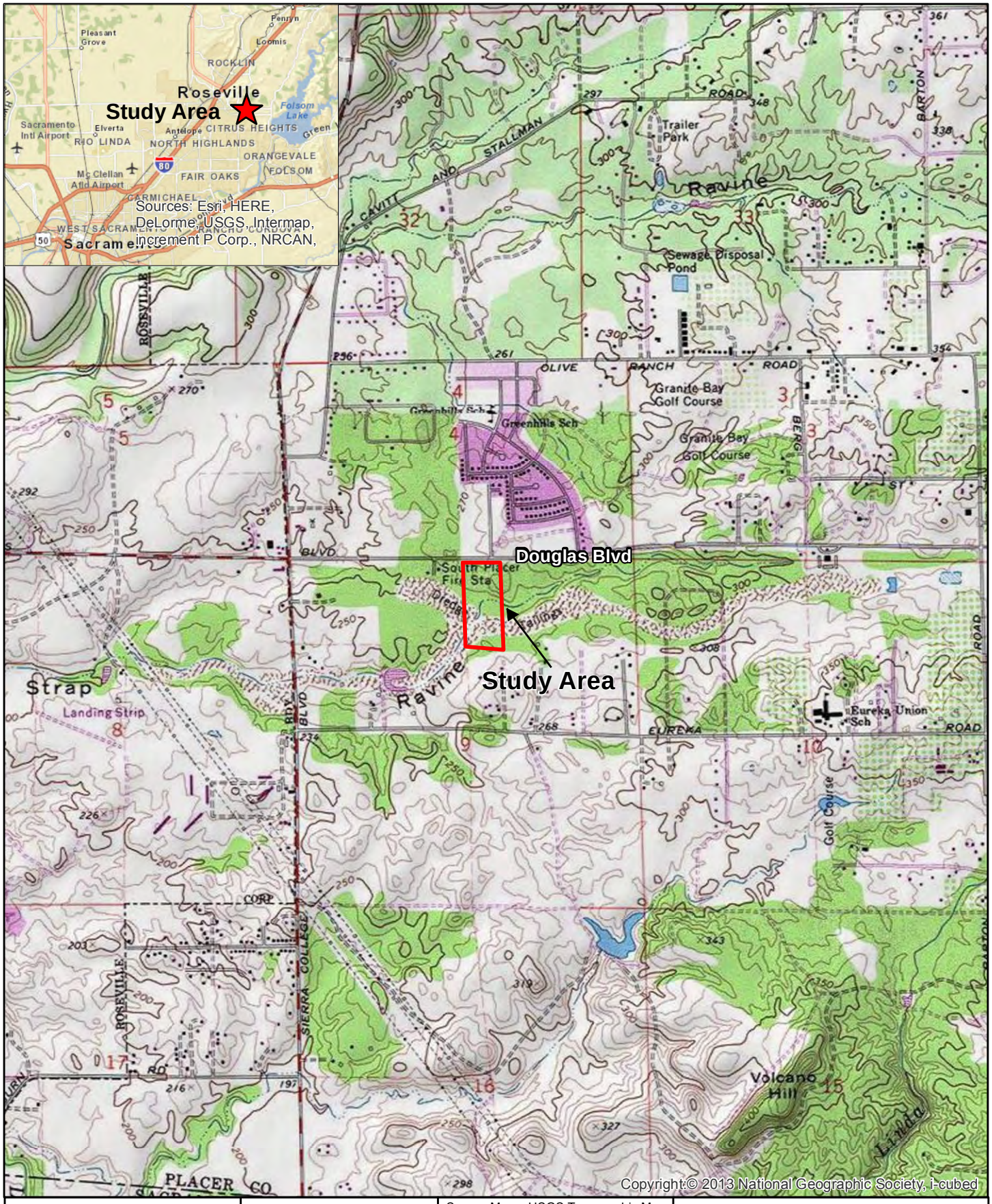
Sincerely,

Jeff Glazner
Principal Biologist

Attachments:

Figure 1. USGS Site & Vicinity Map
Figure 2. Aerial photo
Figure 3. CNDDB Occurrence Map
Figure 4. Habitat map
Figure 5. Site photos

Appendix A. List of Plants Observed within the Study Area



Salix consulting, inc.

N

0 1,000 2,000
Feet

Source Maps: USGS Topographic Map, Folsom (1978) and Rocklin (1981), CA Quadrangle, 1:24,000

Study Area (±17 ac)

Figure 1

VICINITY MAP

Whitehawk I

Granite Bay, Placer County, CA

Salix consulting, inc.

N

0 100 200
Feet

Study Area (±17 ac)

Figure 2

AERIAL MAP

Whitehawk I

Granite Bay, Placer County, CA

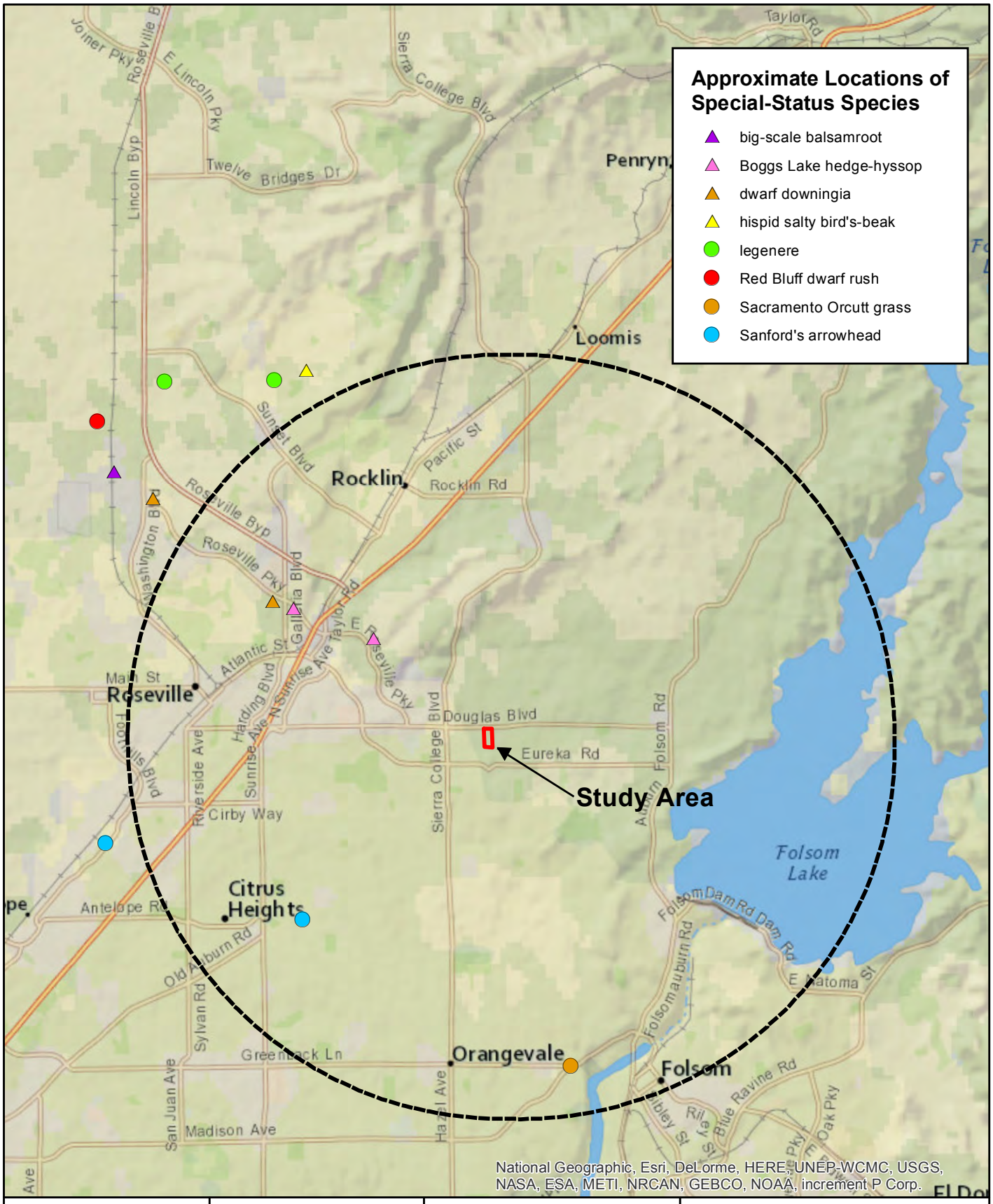
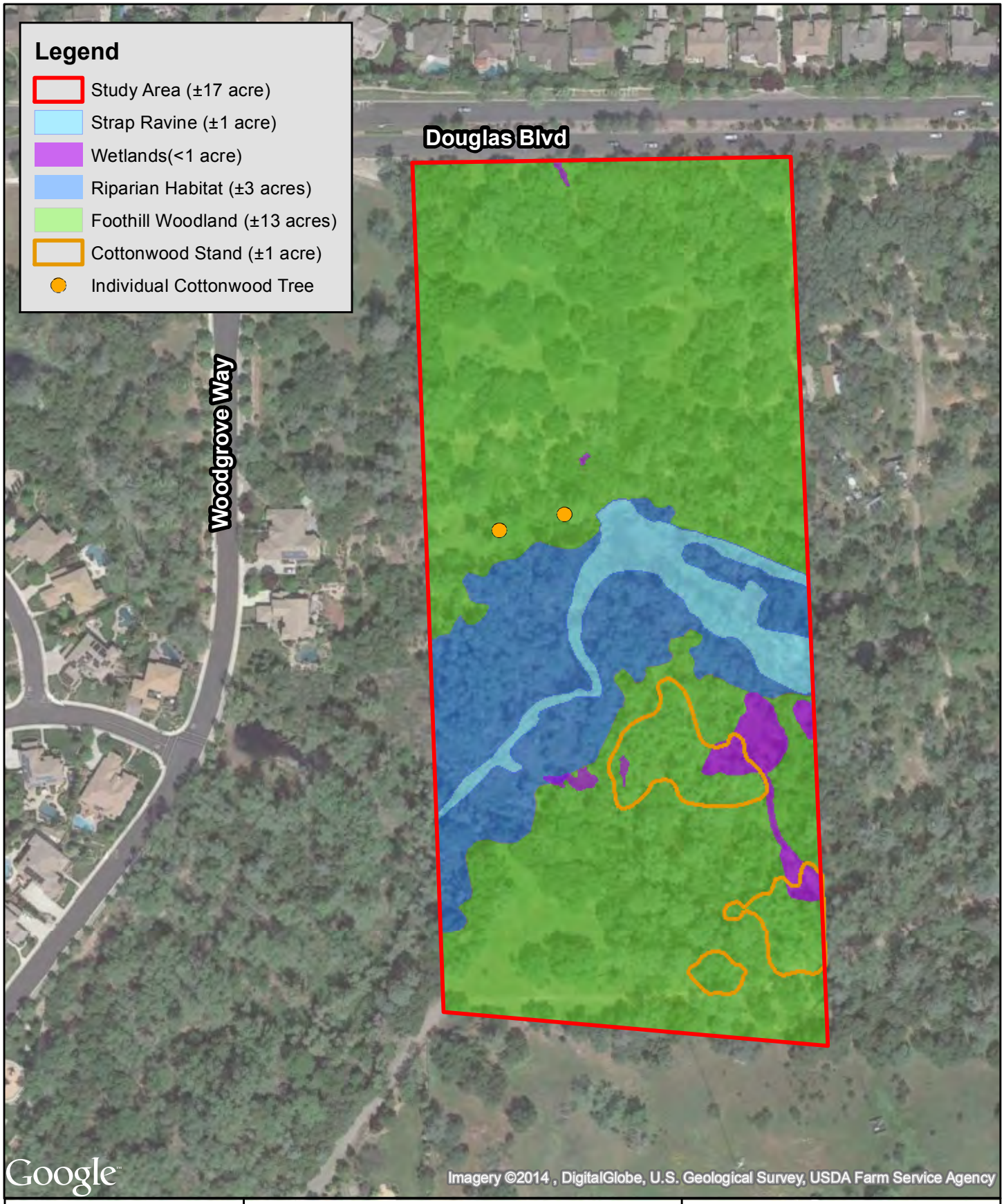


Figure 3

CNDDB PLANT SPECIES OCCURRENCE LOCATIONS

Whitehawk I

Granite Bay, Placer County, CA



Salix consulting, inc.

N

0 100 200
Feet

1 inch = 200 feet

Figure 4

HABITAT MAP

Whitehawk I

Granite Bay, Placer County, CA

Suitable habitat for Sanford's arrowhead along Strap Ravine.
Photo Date 5-20-15

Suitable habitat for big scale balsamroot in opening of woodland.
Photo Date 5-20-15

Salix consulting, inc.

Figure 5

SITE PHOTOS

Whitehawk I

Granite Bay, Placer County, CA

Appendix A

Whitehawk I - Plants Observed - Spring 2015

Ferns and Allies

Pteridaceae - Brake Family

Pentagramma triangularis subsp. triangularis	Goldback fern

Gymnosperms

Pinaceae - Pine Family

Pinus sabiniana	Gray pine

Angiosperms - Dicots

Anacardiaceae - Cashew or Sumac Family

Toxicodendron diversilobum	Western poison-oak

Apiaceae (Umbelliferae) - Carrot Family

**Anthriscus caucalis*	Bur-chervil
**Foeniculum vulgare*	Sweet fennel
Sanicula bipinnatifida	Purple sanicle
Sanicula crassicaulis	Gamble weed
**Torilis arvensis*	Field hedgeparsley

Apocynaceae - Dogbane/Milkweed Family

Asclepias fascicularis	Narrow-leaf milkweed

Aristolochiaceae - Pipevine Family

Aristolochia californica	California pipevine

Asteraceae (Compositae) - Sunflower Family

Ambrosia psilostachya	Western ragweed
Artemisia douglasiana	California mugwort
Baccharis glutinosa	Marsh baccharis
Baccharis pilularis	Coyote brush
Bidens frondosa	Sticktight
**Carduus pycnocephalus*	Italian thistle
**Centaurea solstitialis*	Yellow starthistle
**Chondrilla juncea*	Skeleton weed
**Cichorium intybus*	Chicory
**Cirsium vulgare*	Bull thistle
Euthamia occidentalis	Western goldenrod
Holocarpha virgata subsp. virgata	Virgate tarweed
**Hypochaeris glabra*	Smooth cat's-ear
**Hypochaeris radicata*	Rough cat's-ear
**Lactuca serriola*	Prickly lettuce
**Leontodon saxatilis*	Long-beaked hawkbit
**Logfia gallica*	Narrowleaf cottonrose
Madia elegans	Common madia
Micropus californicus var. californicus	Cottontop
Pseudognaphalium benolens	White everlasting
Pseudognaphalium californicum	California everlasting

**Senecio vulgaris*	Common groundsel
**Sonchus asper subsp. asper*	Prickly sow-thistle
**Tragopogon dubius*	Yellow salsify
Wyethia angustifolia	Narrowleaf mule's-ears
Xanthium strumarium	Cocklebur

Boraginaceae - Borage Family

Amsinckia menziesii	Rancher's fireweed

Brassicaceae (Cruciferae) - Mustard Family

**Hirschfeldia incana*	Short-podded mustard
**Raphanus sativus*	Wild radish

Caprifoliaceae - Honeysuckle Family

Lonicera interrupta	Chaparral honeysuckle
Symphoricarpos mollis	Creeping snowberry

Caryophyllaceae - Pink Family

**Cerastium glomeratum*	Sticky mouse-ear chickweed
**Petrorhagia dubia*	Grass-pink
**Stellaria media*	Common chickweed

Convolvulaceae - Morning-Glory Family

**Convolvulus arvensis*	Bindweed

Cucurbitaceae - Gourd Family

Marah fabacea	California manroot

Euphorbiaceae - Spurge Family

Croton setiger	Turkey mullein
**Euphorbia pepulus*	Petty spurge

Fabaceae (Leguminosae) - Legume Family

Acmispon americanus var. americanus	Spanish-clover
Lupinus bicolor	Miniature lupine
Lupinus nanus	Sky lupine
**Medicago polymorpha*	California burclover
**Trifolium campestre*	Hop clover
**Trifolium hirtum*	Rose clover
**Vicia villosa*	Winter vetch

Fagaceae - Oak Family

Quercus douglasii	Blue oak
Quercus lobata	Valley oak
Quercus wislizeni var. wislizeni	Interior live oak

Gentianaceae - Gentian Family

Zeltnera muehlenbergii	June centaury

Geraniaceae - Geranium Family

**Erodium botrys*	Broad-leaf filaree
**Erodium cicutarium*	Red-stem filaree
**Geranium dissectum*	Cut-leaf geranium
**Geranium molle*	Dove's-foot geranium
**Geranium robertianum*	Herb Robert

Hypericaceae - St. John's Wort Family

**Hypericum perforatum subsp. perforatum*	Klamathweed

Lamiaceae (Labiatae) - Mint Family

**Lamium amplexicaule*	Deadnettle

**Marrubium vulgare*	White horehound
Mentha canadensis	American cornmint
**Mentha pulegium*	Pennyroyal
**Mentha sp.*	Mint
Stachys ajugoides	Bugle hedge-nettle

Linaceae - Flax Family

**Linum usitatissimum*	Common flax

Lythraceae - Loosestrife Family

**Lythrum hyssopifolia*	Hyssop loosestrife

Montiaceae - Miner's Lettuce Family

Calandrinia ciliata	Red maids
Claytonia parviflora	Streambank springbeauty
Claytonia perfoliata	Common miner's lettuce

Moraceae - Mulberry Family

**Morus alba*	White mulberry

Oleaceae - Olive Family

**Olea europaea*	Olive

Onagraceae - Evening Primrose Family

Clarkia purpurea	Winecup clarkia
Clarkia unguiculata	Canyon clarkia
Epilobium brachycarpum	Summer cottonweed
Epilobium ciliatum	Hairy willow-herb
Epilobium densiflorum	Dense-flower spike-primrose
Epilobium torreyi	Narrowleaf willowherb
**Ludwigia peploides*	Water Primrose

Orobanchaceae - Broomrape Family

Castilleja attenuata	Valley tassels

Papaveraceae - Poppy Family

Eschscholzia californica	California poppy

Phrymaceae - Lopseed Family

Diplacus aurantiacus	Orange bush monkeyflower
Erythranthe guttata	Common monkeyflower

Plantaginaceae - Plantain Family

Keckiella breviflora	Gaping penstemon
**Plantago lanceolata*	English plantain
**Veronica anagallis-aquatica*	Blue water speedwell

Polygonaceae - Buckwheat Family

Eriogonum nudum	Naked wild buckwheat
Persicaria lapathifolia	Willow weed
Persicaria sp.	Smartweed
**Polygonum aviculare*	Common knotweed
Polygonum sp.	Polygonum
**Rumex acetosella*	Sheep sorrel
**Rumex crispus*	Curly dock
**Rumex pulcher*	Fiddle dock

Rhamnaceae - Buckthorn Family

Ceanothus cuneatus var. cuneatus	Buck brush
Frangula californica subsp. tomentella	Hoary coffeeberry

Rosaceae - Rose Family

Heteromeles arbutifolia	Toyon
**Prunus cerasifera*	Cherry plum
Prunus sp.	Prunus
**Rubus armeniacus*	Himalayan blackberry

Rubiaceae - Madder Family

Galium aparine	Goose grass
**Galium parisiense*	Wall bedstraw
Galium porrigens var. tenue	Climbing bedstraw

Salicaceae - Willow Family

Populus fremontii subsp. fremontii	Fremont cottonwood
Salix exigua	Narrow-leaved willow
Salix gooddingii	Goodding's black willow
Salix laevigata	Red willow
Salix lasiandra var. lasiandra	Pacific willow
Salix lasiolepis	Arroyo willow

Saxifragaceae - Saxifrage Family

Micranthes californica	California saxifrage

Scrophulariaceae - Figwort Family

**Verbascum blattaria*	Moth mullein
**Verbascum thapsus*	Woolly mullein

Solanaceae - Nightshade Family

**Nicotiana acuminata var. multiflora*	Manyflower tobacco

Viscaceae - Mistletoe Family

Arceuthobium campylopodum	Western dwarf mistletoe

Vitaceae - Grape Family

Vitis californica	California wild grape

Angiosperms -Monocots

Agavaceae - Agave Family

Chlorogalum pomeridianum var. pomeridianum	Soap plant

Alismataceae - Water-Plantain Family

Alisma triviale	California water plantain

Araceae - Arum Family

Lemna sp.	Duckweed

Cyperaceae - Sedge Family

Carex praegracilis	Clustered field-sedge
Carex sp.	Sedge
Cyperus eragrostis	Tall flatsedge
Eleocharis macrostachya	Creeping spikerush
**Eleocharis pachycarpa*	Black sand spikerush
Schoenoplectus pungens var. longispicatus	Common three-square bulrush

Juncaceae - Rush Family

Juncus balticus subsp. ater	Baltic rush
**Juncus effusus*	Soft rush
Juncus occidentalis	Slender rush
Juncus xiphioides	Iris-leaved rush

Poaceae (Gramineae) - Grass Family

**Aira caryophyllea*	Silver European hairgrass
**Avena barbata*	Slender wild oat
**Avena fatua*	Wild oat
**Briza minor*	Small quaking grass
**Bromus diandrus*	Ripgut grass
**Bromus hordeaceus*	Soft chess
**Bromus tectorum*	Cheat grass
**Cynodon dactylon*	Bermudagrass
**Cynosurus echinatus*	Hedgehog dogtail
**Elymus caput-medusae*	Medusahead
**Festuca myuros*	Rattail sixweeks grass
**Festuca perennis*	Italian ryegrass
**Holcus lanatus*	Common velvet grass
**Hordeum marinum subsp. gussoneanum*	Mediterranean barley
**Hordeum murinum*	Wall barley
**Leersia oryzoides*	Rice cutgrass
Muhlenbergia rigens	Deer grass
Paspalum distichum	Knotgrass
**Phalaris aquatica*	Harding grass
**Poa annua*	Annual bluegrass
**Polypogon monspeliensis*	Annual beard grass
Stipa pulchra	Purple needlegrass

Themidaceae - Brodiaea Family

Brodiaea elegans subsp. elegans	Elegant harvest brodiaea
Dichelostemma capitatum subsp. capitatum	Bluedicks

Typhaceae - Cattail Family

Typha angustifolia	Narrow-leaved cattail
Typha latifolia	Broad-leaved cattail

MEMORANDUM

To: Dave Cook,

From: Jeff Glazner and Jinnah Benn

Date: February 21, 2018

Subject: Biological Reconnaissance, Whitehawk II proposed EVA Easement and Construction Access Easement

---

At your request, Salix Consulting has conducted a biological reconnaissance of the proposed easements for Emergency Vehicle Access (EVA) and for construction access for drainage improvements for the proposed Whitehawk II subdivision project, located in the community of Granite Bay, Placer County, California. The study area is located just west of Quartzite Circle, between Douglas Boulevard and Eureka Road, in the western portion of Granite Bay (Figure 1)

Introduction

The proposed easement for the EVA for the Whitehawk II subdivision project extends from a proposed roadway on the northeast side of the subdivision, 180 linear feet in a southeasterly direction to its terminus at Quartzite Circle. The proposed easement is 25 feet wide; the proposed roadway width is 20 feet. The entire easement occupies approximately 0.33 acre (Figure 2).

The proposed easement for access and construction for drainage improvements is approximately 0.10 acre in size and is located immediately south of the EVA easement, along the neighboring property line.

Objectives

The Objectives of the reconnaissance survey were to:

- Identify and describe the biological communities present within the proposed easement;
- Evaluate the easement for the potential to support special-status plant and animal species.
- Determine if wetlands or other aquatic features are present within the proposed easement.

Methodology

Prior to conducting the survey, the Biological Resource Assessment updated in December 2014 was reviewed, as were drawings of the proposed easement alignments. The biological reconnaissance surveys were conducted July 31, 2017, February 7, and February 14, 2018 by walking both easements and assessing the EVA corridor and the construction access easement for the presence or absence of sensitive biological and wetland issues. Photographs of

representative portions of the EVA easement and the proposed construction easement are presented in Figures 3 and 4, respectively.

EVA Findings

The proposed EVA easement traverses a rather dense and shrubby foothill woodland, comprised primarily of interior live oak (*Quercus wislizeni*). Other woody components include valley oak (*Q. lobata)*, Himalayan blackberry (*Rubus armineacus*), and coyote bush (*Baccharis pilularis*) (Figure 3).

The corridor lacks suitable habitat for special status plants known from the region, particularly because there are no wetlands within the corridor. The proposed EVA does not support any elderberry plants (*Sambucus nigra*) and therefore, does not support habitat for the federally threatened valley elderberry longhorn beetle.

Special status animals potentially occurring in the EVA corridor are limited to birds. The woodland is suitable habitat for nesting raptors and migratory birds, including purple martin, which may nest in cavities in the mature trees within and surrounding the proposed EVA alignment.

No waters of the U.S. (WOUS) are present within the proposed EVA alignment.

Construction Access/Easement Findings

The proposed construction access easement is also located in rather dense foothill woodland, comprised primarily of interior live oak. Other woody components include poison oak (*Toxicodendron diversilobum*), and coyote bush. There is one mature cottonwood (*Populus fremontii*) within the access easement (Figure 4).

A man-made ditch, an artifact of past land use, is located within the construction access easement area. This ditch has not been formally delineated and therefore the Corps has not evaluated it with regard to their jurisdiction. The ditch is mostly unvegetated (under a dense live oak canopy) and does not appear to carry water on a consistent basis (it may not carry water under normal conditions but only during flood flows). The ditch connects, however, to a large existing seasonal wetland complex within the Whitehawk II project area that was verified by the Corps as wetland in 2015. Because this ditch has not been formally delineated and submitted to the Corps for verification, we are placing it on the attached map as "potentially jurisdictional" and considering the proposed area of project disturbance to be an impact to a waters of the U.S. (Figure 5).

Recommendations

Waters of the U.S.

A man-made ditch is located within the construction access easement. No fill should be placed within this feature without first determining if the feature is a WOUS. If it is determined by the Corps of Engineers to be a WOUS, permits are required under Sections 404 and 401 of the Clean Water Act for placing fill within the ditch.

Tree Conservation

Policy 5.3.15 of the Granite Bay Community Plan requires that Placer County's Tree Preservation Ordinance be implemented for all projects within the community of Granite Bay (Placer County 2012). The Tree Preservation Ordinance specifies requirements for the protection, preservation, and maintenance of native oak trees, trees of historic or cultural significance, groves and stands of mature trees, and mature trees in general, which are associated with proposals for development. An arborist's report is being prepared for the proposed EVA easement, and the construction access easement. The applicant should consult with Placer County to determine what provisions of the ordinance are applicable.

Special-status Plants

No habitat needed to support any special-status plants known from the region is present within either of the easements. No further studies are recommended.

Pre-Construction Nesting Surveys

Foothill woodland throughout the site provides suitable nesting habitat for common raptors and other birds protected by the Migratory Bird Treaty Act that are known from the region. Suitable raptor nesting habitat includes the mature oaks and cottonwoods located throughout the proposed easements. If tree removal activities take place during the associated breeding/nesting season (typically February 1 through August 31), disturbance of nesting activities could occur. Take of any active raptor nest is prohibited under California Fish and Game Code sections 3503, 3503.5, and 3513. To avoid take of active nests, necessary tree removal should occur outside of the typical nesting season for raptors and other bird species. If tree removal must occur at any time during the typical nesting season, a pre-construction survey should be conducted by a qualified biologist no more than 15 days prior to initiation of proposed development activities. If active nests are found on or immediately adjacent to the site, CDFW should be contacted to determine appropriate avoidance measures. If no nesting is found to occur, necessary tree removal could then proceed.

The quality of habitat available for purple martin, a California Species of Concern, within the study area is considered marginal, but it is possible that purple martin may nest within the easements due to the presence of snags and cavities in mature trees. Although nesting of this species within the two easements is unlikely, implementation of pre-construction surveys is recommended to avoid any potential disturbance. Pre-construction surveys implemented as described above for nesting raptors and migratory birds should include surveying for purple martin.

Salix consulting, inc.

N

0 100 200

Feet

EVA (±0.3 acre)

Temporary Construction Area (±0.1 acre)

Whitehawk II Project Boundary

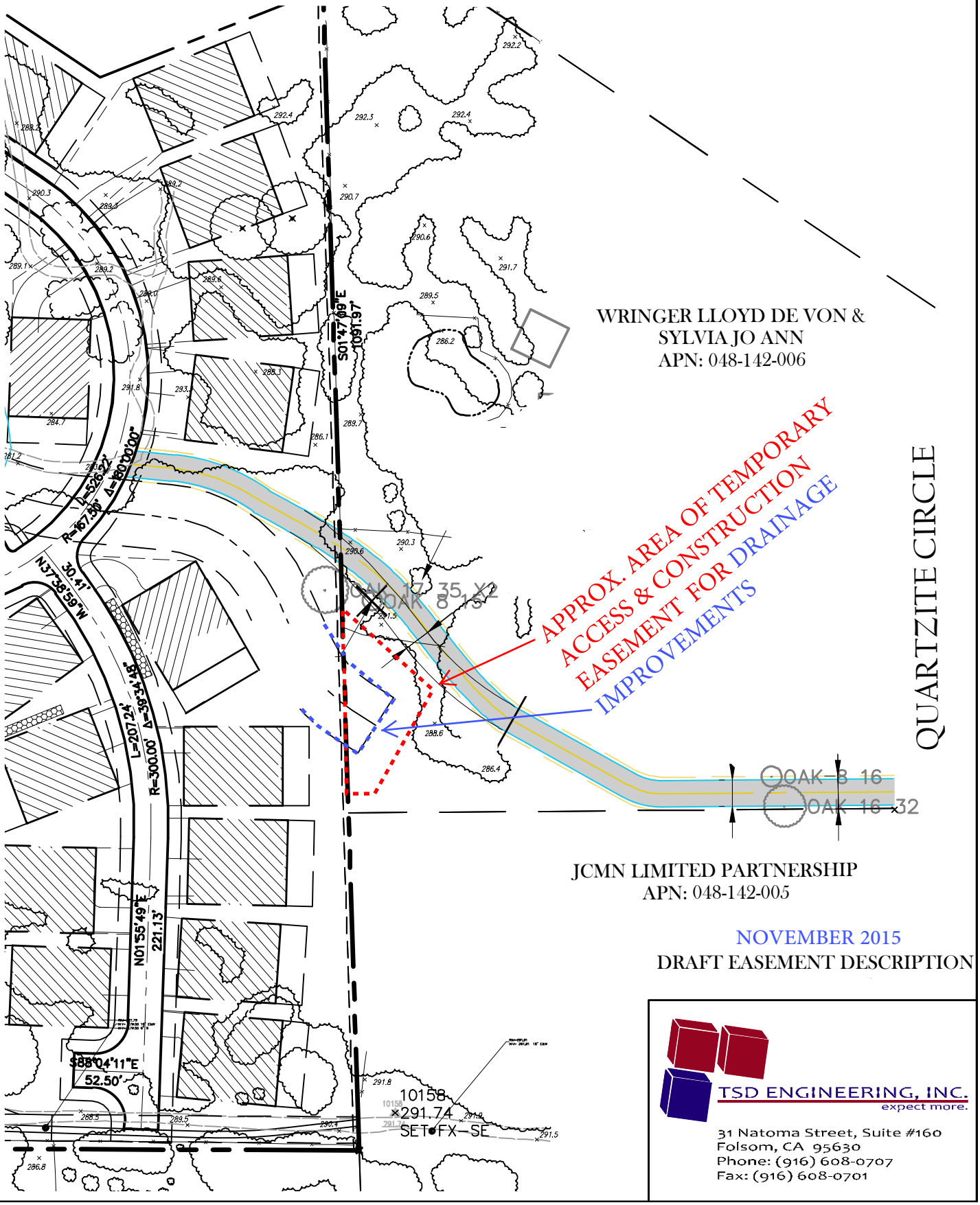
Figure 1

AERIAL MAP

Proposed Whitehawk II

Granite Bay, Placer County, CA

EASEMENT DESCRIPTION - ILLUSTRATION
WHITEHAWK II -DRAINAGE
PLACER COUNTY, CA



NOVEMBER 2015
DRAFT EASEMENT DESCRIPTION

TSD ENGINEERING, INC.
expect more.
31 Natoma Street, Suite #160
Folsom, CA 95630
Phone: (916) 608-0707
Fax: (916) 608-0701

Figure 2

Looking east along EVA near intersection with project site. Most trees in corridor are interior live oak. *Photo Date 2-8-18*

Looking west from Quartzite Circle at eastern end of EVA corridor. Trees in photo are shrubby interior live oak. *Photo Date 2-8-18*

Salix consulting, inc.

Figure 3

SITE PHOTOS

Proposed Whitehawk II

Granite Bay, Placer County, CA

Looking south at ditch in construction access easement. *Photo Date 2-14-18*

Looking west towards WHII project from construction access easement. *Photo Date 2-14-18*

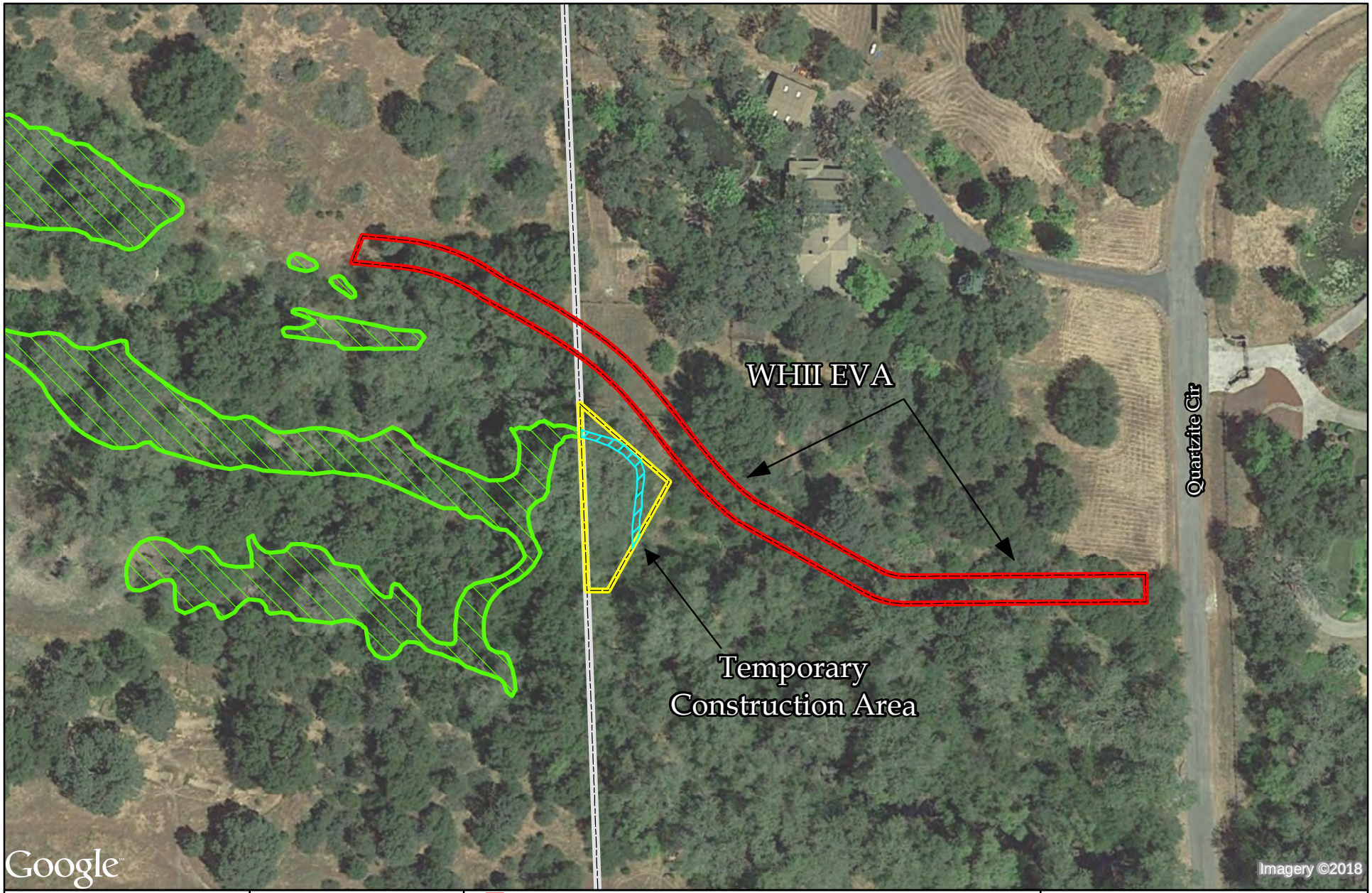
Salix consulting, inc.

Figure 4

SITE PHOTOS

Proposed Whitehawk II

Granite Bay, Placer County, CA



Salix consulting, inc.

N

0 50 100

Feet

EVA (±0.3 acre)

Temporary Construction Area (±0.1 acre)

Man-Made Ditch

Whitehawk II Project Boundary

Whitehawk II Verified Wetlands

Figure 5

POTENTIAL WOUS

Proposed Whitehawk II

Granite Bay, Placer County, CA

ABACUS
CONSULTING ARBORISTS

P.O. Box 4248
Auburn, CA 95604
www.abacus-tree.com (530) 305-0165 Nicole.Abacus@gmail.com

Consulting Arborist Report & Tree Inventory

For the project of:

Whitehawk II, EVA Access Area

Along the South Property Line of 8403 Quartzite Circle

County of Placer, California

Prepared at the Request of:

Meritage Homes, Inc.

March 9, 2018

Table of Contents

Executive Summary

Salix, Inc. on behalf of Meritage Homes, Inc., contacted Abacus Consulting Arborists to inventory and evaluate the protected trees which could be impacted by the proposed Emergency Vehicle Access for the project Whitehawk II, and produce an Arborist Report as the end product. The EVA property is located between the eastern boundary of WHII and Quartzite Circle along the south boundary of 8403 Quartzite Circle in Granite Bay, California. See Tree Location Map.

Abacus Consulting Arborists was on site on February 10-27, 2018; providing species identification, number of trunks, measurements of DBH and canopy, field condition notes, recommended actions, ratings, and locations of the protected trees.

There are 63 trees surveyed that qualify as "protected trees" by the standards of the Placer County Municipal Code, Article 12.16 – Tree Preservation Generally.

Tree Species	Surveyed Trees	Trees with Impacts[1] resulting in Early Demise and/or Requiring Removal[2]	Trees with Potential Impacts causing Early Demise [3]
Interior Live Oak	42	16	8
Blue Oak	14	5	6
Fremont Cottonwood	6	2	0
Valley Oak	1	0	0
	63	**23**	**14**

See Chart B – Inventory of Trees for specific information on each tree.

See Conclusion Chart C – Proposed Tree Impacts

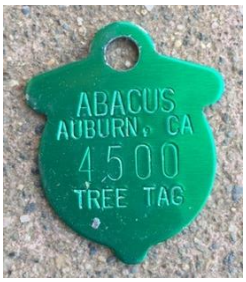
In addition, native trees which did not meet the size requirement for protection, located within an adjacent area appearing to include a water channel which may be considered a riparian area were included on the Tree Location Map for reference. These trees which did not meet the size requirement were not evaluated and are not included in this report but are shown as a dark blue dot on the attached Tree Location Map.

All trees to be preserved shall be protected by following the 'General Development Guidelines'. In addition, there are trees to be preserved on the neighboring properties that will be impacted by the development and may require special preservation measures due to their proximity to the grading and other development work. The project arborist should inspect the site after installation of exclusionary fencing and prior to grading or grubbing to determine any additional preservation requirements for these trees.

See General Development Guidelines

[1] Impacts occur when development activities, including grading or trenching, are within the protected root zone defined for each tree in Chart B.
[2] Trees are located in the path of development or have impacts considered Severe or Critical. See Conclusion.
[3] Preservation Measures could protect these trees and result in long term survival. See Conclusion.

Methods



The trees (on-site) tagged by ABACUS have a numbered tag, placed on each one that is 1-1/8" x 1-3/8", green anodized aluminum, "acorn" shaped, and labeled: ABACUS, Auburn, CA with 1/4" pre-stamped tree number and Tree Tag. They are attached with a natural colored aluminum 10d nail, installed at approximately 6 feet above ground level on the approximate north side of the tree. The tag should last ~10 – 20+ years depending on the species, before it is enveloped by the trees' normal growth cycle.

A Level 2 – Basic Visual Assessment was performed in accordance with the International Society of Arboriculture's best management practices. This assessment level is limited to the observation of conditions and defects which are readily visible. Additional limiting factors, such as blackberries, poison oak, and/or debris piled at the base of a tree can inhibit the visual assessment.

Tree Location: The GPS location of each tree was collected using the ESRI's ArcGIS collector application on an Apple iPad. The data was then processed in ESRI's ArcMap by Julie McNamara, M.S. GISci, to produce the tree location map.

Tree Measurements: DBH (diameter breast high) is normally measured at 4'6" (above the average ground height for "Urban Forestry"), but if that varies then the location where it is measured is noted. A Haglöf Mantax Caliper was used to measure the DBH for trees less than 32" in diameter or less and a steel diameter tape for trees greater than 32". The canopy extension was measured with a Nikon Forestry Pro laser rangefinder.

Terms

Field Tag #	The pre-stamped tree number on the tag which is installed at approximately 6 feet above ground level on the north side of the tree unless otherwise indicated in the notes.
Protected	Indicates if the tree qualifies as a "protected tree" by the standards of the County of Placer, Article 12.16 – Tree Preservation Generally.
Species (Common Name and Botanical Name)	The species of a tree is listed by our local common name and industry accepted botanical name by genus (capitalized) and species (lower case). Our native oaks frequently cross-pollinate and hybridize, but the identification is towards the strongest characteristics.
DBH	'Diameter Breast High' is normally measured at 4'6" (above the average ground height for "Urban Forestry"), but if the measurement was taken at another location it is noted here. A Swedish caliper [1] was used to measure the DBH for trees less than 30" in diameter and a steel diameter tape[2] for trees greater than 30"Ø.
Measured Canopy radius – also referred to as Dripline	The farthest extent of the crown composed of leaves and small twigs and is the longest dripline measurement from the center point of the tree.
Notes:	Provide notable details about each tree which are factors which should be considered in the determination of the tree rating including: (a) condition of root crown and/or roots; (b) condition of trunk; (c) condition of limbs and structure; (d) growth history and twig condition; (e) leaf appearance; and (f) dripline environment. In addition, if there were any limitations to the evaluation of the tree, they are listed here. For example, a tree wrapped in poison oak may not have been examined at the base.
Clearance Pruning Required	Indicates if pruning will be required within the measured canopy radius (dripline) to access this area within 20' of the ground.
Placer County Rating	Placer County Municipal Code – 12.17.070, Section G provides specific instruction on the determination of tree condition. The listed rating is pursuant to these specifications.
Arborist Rating	Subjective to condition and is based on both the health and structure of the tree. All of the trees were rated for condition, per the recognized national standard as set up by the Council of Tree and Landscape Appraisers and the International Society of Arboriculture (ISA) on a numeric scale of 5 (being the highest) to 0 (the worst condition, dead) as in Chart A. The rating was done in the field at the time of the measuring and inspection. The scale is as follows:

Table A – Ratings Table

Arborist Ratings		Rating Number	**Placer County Condition Rating**
No problem(s)	Excellent	5	Excellent
No apparent problem(s)	Good	4	Good
Minor problem(s)	Fair	3	Fair to Good
Minor problem(s)		2-3	Fair
Major problem(s)	Poor	2	Fair to Poor
Extreme problem(s)	Hazardous	1	Poor
Dead	Dead	0	Dead

Rating #0: This indicates a tree that has no significant sign of life.

Rating #1: The problems are extreme. This rating is assigned to a tree that has structural and/or health problems that no amount of work or effort can change. The issues may or may not be considered a dangerous situation.

Rating #2: The tree has major problems. If the option is taken to preserve the tree, its condition could be improved with correct arboricultural work including, but not limited to: pruning, cabling, bracing, bolting, guying, spraying, mistletoe removal, vertical mulching, fertilization, etc. If the recommended actions are completed correctly, hazard can be reduced and the rating can be elevated to a 3. If no action is taken the tree is considered a liability and should be removed.

Rating #3: The tree is in fair condition. There are some minor structural or health problems that pose no immediate danger. When the recommended actions in an arborist report are completed correctly the defect(s) can be minimized or eliminated.

Rating #4: The tree is in good condition and there are no apparent problems that a Certified Arborist can see from a visual ground inspection. If potential structural or health problems are tended to at this stage future hazard can be reduced and more serious health problems can be averted.

Rating #5: No problems found from a visual ground inspection. Structurally, these trees have properly spaced branches and near perfect characteristics for the species. Highly rated trees are not common in natural or developed landscapes. No tree is ever perfect especially with the unpredictability of nature, but with this highest rating, the condition should be considered excellent.

Development Impact Indicates if the tree is planned for removal or preservation, and if preserved, the relative impact of the proposed development according to the development plans. The scale is as follows:

Table B – Impacts Table

Impact Term:	**Long Term Result of Impact:**
Negligible	Tree is unlikely to show any symptoms. Chance of survival post development is excellent. Impacts to the Protected Root Zone (see Glossary) are less than 5%.
Minor	Tree is likely to show minor symptoms. Chance of survival post development is good. Impacts to the Protected Root Zone are less than 15% and species tolerance is good.
Moderate	Tree is likely to show moderate symptoms. Chance of survival post development is fair. Impacts to the Protected Root Zone are less than 35% and species tolerance is good or moderate.
Severe	Tree is likely to show moderate symptoms annually and a pattern of decline. Chance of long term survival post development is low. Impacts to the Protected Root Zone are up to 50% and species tolerance is moderate to poor.
Critical	Tree is likely to show moderate to severe symptoms annually and a pattern of decline. Chance of long term survival post development is negligible. Impacts to the Protected Root Zone are up to 80%.

Chart B –Inventory of Trees

Field Tag #	Old Tag #	Protected	Species Common Name	Species Botanical Name	DBH	Canopy radius	Notes	Clearance Pruning, if required	Placer County Rating	Arborist Rating	Development Impact
2202		Yes	Interior Live Oak	*Quercus wislizenii*	14 @ 1'	20	old 2304, very poor structure, main stem doglegs with new sprouts upward. Mainstem poor structure crossing limbs, bows over		Fair to Poor	2 Major Structure or Health Problems	Negligible
2203		Yes	Interior Live Oak	*Quercus wislizenii*	12	18	good flare, main canopy lean S, fair leaf surface		Fair to Good	3 Fair - Minor Problems	Negligible
2204		Yes	Interior Live Oak	*Quercus wislizenii*	13 @ 1'	18	codominant leader at 2' included bark, suppressed, entire canopy bows North East, fair leaf surface		Fair to Poor	2 Major Structure or Health Problems	Moderate
2205		Yes	Blue Oak	*Quecus douglasii*	7	6	good flare, poor taper, fair leaf surface		Fair to Good	3 Fair - Minor Problems	Negligible
2206		Yes	Interior Live Oak	Quercus wislizenii	24@ 6"	22	Low structural limb east at 1', codominant leader at 6', fair leaf surface		Good	4 Good - No Apparent Problems	Severe - May Require Removal
2207		Yes	Interior Live Oak	*Quercus wislizenii*	14	25	good flare, slight bend in trunk, abnormal trunk shape, fair canopy		Fair	3 Fair - Minor Problems	Moderate
2208		Yes	Blue Oak	Quercus douglasii	14	25			Fair to Good	3 Fair - Minor Problems	Severe - May Require Removal

Field Tag #	Old Tag #	Protected	Species Common Name	Species Botanical Name	DBH	Canopy radius	Notes	Clearance Pruning, if required	Placer County Rating	Arborist Rating	Development Impact
2209	2315	Yes	Interior Live Oak	*Quercus wislizenii*	10, 6, 15	25	steep slope, main stem is upright included barked at 6', smaller stem very poor structure runs along the ground, fair leaf surface		Fair to Poor	2 Major Structure or Health Problems	Severe - May Require Removal
2210		Yes	Interior Live Oak	*Quercus wislizenii*	15	28	steep slope at base, leans north from base, fair leaf surface. Lean is probably not overly significant- should be retained		Fair	2 Major Structure or Health Problems	Severe - May Require Removal
2211		Yes	Blue Oak	*Quecus douglasii*	8.5	13	codominant leader it 10' narrow attachment, poor twig elongation, good leaf surface		Excellent	4 Good - No Apparent Problems	Moderate
2212		Yes	Interior Live Oak	*Quercus wislizenii*	8, 5	10	codominant leader at 6 inches, good leaf surface		Fair to Good	3 Fair - Minor Problems	Negligible
2213		Yes	Interior Live Oak	*Quercus wislizenii*	12	25	low structural limb, good flare, codominant leader at 4' narrow and crossing, good leaf surface		Fair	3 Fair - Minor Problems	Moderate
2215		Yes	Interior Live Oak	*Quercus wislizenii*	8	25	failure from base, half ripped out of ground, canopy at 5' off the ground		Poor	1 Extreme Structure or Health Problems	Minor
2216		Yes	Interior Live Oak	Quercus wislizenii	8, 6	17	12 @ ground, lean and bow north west, poor structure		Fair to Poor	2 Major Structure or Health Problems	Negligible

Field Tag #	Old Tag #	Protected	Species Common Name	Species Botanical Name	DBH	Canopy radius	Notes	Clearance Pruning, if required	Placer County Rating	Arborist Rating	Development Impact
2217		Yes	Interior Live Oak	*Quercus wislizenii*	7	15	upper canopy leans Northwest		Fair to Good	3 Fair - Minor Problems	Critical - May Require Removal
2303	2303	Yes	Fremont Cottonwood	*Populus fremontii*	21, 10	0	smaller stand dead with cavity in the main trunk at 3', mainstem leans Southeast, epicormic growth		Poor	1 Extreme Structure or Health Problems	Negligible
2307		Yes	Fremont Cottonwood	*Populus fremontii*	18, 18	0	One stem failed - stub remaining		Fair to Poor	2 Major Structure or Health Problems	Negligible
2312	2312	Yes	Fremont Cottonwood	*Populus fremontii*	17, 15, 22, 13	20	codominant leader at 2' wide, large failures, epicormic growth		Fair to Poor	2 Major Structure or Health Problems	Minor
7001		Yes	Interior Live Oak	*Quercus wislizenii*	6	8	Leans from base, codominant leader at 3', fair leaf surface		Fair to Good	3 Fair - Minor Problems	Critical - May Require Removal
7002		Yes	Interior Live Oak	*Quercus wislizenii*	6	15	poor structure at 8' with narrow attachment and crossing in the upper canopy, good leaf surface. Too much competition.		Fair	3 Fair - Minor Problems	Minor
7003		Yes	Interior Live Oak	*Quercus wislizenii*	7, 4	15	codominant leader at 1' narrow stems attached to 3', needs corrective pruning, fair leaf surface		Fair	3 Fair - Minor Problems	Negligible

Field Tag #	Old Tag #	Protected	Species Common Name	Species Botanical Name	DBH	Canopy radius	Notes	Clearance Pruning, if required	Placer County Rating	Arborist Rating	Development Impact
7004		Yes	Blue Oak	*Quecus douglasii*	17	17	Wide codominant leader attachment at 6', good structure, good leaf surface, excellent tree	Canopy to ground in all directions, max cut 4" diameter	Excellent	5 Excellent	Severe - May Require Removal
7005		Yes	Interior Live Oak	*Quercus wislizenii*	6	10	Low structural limb, codominant leader at 5', low tag, good leaf surface	Y, 4" at 1', & all directions	Fair to Good	3 Fair - Minor Problems	Critical - May Require Removal
7006		Yes	Blue Oak	*Quecus douglasii*	9	15	Slight lean, good leaf surface		Good	4 Good - No Apparent Problems	Critical - May Require Removal
7007		Yes	Interior Live Oak	*Quercus wislizenii*	10, 7	30	Suppressed, leans with bow in main stem 25', unbalanced canopy North over utility line		Fair	2 Major Structure or Health Problems	Moderate
7008		Yes	Interior Live Oak	*Quercus wislizenii*	24, 11, 15	38	32 @ ground, poor structural limb at 2', all narrow attachments, epicormic growth, dominant, fair leaf surface		Fair	3 Fair - Minor Problems	Minor
7009		Yes	Interior Live Oak	*Quercus wislizenii*	7	15	Good flare, slight lean, poor crown ratio, fair leaf surface		Fair	3 Fair - Minor Problems	Severe - May Require Removal
7010		Yes	Interior Live Oak	*Quercus wislizenii*	11	15	Edge of riparian area, good leaf surface, good structure		Good	4 Good - No Apparent Problems	Minor

Field Tag #	Old Tag #	Protected	Species Common Name	Species Botanical Name	DBH	Canopy radius	Notes	Clearance Pruning, if required	Placer County Rating	Arborist Rating	Development Impact
7013		Yes	Interior Live Oak	*Quercus wislizenii*	7	12	Good flare, top of bank, narrow attachment at 6', fair leaf surface		Fair to Good	3 Fair - Minor Problems	Minor
7014		Yes	Blue Oak	*Quecus douglasii*	8, 8	16	Diseased, poor twig elongation, narrow attachments		Fair to Poor	2 Major Structure or Health Problems	Moderate
7015		Yes	Blue Oak	*Quecus douglasii*	11	21	Poor codominant leader at 10', dogleg above, fair leaf surface, poor twig elongation		Fair	3 Fair - Minor Problems	Severe - May Require Removal
7016		Yes	Interior Live Oak	*Quercus wislizenii*	10	24	Edge of water, slight upper canopy lean, good leaf surface		Good	4 Good - No Apparent Problems	Critical - May Require Removal
7017		Yes	Blue Oak	*Quecus douglasii*	14	20	Good flare, codominant leader with included bark at 15', dead epicormic growth and poor twig elongation, fair leaf surface		Fair	3 Fair - Minor Problems	Moderate
7018		Yes	Interior Live Oak	*Quercus wislizenii*	10	16	Slight lean, understory, located toward utility	At least 50% of tree	Fair to Poor	2 Major Structure or Health Problems	Critical - May Require Removal
7019		Yes	Interior Live Oak	*Quercus wislizenii*	10	0	Good flare, dogleg at 5', too much competition		Fair	2 Major Structure or Health Problems	Critical - May Require Removal
7020		Yes	Interior Live Oak	*Quercus wislizenii*	9	14	Trunk bends and corrects, good leaf surface		Fair to Good	3 Fair - Minor Problems	Critical - May Require Removal

Field Tag #	Old Tag #	Protected	Species Common Name	Species Botanical Name	DBH	Canopy radius	Notes	Clearance Pruning, if required	Placer County Rating	Arborist Rating	Development Impact
7021		Yes	Interior Live Oak	*Quercus wislizenii*	9	15	Abnormal flare, slight lean with correction, good leaf surface		Fair	3 Fair - Minor Problems	Critical - May Require Removal
7022		Yes	Interior Live Oak	*Quercus wislizenii*	9	18	Good flare, upright tree, good leaf surface, 1 inch crossing them at 7'		Good	4 Good - No Apparent Problems	Critical - May Require Removal
7023		Yes	Blue Oak	*Quecus douglasii*	9	12	codominant leader at 15' and arrow, poor twig elongation, open space		Good	4 Good - No Apparent Problems	Moderate
7025		Yes	Interior Live Oak	*Quercus wislizenii*	6	7	good flare, semi poor taper, poor leaf surface		Good	4 Good - No Apparent Problems	Moderate
7026		Yes	Interior Live Oak	*Quercus wislizenii*	7	19	Poor at ground, poor at 10', understory, fair leaf surface		Fair to Poor	2 Major Structure or Health Problems	Negligible
7027		Yes	Interior Live Oak	*Quercus wislizenii*	10	15	Leans from ground corrects at 4', fair to good leaf surface		Fair to Good	3 Fair - Minor Problems	Negligible
7028		Yes	Blue Oak	*Quecus douglasii*	7 @ 2'	14	codominant leader at 3', slight lean in upper canopy Northwest		Fair to Good	3 Fair - Minor Problems	Moderate
7029		Yes	Interior Live Oak	*Quercus wislizenii*	6, 4	12	codominant leader at 1, fair leaf surface		Fair to Good	3 Fair - Minor Problems	Negligible
7030		Yes	Interior Live Oak	*Quercus wislizenii*	6 @ 3	0			Fair to Good	3 Fair - Minor Problems	Negligible

Field Tag #	Old Tag #	Protected	Species Common Name	Species Botanical Name	DBH	Canopy radius	Notes	Clearance Pruning, if required	Placer County Rating	Arborist Rating	Development Impact
7031		Yes	Interior Live Oak	*Quercus wislizenii*	6	0	on steep slope, slight lean		Fair to Good	3 Fair - Minor Problems	Negligible
7033		Yes	Blue Oak	*Quecus douglasii*	18	34	small abnormal stem at 1' off the ground north west, good structure, good leaf surface, bird nest in upper canopy		Good	4 Good - No Apparent Problems	Minor
7034		Yes	Interior Live Oak	*Quercus wislizenii*	9, 5	33	slight lean, included bark at 2', and entire canopy understory south		Fair	3 Fair - Minor Problems	Moderate
7035		Yes	Interior Live Oak	*Quercus wislizenii*	16, 17	32	re-grade at base?, Good flare but appears buried east, codominant leader removed at ground level east, wound wood with decay cavity, codominant leader at 3' with included bark and at 5', good leaf surface		Fair to Good	3 Fair - Minor Problems	Moderate
7037		Yes	Interior Live Oak	*Quercus wislizenii*	7	18	understory, poor structure, bows at 8 to 12' off the ground		Fair	2 Major Structure or Health Problems	Critical - May Require Removal
7038		Yes	Fremont Cottonwood	*Populus fremontii*	21	35	leans from ground, more significant above 10', overextended, large failures		Fair to Poor	2 Major Structure or Health Problems	Critical - May Require Removal

Field Tag #	Old Tag #	Protected	Species Common Name	Species Botanical Name	DBH	Canopy radius	Notes	Clearance Pruning, if required	Placer County Rating	Arborist Rating	Development Impact
7039		Yes	Fremont Cottonwood	*Populus fremontii*	26, 34, 12, 29, 18, 10, 16, 20	35	Large tree cluster, 2 center stems are upright in fair condition, the rest have too much lean and over extended or declining with epicormic growth		Fair to Poor	2 Major Structure or Health Problems	Critical - May Require Removal
7041		Yes	Interior Live Oak	*Quercus wislizenii*	7	20	old 2154, steep slope, bows at 4' over riparian area, poor structure, poor leaf surface		Fair to Poor	2 Major Structure or Health Problems	Moderate
7042		Yes	Valley Oak	*Quercus lobata*	8	8	steep slope, under Cottonwood, fair now but will be suppressed		Fair to Good	3 Fair - Minor Problems	Minor
7043		Yes	Blue Oak	*Quecus douglasii*	6	10	steep slope, poor crown ratio, poor leaf surface		Fair	3 Fair - Minor Problems	Moderate
7044		Yes	Interior Live Oak	*Quercus wislizenii*	6	20	old 2160, leans from ground, understory		Fair to Poor	2 Major Structure or Health Problems	Negligible
7045		Yes	Interior Live Oak	*Quercus wislizenii*	19	30	good flare, upper canopy liens 30 degrees, fair to good leaf surface		Good	4 Good - No Apparent Problems	Minor
7046		Yes	Fremont Cottonwood	*Populus fremontii*	60	35	good for species, upright, overextended limb south		Fair	2 Major Structure or Health Problems	Minor

Field Tag #	Old Tag #	Protected	Species Common Name	Species Botanical Name	DBH	Canopy radius	Notes	Clearance Pruning, if required	Placer County Rating	Arborist Rating	Development Impact
7047		Yes	Interior Live Oak	*Quercus wislizenii*	16	25	on steep slope, 5 inch limb at 1' along the ground south, 40 degree lean south, unbalanced canopy south, fair leaf surface		Fair	3 Fair - Minor Problems	Minor
7048		Yes	Blue Oak	*Quecus douglasii*	7	8	good upright structure, good flare, codominant leader at 10', under Cottonwood. Good for now will be suppressed		Good	4 Good - No Apparent Problems	Negligible
7049		Yes	Interior Live Oak	*Quercus wislizenii*	7	15	leans from base with partial correction, good leaf surface		Fair to Good	3 Fair - Minor Problems	Critical - May Require Removal
7050		Yes	Interior Live Oak	*Quercus wislizenii*	6	10	suppressed, poor structure at top		Fair	2 Major Structure or Health Problems	Critical - May Require Removal
7032		Yes	Blue Oak	*Quecus douglasii*	10, 9	21	codominant leader at 1' cavity between, both systems, bow at top, most limbs are unbalanced to south or east		Fair	2 Major Structure or Health Problems	Severe - May Require Removal

Limitations

All of the conclusions in this report are based solely on the observation of conditions on the site which were readily visible. Trees may appear to be healthy and structurally sound but can contain hidden faults which could result in failure.

Blackberries, Poison Oak and/or Debris (such as limbs, firewood, garbage, etc) visually inhibit the observation of critical defects at the base of a tree such as decay or evidence of decay agents (mushrooms or conks). They also can hide ground heaving, compacted soil, soil contamination, and many other critical evaluation details. Whenever these conditions exist, the visual assessment was limited and the tree should be reevaluated upon removal of the inhibiting condition.

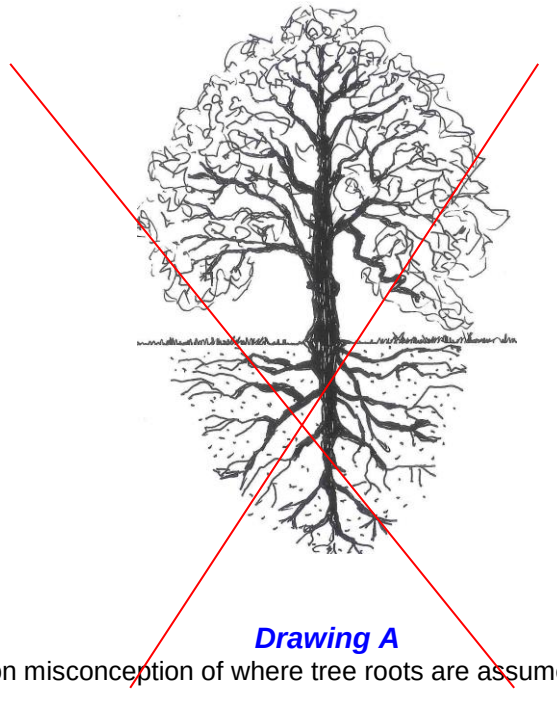
Level of Inspection, Testing and Analysis

A Level 2 – Basic Visual Assessment was performed in accordance with the International Society of Arboriculture's best management practices. No laboratory testing or analysis was performed.

Discussion

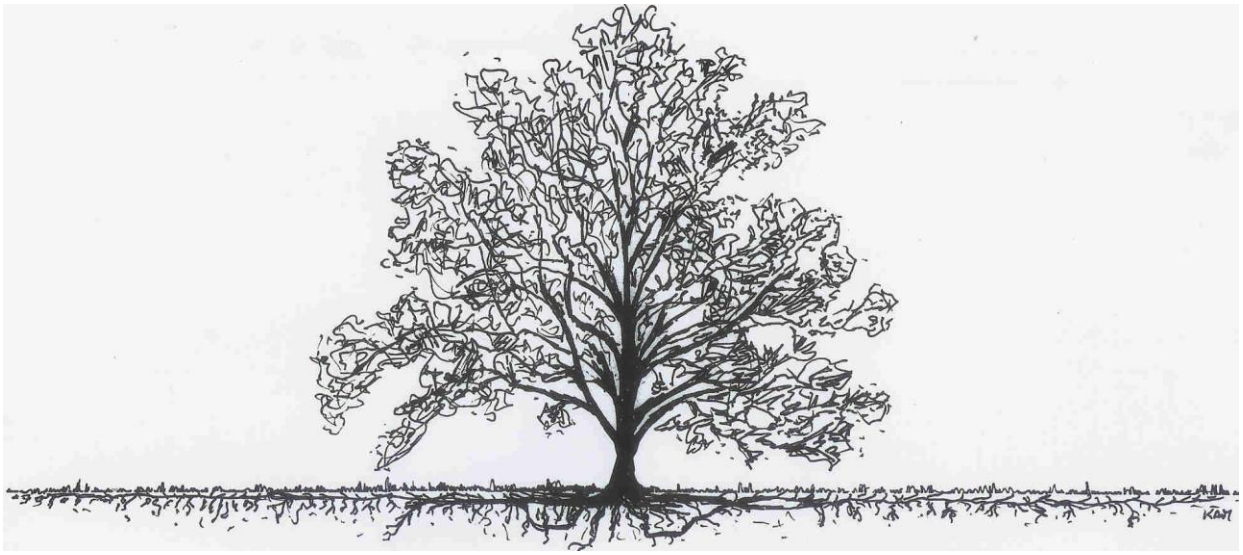
Root Structure

The majority of a tree's roots are contained in a radius from the main trunk outward approximately two to three times the canopy of the tree. These roots are located in the top 6" to 3' of soil. It is a common misconception that a tree underground resembles the canopy (see Drawing A below). The correct root structure of a tree is in Drawing B. All plants' roots need both water and air for survival. Surface roots are a common phenomenon with trees grown in compacted soil. Poor canopy development or canopy decline in mature trees is often the result of inadequate root space and/or soil compaction.



Drawing A

Common misconception of where tree roots are assumed to be located



Drawing B
The reality of where roots are generally located

Arborist Classifications

There are different types of Arborists:

Tree Removal and/or Pruning Companies. These companies may be licensed by the State of California to do business, but they do not necessarily know anything about trees;

Arborists: Arborist is a broad term. It is intended to mean someone with specialized knowledge of trees but is often used to imply knowledge that is not there.

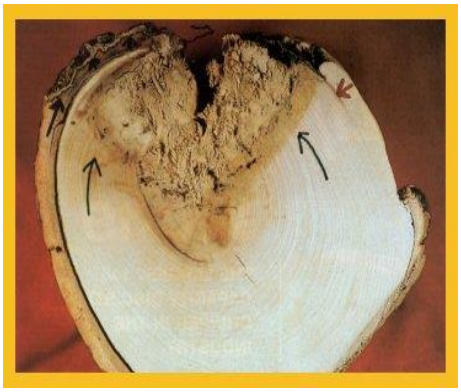
ISA Certified Arborist: An International Society of Arboriculture Certified Arborist is someone who has been trained and tested to have specialized knowledge of trees.

Consulting Arborist: An American Society of Consulting Arborists Registered Consulting Arborist is someone who has been trained and tested to have specialized knowledge of trees and trained and tested to provide high quality reports and documentation.

Decay in Trees

Decay (in General): Fungi cause all decay of living trees. Decay is considered a disease because cell walls are altered, wood strength is affected, and living sapwood cells may be killed. Fungi decay wood by secreting enzymes. Different types of fungi cause different types of decay through the secretion of different chemical enzymes. Some decays, such as white rot, cause less wood strength loss than others because they first attack the lignin (causes cell walls to thicken and reduces susceptibility to decay and pest damage) secondarily the cellulose (another structural component in a cell walls). Others, such as soft rot, attack the cellulose chain and cause substantial losses in wood strength even in the initial stages of decay. Brown rot causes wood to become brittle and fractures easily with tension. Identification of internal decay in a tree is difficult because visible evidence may not be present.

According to Evaluation of Hazard Trees in Urban Areas (Matheny, 1994) decay is a critical factor in the stability of the tree. As decay progresses in the trunk, the stem becomes a hollow tube or cylinder rather than a solid rod. This change is not readily apparent to the casual observer. Trees require only a small amount of bark and wood to transport water, minerals and sugars. Interior heartwood can be eliminated (or degraded) to a great degree without compromising the transport process. Therefore, trees can contain significant amounts of decay without showing decline symptoms in the crown.



Compartmentalization of decay in trees is a biological process in which the cellular tissue around wounds is changed to inhibit fungal growth and provide a barrier against the additional cells. The weakest formation of the vertical wall. be able to limit decay pruning cuts, in the event that pruning cut located vertically spread of decay agents into of the barrier zones is the Accordingly, while a tree may progression inward at large there are more than one along the main trunk of the tree, the likelihood of decay progression and the associated structural loss of integrity of the internal wood is high.

Oak Tree Impacts

Our native oak trees are easily damaged or killed by having the soil within the Critical Root Zone (CRZ) disturbed or compacted. All of the work initially performed around protected trees that will be saved should be done by people rather than by wheeled or track type tractors. Oaks are fragile giants that can take little change in soil grade, compaction, or warm season watering. Don't be fooled into believing that warm season watering has no adverse effects on native oaks. Decline and eventual death can take as long as 5-20 years with poor care and inappropriate watering. Oaks can live hundreds of years if treated properly during construction, as well as later with proper pruning, and the appropriate landscape/irrigation design.

Conclusion:

There are 63 trees that qualify as 'protected' according to the Placer County Code, Article 12.16, of which 23 will have impacts resulting in early demise or could be proposed for removal.

Protected Tree Status	Tree Count	Inches[4]
Trees to Remain on the Site	40	459
Trees with Impacts Causing Early Demise	23	429
Tree with Impacts to be Determined	14	176.50

Projected development impacts are based solely on distance relationships between tree location and grading and/or trenching. Field inspections and findings during the project at the time of grading and trenching can change relative impacts. Closely followed guidelines and restrictions

[4] Inches are DBH for single trunk trees and DBH added together for multi-stem trees

can result in a higher chance of survival, while restrictions that are overlooked can result in a dramatically lower chance of survival. **The final impact will be measured at project completion and reported by the project arborist in the 'Final Compliance Letter'.**

General Development Guidelines and Tree Preservation Plan

Development Guidelines

1 No wheeled equipment or pickup trucks shall be allowed on site until exclusionary tree fencing is installed and inspected by project arborist.

2 All of the trees to be removed or pruned shall be chipped onsite to the greatest degree possible. The chips are to be used under the trees that are to remain as mulch in the Protected Root Zone.

3 All of the trees to remain shall have mulch installed in the Protected Root Zone 4 - 6" deep prior to grading and/or grubbing. It is preferred this mulch is from the trees to be removed, however, other mulch may be used but it is required to be arborist type woodchips (4 – 6" deep), but not redwood or cedar bark. Redwood or Cedar bark mulch will not be accepted. If applied, it will be required to be removed and placed on top of the required arborist type mulch.

4 All trees to be saved shall have their root zones and trunk(s) protected with exclusionary fencing. Unless otherwise specified by the City or County, a four (4') foot high orange or yellow plastic, high visibility fence shall be installed surrounding the trees' root zone (defined by canopy radius), hereafter referred to as the Protected Root Zone. The fence shall be staked 10'o.c. maximum spacing, with 5' steel "T" posts, 2" x 2" square or 2"+ ∅ wood posts. The Protected Root Zone area shall extend out to the tree's longest dripline radius plus one foot, as a circle. See Arborist Report - Chart B for radius measurement for each individual tree. The fencing shall completely surround the trees' root zone and not be "U" shaped or open at any point. Whenever possible, include as many trees that are to be saved into one fenced exclusionary Protected Root Zone. The fencing shall be maintained and not moved or removed until the final arborist inspection at the completion of construction.

5 No material storage, people, portable outhouses, vehicles, or dogs shall be allowed in the Protected Root Zone.

6 Utility-trenching paths are to be placed outside the Protected Root Zone unless previously approved by project Arborist.

7 The cut and fill material excavated from or added to the lot can kill trees by removing too many roots, drying/wetting the soil, or by suffocating the roots with too much soil. If fill material is needed within 20' of the Protected Root Zone, properly designed aeration/ventilation systems made to protect the trees and allow for the fill material can be installed.

8 Limestone gravel shall not be used as base material or for drain rock as it will change the pH to be more alkaline, and may harm the trees.

9 Soil contamination shall be avoided by eliminating chemical dumping on the property that may infiltrate into the Protected Root Zone. **No**: washing, dumping, or contaminating the site including but not necessarily limited to the following: concrete from tools or trucks, paint materials, sheetrock mud or stucco materials, other chemicals, solvents, herbicides, etc.

10 Irrigation is required once per month for trees to remain within 30' of any grading activity during the months of May - November, unless 1" of rain has been recorded within the 2 week period of the required irrigation.

11 Irrigation is required as soon as the concrete is poured and footings and stem walls are backfilled. The protected trees within 30' should be watered to the point of soil saturation at a minimum depth of 12".

12 Do not nail, tie, screw, or fasten any signs, braces, etc. to the trees that are to remain.

13 Pruning is to be completed by a qualified ISA Certified Arborist or under the direct supervision of the project arborist. No cutting of live wood over 2”∅ shall be made. All cutting, pruning, trimming, cabling, guying, bracing, and lightning protection systems shall conform to the most current standards of the American National Standards Institute (ANSI). The current ANSI Tree Care Standards are A300 (Parts 1-4) 2000 to 2002 (copies at: www.ansi.org). The BMPs are “Best Management Practices”, as companion publications to the ANSI Tree Care Standards, printed by the International Society of Arboriculture (copies at: www.isa-arbor.com). The BMP booklets explain the details of the ANSI Tree Care Standards and how to follow them correctly. Pruning of branches under 3” in diameter should be made with sharp hand tools: pruners, loppers, and/or handsaws, not chainsaws.

Supporting Information

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ABACUS
CONSULTING ARBORISTS

Tree Location Map

3/9/2018

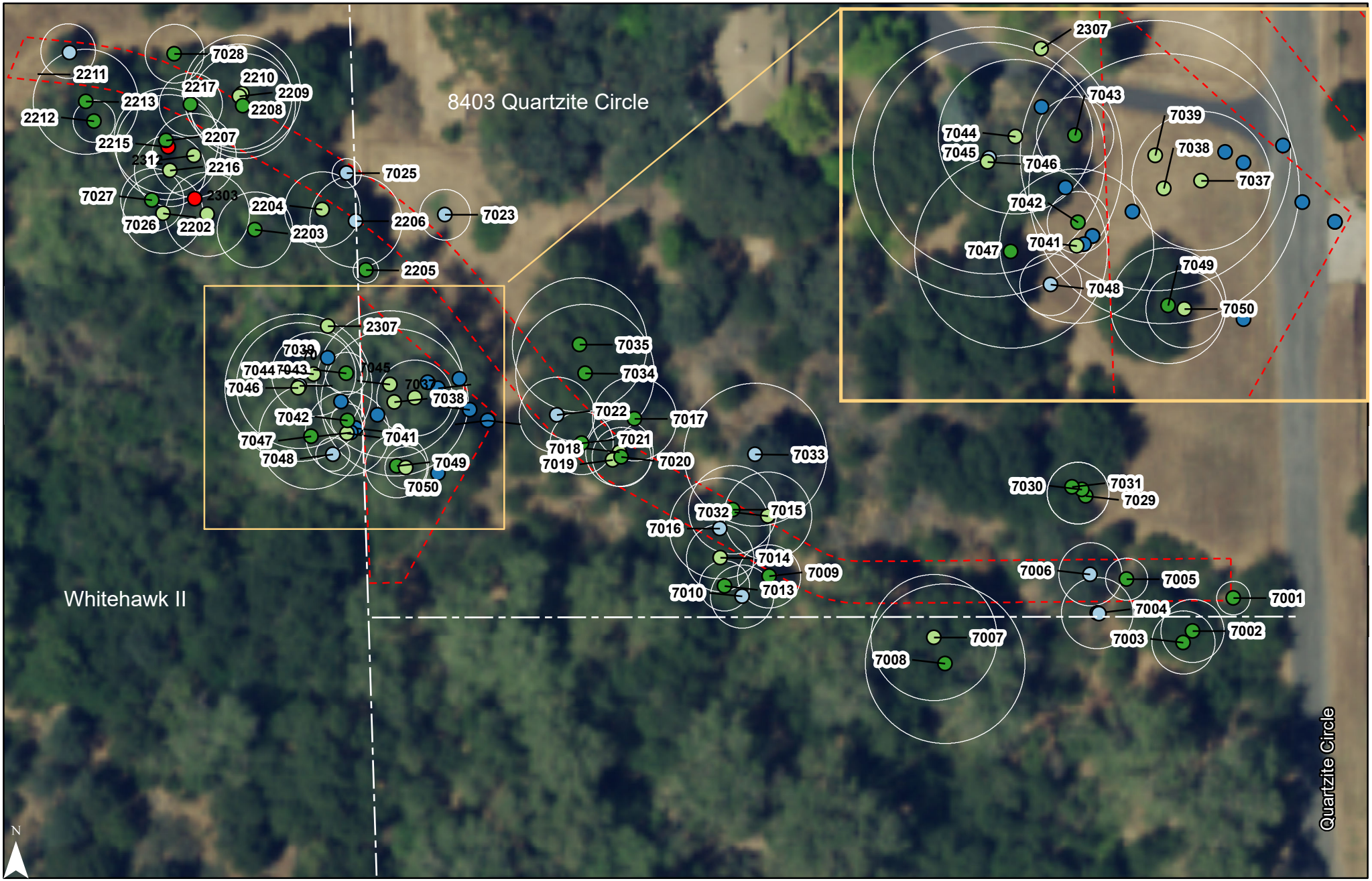
Whitehawk II

in

Placer County, California

Tree Rating

- 1 Extreme Structure or Health Problems
- 2 Major Structure or Health Problems
- 3 Fair - Minor Problems
- 4 Good - No Apparent Problems or 5 Excellent
- Not Protected due to size - < 6"
- Canopy
- Study_Area



Study area provided by Salix, Inc
2/15/2018

Please refer to the Arborist Report for additional information.
Tree locations are approximate.
Aerial NAIP (2016).

Glossary

Bow: A structural condition in the main trunk or structural limbs of the tree where there is a U shape and the canopy turns back toward the ground. Often a result of suppression.

Broadleaf Mistletoe infested tree. Broadleaf mistletoe, *Phoradendron villosum*, is an evergreen parasitic that grows on many hardwood trees and is spread most commonly by birds excreting the living seeds onto woody branches where they germinate. It is important to stop the spread by correctly removing the mistletoe plant by either pruning off the branch it lives on (if small enough) or by removing its light source and killing the parasite. Pruning: remove the branch at least 12" below the point of attachment to the next lateral using an approved thinning-type cut. Light exclusion: remove the mistletoe to flush with limb or trunk where it is attached and wrap the limb/trunk with 2-3 layers 6 mil polyethylene plastic 8" above and below the point of attachment. Tape it with a few wraps of electrical tape to keep all light out to kill the mistletoe, remove in 2-3 years.

Canker: A localized diseased area on stems, roots, or branches. Often shrunken, discolored, or causing splits or bark to slough.

Co-Dominant Leader: Stems or trunks of the tree that are equal in size and of the same relative importance. They may or may not have included bark.

Critical Root Zone: A circular area around a tree where damage to the roots will critically impact the health of the tree. It is often defined with a radius equal to a tree's largest dripline radius or dripline radius plus 1' (defined by the local jurisdiction's code). It can be adjusted by a qualified arborist to match the current condition of the tree. For example a tree in poor health will require a larger CRZ than a tree of the same size in good condition to not be critically impacted.

Epicormic Growth: Shoots that arise from latent buds along the trees trunk or mature branches. This growth is usually a sign that the tree has undergone a stressful period.

High Voltage Lines: High voltage lines are above or in close proximity to the tree. Generally noted due to the associated clearance pruning performed by the utility company and resulting wounds and/or poor structure.

Included Bark: A sharp "V" crotch, usually less than a 45° angle of attachment, between 2 branches where the bark is kept is continually turned inward, rather than being pushed out. It is a considered a structural fault and increases the likelihood of structural failure. The potential for hazard can be minimized with properly installed and maintained cabling, bolting or bracing, or regular reduction pruning.

Live Crown Ratio: Ratio of the height of the crown containing live foliage to the overall height of the tree.

Narrow Angle Attachment: A sharp "V" crotch, usually less than a 45° angle of attachment. Included bark is explained above and is common in branches with narrow attachments. In addition, these branches may not be attached to the trunk as well as others with wider angles of attachment, and can fail more frequently depending on the ratio of the size of the branch compared to the size of the parent branch.

Protected Root Zone: A circular area around a protected tree with a radius equal to a tree's largest dripline radius plus 1'.

Poor Structure: These trees have grown with structural imperfections that cannot be corrected and therefore render them hazardous and more likely to fail in the future.

Remove Dead Wood: All dead wood to be removed over 3" in diameter and if over 2" in diameter when above 25', as this is a potential hazard for people under these limbs and a future health problem for the tree.

Remove Hanger: There is a broken or cut branch that is hanging in the tree and needs to be removed.

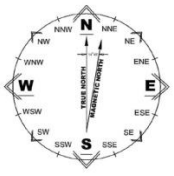
Taper: Change in diameter over the length of the trunk. These trees have grown tall but may not have the diameter strength to hold the weight of a large canopy and they are therefore more likely to fail in the future.

To Be Removed: Tree to be removed due to health and/or structural reasons. Removal should be done carefully as to not harm the surrounding trees, branches, and/or trunks above or roots below ground. Do NOT rip out or push over the tree stumps if they are near other trees that are to be preserved. Cut them off close to ground level and leave the stumps and roots to decay, unless they are located within a proposed foundation or area to be paved/concrete surfaced.

~: Tilde: This mark is used in the field in any empty box to indicate that there is no information to enter in that space.

Unbalanced Canopy: Either the trunk is leaning and/or the canopy is phototropic and overly heavy on one side.

Compass Points: These are the standard 16 points of the compass as aligned with Geographic North or True North. In our area, True North (TN) is adjusted for declination 14°49' to the west of Magnetic North (MN).

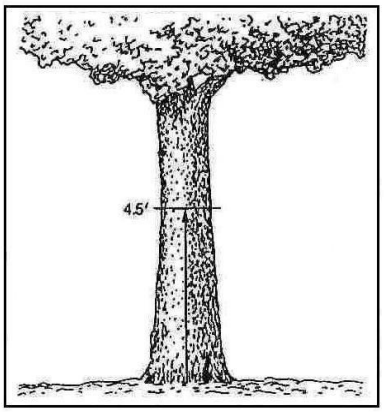


Tree Size Expressed by Trunk Diameter

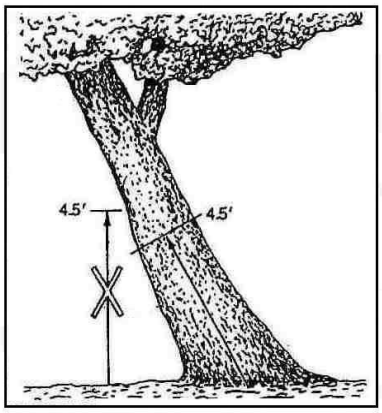
Tree SIZE Expressed by Trunk Diameter

"The height at which the trunk diameter of a tree is measured depends upon its size. The American Standard for Nursery Stock (ANSI, 1990) state that measurements shall be taken 6 inches (15 cm) above the ground for trunk diameters up to and including 4 inches (10 cm). Larger trees (assumed, but not stated, to be of transplantable size) are to be measured at 12 inches (30 cm). Trees normally considered too large to transplant are to be measured 4.5 feet [4'-6" is also called diameter breast high or dbh] (1.4 m) above the ground. Trees, like conifers, which have branches below 4.5 feet should be measured at a height that most effectively represents the size of the tree." The diameter is calculated by first measuring the circumference divided by 3.14 (π called pi) or by using a "diameter tape" whereon the inches are multiplied by π and shown to produce the diameter directly.

This is the dbh standard for measurement as shown in figure 4-2.



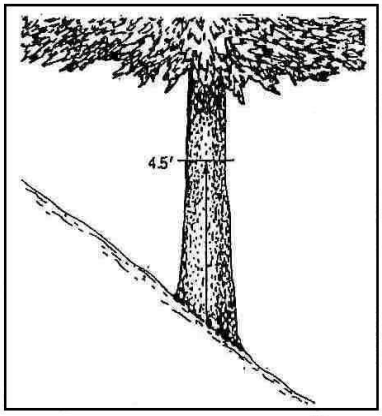
Figures 4-2. Trees with fairly straight, upright trunks with the lowest branch arising on the trunk higher than 6 feet (1.8 m) above the ground should be measured at 4.5 feet (1.4 m).

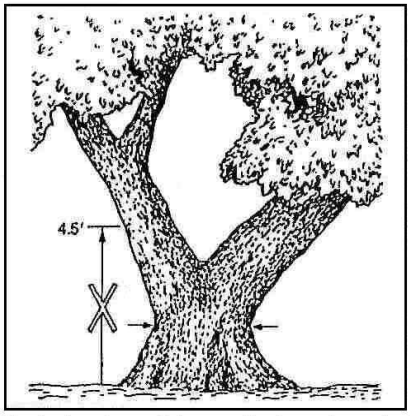


Figures 4-3 (top) and 4-4 (bottom). In each case, the trunk circumference should be measured at right angles to the trunk 4.5 feet (1.4 cm) along the center of the trunk axis so the height is the average of the s hortest and longest sides of the trunk.

There are some exceptions to the dbh standard as shown in the figures 4-3, 4-4, 4-5 & 4-6.

Figure 4-6. In a multi-stem tree, measure the trunk circumference of each trunk at 4.5 feet (1.4 m) above the ground. The area of each trunk is determined and then added together to obtain a trunk area that is representative of the size of the tree and each of the stems contribute its proportionate share to the canopy.





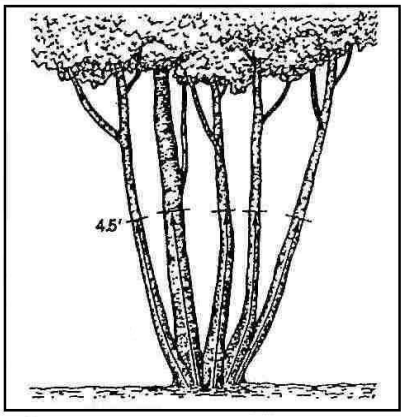


Figure 4-5. When low branches preclude measuring the trunk at 4.5 feet (1.4 m) measure the smallest circumference below the smallest branch. In this example, an alternative would be to determine the sum of the cross-sectional areas of the two stems measured about 12 inches (30 cm) above the crotch; then average the sum of the two branch areas and the smallest cross-sectional area below the branches. This may give a better estimate of tree size. Record the height of measurement(s) and the reasons the height or those heights were chosen.

ABACUS

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Tree SIZE Expressed by Trunk Diameter	
Scale: NTS	Drawing: TSE

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Disclosure, Assumptions and Disclaimer

1) I, Nicole Harrison, *ISA Certified Arborist WE-6500AM,* with "**ABACUS**", did personally inspect the site and investigated the tree(s) as mentioned in this report and I performed all aspects of this report unless noted otherwise in the report.

2) We have neither financial interest in the tree work that may or may not be done, nor financial interest in the property where the tree(s) is (are) located unless noted within the report.

3) All opinions and recommendations expressed herein this report are ours solely. We have used our specialized education, knowledge, training and experience to examine the tree(s) and to make our opinions and recommendations to enhance the beauty, health and longevity, with an attempt to reduce the risk of who and/or what is near these trees. We cannot guarantee or warranty that a tree will not be healthy or safe under all circumstances, nor for a specific period of time or that problems may not arise in the future.

4) Our report with its opinions and recommendations are limited to the tree(s) inspected.

5) We attempt to be cognizant of the whole scope of a project, but many matters are beyond the scope of our professional consulting arborist services such as: exact property boundaries, property ownership, site lines, easements, codes, covenants & restrictions (CC&Rs), disputed between neighbors, and other issues.

6) We rely on the information disclosed to us and assume the information to be complete, true, and accurate.

7) The inspection is limited to visual examination of accessible items of the tree(s), from the ground unless otherwise noted, without excavation, probing, boring, or dissection, unless noted otherwise. Only information covered in this report was examined, and reflects the condition of those inspected items at that specific time.

8) Clients may choose to accept or disregard these opinions and recommendations of the arborist or to seek additional advice.

9) This report is copyrighted. Any modification or partial use shall nullify the whole report. Do not copy without written permission. This report is for the client and the client's assignees.

10) Sketches, diagrams, graphs, drawings, and photographs within this report are intended as visual aids and are not necessarily to scale, and should not be construed as engineering or architectural detail, reports or surveys.

11) We shall not attend or give a deposition and/or attend court by reason of this report unless fees are contracted for in advance, according to our standard fee schedule, adjusted yearly, for such services as described.

Signed: