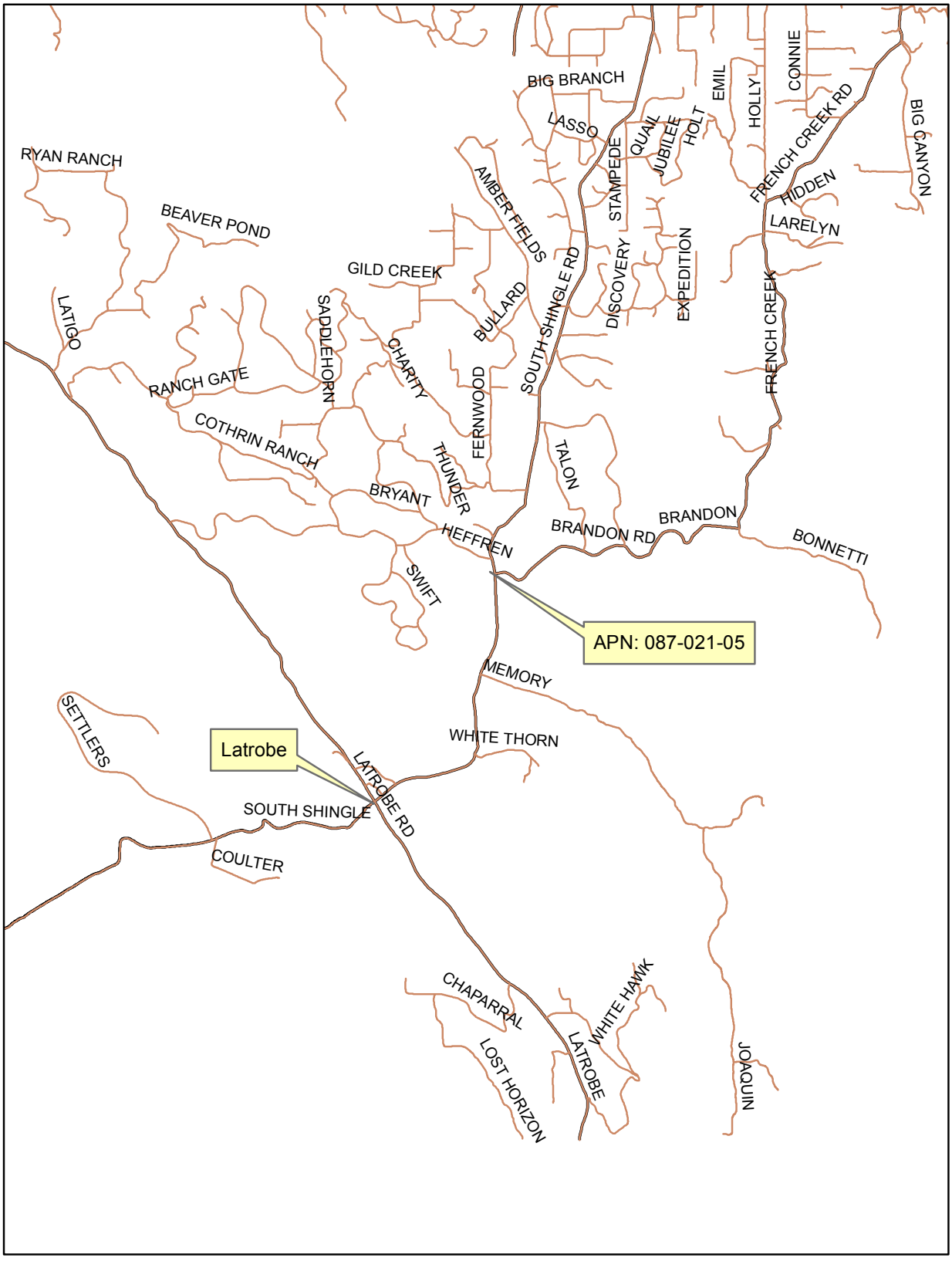


P16-0001 & Z16-0001
Hansen Parcel Map & Rezone
Location Map
Exhibit A

N

0 0.5 1 2 Miles

SECS. 1, 2, 3, 10, 11, & 12, T.8N., R.9E., M.D.M.

87:02

1 " = 1,200 '

*Parcel Notes

(1) - PM 46/108/1, 10.24 A

(2) - PM 46/108/2, 10.01 A

(3) - PM 46/108/3, 10.02 A

(4) - PM 46/108/4, 10.02 A

(67) - PM 50/11/R, 3.530 A, NA

THIS MAP IS NOT A SURVEY, it is prepared by the El Dorado Co. Assessor's office for assessment purposes only. Area calculations and characteristics are not guaranteed. Users should verify items such as dimensions and acreage.

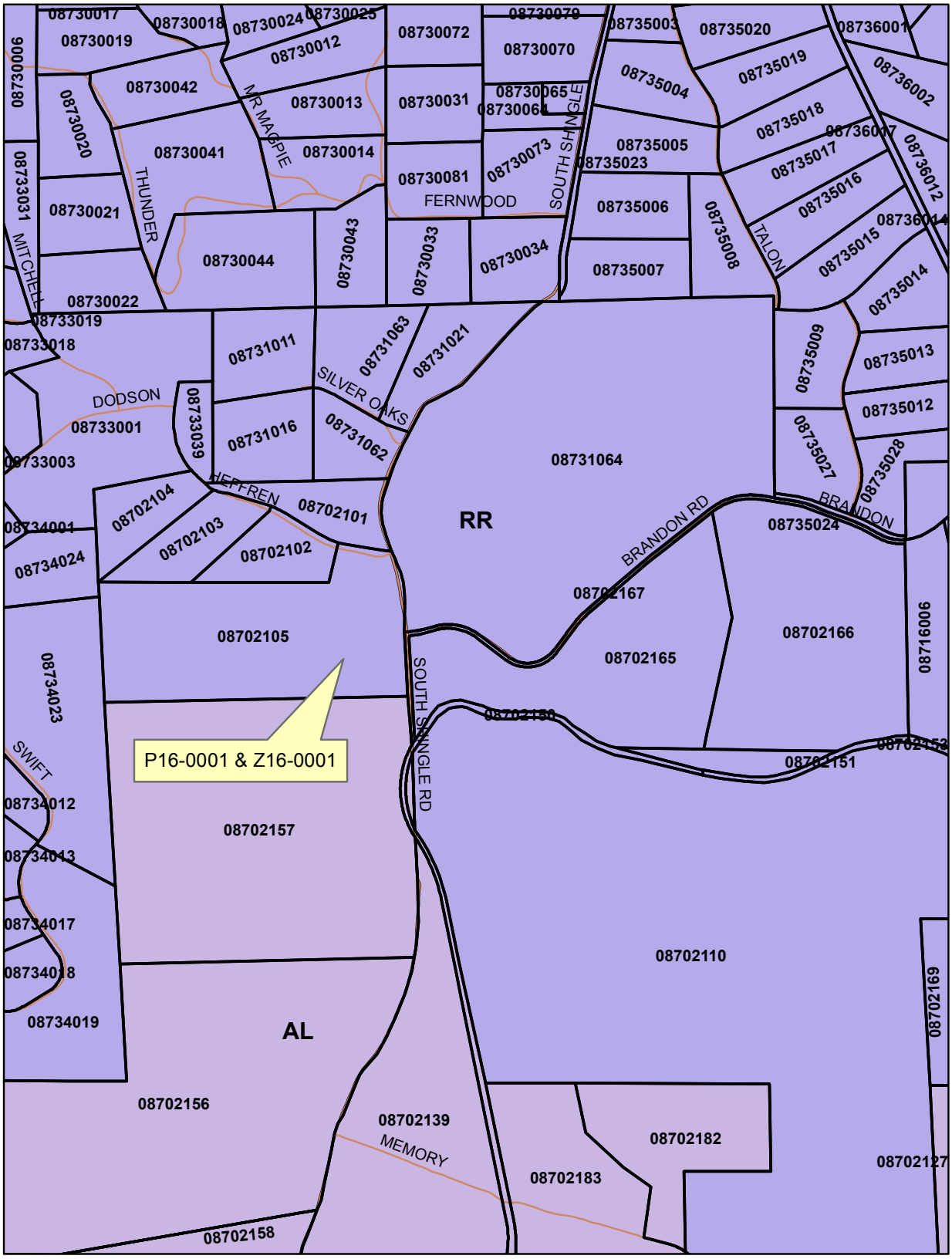
Acreages Are Estimates

Adjacent Map Pages Shown in Grey Text
Assessor's Block Numbers Shown in Ellipses
Assessor's Parcel Numbers Shown in Circles

Exhibit B

Rev. JUL 11, 2014

Assessor's Map Bk. 087, Pg. 02
County of El Dorado, CA



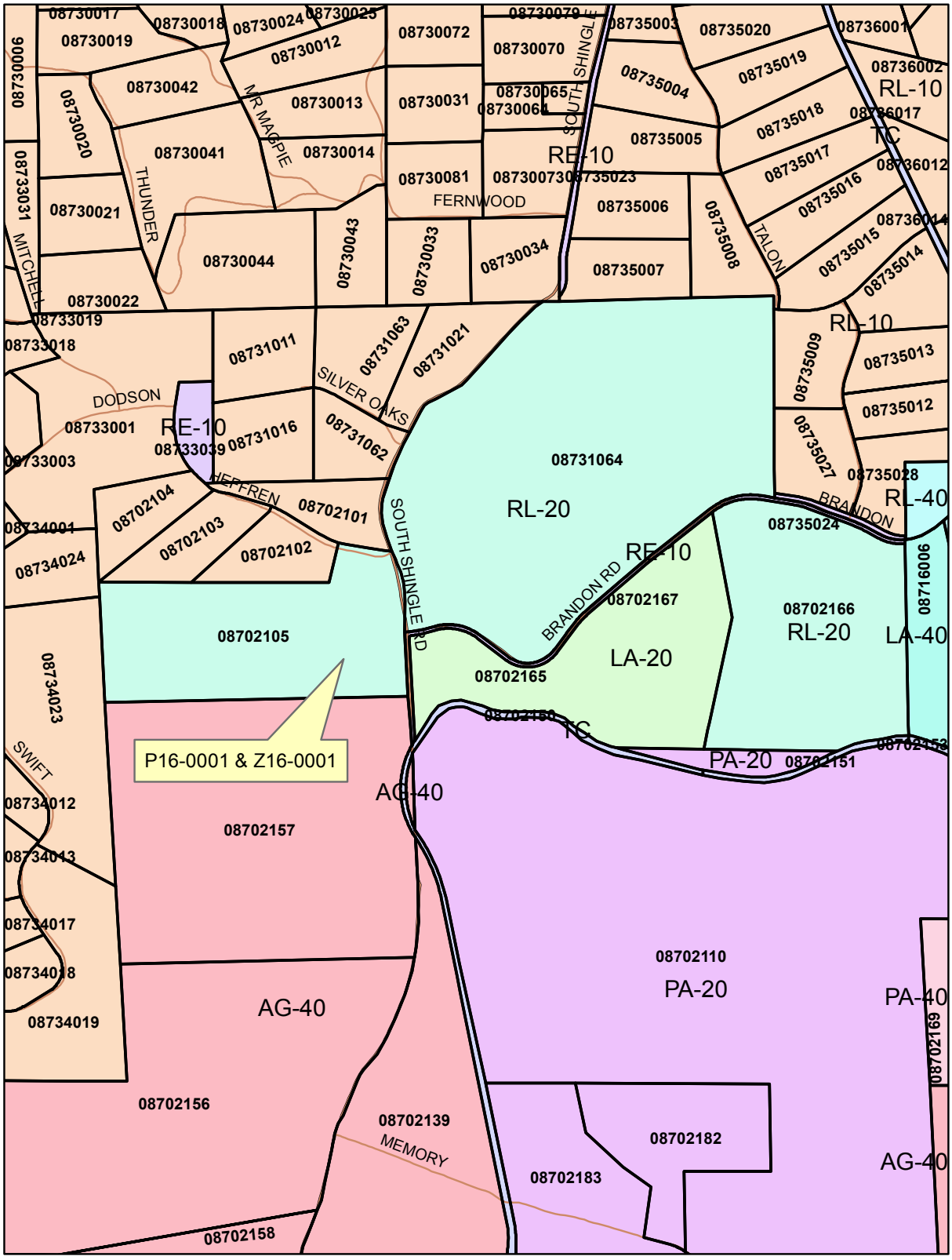
AL

RR

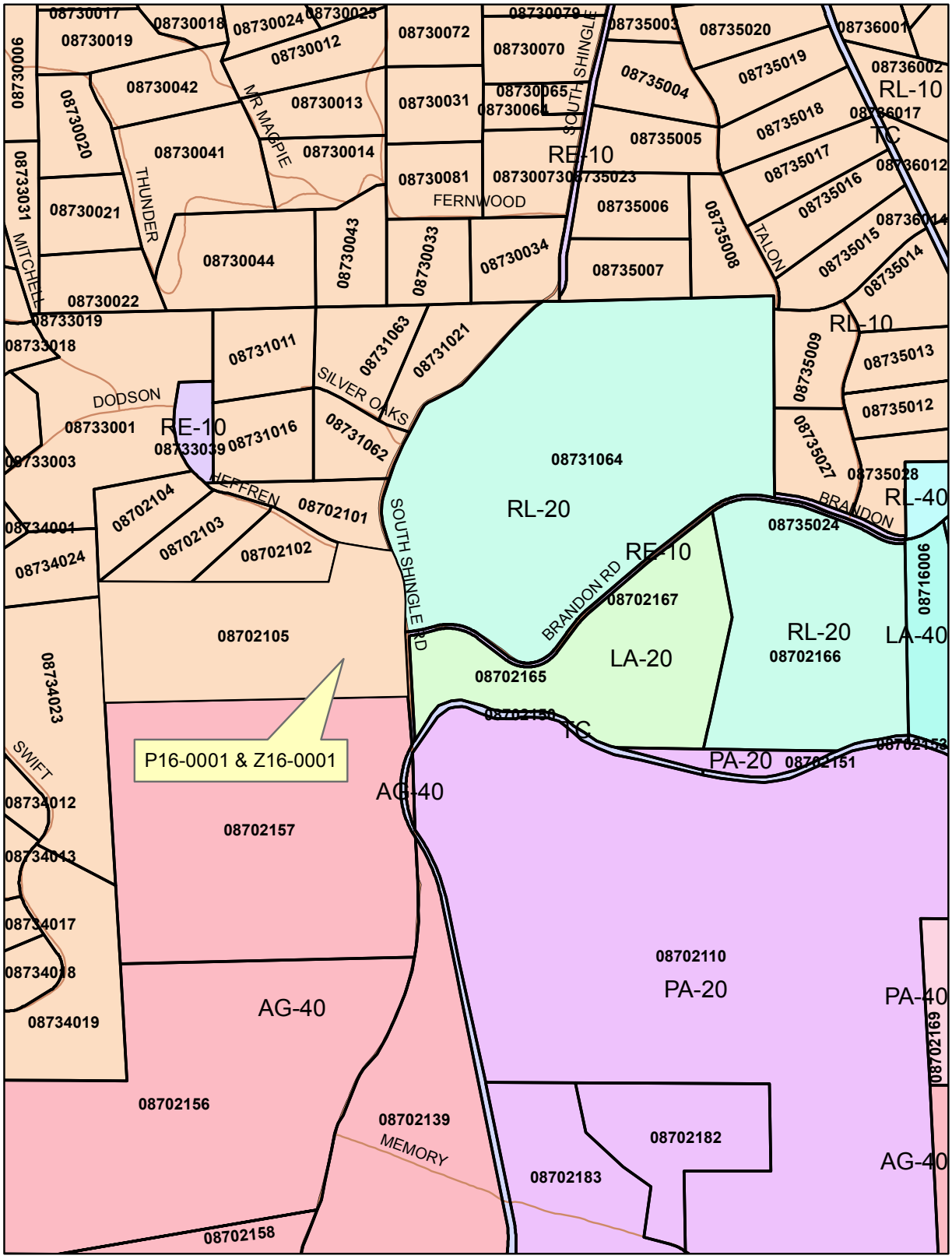
P16-0001 & Z16-0001
Hansen Parcel Map & Rezone
General Plan Land Use Map
Exhibit C

N

0 0.075 0.15 0.3 Miles



P16-0001 & Z16-0001
Hansen Parcel Map & Rezone
Zoning Map
Exhibit D



AG-40
LA-20
LA-40
PA-20
PA-40
RE-10
RL-10
RL-20
RL-40
TC

P16-0001 & Z16-0001
Hansen Parcel Map & Rezone
Proposed Zoning Map
Exhibit E

N

0 0.075 0.15 0.3 Miles

TENTATIVE PARCEL MAP

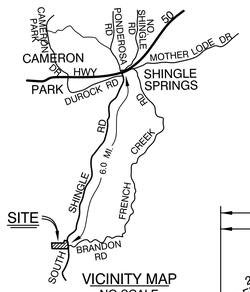
PORTIONS OF THE NW 1/4 OF SECTION 2 AND THE NE 1/4 OF SECTION 3, T. 8 N., R. 9 E., M.D.M., BEING TRACT 2 OF R.S. 19-26

⚠ PROPOSED DESIGN WAIVERS

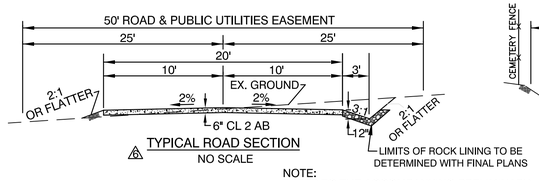
1) PARCELS 1 & 2 - LENGTH TO DEPTH RATIO GREATER THAN 3:1
2) ALLOW TANGENT LENGTHS BETWEEN REVERSING CURVES OF 200' OR GREATER IN RADIUS TO NO LESS THAN 40 FEET.

REVISIONS

⚠1 DELETED PREVIOUS NOTE 2 REDUCING THE STEM LEG WIDTH OF THE TURNAROUNDTO 12 FEET.
⚠2 REVISED AGRICULTURAL SETBACK TO 200'.
⚠3 BRYANT CEMETERY NOTED AS PARCEL B AND TO BE OFFERED TO THE COUNTY.
⚠4 ADDED 30' BUFFER ZONE ADJOINING CEMETERY
⚠5 ADDED DRAINAGE SETBACK
⚠6 AB ROAD WIDTH REVISED TO 20 FEET & GRADED SHOULDERS DELETED.
⚠7 REVISED STEM LEG OF TURNOUT TO 20' WIDTH.
⚠8 ADDED TYPICAL SECTION REFLECTING EXISTING IMPROVEMENTS ON HEFFREN DRIVE

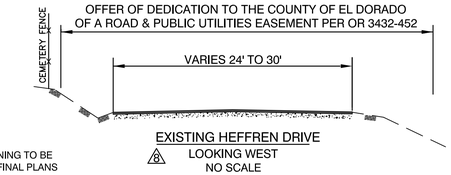


VICINITY MAP
NO SCALE

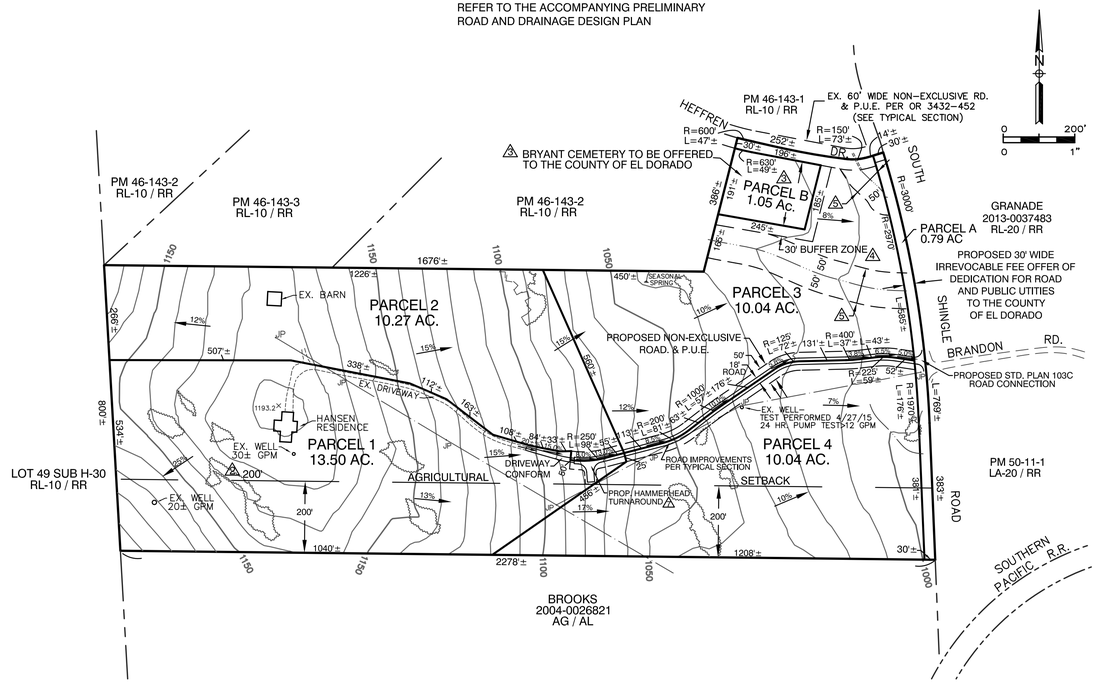


⚠6 TYPICAL ROAD SECTION
NO SCALE

NOTE:
REFER TO THE ACCOMPANYING PRELIMINARY ROAD AND DRAINAGE DESIGN PLAN



EXISTING HEFFREN DRIVE
⚠8 LOOKING WEST
NO SCALE



INFORMATION TABLE

APPLICANT/OWNER:	ALLEN J. HANSEN 6740 SO. SHINGLE ROAD SHINGLE SPRINGS, CA 95682
PREPARED BY:	KEN W. PURCELL, CIVIL ENGINEER P.O. BOX 30, EL DORADO, CA 95623 (530) 622-5470
SCALE:	1"=200'
CONTOUR INTERVAL:	10 FEET
SOURCE OF TOPOGRAPHY:	FIELD INSTRUMENT SURVEY
SECTION, TNSHP & RNG:	SECTIONS 2 & 3, T.8 N., R.9 E., M.D.M
ASSESSORS PARCEL NO.:	087-021-05
PRESENT ZONING:	RL-20
PROPOSED ZONING:	RL-10
CURRENT GENERAL PLAN:	RR
AREA:	45.69 ACRES
PROPOSED NUMBER/SIZE OF PARCELS:	FOUR (4) / 10 ACRE MINIMUM
DOMESTIC WATER:	INDIVIDUAL WELLS
SEWAGE DISPOSAL:	INDIVIDUAL SEPTIC
FIRE PROTECTION:	LATROBE FIRE PROTECTION DISTRICT
DATE:	REVISED 5/10/16

LEGEND

EXISTING	PROPOSED	
		BOUNDARY LINE
		PARCEL LINE
		10 FT. ELEV. CONTOUR LINE
1150		50 FT. ELEV. CONTOUR LINE
15%		SLOPE
JP		UTILITY LINE & POLE
		ROCK OUTCROPPING
		INTERMITTENT DRAINAGEWAY
RI-10 / RR		ZONING / LAND USE DESIGNATION
CL		CENTERLINE
PUE		PUBLIC UTILITIES EASEMENT

ZONING ADMINISTRATOR: _____
APPROVAL / DENIAL DATE: _____

PLANNING COMMISSION: _____
APPROVAL / DENIAL DATE: _____

BOARD OF SUPERVISORS: _____
APPROVAL / DENIAL DATE: _____

13-17 Tentative Map R1.dwg

Exhibit F

KEN W. PURCELL
CIVIL ENGINEER
CALIF. REG. NO. R.C.E. 20329
P. O. BOX 30
EL DORADO, CA. 95623
PhFax (530) 622-5470

May 12, 2016

El Dorado County Planning
2850 Fairlane Court
Placerville, CA 95667

Subject: Revised Request for Design Waivers
APN 087-021-05 P16-0001 Hansen RevisedTentative Parcel Map

Ladies and Gentlemen,

The following Design Waivers, including the justification, are hereby requested:

1) Proposed Parcels 1 & 2- Lot Depth To Width Greater Than 3:1 Ratio

It is requested the standard at 3:1 lot depth to width ratio be waived for proposed Parcels 1 and 2.

Proposed Configurations:

Parcel 1-
Based on the proposed frontage at the hammerhead (153 ft.) and the rear dimension being considered by the west line dimension (534 ft.) the lot depth to width ratio is approximately 3.8 to 1

Parcel 2-
Based on the proposed frontage at the hammerhead (153 ft.) and the rear dimension is being considered by the west line dimension (266 ft.) the lot depth to width ratio is approximately 6.4 to 1

Justification:

1) These parcels are not unlike those that are configured off of a cul-de-sac, where the frontage is restricted due to being at a terminus of a road. The result is a narrow frontage and frequently a considerably deeper length from front to back. There also may be some question, in this case, what would be considered the back of these parcels or that the width should be based on some kind of an average, The use of the hammerhead would appear to indicate that the south line of Parcel 1 and the north line of Parcel 2 could be considered the rear of these 2 parcels in the calculation. In such case the ratios would be within the standard ratio.

2) The hammerhead turnaround requires a maximum grade of 8% in an area where the existing grade of the ground and driveway is 15%. Thus, as the accompanying Preliminary Road Design Plan indicates, the turnaround can not be located any further west (uphill) due to increased grading and grade considerations necessary to improve the ratios.

3) The location of the existing driveway and improvements, beyond (west) of the hammerhead, which serves proposed Parcel 1, effects the overall configuration of these 2 parcels

Exhibit G

Hansen Tentative Parcel Map
Revised Request for Design Waivers and Variance
5/12/16

2) Allow Road Tangent Lengths of no Less than 40 feet between Reversing Curves having a minimum 200-foot Radius

The County Design and Improvement Standard Manual (Pg. 24-Vol 2, Sec 3, B, 7) provides for a determination to allow a tangent length between reversing curves having a minimum radius of 200 feet.

Justification:

The parcel map road is proposed to serve only 4 parcels. The road geometrics were designed to minimize cuts and fills and closely follow the existing driveway in order to minimize its impact. And the change in direction through the curves (central angle/delta) are small and, thus, do not require a longer tangent in order to adjust driving direction.

Respectfully submitted,

Ken W. Purcell, P,E.

COUNTY OF EL DORADO

AGRICULTURAL COMMISSION

311 Fair Lane
Placerville, CA 95667
(530) 621-5520
(530) 626-4756 FAX
eldcag@edcgov.us

Exhibit H

MEMORANDUM

DATE: February 9, 2017

TO: Development Services/Planning

FROM: Greg Boeger Chair

SUBJECT: Hansen Tentative Parcel Map
Project File No. P16-0001/Z16-0001

During the Agricultural Commission's regularly scheduled meeting held on February 8, 2017 a request to review the new Tentative Parcel Map and Zone Change for a 45.69 acre parcel, APN 087-021-05. The zone change request would change the parcel's zoning designation from Rural Lands 20-Acres (RL-20) to Rural Lands 10-Acres (RL-10). The tentative parcel map proposes that the property be split into four parcels of 13.5 acres, 10.27 acres, 10.04 acres and 10.04 acres.

Planning Request and Project Description:
Planning Services is processing the attached application for a new Tentative Parcel Map and Zone Change and requests the project be placed on the Agricultural Commission's Agenda. The applicants are requesting the following:
P16-0001/Z16-0001 is based on the following project description: Tentative Parcel Map and Zone Change for a 45.69 acre parcel, APN 087-021-05. The zone change request would change the parcel's zoning designation from Rural Lands 20-Acres (RL-20) to Rural Lands 10-Acres (RL-10). The tentative parcel map proposes that the property be split into four parcels of 13.5 acres, 10.27 acres, 10.04 acres and 10.04 acres. The project site is located on the west side of South Shingle Springs Road west of the intersection with Brandon Road in the Shingle Springs Area. (District 2)

Relevant Policies:
General Plan Policy 8.1.4.1 - The County Agricultural Commission shall review all discretionary development applications and the location of proposed public facilities involving land zoned for or designated agriculture, or lands adjacent to such lands and shall make recommendations to the reviewing authority. Before granting approval, a determination shall be made by the approving authority that the proposed use:

A. Will not intensify existing conflicts or add new conflicts between adjacent residential areas and agricultural activities; and
B. Will not create an island effect wherein agricultural lands located between the project site and other non-agricultural lands will be negatively affected; and
C. Will not significantly reduce or destroy the buffering effect of existing large parcel sizes adjacent to agricultural lands.

General Plan Policy 8.1.3.1 - Agriculturally zoned lands including Williamson Act Contract properties shall be buffered from increases in density on adjacent lands by requiring a minimum of 10 acres for any parcel created adjacent to such lands. Parcels used to buffer agriculturally zoned lands should have a similar width to length ratio of other parcels when feasible.

Rural Residential (RR): This land use designation establishes areas for residential and agricultural development. These lands will typically have limited infrastructure and public services and will remain for the most part in their natural state. This category is appropriate for lands that are characterized by steeper topography, high fire hazards, and limited or substandard access as well as "choice" agricultural soils. The RR designation shall be used as a transition between LDR and the Natural Resource (NR) designation. Clustering of residential units under allowable densities is encouraged as a means of preserving large areas in their natural state or for agricultural production. Typical uses include single family residences, agricultural support structures, a full range of agricultural production uses, recreation, and mineral development activities. The allowable density for this designation is one dwelling unit per 10 to 160 acres. This designation is considered appropriate only in the Rural Regions.

Parcel Description:

- Parcel Number and Acreage: 087-021-05, 45.69 acres
- Agricultural District: No
- Land Use Designation: RR – Rural Residential
- Zoning: RL-20 – Rural Land 20 Acres
- Soil Type:
    - No Choice Soils

Discussion:

A site visit was conducted on January 18, 2017 to review the tentative subdivision map in relation to the AG-40 (Agricultural Grazing – 40 Acre) zoned land to the south and LA-20 (Limited Agriculture – 20 Acres) zoned land to the east. The AG-40 zoned parcel to the south has a General Plan Land Use Designation of AL (Agricultural Lands).

Parcels to the north of the subject parcel already are consistent in size and zoning with the applicants requested subdivision map and rezone. The minimum requested parcel size of approximately 10 acres is consistent with General Plan Policy 8.1.3.1.

Staff Recommendation:
Staff recommends that the Agricultural Commission find that the request for a rezone and tentative map application for an 4-lot rural tentative subdivision map in the Latrobe area, on the parcel identified by Assessor's Parcel Number 087-021-05 does not conflict

with General Plan Policy 8.1.4.1 and General Plan 8.1.3.1.

Chair Boeger addressed the public for comment; several neighbors addressed the board regarding water availability and did not support the splitting of the property. Chair Boeger reminded the speakers that the intent of the Agriculture Commission is to address "Ag issues". The applicant Mr. Hansen had his representative Ken Purciel address the board and was available for questions. Mel Pabalinas and Evan Mattes were available from Planning for questions and comments. ***(Complete audio of the discussion will be available on Legistar after approval of the minutes of 2/8/17).***

It was moved by Mr. Neilsen and seconded by Mr. Bacchi to deny approval due to conflict with General Plan Policy 8.1.4.1 as the following criteria could not be met: a. Will not intensify existing conflicts or add new conflicts between adjacent residential areas and agricultural activities; and c. Will not significantly reduce or destroy the buffering effect of existing large parcel sizes adjacent to agricultural lands. The Commission stated the property should remain in the current zoning of RL20 acres as anything less would intensify existing conflicts between adjacent residential areas and agricultural activities.

Motion passed
AYES: Bacchi, Bolster, Draper, Mansfield, Neilsen
NOES: Walker, Boeger
ABSENT: None

Biological Resources Report

including

Special-Status Species Survey

and

Oak Tree Survey, Preservation and Replacement Plan

for

Assessor' Parcel Number 087-021-05

Latrobe, El Dorado County, CA

Prepared by
Ruth A. Willson
Site Consulting, Inc.
Biological Services
3460 Angel Lane
Placerville, California 95667
(530) 622-7014

Prepared for
Allen J. Hansen
(530) 677-0670

June 2015

Exhibit I

Table of Contents

Table of Contents, continued

Table of Figures, Tables and Appendices

Figures

Tables

Appendices

I. Report Summary

A. Special-Status Species

1. Federal and State-Listed Species

No listed species were found on the project site, and no potential habitat was found for any such species.

2. Species of Concern

Potential habitat was found for twenty-three species of concern (Table 1).

Table 1. Species of concern having potential habitat on the project site.

Species of Concern	Common Name	Habitat Quality	Species Found On Site?
Cosumnoperia hypocrena	Cosumnes stripetail stonefly	Marginal	No
*Hydrochara ricksecker*i	Ricksecker's water scavenger beetle	Suitable	No
Phrynosoma blainvillii	Coast horned lizard	Marginal	No
Accipiter cooperii	Cooper's hawk	Suitable	No
Ammodramus savannarum	Grasshopper sparrow	Marginal	No
Aquila chrysaetos	Golden eagle	Suitable	No
Athene cunicularia	Western burrowing owl	Suitable	No
Baeolophus inornatus	Oak titmouse	Suitable	Yes
Buteo lagopus	Rough-legged hawk	Marginal	No
Chondestes grammacus	Lark sparrow	Suitable	No
Falco columbarius	Merlin	Suitable	No
Lanius ludovicianus	Loggerhead shrike	Suitable	No
Picoides nuttallii	Nuttall's woodpecker	Marginal	No
Progne subis	Purple martin	Marginal	No
Spinus lawrencei	Lawrence's goldfinch	Suitable	No
Spizella passerina	Chipping sparrow	Suitable	No
Antrozous pallidus	Pallid bat	Marginal	No
Lasionycteris noctivagans	Silver-haired bat	Suitable	No
Myotis yumanensis	Yuma myotis bat	Marginal	No
Balsamorhiza macrolepis macrolepis	Big-scale balsamroot	Suitable	No
Clarkia biloba ssp. *brandegeeae*	Brandegee's clarkia	Marginal	No
Downingia pusilla	Dwarf downingia	Suitable	No
Sagittaria sanfordii	Sanford's arrowhead	Suitable	No

2. Mitigation

a. Invertebrates

Potential habitat for invertebrate species of concern would be protected by normal set-backs from ephemeral and intermittent waters.

b. Reptiles

No mitigation is required for marginal potential habitat for Coast horned lizard.

c. Birds

Pre-construction surveys for nesting birds, conducted no more that 30 days prior to construction activities, is recommended if construction is scheduled during the normal nesting season (March 1-August 31). If raptor nests are found on or immediately adjacent to the site, consultation with the California Department of Fish and Wildlife (CDFW) must be initiated to determine appropriate avoidance measures. If nesting migratory birds are found, a 50-foot buffer around the nest is recommended.

As a conservation recommendation (not mitigation), preservation of two or three oak snags per acre would provide nesting habitat for oak titmouse and Nuttall's woodpecker, which are species of concern having potential habitat on the project site.

d. Mammals

As a conservation recommendation (not mitigation), preservation of two or three oak snags per acre would provide roosting habitat for pallid bat, silver-haired bat and Yuma myotis, which are species of concern.

e. Plants

No special-status plant species were found on the project site; thus, no mitigation is required. Normal set-backs from ephemeral and intermittent waters would preserve potential habitat for aquatic plant species of concern.

B. Oak Canopy

Oak woodland canopy coverage is 17.8% on the 45.69-acre project site, which requires 90% canopy retention. Oak canopy retention will be 97.85% for the project.

1. Existing Oak Canopy

Parcel 1, with 9% oak canopy (90% retention required), will retain 100% of its oaks; Parcel 2, with 13% oak canopy (90% retention required), will retain 100% of its oaks; Parcel 3, having 30% oak canopy (85% retention required), will retain 99.5% of its oaks; and Parcel 4, having 22% oak canopy (85% retention required), will retain 92.9% of its oak canopy.

2. Mitigation

According to current El Dorado County standards, oak canopy removal must be mitigated by replanting oaks at a 1:1 ratio of area of canopy removed to area revegetated. Using the standard of 200 saplings or 600 acorns planted per acre, the mitigation for proposed oak removal on Parcel 3 is 4 saplings or 10 acorns planted on 0.0166 acre, and for Parcel 4, 32 saplings or 95 acorns on 0.158 acres.

II. Introduction

A. Purpose of Report

A biological resources study was conducted on the project site, Assessor's Parcel Number 087-021-05 (Figure 1), in order to determine the suitability of its habitat to support state- or federal-listed special-status wildlife and plant species, and to evaluate oak woodlands found on-site.

The project would remove oak canopy for road construction and widening, three dwellings and septic systems. The report will enumerate the existing oak canopy and identify oaks proposed for removal. Oak tree preservation and replacement recommendations will be outlined.

B. Project Location and Description

The project site, 45.69 acres in size, is located at 6740 South Shingle Road, Latrobe, being in the northeast quarter of Section 3 and the northwest quarter of Section 2, Township 8 North, Range 9 East, M.D.M. (Figure 2). The proposed project would subdivide the parcel into four single-family residential lots, varying in size from 10.1 to 13.4 acres (Figure 3).

The Hansen property has a current General Plan designation of RR with AE zoning. Parcels of land north and west of the project site, varying in size from 9.75 to 35.3 acres, have General Plan designations of RR with RE-10 zoning; the parcel to the south, 105 acres, has a General Plan designation of AL with AE zoning; and the parcels to the east, 46.3 to 134 acres in size, have a General Plan designation of RR with AE zoning.

An existing single-family residence is found on proposed Parcel 1, along with small out-buildings. An existing barn and corrals are located on Parcel 2, and the Bryant Cemetery, established in 1848, covers about one acre on Parcel 3. The Hansen property is otherwise developed with livestock fencing and water troughs, and is utilized as cattle pasture.

C. Property Owner and Project Manager

Property Owner
Allen J. Hansen
P.O. Box 2163
Shingle Springs, CA 95682-2163
Phone: (530) 677-0670

Project Engineer
Ken Purcell, Civil Engineer
5816 Havenstar Ln.
El Dorado, CA 95623
Phone: (530) 622-5470

D. Report Preparer

Ruth A. Willson, M.A., Biology, California State University, Fresno, has been preparing biological reports in El Dorado County since 1992. Her educational and experiential background includes proficiency in botany, entomology, ornithology, wildlife biology and ecology. She completed training in wetland delineation with Wetland Training Institute March 31, 2006, and is an ISA Certified Arborist, No. WE-8335A.

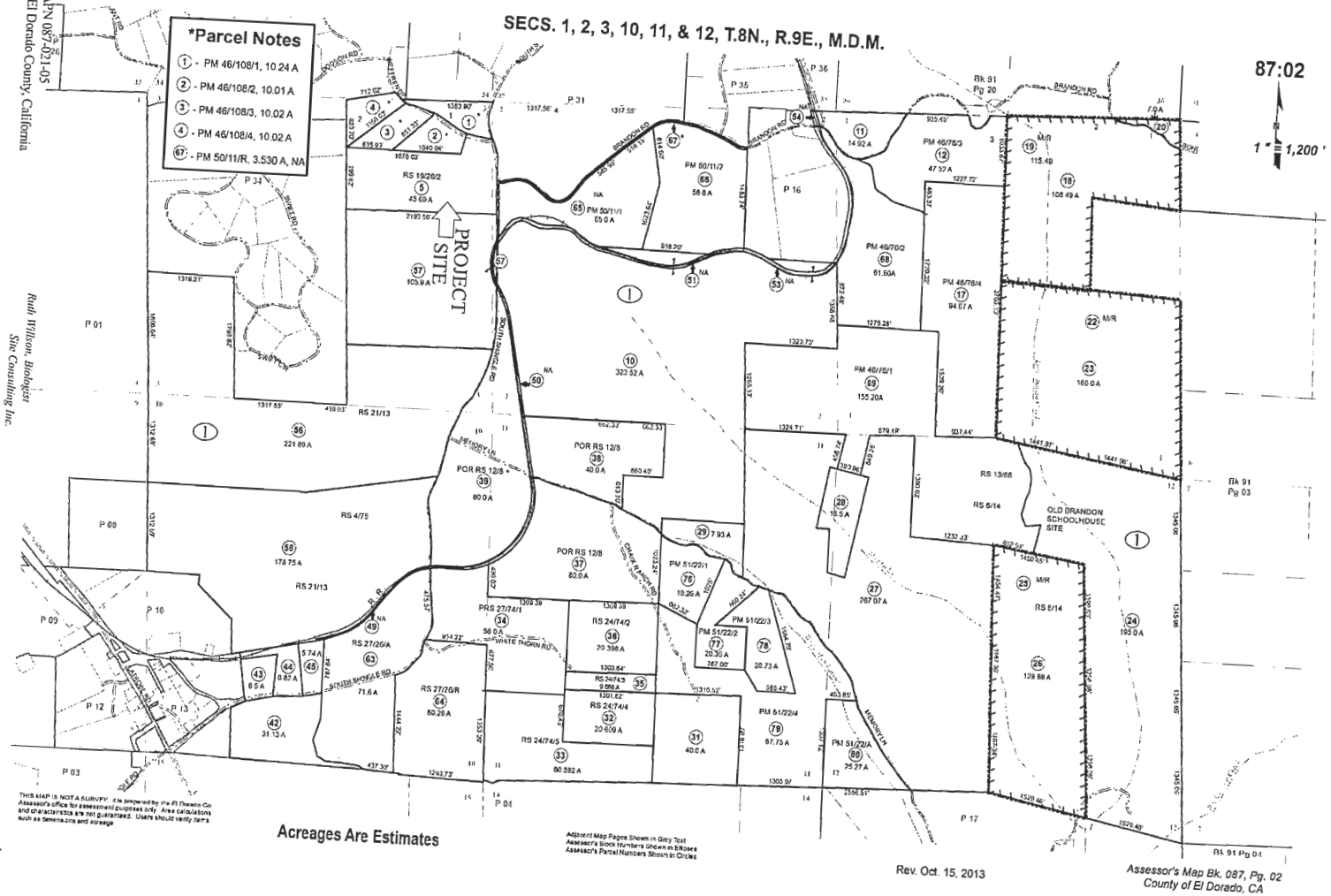


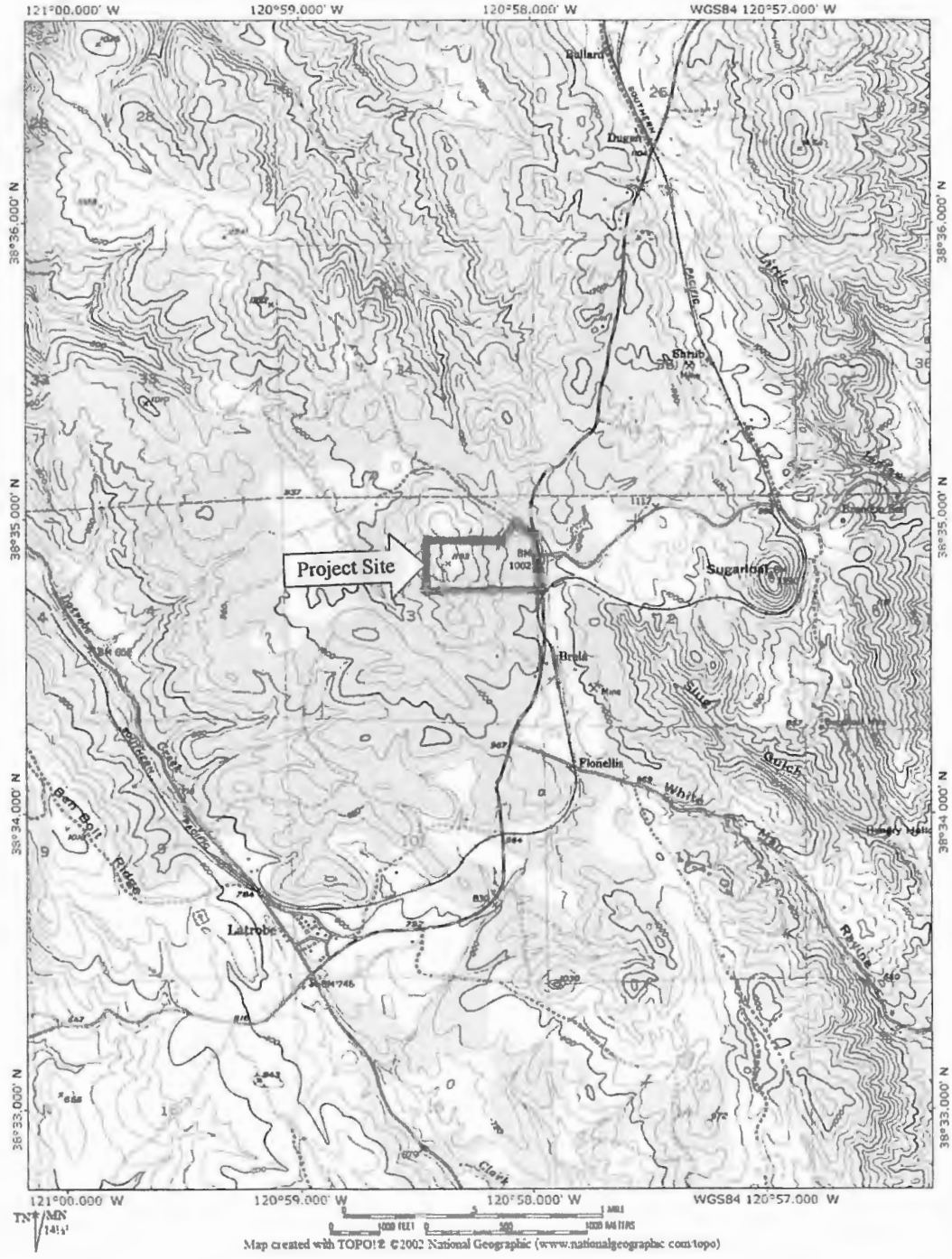
Figure 1. Assessor's map.

Biological Resources Report
Hansen Tentative Parcel Map, June 2015

APN 087-021-05
Latrobe, El Dorado County, California

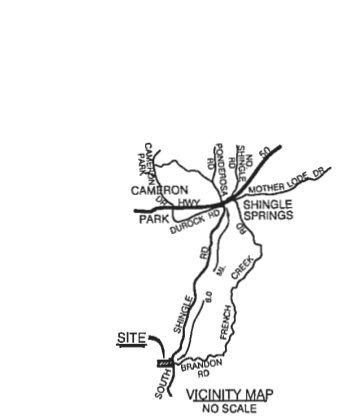
Ruth Willson, Biologist
Site Consulting Inc.

Figure 2. USGS Topographic map.



TENTATIVE PARCEL MAP

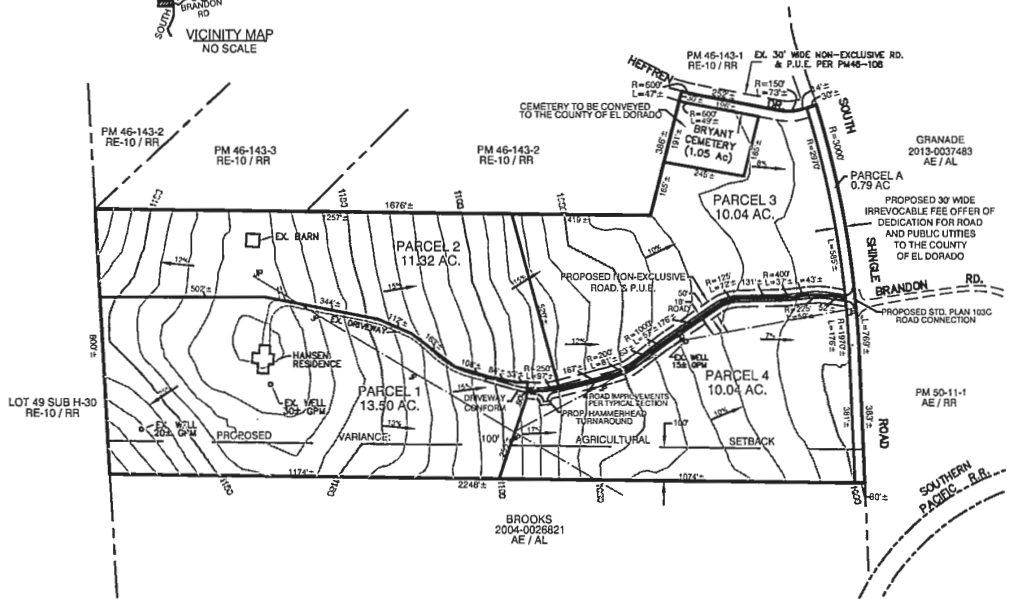
PORTIONS OF THE NW 1/4 OF SECTION 2 AND THE NE 1/4 OF SECTION 3, T. 8 N., R. 9 E., M.D.M., BEING TRACT 2 OF R.S. 19-26



VICINITY MAP
NO SCALE

VARIANCES / DESIGN WAIVERS

1) PARCEL 2 - LENGTH TO DEPTH RATIO LESS THAN 3:1
2) REDUCE AGRICULTURAL SETBACK ON PARCELS 1 & 4 SOUTH LINE FROM 200 FEET TO 100 FEET
3) REDUCE STEM OF HAMMERHEAD TO 12 FEET WIDE.
4) ALLOW TANGENT LENGTHS BETWEEN REVERSING CURVES OF 200' OR GREATER IN RADIUS TO NO LESS THAN 40 FEET.

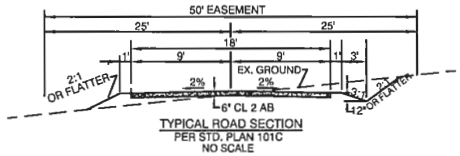


INFORMATION TABLE

APPLICANT/OWNER:	ALLEN J. HANSEN 6740 SO. SHINGLE ROAD SHINGLE SPRINGS, CA 95682
PREPARED BY:	KEN W. PURCELL, CIVIL ENGINEER P.O. BOX 30, EL DORADO, CA 95623 (530) 622-5470
SCALE:	1"=200'
CONTOUR INTERVAL:	10 FEET
SOURCE OF TOPOGRAPHY:	FIELD INSTRUMENT SURVEY
ASSESSORS PARCEL NO.:	087-021-05
PRESENT ZONING:	AE
PROPOSED ZONING:	RE-10
CURRENT GENERAL PLAN:	RR
AREA:	45.69 ACRES
PROPOSED NUMBER/SIZE OF PARCELS:	FOUR (4) / 10 ACRE MINIMUM
DOMESTIC WATER:	INDIVIDUAL WELLS
SEWAGE DISPOSAL:	INDIVIDUAL SEPTIC
FIRE PROTECTION:	LATROBE FIRE PROTECTION DISTRICT
DATE:	JULY 1, 2015

LEGEND

EXISTING	PROPOSED	
		BOUNDARY LINE
		PARCEL LINE
1150		10 FT. ELEV. CONTOUR LINE
		50 FT. ELEV. CONTOUR LINE
10%		SLOPE
UP		UTILITY LINE & POLE
RE-10 / RR		ZONING / LAND USE DESIGNATION
CL		CENTERLINE
PUE		PUBLIC UTILITIES EASEMENT



TYPICAL ROAD SECTION
PER STD. PLAN 101C
NO SCALE

NOTE:
REFER TO THE ACCOMPANYING PRELIMINARY ROAD AND DRAINAGE DESIGN PLAN

13-17 Tentative Map.dwg

Figure 4. Aerial photograph of the project site.

III. Evaluation Methods

A. Field Surveys

The project site was searched for special-status plants during field surveys conducted May 13, 18 and June 20, 2015, by Ruth Willson. The locations of special habitats were mapped using a sub-meter GPS unit. Plants were identified in the field whenever possible; samples of unknown plants were taken with identification achieved in the office through the use of Baldwin, et al. (2012), and Jepson Flora Project (2015). Vegetation communities were identified in the field.

The locations of oak trees within or near proposed construction areas were mapped May 13, 2015, utilizing a submeter GPS unit. The trunk diameter at breast height (dbh) of each tree was measured with a dendrometer, and its drip radius was measured from the center of the trunk to the tip of its longest branch. The health of each tree was also evaluated (Appendix F).

B. Literature Search

The U.S. Fish and Wildlife Service (USFWS) list, "IPaC Trust Resource Report," generated May 12, 2015 (Appendix A), served as the main source of data on federal-listed special-status species that could be affected by the project. A RareFind 5 report of known occurrences of special-status species in the Latrobe and eight surrounding USGS Quads, updated May 5, 2015, was obtained from the California Natural Diversity Database (Appendix B). Other current lists reviewed include the California Department of Fish and Wildlife (CDFW) publications *State and Federally Listed Endangered, Threatened and Rare Plants of California* and *Special Vascular Plants, Bryophytes and Lichens,* along with the California Native Plant Society (CNPS) list, *Inventory of Rare and Endangered Plants, v7-15may 5-7-15* (Appendix C).

C. Vegetation Community Classification

References on the classification of vegetation include Mayer & Laudenslayer (1988), Munz & Keck (1959) and Sawyer et al. (2009). Vegetation communities are referenced to those listed in the El Dorado County General Plan, adopted July 19, 2004 (El Dorado County, 2006).

D. Oak Canopy Determination

The oak canopy coverage on the project site was measured on an aerial photo within a Computer Aided Drafting (CAD) program.

E. Canopy Removal Calculations

The location and canopy area of each tree measured in the field was entered into a CAD program. The canopy of trees to be removed was calculated by adding together the drip-area of trees to be removed, then subtracting the canopy to be removed that is overlapped by the canopy of trees to remain. The net canopy to be removed was outlined and measured within the CAD program.

F. Conservation Recommendations for Species of Concern

Conservation recommendations are included in this report to suggest ways to aid species of concern that are not protected by law. They are not necessarily mitigation measures to be listed as conditions of approval for the project.

IV. Regulatory Setting

A. Federal Regulations

1. Federal Endangered Species Act (ESA)

Section 9 of the ESA prohibits "take" of endangered or threatened species; take is defined "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect." Section 10 of the ESA allows incidental take for listed species for otherwise lawful projects. Section 10 Permits can be obtained through the United States Fish and Wildlife Service.

2. Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits the take, possession, or trade of migratory birds or their parts. The Act specifically protects migratory bird nests from possession, sale, purchase, barter, transport, import and export, and take (16 U.S.C., Sec. 703, Supp. I, 1989). The definition of take is to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to hunt, shoot, wound, kill, trap, capture, or collect (50 CFR 10.12). Exceptions from the MBTA prohibitions are prescribed by the Secretary of the Interior, and include non-native, invasive species such as European starling, English sparrow, Rock dove, and Eurasian collared dove.

3. Raptors

Raptors and their nests are protected under both federal (MBTA) and state (Fish and Game Code Section 3503.5) regulations. Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

4. Wetlands and Waters

The U.S. Army Corps of Engineers (USACE) has jurisdiction over "Waters of the U.S." (also called "jurisdictional waters") under provisions of Section 404 of the Clean Water Act (1972). Such "jurisdictional waters" include waters used, or potentially used, for interstate commerce, interstate waters, lakes, rivers, streams, tributaries of streams, and wetlands adjacent to or tributary to the above. Irrigation and drainage ditches excavated on dry land, artificially-irrigated areas, man-made lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water-filled depressions are usually exempted from USACE jurisdiction (33 CFR, Part 328).

California Department of Fish and Wildlife (CDFW) has jurisdiction over alterations to the beds of rivers, streams, creeks, or lakes. The Fish and Game Code (Section 1602) requires an entity to notify CDFW of any proposed activity that may substantially modify a river, stream, or lake. Alterations include activities that would: substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

Disturbance of any potential jurisdictional features on this project could require one or more of the following permits:

- A Clean Water Act, Section 404 permit from the U.S. Army Corps of Engineers.
- A Water Quality Certification, Section 401, permit from the Regional Water Quality Control Board.
- A 1601-1603 Streambed Alteration Agreement from the California Department of Fish and Game.

B. California Regulations

1. California Environmental Quality Act (CEQA)

According to Section 21002 of CEQA, "It is the policy of the State that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects. To clarify that statement, CEQA Guidelines, Section 15370, lists five mitigation concepts for listed species.

a. Avoiding the impact altogether by not taking a certain action.
b. Minimizing impacts by limiting the degree or magnitude of the action.
c. Rectifying the impact by repairing, rehabilitating or restoring the impacted area.
d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the project.
e. Compensating for the impact by replacing or providing substitute resources or environments.

2. California Endangered Species Act (CESA)

Section 2052 of CESA states, "The Legislature . . . finds and declares that it is the policy of the state to conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat." Protection for such special-status species is codified in Section 2080 of the Fish and Game Code, which prohibits "take" of any endangered or threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill."

CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset losses caused by the project, but allows for take incidental to otherwise lawful development projects. . When take of a species cannot be avoided, an Incidental Take Permit, authorized under Title 14, Section 783.2, may be obtained through the CESA Section 2081(b) and (c) incidental take permit process.

3. California State Fish and Game Code

The State Fish and Game Code Section 3503 states, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Section 3503.5 states, "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Section 3513 states, " It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act."

C. El Dorado County Regulations

1. El Dorado County Important Habitat Mitigation Program

Mitigation guidelines provided by El Dorado County include, but are not limited to, the following:

a. Avoidance;
b. Open space/conservation easements;
c. Redesign;
d. Clustering;
e. Vegetated buffers;
f. Retaining animal dispersal corridors;
g. Planning construction activity to avoid critical time periods (nesting, breeding) for wildlife species;
h. Careful siting to place new disturbances at previously disturbed locations;
i. Restoration or enhancement of woodland habitat;
j. Best Management Practices for reducing impacts from grading/development in environmentally sensitive areas;
k. Additional oak tree canopy retention and oak woodland habitat preservation or replacement on-site and/or off-site;
l. Retaining contiguous stands of oak woodland habitats by retaining corridors between stands.

2. El Dorado County Oak Woodland Policy

The El Dorado County Oak Woodland Policy is currently found within *Interim Interpretive Guidelines for El Dorado County General Plan Policy 7.4.4.4 (Option A)*, adopted November 9, 2006, Amended October 12, 2007. The Policy sets tree retention standards, depending upon existing canopy cover (Table 2), and applies to parcels over an acre that have at least one percent total canopy cover by oak woodlands, or less than an acre having at least ten percent canopy cover. If the oak canopy removed is within the retention standards set forth in Option A of Policy 7.4.4.4, the applicant may mitigate for the loss by planting on-site the area of oak canopy removed, at a 1:1 canopy surface area ratio, and at a density of 200 saplings per acre. Acorns may be planted instead of saplings, at a ratio of three acorns per sapling.

Table 2. Oak canopy retention standards.

Percent Existing Canopy Cover	Percent Canopy Cover to be Retained
80-100	60
60-79	70
40-59	80
20-39	85
10-19	90
1-9 for parcels > 1 acre	90

V. Topographic Features

A. Topography

The project site lies between 1000 and 1193 feet (305 and 634 meters) elevation, encompassing a north-south knoll and the east- and west-facing slopes on either side of it (Figures 2 and 4; photos below). The average east-slope gradient is 10 percent, but it varies from five to twenty percent; the average west-slope gradient is 13 percent.

Two drainage swales originate on the knoll, one carrying water west and the other, east. The west-flowing swale does not form a channel on the project site, but eventually joins an ephemeral creek that flows into Latrobe Creek, which joins Deer Creek, a perennial stream that joins the Cosumnes River south of Elk Grove. The east-flowing swale forms a very small wetland south of the Bryant Cemetery on proposed Parcel 3, then carries water easterly through a discontinuous channel that disburses through the pasture before forming another small wetland. After the second wetland, water continues eastward, forming neither a channel nor other wetlands, to a culvert beneath South Shingle Road.

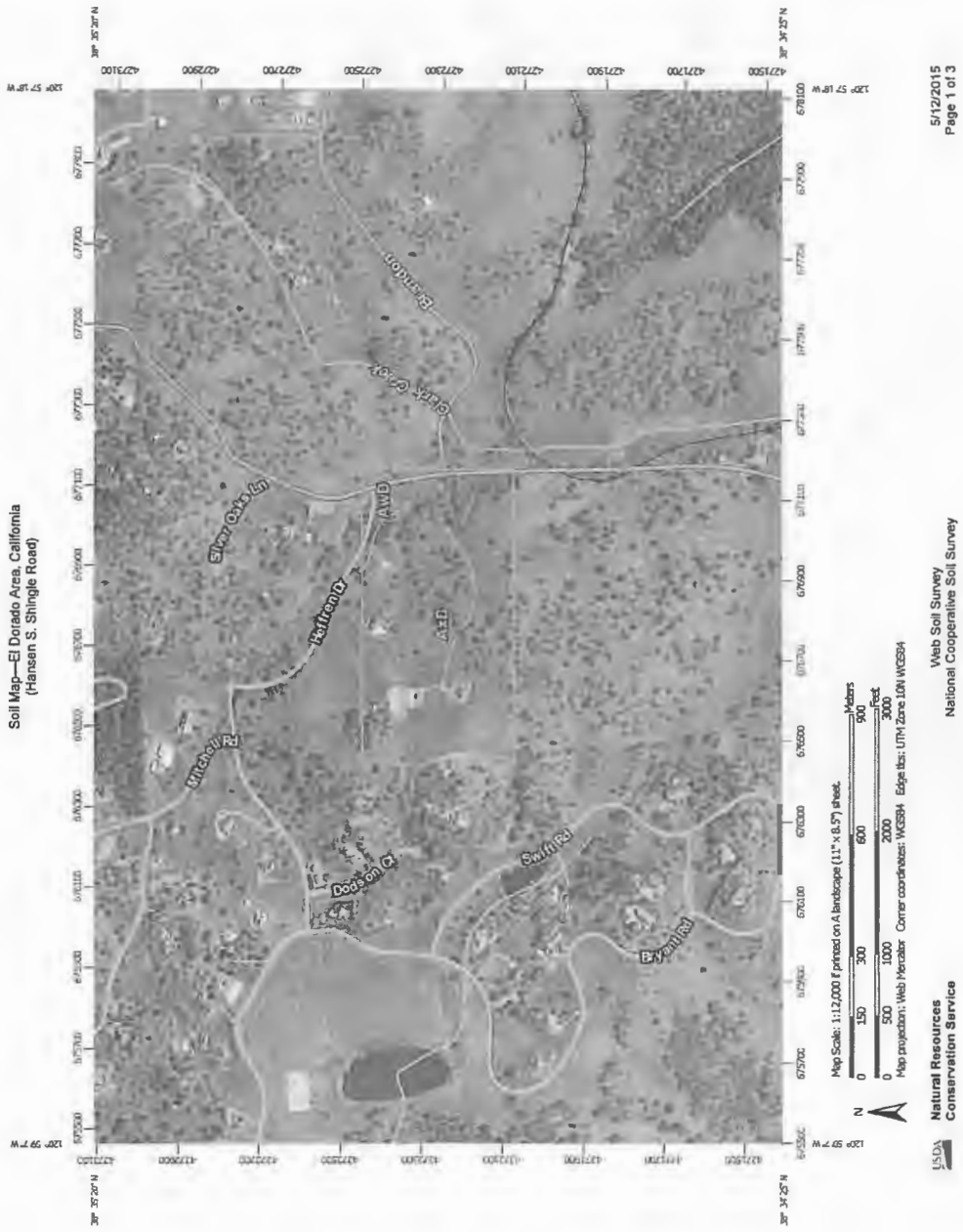
An intermittent fork of Clark Creek enters the project site from a culvert beneath Heffren Drive and flows southeasterly across the northeast corner of the project site, forming a wetland, before leaving the east boundary of proposed Parcel 3, passing beneath South Shingle Road in a culvert. Clark Creek joins the Cosumnes River near the historic community of Michigan Bar, about five miles south of the project site.

B. Soils

The soils on the project site (Figure 5) are classified in the Auburn series, predominantly Auburn very rocky silt loam (AxD), and Auburn silt loam (AwD), found at the northeast corner of the project site. (NRCS 2015).

Auburn soils are well-drained and underlain by hard metamorphic rock at a depth of 12 to 26 inches. The two Auburn soils are similar, differing mainly in the percentage of surface covered by bedrock outcrops: Auburn very rock silt loam has 5 to 25 percent, and Auburn silt loam has less than 5 percent.

Figure 5. Soils map, generated by Natural Resources Conservation Service's Web Soil Survey.



AxD = Auburn very rocky silt loam
AwD = Auburn silt loam

VI. Biological Resources

A. Vegetation Communities

The vegetation communities on the project site (photo at right and Figure 6) consist of blue oak woodland and California annual grassland (El Dorado County 2004). Blue Oak Woodland may also be classified as Blue Oak/Annual Grass-Forb Sub-Alliance (Klein et. al 2007), and consists of scattered oaks within savannah. The most common oak species is blue oak *(Quercus douglasii)*, followed by valley oak (*Q. lobata)* and interior live oak (*Q. wislizenii)* in a ratio of 33:8:1. No other tree species were found on-site, except landscape trees planted near the existing dwelling. The shrub layer is completely absent from the project site, and the herbaceous layer consists of mostly non-native species, such as wild oats *(Avena barbata),* bromes (*Bromus diandrus, B. hordeaceus),* Italian thistle*(Carduus pycnocephalus),*dogtail grass (*Cynosurus echinatus)*, perennial ryegrass *(Lolium multiflorum)*, Medusa head (*Elymus caput-medusae)*, tall sock-destroyer *(Torilis arvensis)*, barbed goatgrass (*Aegilops triuncialis*), and rose clover (*Trifolium hirtum)*. Interspersed among the non-native species are some natives, including sky lupine*(Lupinus nanus)*, white brodiaea *(Triteleia hyacinthina*), needle-leaf navarretia (*Navarretia intertexta*) and Sacramento Valley buttercup *(Ranunculus canus*).

B. Wetlands and Waters

Three wetlands were found on the project site (Figure 6): a small, unvegetated seasonal pond in a drainage swale south of the Bryant Cemetery on Parcel 3, another small wetland farther east in the same drainage, and a larger wetland associated with an intermittent fork of Clark Creek that crosses the northeast corner of Parcel 3 (photo at right).

C. Hydrophytic Vegetation

Hydrophytic vegetation[1] was found within the wetland associated with the intermittent creek on Parcel 3. Obligate[2] wetland plants (OBL) were limited to three species: watercress (*Nasturtium officinale*), common spikerush (*Eleocharis palustris*) and seep monkeyflower (*Mimulus guttatus*). Three facultative[3] wetland plants (FACW) were also found in that wetland: tall flatsedge (*Cyperus eragrostis),* annual beard grass (*Polypogon monspeliensis*), and clustered dock (*Rumes conglomeratus*); a fourth FACW plant, needleleaf navarretia (*Navarretia intertexta*), was found within a roadside ditch along the existing driveway separating Parcels 1 and 2. Six facultative[4] plant species (FAC) were found scattered around the property: perennial ryegrass (*Festuca perennis*), Italian plantain (*Plantago lanceolata*), red-tipped rabbit-tobacco (*Pseudognaphalium luteoalbum*), annual quaking grass (*Briza minor*), Sacramento Valley buttercup and white brodiaea.

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[1] Plants listed in the U.S. Army Corps of Engineers 2014 Arid West Region Wetland Plant List. http://wetland_plants.usace.army.mil/

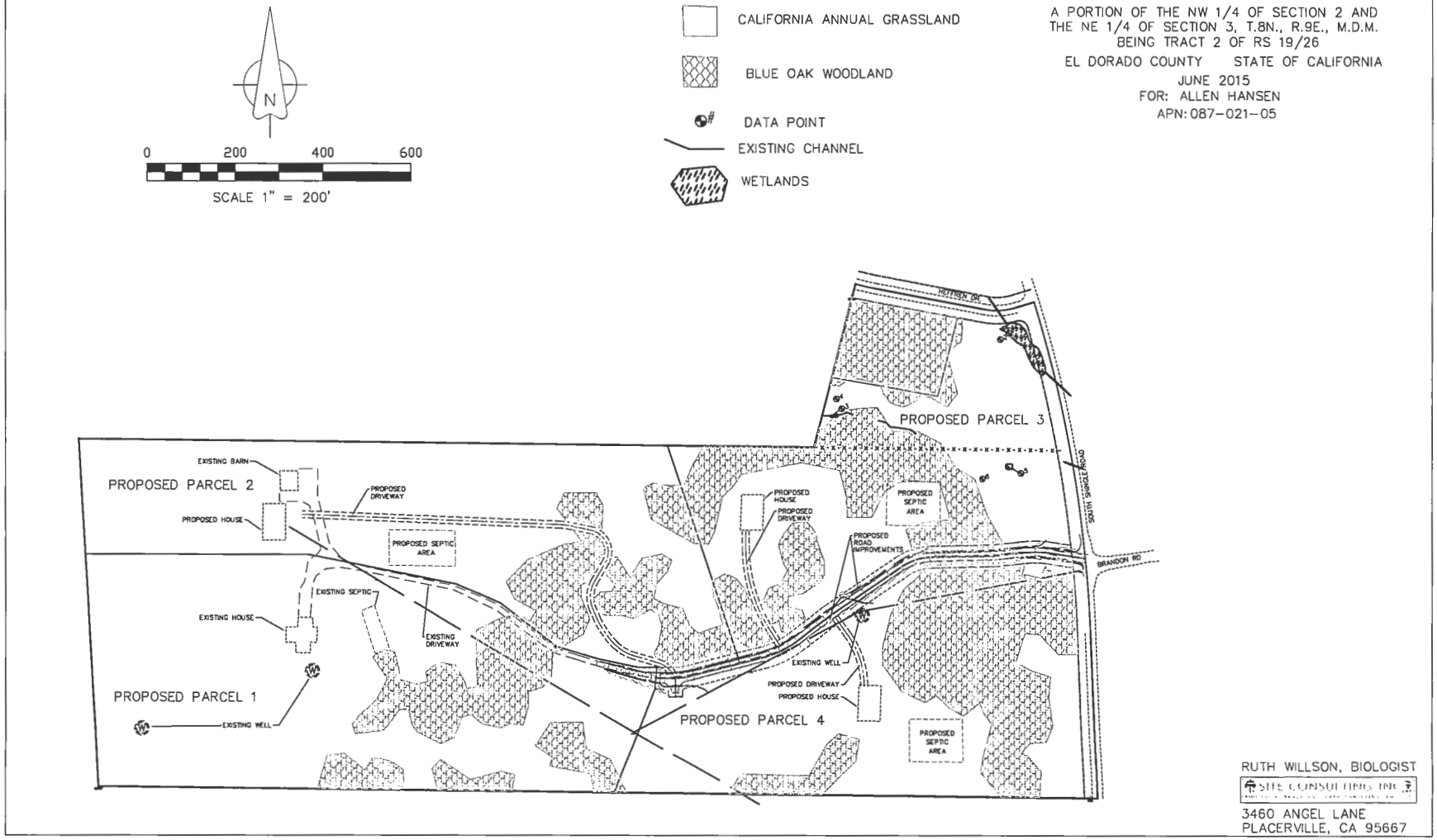
[2] Obligate wetland plants (OBL) almost always occurs in wetlands (estimated probability > 99%)

[3] Facultative wetland plants usually occur in wetlands (estimated probability 67% – 99%)

[4] Facultative (FAC). Equally likely to occur in wetlands (est. probability 34% – 66%) or non-wetlands.

FIGURE 6
VEGETATION, WETLANDS & WATERS MAP

A PORTION OF THE NW 1/4 OF SECTION 2 AND THE NE 1/4 OF SECTION 3, T.8N., R.9E., M.D.M.
BEING TRACT 2 OF RS 19/26
EL DORADO COUNTY STATE OF CALIFORNIA
JUNE 2015
FOR: ALLEN HANSEN
APN: 087-021-05



RUTH WILLSON, BIOLOGIST
SITE CONSULTING INC
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PLACERVILLE, CA 95667

D. Wildlife

Three reptile species were observed on the project site: California alligator lizard (*Elgaria coerulea*), Western fence lizard (*Sceloporus occidentalis*) and gopher snake *(Pituophis catenifer)*. The site has suitable habitat for additional reptiles not observed during field surveys, including, but not limited to, Common garter snake (*Thamnophis sirtalis*), Common king snake (*Lampropeltis getula*), North American racer (*Coluber constrictor*), Sharp-tail snake (*Contia tenuis*), and Western rattlesnake (*Crotalus viridis*).

One amphibian, Pacific tree frog (*Pseudacris egilla*), was observed. The site has suitable habitat for an additional amphibian: Western toad (*Anaxyrus boreas*).

Evidence of mammals found on the project site include Coyote (*Canis latrans*), Black-tailed deer (*Odocoileus hemionus),* Gray fox (*Urocyon cinereoargenteus*), Striped skunk (*Mephitis mephitis*) California ground squirrel (*Spermophilus beecheyi*), and Botta's pocket gopher (*Thomomys bottae*). Not observed, but having suitable habitat on-site, are the following mammals, among others not listed: Deer mouse (*Peromyscus* sp.), Broad-footed mole (*Scapanus latimanus*), Black-tailed jackrabbit (*Lepus californicus*), California vole (*Microtus californicus*) and Raccoon (*Procyon lotor*).

Several bird species were found on or near the project site, including Scrub jay (*Aphelocoma coerulescens),* Turkey vulture (*Cathartes aura*), California quail (*Callipepla californica*), Oak titmouse (*Baeolophus inornatus*), Acorn woodpecker (*Melanerpes formicivorus*), Tree swallow (*Tachycineta bicolor*), European starling (*Sturnus vulgaris*), Western kingbird (*Tyrannus verticalis*), Western meadowlark (*Sturnella neglecta*), Western bluebird (*Sialia mexicana*), Pacific-slope flycatcher (*Empidonax difficilis*), Brown-headed cowbird (*Molothrus ater*), Northern mockingbird (*Mimus polyglottos*), American robin (*Turdus migratorius*), Red-winged blackbird (*Agelaius phoeniceus*), Black phoebe (*Sayornis nigricans*), Anna's hummingbird (*Calypte anna*), Wild turkey (*Meleagris gallopavo),* and Red-tailed hawk (*Buteo jamaicensis*).

The site has suitable habitat for several bird species not observed during field surveys, including, but not limited to, the following: Bullock's oriole (*Icterus bullockii*), Cooper's hawk (*Accipiter cooperii*), House finch (*Carpodacus mexicanus*), House wren (*Troglodytes aedon*), Dark-eyed junco (*Junco hyemalis*), Yellow-rumped warbler (*Dendroica petechia*), White-breasted nuthatch (*Sitta carolinensis*), Mourning dove (*Zenaida macroura*), and Western screech owl (*Megascops kennicottii*).

E. Special-Status Species

1. Special-Status Species Without Habitat on the Project Site

An evaluation of special-status species which may be found in the Latrobe and surrounding USGS Quads is shown in Appendix D. Species lacking suitable habitat on the project site are not discussed further in this report.

2. Special-Status Species with Habitat on the Project Site

No potential habitat was found on the project site for state- or federal-listed species. Potential habitat was found for twenty-three species of concern, including two insect: Cosumnes stripetail stonefly and Ricksecker's water scavenger beetle; one reptile: Coast horned lizard; eleven birds: Cooper's hawk, Grasshopper sparrow, Golden eagle, Western burrowing owl, Oak titmouse, Rough-legged hawk, Lark sparrow, Merlin, Loggerhead shrike, Nuttall's woodpecker, Purple martin, Lawrence's goldfinch, and Chipping sparrow; three mammals: Pallid bat, Silver-haired bat and Yuma myotis bat; and four plants: Big-scale balsamroot, Brandegee's clarkia, Dwarf downingia and Sanford's arrowhead (Table 3). The suitability of the site to support each species is evaluated in Subsection 3, below.

Table 3. Special-status species with potential habitat on the project site.

Species of Concern	Common Name	Listing Status	Habitat Quality	Species Found On Site?
Invertebrates				
Cosumnoperia hypocrena	Cosumnes stripetail stonefly	— / —	Marginal	No
*Hydrochara ricksecker*i	Ricksecker's water scavenger beetle	— / —	Suitable	No
Reptiles				
Phrynosoma blainvillii	Coast horned lizard	SSC[1]	Marginal	No
Birds				
Accipiter cooperii	Cooper's hawk	LC[2]	Suitable	No
Ammodramus savannarum	Grasshopper sparrow	SSC[1]	Marginal	No
Aquila chrysaetos	Golden eagle	LC[2]	Suitable	No
Athene cunicularia	Western burrowing owl	SSC[1]	Suitable	No
Baeolophus inornatus	Oak titmouse	BCC[3]	Suitable	Yes
Buteo lagopus	Rough-legged hawk	LC[2]	Marginal	No
Chondestes grammacus	Lark sparrow	LC[2]	Suitable	No
Falco columbarius	Merlin	LC[2]	Suitable	No
Lanius ludovicianus	Loggerhead shrike	SSC[1]	Suitable	No
Picoides nuttallii	Nuttall's woodpecker	BCC[3]	Marginal	No
Progne subis	Purple martin	SSC[1]	Marginal	No
Spinus lawrencei	Lawrence's goldfinch	BCC[3]	Suitable	No
Spizella passerina	Chipping sparrow	LC[2]	Marginal	No
Mammals				
Antrozous pallidus	Pallid bat	SSC[1]	Marginal	No
Lasionycteris noctivagans	Silver-haired bat	LC[2]	Suitable	No
Myotis yumanensis	Yuma myotis bat	LC[2]	Marginal	No
Plants				
Balsamorhiza macrolepis macrolepis	Big-scale balsamroot	1B.2[4]	Suitable	No
Clarkia biloba ssp. *brandegeeae*	Brandegee's clarkia	4.2[5]	Marginal	No
Downingia pusilla	Dwarf downingia	2B.2[6]	Suitable	No
Sagittaria sanfordii	Sanford's arrowhead	1B.2[4]	Suitable	No

[1]CA Dept. Fish & Wildlife (CDFW) Species of Special Concern.

[2]International Union for Conservation of Nature Species of Least Concern.

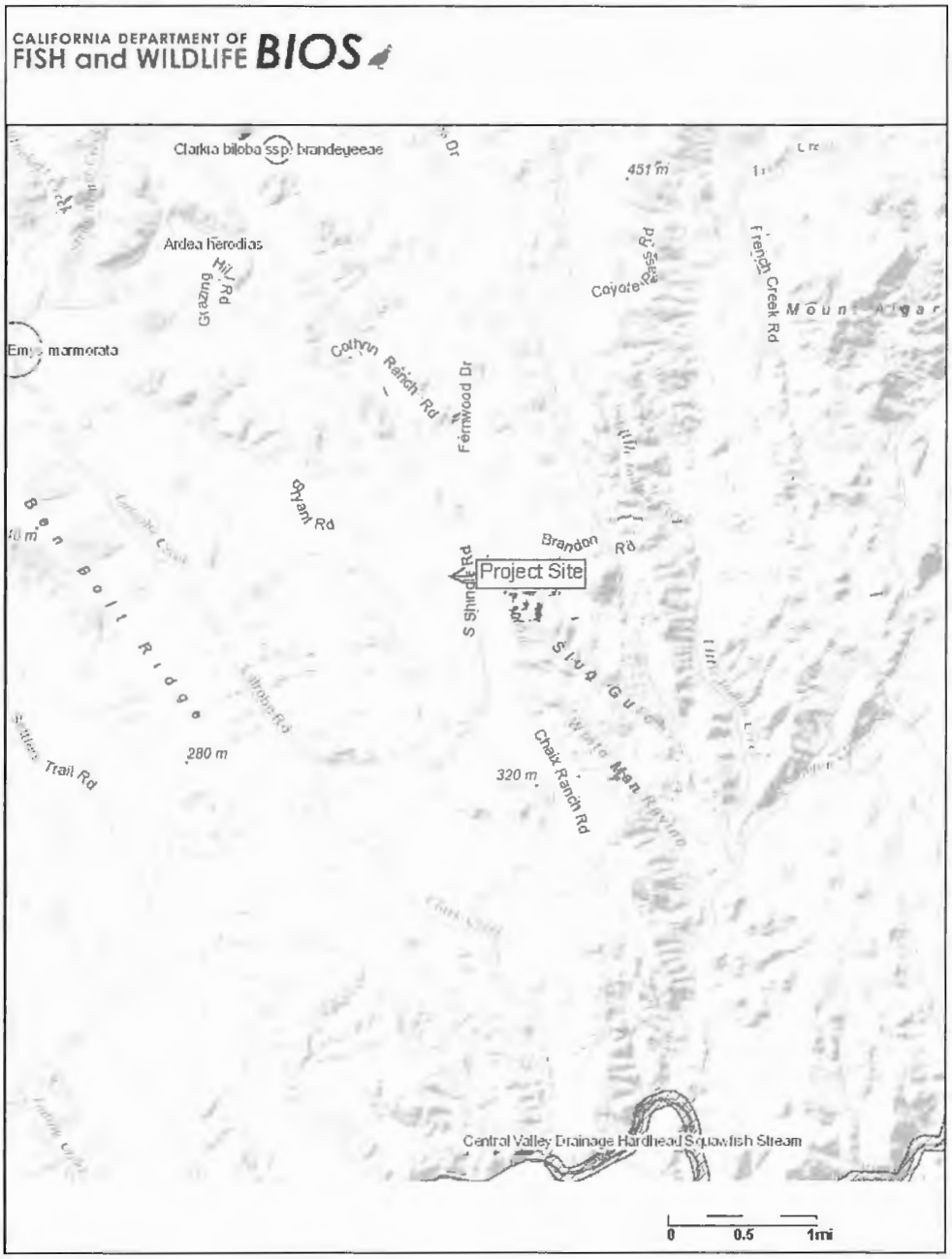
[3]U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern.

[4] California Native Plant Society (CNPS) list of Rare, Threatened or Endangered Plants in California and Elsewhere, Moderately threatened in California

[5] CNPS Plants of Limited Distribution, Moderately threatened in California

[6] CNPS list of Rare, Threatened or Endangered Plants in California but More Common Elsewhere, Moderately threatened in California.

Figure 7. California Natural Diversity Database BIOS map of special-status species near the project site.



3. Evaluation of Potential Habitat for Special-Status Species

a. Invertebrates

Cosumnes spring stonefly (*Cosumnoperia hypocrena)*
Range: Known only from the Cosumnes River and American River drainages in El Dorado County. (CNDDB 2015)
Nearest CNDDB occurrence: Approximately six and one-half miles northeast of the project site. (BIOS 2015)
Habitat requirements: Intermittent streams on the western slope of central Sierra Nevada foothills in American and Cosumnes river drainages. More specifically, the species has been found in shallow spring waters flowing over heavily shaded, moss covered rocks (CNDDB 2015)
Habitat quality on project site: Marginal in the seasonal wetland found near the northwest corner of the project site. Wetland is in full sun, not shade, as reported to be good habitat for the species. The remainder of the parcel is unsuitable for the species.
Potential impacts: Disturbance of the intermittent creek would be detrimental to potential habitat for the species, but no disturbance is proposed for this project.

Ricksecker's water scavenger beetle (*Hydrochara rickseckeri*)
Range: Known from Marin, Sonoma, Solano, San Mateo, Lake, Placer (Lincoln area), San Juaquin and Sacramento counties. (CNDDB 2015)
Nearest CNDDB occurrence: Approximately eight miles northwest in Sacramento County (BIOS 2015).
Habitat requirements: The aquatic beetle lives in weedy, shallow, open water habitats associated with fresh water seeps, springs, farm ponds, vernal pools, and slow-moving streams. (LSA Assoc. 2004) Current CNDDB occurrences were found within vernal pools and seasonal wetlands. (CNDDB 2015)
Habitat quality on project site: Suitable in the seasonal wetland found near the northwest corner of the project site; unsuitable on the remainder of the parcel.
Potential impacts: No impact to the species is expected from this project because no development is proposed near potential habitat for the species.

b. Reptiles

California horned lizard (*Phrynosoma blainvillii*)
Range: Occurs in the Sierra Nevada foothills from Butte Co. to Kern Co. and throughout the central and southern California coast. Its elevation range extends up to 1200 m (4000 ft) in the Sierra Nevada foothills but most often found below 600 m (2000 ft.). (CWHR, March 2000 update)
Habitat requirements: Found in open country with sandy areas such as flood plains, washes and loess deposits within habitats ranging from scattered shrubs to clearings in riparian woodlands, uniform chamise chaparral, and annual grassland with scattered shrubs. Feeds in open areas between shrubs, often near ant nests; consumes insects, especially ants. Active between April and October; breeds April and May. Burrows in loose substrate or uses small mammal burrows. (CWHR, March 2000 update)
Nearest CNDDB occurrence of record: Approximately five miles north of the project site. (BIOS 2015)
Habitat quality on project site: Marginal around rock outcrops; unsuitable on the rest of the property, due to heavy grass cover.
Suggested mitigation: None required.

c. Birds

Cooper's hawk (*Accipiter cooperii)* nesting
Range: Breeding resident in most wooded portions of California between sea level and 2700 m (9000 ft.) elevation. (CWHR 2015)
Nearest CNDDB occurrence: Approximately 13 miles west, near Mather Field, Sacramento County. (BIOS 2015)
Habitat requirements: Year-long resident found in areas with dense tree stands or patchy woodland habitats. Feeds on small birds, mammals, reptiles and amphibians. Nests in deciduous trees or conifers, usually near streams. (CWHR 2015)
Habitat quality on project site: Suitable within oak groves on the eastern portion the project site.
Potential impacts: Construction during the nesting season could disrupt nesting hawks, if found on-site.
Suggested mitigation: Pre-construction surveys for nesting raptors, conducted no more that 30 days prior to construction activities, is recommended if construction is scheduled during the normal nesting season (March 1-August 31). If raptor nests are found on or immediately adjacent to the site, consultation with the California Department of Fish and Wildlife (CDFW) must be initiated to determine appropriate avoidance measures.

Grasshopper sparrow (*Ammodramus savannarum)* nesting
Range: Summer resident and breeder in foothills and lowlands west of the Cascade-Sierra Nevada crest from Mendocino and Trinity counties south to San Diego county. (CWHR, 2008 update)
Nearest CNDDB occurrence: About seven miles southwest of the project site in Sacramento County. (BIOS 2015)
Habitat requirements: Dry or well-drained, dense grassland, especially those with a mixture of grasses and tall forbs for foraging and nesting. Uses scattered shrubs for singing perches. (CWHR, 2008 update)
Habitat quality on project site: Marginal; the project site lacks shrubs, but may be utilized by the species if it will use fences for singing perches.
Potential impacts: Loss of potential habitat due to construction of a house and other structures within grasslands.
Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more that 30 days prior to construction activities, is recommended if construction is scheduled during the normal nesting season (March 1-August 31). If nests are found, a 50-foot radius buffer around the nest, protected with temporary construction fence, is suggested .

Golden eagle (*Aquila chrysaetos)* nesting
Range: Uncommon permanent resident and migrant throughout California, except the center of the Central Valley, ranging from sea level to 3833 m (11,500 ft.). (CWHR 2015)
Nearest CNDDB occurrence: Approximately nine miles northwest of the project site, near El Dorado Hills. (BIOS 2015)
Habitat requirements: Rolling foothills, mountain areas, sage-juniper flats and deserts are preferred habitats. Needs open terrain for hunting. Feeds mostly on lagomorphs and rodents, but also other mammals, reptiles, birds and carrion. Nests on cliffs or large trees in open areas. Typical home range in northern California is 124 km^2 (48 mi^2). (CWHR 2015)
Habitat quality on project site: Suitable nesting habitat is found in trees on the eastern half of the project site.
Potential impacts: Removal of large trees in open areas would reduce the amount of potential nesting habitat for the species.
Suggested mitigation: Pre-construction surveys for nesting raptors, conducted no more that 30 days prior to construction activities, is recommended if construction is scheduled during the normal nesting season (March 1-August 31). If raptor nests are found on or immediately adjacent to the site, consultation with the California Department of Fish and Wildlife (CDFW) must be initiated to determine appropriate avoidance measures.

Western burrowing owl *Athene cunicularia* (burrow and wintering sites)
Range: Resident in suitable habitats throughout California, up to 1600 meters elevation, excluding the humid northwest coastal forests and the high mountains. (CWHR, 1999 update)
Nearest CNDDB occurrence of record: Approximately seven mile northwest of the project site, west of El Dorado Hills (BIOS 2015)
Habitat requirements: Open, dry grassland and desert habitats, and in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats with burrows. Feeds mostly on insects, but also small mammals, reptiles, birds and carrion. Roosts and nests in rodent or other burrow. (CWHR, 1999 update)
Habitat quality on project site: Suitable. The project has ground squirrel burrows which are potential nest sites for the species.
Potential impacts: Loss of potential habitat due to construction of a house and other structures within grasslands.
Suggested mitigation: Pre-construction surveys for nesting raptors, conducted no more that 30 days prior to construction activities, is recommended if construction is scheduled during the normal nesting season (March 1-August 31). If raptor nests are found on or immediately adjacent to the site, consultation with the California Department of Fish and Wildlife (CDFW) must be initiated to determine appropriate avoidance measures.

Oak titmouse (*Baeolophus inornatus)* nesting
Range: Found in suitable habitat, mostly encircling the San Juaquin Valley and on the west slope of the Sierra Nevada north to Shasta County. (CWHR, 1998 update)
Nearest CNDDB occurrence: Tuolumne County. (BIOS 2015)
Habitat requirements: Associated with oaks in valley foothill and montane hardwood, valley foothill hardwood-conifer, and riparian habitats. Eats insects, spiders, berries, acorns, seeds. Nests in holes, cavities or nest box. Ventures into residential areas. (CWHR, 1998 update)
Habitat quality on project site: Suitable within oak trees on the eastern half of the project site.
Potential impacts: Removal of oak trees with cavities during the nesting season could result in illegal "take" of the species.
Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more that 30 days prior to construction activities, is recommended if tree removal or grading are scheduled during the normal nesting season (March 1-August 31). A 50-foot setback from trees with active nests is recommended.

Rough-legged hawk (*Buteo lagopus)* wintering
Range: Migrant and winter resident in Modoc Plateau, northern valleys, Central Valley and coast from Santa Barbara to Sonoma counties.
Nearest CNDDB occurrence: None.
Habitat requirements: Open areas near riparian or other wooded habitats, especially wet meadows, marshes, and swamp and riparian edges. Feeds primarily on small mammals, but also takes small birds, game birds, and occasionally fish, insects, and reptiles.
Habitat quality on project site: Marginal near the wetland on Parcel 3.
Potential impacts: Disturbance to wetlands found on-site would disrupt potential habitat for the species, but no disturbances to wetland will result from the project as designed.
Suggested mitigation: Normal set-backs from wetlands and waters is sufficient to protect potential habitat for the species.

Lark sparrow (*Chondestes grammacus*) nesting
Range: Resident in lowlands and foothills throughout much of California. Most common around margins of Central Valley, in bordering foothills, and inner coastal ranges; local on coastal slope, especially north of southern Humboldt Co (CWHR 2015).
Nearest CNDDB occurrence: San Diego, CA.
Habitat requirements: Frequents sparse valley foothill hardwood, valley foothill hardwood-conifer, open mixed chaparral and similar brushy habitats, and grasslands with scattered trees or shrubs. Scattered trees or shrubs are required for lookout and song perches and other cover. Fence posts, large rocks, other elevated sites, and ground herbage also provide cover. (CWHR 2015).
Habitat quality on project site: Suitable in on-site oak woodlands.
Potential impacts: Potential foraging habitat would be lost when structures are built.
Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more that 30 days prior to construction activities, is recommended if tree removal or grading are scheduled during the normal nesting season (March 1-August 31). A 50-foot setback from trees with active nests is recommended.

Merlin (*Falco columbarius*) wintering
Range: Occurs in most of the western half of California below 1500 m (4900 ft.) elevation. (CWHR, 1999 update)
Nearest CNDDB occurrence: Approximately 13 miles ENE at Folsom. (BIOS 2015)
Habitat requirements: Winter migrant that utilizes coastlines, open grasslands, open woodlands, lakes, wetlands, edges and early successional stages, ranging from annual grasslands to Ponderosa pine and montane hardwood-conifer habitats. Frequents open habitats at low elevations near water and tree stands, especially near coastlines, lakeshores and wetlands. Does not nest in California. Feeds on small birds and mammals, and insects. (CWHR, 1999 update)
Habitat quality on project site: Suitable wintering habitat throughout the project site.
Potential impacts: Potential foraging habitat would be lost when structures are built.
Suggested mitigation: None required.

Loggerhead shrike (*Lanius ludovicianus*) nesting
Range: Resident and winter visitor in lowlands and foothills throughout California. (CWHR 2015)
Nearest CNDDB occurrence: Alameda and San Juaquin Counties.
Habitat requirements: Open habitats with scattered trees, shrubs, posts, fences, utility lines or other perches. Highest density occurs in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. Rare in urban areas but often in open cropland. Nests in densely-foliated tree or shrub (CWHR 2015)
Habitat quality on project site: Suitable nesting habitat in oak trees on the eastern portion of the project site, suitable foraging habitat throughout the site.
Potential impacts: Removal of oak trees would reduce the amount of potential nesting habitat for the species.
Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more that 30 days prior to construction activities, is recommended if tree removal or grading are scheduled during the normal nesting season (March 1-August 31). A 50-foot setback from trees with active nests is recommended.

Nuttall's woodpecker (*Picoides nuttallii)* nesting
Range: Central Valley, Transverse and Peninsular Ranges, Coast Range north to Sonoma County, lower portions of Cascade Range and Sierra Nevada. Average home range is 0.8 mile from a riparian strip (CWHR 2015).
Nearest CNDDB occurrence: None. (BIOS 2015)
Habitat requirements: Resident of low-elevation riparian deciduous and oak habitats. Feeds on oak and riparian deciduous trees for sap, adult and larval insects; also eats seeds, nuts and fruits. Nests in riparian habitat, usually in a dead willow, sycamore, cottonwood or alder, rarely in oaks. (CWHR 2015)
Habitat quality on project site: Suitable foraging habitat and marginal nesting habitat in oak trees on the eastern portion of the project site.
Potential impacts: Removal of oak trees would reduce the amount of potential foraging and nesting sites for the species.
Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more that 30 days prior to construction activities, is recommended if tree removal or grading are scheduled during the normal nesting season (March 1-August 31). A 50-foot setback from trees with active nests is recommended.

Purple martin (*Progne subis)* nesting
Range: Found throughout the state except higher desert areas and the higher slopes of the Sierra Nevada. (CWHR 2015)
Nearest CNDDB occurrence: Approximately 20½ miles northwest in Placer County. (BIOS 2015)
Habitat requirements: Inhabits open forests, woodlands and riparian areas in breeding season, and a variety of open habitats during migration, including grassland, wet meadow and fresh emergent wetland, usually near water. Feeds on insects captured in flight; occasionally forages on the ground. Nests in old woodpecker cavity; occasionally in man-made nesting box, under bridge or in culvert. (CWHR 2015)
Habitat quality on project site: Marginal nesting habitat in oak trees on the eastern portion of the project site.
Potential impacts: Removal of dead wood in trees with woodpecker cavities would have a detrimental potential impact on the species.
Conservation recommendation: Preservation of at least three dead tree snags per acre is recommended.
Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more that 30 days prior to construction activities, is recommended if tree removal or grading are scheduled during the normal nesting season (March 1-August 31). A 30-foot setback from trees with active nests is recommended. No mitigation should be required if tree removal and grading are not scheduled during the normal nesting season.

Lawrence's goldfinch (*Spinus lawrencei)* nesting
Range: Rather common along western edge of southern deserts, common but erratic in Santa Clara County and on the coastal slope from Monterey County south. Uncommon in foothills surrounding the Central Valley. (CWHR 2015)
Nearest CNDDB occurrence: Sutter Buttes. (BIOS 2015)
Habitat requirements: Utilizes valley foothill hardwood, valley foothill hardwood-conifer, and, in southern California, desert riparian, palm oasis, pinyon-juniper and lower montane habitats. Requires open woodland or shrubland with a nearby source of water, and forb and shrub seeds. Nests in dense foliage of a tree or shrub, especially within oaks, cypresses or riparian thickets. (CWHR 2015)
Habitat quality on project site: Suitable nesting and foraging habitat is found among oak groves on the eastern portion of the project site.
Potential impacts: Removal of oak trees would reduce the amount of potential habitat for the species on the project site.
Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more that 30 days prior to construction activities, is recommended if tree removal or grading are scheduled during the normal nesting season (March 1-August 31). A 50-foot setback from trees with active nests is recommended.

Chipping sparrow (*Spizella passerina)* nesting
Range: Migrant and summer visitor throughout most of California, excluding Central Valley, southern deserts, and alpine areas. Winters less commonly in Central Valley and southern California lowlands. (CWHR 2015)
Nearest CNDDB occurrence: None. (BIOS 2015)
Habitat requirements: Prefers open-wooded habitats with a sparse or low herbaceous layer and few shrubs, if any. Apparently requires trees for resting and singing, and prefers trees for nesting, foraging in nearby herbaceous and open shrub habitats. Usually nests in a conifer, but deciduous trees or shrubs are also used. (CWHR 2015)
Habitat quality on project site: Marginal. Woodland habitat on-site is open, but the grass understory is more dense and tall than the species' preferred habitat.
Potential impacts: Removal of oaks would be reduce the amount of potential habitat for the species.
Suggested mitigation: Pre-construction surveys for nesting birds, conducted no more that 30 days prior to construction activities, is recommended if tree removal or grading are scheduled during the normal nesting season (March 1-August 31). A 50-foot setback from trees with active nests is recommended.

d. Mammals

Pallid bat *Antrozous pallidus*
Range: Occurs throughout California except high mountains and the northwest corner. (CWHR 2015)
Nearest CNDDB occurrences of record: Approximately seven miles south of the project site, in Amador County. (CNDDB 2015)
Specific habitat requirements: Open locations below 2000 m elevation, including deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting; also roosts in buildings, on cliffs and under bridges. Very sensitive to disturbance of roosting sites. Forages with low flights over open ground, or on the ground for flightless arthropods. (CWHR 2015)
Habitat on site: Suitable forage area; marginal roost sites in rock outcrops scattered throughout the project site.
Potential impacts: None expected, unless rock outcrops are disturbed, which would reduce the amount of potential habitat on the project site for the species.
Conservation recommendation: Preservation of rock outcrops and at least three dead tree snags per acre is recommended.

Silver-haired bat (*Lasionycteris noctivagans)*
Range: Coastal and montane forests from the Oregon border south along the coast to San Francisco Bay, and along the Sierra Nevada and Great Basin region to Inyo County. Also known in Sacramento, Stanislaus, Monterey and Yolo counties. Known as a migrant throughout California. The species likely winters in Mexico. (CWHR, 2005 update)
Nearest CNDDB occurrence: Approximately 13 miles northwest at Folsom and the same approximate distance northeast at Chili Bar. (BIOS 2015)
Habitat requirements: Summer habitats include coastal and montane coniferous forest, valley foothill woodlands, pinyon-juniper woodlands and valley foothill and montane riparian habitats below 9000 feet elevation. Feeds mainly on moths and other soft-bodied insects. Feeds over forest streams, ponds and open brushy areas. Requires drinking water. Roosts in hollow trees, snags, buildings, rock crevices, caves and under bark. Nurseries are located in dense foliage or hollow trees. (CWHR, 2005 update)
Habitat quality on project site: Suitable. Silver-haired bats are known to inhabit oak woodland near water as found on the project site.
Potential impacts: Removal of dead trees and snags would reduce the amount of potential roosting and nursery sites for the species.
Conservation recommendation: Preservation of at least three dead tree snags per acre is recommended.

Yuma myotis bat (*Myotis yumanensis)*
Range: Widespread in California from sea level to 11,000 feet elevation. Uncommon in desert regions, except the mountain ranges bordering the Colorado River Valley. (CWHR 2015)
Nearest CNDDB occurrence: About thirteen miles northeast of the project site, at Chili Bar. (BIOS 2015)
Habitat requirements: Open forests and woodlands with bodies of water. Feeds on insects taken over ponds, streams and stock tanks. Requires drinking water. Roosts in buildings, mines, caves, crevices, abandoned swallow nests and under bridges. Maternity colonies of several thousand females and young are found in warm, dark buildings, caves, mines and under bridges. (CWHR 2015)
Habitat quality on project site: Marginal. Water sources over which the species forages are limited to the wetland near the northwest corner of the project site, and scattered stock tanks. Suitable nursery habitat is not found on the project site.
Potential impacts: None expected, unless rock outcrops are disturbed, which would reduce the amount of potential habitat on the project site for the species.
Conservation recommendation: Preservation of rock outcrops and at least three dead tree snags per acre is recommended.

e. Plants

Big-scale balsamroot (*Balsamhoriza macrolepis*)
Range: Alameda, Amador, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta, Solano, Sonoma, Tehama and Tuolumne Counties (CNPS 2015).
Nearest CNDDB occurrence of record: Lincoln and Roseville areas. (BIOS 2015)
Habitat requirements: Found in chaparral, cismontane woodland, and valley and foothill grassland, sometimes on serpentine soils, between 90 and 1555 meters elevation. (CNDDB 2015).
Habitat quality on project site: Suitable. Grassland and woodland as found on the project site are the preferred habitats for the species. Species was not found on-site.
Suggested mitigation: None required because species was not found on the project site.

Brandegee's clarkia (*Clarkia biloba* ssp. *brandageeae)*
Range: Butte, El Dorado, Nevada, Placer, Sacramento, Sierra and Yuba Counties. (CNPS 2015)
Nearest CNDDB occurrence: About three miles NNW of the project site. (BIOS 2015)
Habitat requirements: Dry sites in chaparral, cismontane woodland, and lower montane coniferous forest, especially on roadcuts, 75-915 m elevation. (CNDDB 2015, CNPS 2015)
Habitat quality on project site: Marginal on cutbank of on-site driveway. Herbicide use along the driveway further limits the on-site habitat.
Potential impacts: Brandegee's clarkia was not found on the project site, so there would be no direct impact on it. Development of new roadcuts could increase potential habitat for the species.

Dwarf downingia (*Downingia pusilla)*
Range: Amador, Fresno, Merced, Napa, Placer, Sacramento, San Juaquin, Solano, Sonoma, Stanislaus, Tehama and Yuba Counties. (CNPS 2015)
Nearest CNDDB occurrence: About fifteen miles WNW of the project site, near Folsom. (BIOS 2015)
Habitat requirements: Vernal pools and wetlands in valley and foothill grassland, 1-445 m elevation. (CNDDB 2015, CNPS 2015)
Habitat quality on project site: Suitable in the wetland near the northeast corner of the project site; unsuitable on the remainder of the parcel.
Potential impacts: Dwarf downingia was not found on the project site, so no direct impact will result from the project. Disturbance of the wetland would negatively impact potential habitat for the species, but no disturbance to wetlands will result from the project as proposed.

Sanford's arrowhead (*Sagittaria sanfordii*)
Range: Butte, Del Norte, El Dorado, Fresno, Merced, Mariposa, Orange, Placer, Sacramento, San Bernardino, Shasta, San Juaquin, Solano, Tehama, Ventura and Yuba counties. (CNPS 2015)
Nearest CNDDB occurrence of record: Approximately seven miles northwest of the project site, in Sacramento County, west of El Dorado Hills. (CNDDB 2015)
Habitat requirements: Found in standing or slow-moving freshwater ponds, marshes, and ditches, 0-650 meters elevation. (CNDDB 2015)
Habitat on site: Suitable in the wetland near the northwest corner of the project site.
Potential impacts: Sanford's arrowhead was not found on the project site, so there will be no direct impact to the species. Disturbance of the wetland would negatively impact potential habitat for the species, but no disturbance to wetlands will result from the project as proposed.

VII. Tree Survey, Preservation and Replacement Plan

A. Tree Survey

The project site was surveyed May 13, 2015, and a representative sample of oak trees was counted and identified to species. Oak trees were the only trees found on-site, except for landscape trees planted near the existing house, which were not counted (Table 4). The most common oak species is blue oak (78.8%), followed by valley oak (18.8%) and interior live oak (2.4%).

Table 4. Oak species counted near proposed construction.

	Blue Oak	Valley Oak	Interior Live Oak	Total Oaks
Total Trees Counted	67	16	2	85
Percent of Sampled Canopy	78.8	18.8	2.4	100

B. Total Oak Canopy Cover

Oak woodland vegetation is found on the east slope of the 45.69-acre (1,990,256 ft^2) project site. The total oak canopy[5], measured on an aerial photograph (Figure 4), was 8.1 acres (353,416 ft^2) which is 17.8 percent of the parcel and requires 90% oak canopy retention (10% oak canopy removal allowance).

[5]Oak canopy cover is defined in El Dorado County's "Interim Interpretive Guidelines for Policy 7.4.4.4 (Option A)" as, "The area directly under the live branches of the oak trees, often defined as a percent of a given unit of land."

C. Project Impacts

Eighty-two oaks with eight-inch dbh or larger were mapped near proposed construction areas (Figure 8). Of those, three oaks will sustain greater than twenty-five percent drip area disturbance to accommodate road construction. Due to the amount of root disturbance, those trees are unlikely to survive, so their canopy loss must be mitigated, whether or not the trees are removed during construction (Table 5 and Figure 9). A portion of the canopy of trees to be removed is beneath oaks that will remain, so only the portion outside of the overlapping canopy will result in a net loss of oak canopy on the project. Total oak canopy removal will be 10,321 ft^2 (0.237 acres), but 2731 ft^2 (0.063 acre) of that is beneath oak canopy to remain. The net loss of oak canopy, therefore, is 7590 ft^2 (0.174 acre), of which 723 ft^2 (0.0166 acre) is on Parcel 3 and 6867 ft^2 (0.158) is on Parcel 4 (Table 5).

Table 5. Oak canopy to be removed.

	Parcel 3	Parcel 4		
Tree No.	140	165	167	
Oak Species	Blue	Blue	Valley	
Trunk Diameter at Breast Height (in.)	17	27	36	
Drip Radius (ft.)	23	34	40	**Total Oak Canopy Removal (ft^2)**
Canopy Area (ft^2)	1662	3632	5027	10,321
Canopy Removal Beneath Oak Canopy to Remain (ft^2)	939	693	1099	**Total Beneath Canopy to Remain (ft^2)** 2731
Net Oak Canopy Removal (ft^2)	723	2939	3928	**Net Project Oak Canopy Removal (ft^2)**
		6867		7590

The total oak canopy on the project site is 353,416 ft^2 (8.1 acres), which is 17.8 percent of the parcel and requires 90 percent oak canopy retention (318,074 ft^2, 7.3 acres). The oak canopy to be removed from the entire project is 7590 ft^2 (0.174 acre), which is 2.15 percent of the existing oak canopy, well-within the 10 percent oak canopy removal allowance (Table 6).

Table 6. Oak canopy impact, total project.

Oak Canopy Retention Requirement	Percentage of Total Oak Canopy	Acres	Square Feet
	90	7.3	318,074
Oak Canopy to be Removed	2.15	0.174	7590
Oak Canopy to be Retained	97.85	7.93	345,826

1. Oak Canopy Impact, Parcel 1

The project will have no impact on oaks found on Parcel 1.

2. Oak Canopy Impact, Parcel 2

No oak trees will be removed from Parcel 2. Seven oaks (Tree Nos. 101, 110, 112, 116, 126, 128 and 129) will sustain between 1 and 15 percent disturbance within their canopy (Figure 8). In addition, one tree (No. 111) will have construction less than five feet from the canopy area, and six additional trees (Nos. 117, 121, 122, 123, 124, and 127) are within 25 feet of proposed construction.

3. Oak Canopy Impact, Parcel 3

Tree number 140, a 17-inch dbh blue oak, will sustain more than twenty-five percent canopy disturbance, making its long-term survival questionable; therefore, mitigation is required (Table 5, Figure 9). Total parcel area is 439,956 ft^2, and the current oak canopy is 136,111 ft^2. Oak canopy to be removed is 1662 ft^2, which is 1.2 percent of the oak canopy on Parcel 3, well-within the 15 percent canopy removal allowance (Table 7).

Table 7. Oak canopy impact, Parcel 3.

		Acreage	Square Feet	
1	Size of Parcel	10.1	439,956	
2	Total Oak Canopy	3.12	136,111	
3	Oak Canopy to be Removed	0.0166	723	
4	Oak Canopy to be Retained	3.1	135,388	
5	Percent of Parcel with Existing Oak Canopy (line 2 ÷ line 1)	30.9		
6	Percent of Oak Canopy to be Removed (line 3 ÷ line 2)	0.5		
7	Percent of Oak Canopy to be Retained (line 4 ÷ line 2)	99.5		
8	Oak Canopy Retention Requirement	**Percentage**	**Acres**	**Square Feet**
		85	2.66	115,694
9	Oak Canopy Removal Allowance	15	0.47	20,417
10	Oak Canopy Removal Over Removal Allowance	0	0	

4. Oak Canopy Impact, Parcel 4

Tree 165, a 27-inch dbh blue oak and Tree 167, a 36-inch dbh valley oak, will sustain more than twenty-five percent canopy disturbance, making their long-term survival questionable; therefore, mitigation is required (Table 5, Figure 9). Total parcel area is 439,956 ft^2, and the current oak canopy is 97,406 ft^2. Oak canopy to be removed is 6867 ft^2, which is 7.1 percent of the oak canopy on Parcel 4, well-within the 15 percent canopy removal allowance (Table 8).

Table 8. Oak canopy impact, Parcel 4.

		Acreage	Square Feet	
1	Size of Parcel	10.1	439,956	
2	Total Oak Canopy	2.23	97,406	
3	Oak Canopy to be Removed	0.16	6867	
4	Oak Canopy to be Retained	2.07	90,539	
5	Percent of Parcel with Existing Oak Canopy (line 2 ÷ line 1)	22.1		
6	Percent of Oak Canopy to be Removed (line 3 ÷ line 2)	7.1		
7	Percent of Oak Canopy to be Retained (line 4 ÷ line 2)	92.9		
8	Oak Canopy Retention Requirement	**Percentage**	**Acres**	**Square Feet**
		85	1.9	82,795
9	Oak Canopy Removal Allowance	15	0.34	14,611
10	Oak Canopy Removal Over Removal Allowance	0	0	

FIGURE 8
OAK TREES NEAR CONSTRUCTION

A PORTION OF THE NW 1/4 OF SECTION 2 AND
THE NE 1/4 OF SECTION 3, T.8N., R.9E., M.D.M.
BEING TRACT 2 OF RS 19/26
EL DORADO COUNTY STATE OF CALIFORNIA
JUNE 2015
FOR: ALLEN HANSEN
APN: 087-021-05

TREE TABLE

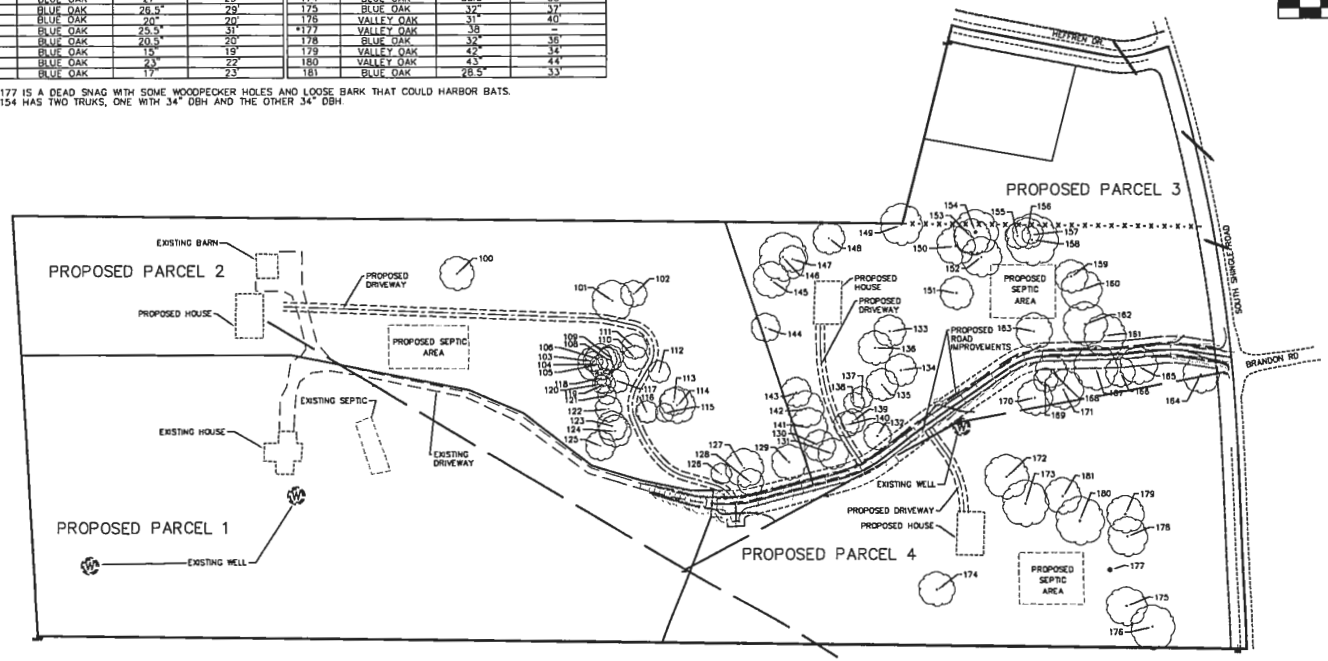
TREE #	COMMON NAME	DBH (in.)	DRIP RADIUS (ft.)	TREE #	COMMON NAME	DBH (in.)	DRIP RADIUS (ft.)
100	BLUE OAK	27"	31'	141	BLUE OAK	29"	34'
101	BLUE OAK	28"	32'	142	BLUE OAK	28"	33'
102	BLUE OAK	21"	24'	143	BLUE OAK	26.5"	27'
103	BLUE OAK	21"	18'	144	BLUE OAK	20"	26'
104	BLUE OAK	20"	32'	145	BLUE OAK	25"	33'
105	BLUE OAK	8"	16'	146	VALLEY OAK	32"	44'
106	BLUE OAK	16"	29'	147	BLUE OAK	20"	24'
107	BLUE OAK	12"	21'	148	BLUE OAK	22"	29'
108	BLUE OAK	11.5"	22'	149	BLUE OAK	34.5"	38'
109	BLUE OAK	15"	23'	150	VALLEY OAK	39"	35'
110	BLUE OAK	18"	24'	151	BLUE OAK	31"	30'
111	BLUE OAK	21"	23'	152	BLUE OAK	25"	38'
112	BLUE OAK	20"	20'	153	VALLEY OAK	20"	33'
113	BLUE OAK	17"	25'	154	VALLEY OAK	**69"	41'
114	BLUE OAK	21"	33'	155	BLUE OAK	26"	23'
115	BLUE OAK	14"	17'	156	BLUE OAK	15"	128'
116	BLUE OAK	19"	20'	157	BLUE OAK	23"	16'
117	BLUE OAK	18"	21'	158	VALLEY OAK	36"	47'
118	BLUE OAK	12"	16'	159	BLUE OAK	30"	30'
119	BLUE OAK	11"	19'	160	BLUE OAK	38"	37'
120	BLUE OAK	12.5"	17'	161	VALLEY OAK	31"	38'
121	BLUE OAK	14"	17'	162	VALLEY OAK	36"	40'
122	BLUE OAK	16.5"	24'	163	BLUE OAK	26"	33'
123	BLUE OAK	25.5"	27'	164	BLUE OAK	33"	33'
124	BLUE OAK	21"	29'	165	BLUE OAK	27"	34'
125	BLUE OAK	15"	27'	166	BLUE OAK	27"	27'
126	BLUE OAK	15.5"	19'	167	VALLEY OAK	36"	40'
127	BLUE OAK	27"	35'	168	VALLEY OAK	33"	29'
128	BLUE OAK	22"	24'	169	BLUE OAK	14"	22'
129	BLUE OAK	33"	32'	170	BLUE OAK	29"	32'
130	BLUE OAK	24"	29'	171	VALLEY OAK	32"	36'
131	BLUE OAK	29"	28'	172	VALLEY OAK	33"	40'
132	BLUE OAK	32"	25'	173	VALLEY OAK	38"	42'
133	BLUE OAK	27"	29'	174	BLUE OAK	35.5"	33'
134	BLUE OAK	26.5"	29'	175	BLUE OAK	32"	37'
135	BLUE OAK	20"	20'	176	VALLEY OAK	31"	40'
136	BLUE OAK	25.5"	31'	*177	VALLEY OAK	38	-
137	BLUE OAK	20.5"	20'	178	BLUE OAK	32"	36'
138	BLUE OAK	15"	19'	179	VALLEY OAK	42"	34'
139	BLUE OAK	23"	22'	180	VALLEY OAK	43"	44'
140	BLUE OAK	17"	23'	181	BLUE OAK	28.5"	33'

*TREE 177 IS A DEAD SNAG WITH SOME WOODPECKER HOLES AND LOOSE BARK THAT COULD HARBOR BATS.
**TREE 154 HAS TWO TRUKS, ONE WITH 34" DBH AND THE OTHER 34" DBH

LEGEND

OAK TREE

TREE NUMBER



RUTH WILLSON, BIOLOGIST
SITE CONSULTING INC.
3460 ANGEL LANE
PLACERVILLE, CA 95667

FIGURE 9
PROPOSED OAK CANOPY REMOVAL

A PORTION OF THE NW 1/4 OF SECTION 2 AND
THE NE 1/4 OF SECTION 3, T.8N., R.9E., M.D.M.
BEING TRACT 2 OF RS 19/26
EL DORADO COUNTY STATE OF CALIFORNIA
JUNE 2015
FOR: ALLEN HANSEN
APN: 087-021-05

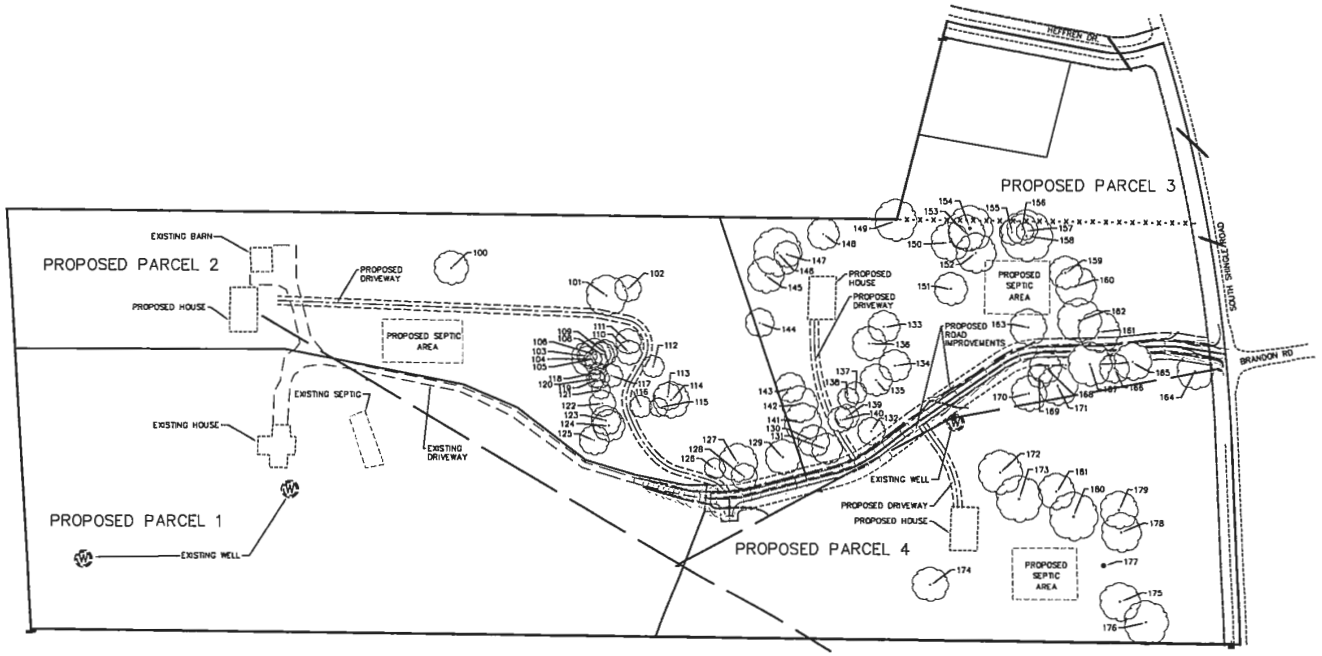
LEGEND

- OAK TREE
- ### TREE NUMBER
- OAK TREE TO BE REMOVED

N

0 200 400 600

SCALE 1" = 200'



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C. Tree Preservation

1. General Plan Policy 7.4.4.4

Policy 7.4.4.4 contains provisions to protect and conserve forest and woodland resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products and aesthetic values. Policy 7.4.4.4, Option A, requires oak canopy to be retained within development projects, with the percentage of retention dependent upon total oak canopy cover of the project.

The total oak canopy covers 17.8% of the Hansen parcel, which requires 90% oak tree retention under Policy 7.4.4.4, Option A. The oak canopy coverage and impacts per parcel follow: Parcel 1, with 9% oak canopy (90% retention required), will retain 100% of its oaks; Parcel 2, with 13% oak canopy (90% retention required), will retain 100% of its oaks; Parcel 3, having 30% oak canopy (85% retention required), will retain 99.5% of its oaks; and Parcel 4, having 22% oak canopy (85% retention required), will retain 92.9% of its oak canopy. Clearly, Option A requirements will not be exceeded on the project site (Tables 7 and 8).

2. General Plan Policy 7.4.4.5, Oak Tree Corridor Retention

Policy 7.4.4.5 requires retention of a corridor of oak trees around removed trees, maintaining continuity between all portions of the stand. The retained corridor shall have a tree density equal to the density of the stand.

An unbroken corridor of oak trees surrounds the trees to be removed, and the tree density will remain the same in the retained corridor. The project will not disrupt an oak tree corridor.

3. General Plan Policy 2.2.2.1

a. Safeguarding Trees During Construction

General Plan Policy 2.2.2.1 of the Biological Resources Study and Important Habitat Mitigation Program Guidelines, adopted November 9, 2006, has sixteen conditions for safeguarding trees during construction.

1. All oak trees over eight inches dbh in the construction area are required to be inventoried as to size and location on the site.

Eighty-two oaks eight inches dbh or larger were found in or near the construction zone (Figure 8). The oaks include 66 blue oaks and 16 valley oaks (Table 9).

Table 9. Oak trees over eight inches dbh within or near the construction zone.

Tree Size (dbh, inches)																
8	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1	1	3	1	3	4	2	3	2	1	7	6	1	2	1	2	4
Tree Size (dbh, inches)																
27	28	29	30	31	32	33	35	36	38	39	42	43	79	**Total**		
7	2	4	1	3	5	4	1	4	3	1	1	1	1	82		

2 a. Grading, cutting or filling within the tree root zone or within a five foot distance of the tree root zone of an oak to be preserved shall be supervised by a Certified Arborist/qualified professional.

Thirteen oak trees will be retained that will have soil disturbance of no more than 25% of the tree root zone (Table 10), and five more are within five feet of the tree root zone (Table 11).

Table 10. Oak trees to be retained with 25% or less construction disturbance within the tree root zone.

Tree No.	101	110	112	116	126	128	129	132	139	152	161	163	164	16	168
% Root Zone Disturbance	8	1	5	2	2	15	2	15	2	2	10	15	20	10	20

Table 11. Oak trees within five feet of the construction zone.

Tree Number	111	158	159	162	169

2 b. Grading, cutting or filling beyond five feet but within twenty feet of oak trees 6-inches dbh or greater will be monitored by an independent professional.

Eighteen trees were found beyond five feet but within twenty feet of the construction site (Table 12). It is recommended those trees be monitored for stress, particularly during the dry season, and supplemental irrigation be provided once monthly from July through September for three years if signs of stress are found.

Table 12. Oak trees five to twenty feet from the construction zone.

Tree Number	117	121	122	123	124	127	128	130	131
	138	139	141	142	143	160	170	171	180

3. Damage to any protected tree during construction shall be reported to Planning Services. The property owner shall be responsible for correcting any damage to protected trees on the property in a manner specified by a Certified Arborist/qualified professional.

4. No oil, gasoline, chemicals or other construction materials or equipment will be stored within any oak tree root zone.

5. Drains shall be installed to direct water run-off away from oak tree root zones.

6. Wires, signs and similar items shall not be attached to protected trees.

7. The existing ground surface within the tree root zone of protected trees shall not be cut, filled, compacted or pared. No soil shall be stored or filled within the root zone of oaks.

See No. 2 (above) and No. 11 (below) for Arborist's recommendations for trees to be retained that are near the construction site.

8. No paint thinner, paint, plaster or other liquid or solid excess or waste construction material or waste water will be dumped between the tree root zone and the base of protected trees, or uphill from protected trees where such substance might reach the roots through leaching.

9. A minimum four-foot tall temporary orange standard tree protection fence will be installed five feet beyond the dripline of protected oaks, and shall be maintained until construction is complete.

10. When cuts are made near roots of protected trees, appropriate measures will be taken to prevent exposed soil from drying out.

11. Any cuts within root zones of retained trees will be made before grading and shall utilize methods that would make clean cuts to roots, such as vibrating knives, rock saws, narrow trenchers with sharp blades or hand tools. Root disturbances shall not be accomplished by rough grading equipment such as excavators, bulldozers, graders or backhoes. All excavation activities within the root zone of retained oaks shall be under the direction and supervision of a Certified Arborist or qualified professional.

When oak roots are disturbed, it is recommended that any frayed ends of the exposed roots be pruned with hand equipment to the nearest healthy root junction.

12. No building materials, vehicles or equipment shall be parked or stored within the tree root zone of any protected tree during development.

13. No metal stakes will be driven into tree trunks, stems or the tree root zone of protected trees for any purpose other than to support the tree.

14. No open flames will be allowed within fifteen feet of the foliar canopy or trunk of a protected tree.

15. No trenching will be allowed within the root zone of protected oaks, except as allowed in No. 11, above. If it is absolutely necessary to install underground utilities within the root zone of protected trees, the trench shall be either bored or drilled unless a Certified Arborist/qualified professional determines that the trenching will not endanger protected trees.

16. No paving shall be installed within the root zone of protected trees. Only porous materials shall be installed beneath protected trees.

b. Safeguarding Trees After Construction

It is recommended that the project owners monitor trees having construction-related root disturbances for stress (excessive leaf fall, wilting, dieback, etc.), particularly during the dry season. If signs of stress are found, it is recommended that supplemental deep irrigation be provided once monthly during July, August and September for three years after construction. Supplemental irrigation is especially important for trees having more than 25% root zone disturbances, if those trees are retained.

Landscaping beneath oak trees should be limited to drought resistant plants or mulch materials such as wood chips. All landscaping should be kept at least five feet away from the trunk of oaks.

D. Tree Replacement Plan

1. Revegetation

County standards require a 1:1 ratio between canopy removal area and mitigation area. Replacement standards require 200 trees (or 600 acorns) per acre with a survival rate of 90 percent after ten years. No mitigation is required for Parcels 1 and 2. Mitigation calculations for trees proposed to be removed from Parcel 3 are shown in Table 13, and calculations for Parcel 4 are shown in Table 14. Proposed replacement areas are shown on Figure 10, but the project proponent may choose another replacement site. There is plenty of area available for mitigation purposes on all proposed parcels.

Table 13. Oak canopy replacement calculations for proposed oak removal, **Parcel 3**.

1	Oak Canopy to be Removed	723 ft^2	0.0166 acres
2	Mitigation saplings (line 1 acreage x 200 trees/acre) = # saplings; OR acorns (line 1 acreage x 600 acorns/acre) = # acorns	4 saplings OR 10 acorns	

Table 14. Oak canopy replacement calculations for proposed oak removal, **Parcel 4**.

1	Oak Canopy to be Removed	6867 ft^2	0.158 acres
2	Mitigation Plants (line 1 acreage x 200 trees/acre) = # saplings; OR acorns (line 1 acreage x 600 acorns/acre) = # acorns	32 saplings OR 95 acorns	

It is recommended that blue oaks be planted for mitigation. If valley oaks are planted, they should be placed on the easternmost, flatter portion of the parcel, or along the intermittent creek.

Planting should follow the guidelines found in *How to Grow California Oaks*[6]. Saplings should be planted with the top of their root flare at ground level and should be protected from sun-scald and browsing animals by tree protection collars. Ground around the trees should be mulched to control weeds, and supplemental irrigation should be provided every two to four weeks during June, July, August and September (or as needed during an unusually dry winter) the first two years after planting.

Acorns should be collected from trees on or adjacent to the project site. Only acorns lacking evidence of insect infestation must be planted, ie. reject any that are very small, cracked, have insect exit holes or feel light and hollow. Acorns should be planted about one-half inch deep in soil that has been loosened to 6 inches or more depth. Acorns should be covered with 1-2 inches of natural fiber mulch (wood or bark chips, straw, etc.), and planting sites/seedlings protected with tree collars to protect them from animals. Supplemental irrigation is not needed for acorns. Further details about collection, planting and storage of acorns may be found in *How to Grow California Oaks.*

[6] McCreary, D. 1995. *How to Grow California Oaks.* University of California Agriculture and Natural Resources Publication 21540.

FIGURE 10
PROPOSED OAK MITIGATION AREAS

A PORTION OF THE NW 1/4 OF SECTION 2 AND
THE NE 1/4 OF SECTION 3, T.8N., R.9E., M.D.M.
BEING TRACT 2 OF RS 19/26
EL DORADO COUNTY STATE OF CALIFORNIA
JUNE 2015
FOR: ALLEN HANSEN
APN: 087-021-05

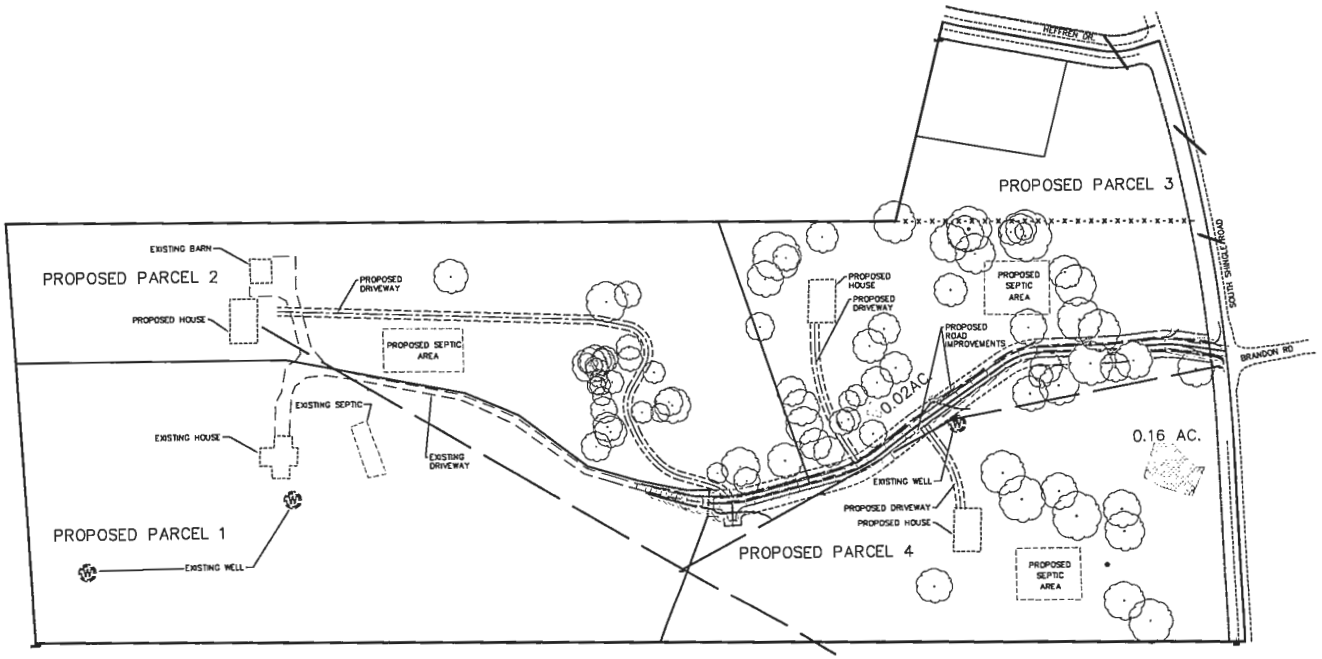
LEGEND

- OAK TREE
- OAK CANOPY TO BE REMOVED
- POTENTIAL OAK MITIGATION AREA

N

0 200 400 600

SCALE 1" = 200'



RUTH WILLSON, BIOLOGIST
WILLSON CONSULTING INC
3460 ANGEL LANE
PLACERVILLE, CA 95667

2. Monitoring and Reporting

Item 2.2.3.1 of the El Dorado County *Biological Resources Study and Important Habitat Mitigation Program Guidelines, Adopted November 9, 2006* outlines reporting requirements for discretionary projects lots utilizing on-site replacement mitigation, summarized below.

A. The monitoring period shall be ten years (15 years for acorns);
B. The mitigation plants will be monitored and photographed annually by a qualified professional;
C. The qualified professional shall report, in writing, to the County annually, on the condition of the trees and number of failures;
D. If the failure rate of the replacement planting exceeds 10 percent of the replanted trees, then replanting of those trees that have not survived is required. The monitoring period will not be extended past the ten (or fifteen) years from the original planting date.
E. The monitoring requirements shall be placed into a standard "Notice of Restriction" or similar County approved document and recorded on the title of the subject property. Once the 10 year (or 15 year) monitoring period has been successfully completed, the County shall record a release of the Notice of Restriction.

IV. Report Certification

I hereby certify that the statements furnished above and in the attached exhibits, if any, present the data and information required for this Arborist Report, and that the facts, statements and information presented herein are true and correct to the best of my knowledge and belief.

Ruth Willson
ISA Certified Arborist WE 8335A
Expiration Date June 30, 2017

Date

X. References

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APPENDIX A

United States Fish and Wildlife Service
IpaC Trust Resource Report
Generated May 12, 2015

U.S. Fish & Wildlife Service

My project

IPaC Trust Resource Report

Generated May 12, 2015 03:34 PM MDT

US Fish & Wildlife Service

IPaC Trust Resource Report

Project Description

NAME

My project

PROJECT CODE

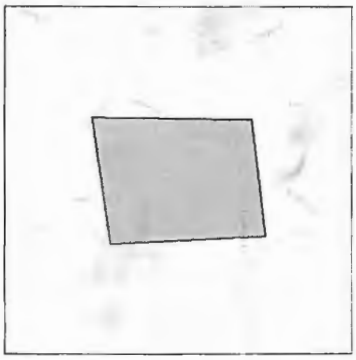
55WVZ-RA2CV-D3FAH-HMO3B-IIYQHE

LOCATION

El Dorado County, California

DESCRIPTION

No description provided



U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

Sacramento Fish And Wildlife Office
Federal Building
2800 COTTAGE WAY, ROOM W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the Endangered Species Program and should be considered as part of an effect analysis for this project.

Amphibians

California Red-legged Frog Rana draytonii

CRITICAL HABITAT

There is final critical habitat designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=D02D

Crustaceans

Vernal Pool Fairy Shrimp Branchinecta lynchi

CRITICAL HABITAT
There is **final** critical habitat designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=K03G

Fishes

Delta Smelt Hypomesus transpacificus

CRITICAL HABITAT
There is **final** critical habitat designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=E070

Steelhead Oncorhynchus (=Salmo) mykiss

CRITICAL HABITAT
There is **final** critical habitat designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=E08D

Insects

Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus

CRITICAL HABITAT
There is **final** critical habitat designated for this species.

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=I01L

Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

There is no critical habitat within this project area

Migratory Birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

Bald Eagle Haliaeetus leucocephalus — Bird of conservation concern
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008

Black Rail Laterallus jamaicensis — Bird of conservation concern
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B09A

Burrowing Owl Athene cunicularia — Bird of conservation concern
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0NC

Calliope Hummingbird Stellula calliope — Bird of conservation concern
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0K3

Costa's Hummingbird Calypte costae — Bird of conservation concern
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0JE

Flammulated Owl Otus flammeolus — Bird of conservation concern
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DK

Fox Sparrow Passerella iliaca — Bird of conservation concern
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0NE

Green-tailed Towhee Pipilo chlorurus — Bird of conservation concern
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0IO

Lewis's Woodpecker Melanerpes lewis — Bird of conservation concern
Season: Wintering
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HQ

Loggerhead Shrike Lanius ludovicianus — Bird of conservation concern
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FY

Nuttall's Woodpecker Picoides nuttallii — Bird of conservation concern
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HT

Oak Titmouse Baeolophus inornatus — Bird of conservation concern
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0MJ

Peregrine Falcon Falco peregrinus — Bird of conservation concern
Season: Wintering
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FU

Short-eared Owl Asio flammeus — Bird of conservation concern
Season: Wintering
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD

Snowy Plover Charadrius alexandrinus — Bird of conservation concern
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0L6

White Headed Woodpecker Picoides albolarvatus — Bird of conservation concern
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HU

Williamson's Sapsucker Sphyrapicus thyroideus — Bird of conservation concern
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FX

Yellow-billed Magpie Pica nuttalli — Bird of conservation concern
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0N8

Refuges

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

Wetlands

Impacts to NWI wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Freshwater Pond
PUBFh

0.161 acre

APPENDIX B

California Department of Fish and Game
Natural Diversity Database RareFind 5 Report
Latrobe and Surrounding USGS Quads
updated May 5, 2015

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad is (Latrobe (3812058) or Amador City (3812047) or Irish Hill (3812048) or Folsom SE (3812151) or Clarksville (3812161) or Carbondale (3812141) or Fiddletown (3812057) or Placerville (3812067) or Shingle Springs (3812068))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Endangered	G2G3	S1S2	SSC
Allium jepsonii Jepson's onion	PMLIL022V0	None	None	G1	S1	1B.2
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	SSC
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Andrena blennospermatis Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arctostaphylos myrtifolia Ione manzanita	PDERI04240	Threatened	None	G2	S2	1B.2
Arctostaphylos nissenana Nissenan manzanita	PDERI040V0	None	None	G1	S1	1B.2
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S2S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Calystegia stebbinsii Stebbins' morning-glory	PDCON040H0	Endangered	Endangered	G1	S1	1B.1
Ceanothus roderickii Pine Hill ceanothus	PDRHA04190	Endangered	Rare	G1	S1	1B.2
Central Valley Drainage Hardhead/Squawfish Stream Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Chlorogalum grandiflorum Red Hills soaproot	PMLIL0G020	None	None	G3	S3	1B.2
Chrysis tularensis Tulare cuckoo wasp	IIHYM72010	None	None	G1G2	S1S2	
Clarkia biloba ssp. brandegeeae Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
Cosumnoperla hypocrena Cosumnes stripetail	IIPLE23020	None	None	G2	S2	
Crocanthemum suffrutescens Bisbee Peak rush-rose	PDCIS020F0	None	None	G2Q	S2	3.2
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eriogonum apricum var. apricum Ione buckwheat	PDPGN080F1	Endangered	Endangered	G2T1	S1	1B.1
Eriogonum apricum var. prostratum Irish Hill buckwheat	PDPGN080F2	Endangered	Endangered	G2T1	S1	1B.1
Eryngium pinnatisectum Tuolumne button-celery	PDAPI0Z0P0	None	None	G2	S2	1B.2
Fremontodendron decumbens Pine Hill flannelbush	PDSTE03030	Endangered	Rare	G1	S1	1B.2
Galium californicum ssp. sierrae El Dorado bedstraw	PDRUB0N0E7	Endangered	Rare	G5T1	S1	1B.2
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S2	FP
Horkelia parryi Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
Hydrochara rickseckeri Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
Ione Chaparral Ione Chaparral	CTT37D00CA	None	None	G1	S1.1	
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G5	S3S4	
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G3	S2S3	

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Navarretia myersii ssp. myersii pincushion navarretia	PDPLM0C0X1	None	None	G1T1	S1	1B.1
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
Oncorhynchus mykiss irideus steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Packera layneae Layne's ragwort	PDAST8H1V0	Threatened	Rare	G2	S2	1B.2
Pekania pennanti fisher - West Coast DPS	AMAJF01021	Proposed Threatened	Candidate Threatened	G5T2T3Q	S2S3	SSC
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Spea hammondii western spadefoot	AAABF02020	None	None	G3	S3	SSC
Sphenopholis obtusata prairie wedge grass	PMPOA5T030	None	None	G5	S2	2B.2
Thamnophis gigas giant garter snake	ARADB36150	Threatened	Threatened	G2	S2	
Viburnum ellipticum oval-leaved viburnum	PDCPR07080	None	None	G5	S3	2B.3
Wyethia reticulata El Dorado County mule ears	PDAST9X0D0	None	None	G2	S2	1B.2

Record Count: 55

APPENDIX C

California Native Plant Society
On-line Inventory of Rare and Endangered Plants
Latrobe and Surrounding USGS Quads
v7-15may 5-7-15

CNPS California Native Plant Society

Status: search results - Tue, May. 12, 2015 15:54 ET c

{QUADS_123} =~ m/510C|494A|494B|511D|511A|495A|510D|510A|510B/ Search

Tip: Words meant to be searched as a unit should be wrapped in quotes, e.g., "coastal dunes".
[all tips and help.][search history]

Your Quad Selection: Latrobe (510C) 3812058, Amador City (494A) 3812047, Irish Hill (494B) 3812048, Folsom SE (511D) 3812151, Clarksville (511A) 3812161, Carbondale (495A) 3812141, Fiddletown (510D) 3812057, Placerville (510A) 3812067, Shingle Springs (510B) 3812068

Hits 1 to 23 of 23

Requests that specify topo quads will return only Lists 1-3.

To save selected records for later study, click the ADD button.

ADD checked items to Plant Press check all check none

Selections will appear in a new window.

open	save	hits	scientific	common	family	CNPS
		1	Allium jepsonii	Jepson's onion	Alliaceae	List 1B.2
		1	Arctostaphylos myrtifolia	Ione manzanita	Ericaceae	List 1B.2
		1	Arctostaphylos nissenana	Nissenan manzanita	Ericaceae	List 1B.2
		1	Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	List 1B.2
		1	Calystegia stebbinsii	Stebbins' morning-glory	Convolvulaceae	List 1B.1
		1	Ceanothus roderickii	Pine Hill ceanothus	Rhamnaceae	List 1B.1
		1	Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	List 1B.2
		1	Crocanthemum suffrutescens	Bisbee Peak rush-rose	Cistaceae	List 3.2
		1	Downingia pusilla	dwarf downingia	Campanulaceae	List 2B.2
		1	Erigeron miser	starved daisy	Asteraceae	List 1B.3
		1	Eriogonum apricum var. apricum	Ione buckwheat	Polygonaceae	List 1B.1
		1	Eriogonum apricum var. prostratum	Irish Hill buckwheat	Polygonaceae	List 1B.1
		1	Eryngium pinnatisectum	Tuolumne button-celery	Apiaceae	List 1B.2
		1	Fremontodendron decumbens	Pine Hill flannelbush	Malvaceae	List 1B.2
		1	Galium californicum ssp. sierrae	El Dorado bedstraw	Rubiaceae	List 1B.2
		1	Horkelia parryi	Parry's horkelia	Rosaceae	List 1B.2

	1	**Legenere limosa**	legenere	Campanulaceae	List 1B.1
	1	**Navarretia myersii ssp. myersii**	pincushion navarretia	Polemoniaceae	List 1B.1
	1	**Packera layneae**	Layne's ragwort	Asteraceae	List 1B.2
	1	**Sagittaria sanfordii**	Sanford's arrowhead	Alismataceae	List 1B.2
	1	**Sphenopholis obtusata**	prairie wedge grass	Poaceae	List 2B.2
	1	**Viburnum ellipticum**	oval-leaved viburnum	Adoxaceae	List 2B.3
	1	**Wyethia reticulata**	El Dorado County mule ears	Asteraceae	List 1B.2

To save selected records for later study, click the ADD button.
ADD checked items to Plant Press check all check none
Selections will appear in a new window.

No more hits.

APPENDIX D

Evaluation of Special-status Species with Known Occurrences in Latrobe and Surrounding USGS Quads

Notations and Symbols

Species printed in bold are listed under Federal and/or California Endangered Species Acts.

Listing Status = Federal and California Endangered Species Acts listing status:
E = Endangered R = Rare T = Threatened
D = De-listed C = Candidate for listing

CNDDB Ranks are shorthand formulas compiled by the California Natural Diversity Database that provide information on the rarity of species in their global range (G1 to G5) and within the state (S1toS5). Status of subspecies is also ranked (T1 to T5).

G1 or S1 or T1 = Extremely endangered: <6 viable occurrences (EOs) or <1000 individuals or <2000 acres of occupied habitat
G2 or S2 or T2 = Endangered: 6-20 EOs or 1000-3000 individuals or 2000-10,000 acres
G3 or S3 or T3 = Restricted range, rare: 21-80 EOs or 3000-10,000 individuals or 10,000-50,000 acres
G4 or S4 or T4 = Apparently secure: factors exist to cause some concern, such as narrowing of habitat
G5 or S5 or T5 = Demonstrably secure: commonly found throughout its historic range.
GU = Unrankable

Other Notations

G1G3 = proper rank is most likely withing this range of ranks
G2? = proper rank is probably G2
Q = there is some taxonomic question about the species

Abbreviations

CDFW = California Department of Fish and Wildlife
FP = Fully protected species
SSC = CDFW Species of Special Concern
CNDDB = California Natural Diversity Database
CNPS = California Native Plant Society
1B = CNPS list of rare, threatened or endangered plants in California and elsewhere
2 = CNPS list of rare, threatened or endangered plants in California, but more common elsewhere
3 = CNPS review list of plants with limited distribution information or problematic taxonomy
4 = Plants of Limited Distribution; a watch list
.1 = Seriously endangered in California (over 80% of occurrences threatened/ high degree of immediate threat
.2 = Fairly endangered in California (20-80% of occurrences threatened)
.3 = Not very endangered in California (<20% of occurrences threatened or no threats known)
CWHR = California Department of Fish and Wildlife's California Wildlife Habitat Relations
ICUN = World Conservation Union
VU = World Conservation Union list of vulnerable species
LC = World Conservation Union list of species of least concern
USBC = United States Bird Conservancy
WL = Watch list = USBC list of threatened and declining species
USFWS = United States Fish and Wildlife Service

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
Invertebrates				
Andrena blennospermatis Blennosperma vernal pool andrenid bee	— / —	G2 S2	Forages on vernal pool *Blennosperma* plants. Nests in uplands surrounding vernal pools. (CNDDB 2015)	No. Project site has no *Blennosperma* plants.
Banksula californica Alabaster cave harvestman	— / —	GH SH	Known only from Alabaster Cave, 5.5 miles west of Pilot Hill alongside Rattlesnake Bar Road. (CNDDB 2015)	No. Project site has no caves.
Branchinecta lynchi **Vernal pool fairy shrimp**	T / —	G3 S2S3	Vernal pools in grasslands of the Central Valley, Central Coast Ranges and South Coast Mountains. (CNDDB 2015) Known to occur in a wide range of vernal pool habitats in the southern and Central Valley areas of California. (USFWS 2015)	No. Project site has no vernal pools.
Branchinecta mesovaliensis Midvalley fairy shrimp	— / —	G2 S2	Vernal pools in the Central Valley. (CNDDB 2015)	No. Project site has no vernal pools.
Chrysis tularensis Tulare cuckoo wasp	— / —	G1G2 S1S2	Vernal pools in the Central Valley. (CNDDB 2015)	No. Project site has no vernal pools.
Cosumnoperia hypocrena Cosumnes stripetail stonefly	— / —	G2 S2	Found in intermittent streams on western slope of central Sierra Nevada foothills in American and Cosumnes River basins. (CNDDB 2014)	Yes. See text for further discussion.
Desmocerus californicus dimorphus **Valley elderberry longhorn beetle**	T / —	G3T2 S2	Elderberry shrubs (*Sambucus* species), are the host plants of the beetles (USFWS 1999). Prefers stressed hosts with 2-8 inch diameter trunks (CNDDB 2014)	No. The host plant was not found on the project site.
*Hydrochara ricksecker*i Ricksecker's water scavenger beetle	— / —	G2? S2?	Vernal pools and seasonal wetlands. Larvae are aquatic, probably predaceous, and adults are probably scavengers. (CNDDB 2012)	Yes. See text for further discussion.
Lepidurus packardi **Vernal pool tadpole shrimp**	E / —	G3 S2S3	Found in vernal pools in the Sacramento Valley and San Francisco Bay area. (USFWS 2015)	No. The project site has no vernal pools.
Linderiella occidentalis California linderiella	— / —	G2G3 S2S3	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. (CNDDB 2015) Currently known from the Central Valley and Coast ranges of California. (USFWS 2015)	No. Suitable pools and soils are not found on the project site.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
Fish				
Hypomesus transpacificus **Delta smelt**	**T / E**	G1 S1	Sacramento-San Juaquin river delta including side channels and sloughs. (MCGinnis 1984)	No. Project site has no perennial streams.
Mylopharodon conocephalus Hardhead	— / — (SSC)	G3 S3	Low to mid-elevation streams in the Sacramento-San Joaquin drainage having clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. (CNDDB 2014)	No. Project site has no perennial streams.
Oncorhynchus mykiss irideus **Central Valley steelhead**	**T / —**	G5T2Q S1S2	Sacramento and San Juaquin Rivers and their tributaries that have direct access to the ocean (ie. no dams) (MCGinnis 1984)	No. Project site has no perennial streams.
Oncorhynchus tsawaytscha **Winter-run chinook salmon, Sacramento River**	**E / E**	G5 S1	Sacramento and San Juaquin Rivers and their tributaries that have direct access to the ocean (ie. no dams) (MCGinnis 1984)	No. Project site has no perennial streams.
Oncorhynchus tsawaytscha **Central Valley spring-run chinook salmon**	**T / T**	G5 S1	Sacramento and San Juaquin Rivers and their tributaries that have direct access to the ocean (ie. no dams) (MCGinnis 1984)	No. Project site has no perennial streams.
Amphibians				
***Ambystoma californiense* central population** **California tiger salamander**	**T / T** (SSC)	G2G3 S2S3	Grasslands, oak savannah, edges of mixed woodland up to 1054 meters elevation. Breeds in temporary pools in rainy season; lives in rodent or ground squirrel burrows remainder of year. (CWHR 2015)	No. Project site is not within the known range of the species. Nearest CNDDB occurrences are near Galt and Ione, CA.
Rana boylii Foothill yellow-legged frog	— / — (SSC	G3 S2S3	Found in or near perennial, rocky streams in a variety of habitats from sea level to 1940 m (6370 ft) elevation. (CWHR 2015)	No. Project site has no perennial streams.
Rana draytonii **California red-legged frog** Also critical habitat	**T / —** (SSC)	G2G3 S2S3	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. (CNDDB 2015)	No. Wetlands on-site are shallow and lack suitable shrubby or emergent riparian vegetation. Project site is not within critical habitat designated for the species.
Spea hammondii Western spadefoot toad	— / — (SSC)	G3 S3	Occurs primarily in grassland habitats, but alos valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying. (CNDDB 2015) The species has never been reported from El Dorado County. (USFWS 2015)	No. Suitable breeding habitat is not found on the project site.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
Reptiles				
Emys marmorata Western pond turtle	— / — (SSC)	G3G4 S3	Associated with permanent or nearly permanent water in a wide variety of habitat types. (CWHR 2015)	No. Project site has no permanent water habitat.
Phrynosoma blainvillii Coast horned lizard	— / — (SSC)	G3G4 S3S4	Sacramento Valley, surrounding foothills and Coast Ranges below 1200 m (4000 ft) elevation. Requires sandy or loose soil with abundant ant colonies for foraging. (CWHR 2015)	Yes. See text for further discussion.
Thamnophis gigas **Giant garter snake**	**T / T**	G2 S2	Freshwater marshes, low-gradient streams, drainage canals; winters in small mammal burrows in adjacent upland. Ranges from Butte Co. to Fresno Co. (CWHR 2015)	No. Project site is out of the known range of the species. Nearest CNDDB occurrence is near Sloughhouse along the Amador/Sacramento counties line.
Birds				
Accipiter cooperii (nesting) Cooper's hawk	— / — (IUCN:LC)	G5 S4	Nests in deciduous trees in riparian areas or second-growth conifers near streams. (CWHR 2015)	Yes. See text for further discussion.
Accipiter gentilis (nesting) Northern goshawk	— / — (SSC)	G5 S3	Nests in mature, dense conifer forest. (CWHR 2015) Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees. (CNDDB 2015)	No. Project site has no dense conifer forest habitat.
Accipiter striatus (nesting) Sharp-shinned hawk	— / — (CDFW:WL)	G5 S3	Ponderosa pine, black oak, riparian deciduous, mixed conifer & Jeffrey pine habitats. Prefers riparian areas. Nests usually within 275 ft of water. (CNDDB 2015)	No. Project site has no suitable conifer forest habitat.
Agelaius tricolor (nesting colony) Tricolored blackbird	— / **E** (SSC)	G2G3 S1S2	Dense thickets of cattail, tule, willow, blackberry, wild rose or tall herbs near or emergent from water (CWHR 2015)	No. Project site has no aquatic thicket habitat.
Ammodramus savannarum (nesting) Grasshopper sparrow	— / — (SSC)	G5 S2	Summer resident and breeder in dry, dense grasslands in foothills and lowlands with scattered shrubs west of Sierra-Cascade ranges. Uses shrubs for singing perches. (CWHR 2015)	Yes. See text for further discussion.
Aquila chrysaetos (nesting and wintering) Golden eagle	— / — (IUCN:LC)	G5 S3	Nests on cliffs and in large trees in large open areas in rolling foothills. Home range in Northern California averages 124 km² (48 mi²). (CWHR 2015)	Yes. See text for further discussion.
Ardea alba (rookery) Great egret	— / — (CDF:S)	G5 S4	Nests in large trees near marshes, tide-flats, irrigated pastures, margins of lakes and rivers. (CWHR 2015)	No. Project site lacks suitable wetland habitat.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
Ardea herodias (rookery) Great blue heron	— / — (CDF:S)	G5 S4	Forages in marshes, lakes margins, tide-flats, rivers, streams, wet meadows. Nests in colonies in tall trees, cliffsides, marshes near forage sites. (CWHR 2015)	No. Project site has no suitable rookery habitat.
Asio flammeus (nesting) Short-eared owl	— / — (SSC)	G5 S3	Freshwater and saltwater marshes, lowland meadows and irrigated alfalfa fields with dense tules or tall grass for nesting and daytime roosts. (CWHR 2015)	No. Project site lacks suitable wetland or alfalfa field habitats.
Asio otus (nesting) Long-eared owl	— / — (SSC)	G5 S3?	Riparian habitat required; also uses live oak thickets and other dense stands of trees with adjacent open lands for foraging. (CWHR 2015)	No. Project site has neither riparian woodland nor dense tree stands/thickets.
Athene cunicularia (burrow sites) Western burrowing owl	— / — (SSC)	G4 S3	Open, dry grassland and desert habitats; in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. (CWHR 2015)	Yes. See text for further discussion.
Baeolophus inornatus (nesting) Oak titmouse	— / — (BCC)	G4 S4	Primarily associated with oaks; prefers open woodlands of oak, pine and oak, juniper and pinyon. Ventures into residential areas. (CWHR 2015)	Yes. See text for further discussion.
Botaurus lentiginosus American bittern	— / — (IUCN:LC)	G4 S4	Fresh or saline emergent wetlands, adjacent shallow water of lakes, backwaters of rivers or estuaries. Nests within emergent aquatic vegetation.(CWHR 2015)	No. Project site has lacks wetland habitat having dense emergent vegetation.
Buteo lagopus (wintering) Rough-legged hawk	— / — (IUCN:LC)	G5 SNRN	Migrant and winter resident in California lowlands. Hunts in wet meadows, marshes, swamps, riparian edges. (CWHR 2015)	Yes. See text for further discussion.
Buteo regalis (wintering) Ferruginous hawk	— / — (SSC)	G4 S3S4	Requires large, open tracts of grasslands, sparse shrub, or desert habitats with elevated structures for nesting. (CWHR 2015)	No. Project site lacks open grassland habitat.
***Buteo swainsoni* (nesting)** **Swainson's hawk**	— / T (SSC)	G5 S23	Breeds in stands with few trees in juniper-sage flats, riparian areas and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable grain or alfalfa fields or pastures. (CWHR 2015)	No. Project site is not within the range of the species.
Calypte costae (nesting) Costa's hummingbird	— / — (IUCN:LC)	G5 S4	Desert riparian, desert and arid scrub foothill habitats. (CNDDB 2015)	No. Project site lacks riparian and scrub foothill habitats.
Chaetura vauxi (nesting) Vaux's swift	— / — (SSC)	G5 S3	Redwood and Douglas-fir habitats with nest sites in hollow trees and snags. (CWHR 2013)	No. Project site has no redwood or Douglas-fir habitats.
Charadrius alexandrinus (nesting) Snowy plover	T / — (BCC)	G3S3 S2	Sandy beaches, salt pond levees & shores of large alkali lakes. (CNDDB 2015)	No. Project site lacks suitable beach, pond or lake habitats.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
Charadrius montanus (wintering) Mountain plover	— / — (SSC)	G2 S2?	Winters in open plains or rolling hills with short grasses or very sparse vegetation in plowed fields and sandy deserts. Tolerates up to 70% short vegetative cover. (CWHR 2015)	No. Project site has no sparsely vegetated habitat.
Chondestes grammacus (nesting) Lark sparrow	— / — (IUCN:LC)	G5 S4S5	Resident in lowlands and foothills throughout much of California. Frequents sparse valley foothill hardwood, valley foothill hardwood-conifer, open mixed chaparral and similar brushy habitats, and grasslands with scattered trees or shrubs. (CWHR 2015)	Yes. See text for further discussion.
Circus cyaneus (nesting) Northern harrier	— / — (SSC)	G5 S3	Nests on ground in shrubby vegetation, usually at edge of marsh or along rivers or lakes, in various habitats up to 800 m in Sierra Nevada and elsewhere. (CWHR 2015)	No. Project site lacks shrubby vegetation near aquatic habitat.
Cinclus mexicanus American dipper	— / — (IUCN–LC)	G5 S?	Confined to clear, clean streams and rivers with rocky shores and bottoms in the mountains. (CWHR 2015)	No. Project site has no stream or river habitats.
***Coccyzus americanus* (nesting) Western yellow-billed cuckoo**	**T / E**	G5T3Q S1	Inhabits extensive deciduous riparian thickets with willows and dense, low-level foliage, which abut slow-moving watercourses, backwaters, or seeps. (CWHR 2015)	No. Project site lacks riparian thickets and waters.
Contopus cooperi (nesting) Olive-sided flycatcher	— / — (SSC)	G4 S4	Conifer or mixed hardwood/conifer forests (montane hardwood-conifer). Requires high perches for singing and hunting. (CWHR 2015)	No. Project site lacks montane hardwood-conifer habitat.
Cypseloides niger (nesting) Black swift	— / — (SSC)	G4 S2	Steep, rocky, often moist locations on cliff either on sea or behind or adjacent to a waterfall in a deep canyon. (CWHR 2015)	No. Project site lacks cliff, waterfall and deep canyon habitats.
Elanus leucurus (=*Elanus caeruleus*) White-tailed kite (=Black-shouldered kite) (nesting)	— / — (CDFW: FP) (IUCN: LC)	G5 S3S4	Resident in coastal and valley lowlands; rarely found away from agricultural areas. Nests near top of dense stand of oaks or other trees (CWHR 2015)	No. Project site lacks open, agricultural habitat required for foraging by the species.
Empidonax traillii brewsteri (nesting) **Little willow flycatcher**	— / **E**	G5T3T4 S1S2	Wet meadows and montane riparian vegetation, 600-2500 m (2000 ti 8000 ft) elevation. Dense willow thickets are required for nesting and roosting. (CWHR 2015)	No. Project site has no willow thickets.
Falco columbarius (wintering) Merlin	— / — (IUCN: LC)	G5 S4	Winter migrant utilizing habitats from grassland to Ponderosa pine and montane hardwood-conifer below 1500 m. Found in dense tree stands near water. (CWHR 2015)	Yes. See text for further discussion.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
Falco mexicanus (nesting) Prairie falcon	— / — (IUCN: LC)	G5 S4	Distributed from grassland through alpine meadows, but usually found in grasslands. Nests on ledge of cliff overlooking open area. (CWHR 2015)	No. Project site lacks suitable cliff nesting habitat.
***Falco peregrinus anatum* (nesting)** **American peregrine falcon**	**D / D** (IUCN: LC)	G4T3 S3S4	Requires protected cliffs and ledges for cover. Breeds near water on high cliffs, banks, dunes, mound; occasionally in tree or snag cavities or old nests of other raptors. (CWHR 2015)	No. Project site lacks suitable cover and breeding habitats.
Haliaeetus leucocephalus (nesting, wintering) **Bald eagle**	**D / E**	G5 S2	Large bodies of water or free-flowing rivers with abundant fish, and adjacent snags or other perches. (CWHR 2015)	No. Project site is too far from suitable river or lake foraging habitats.
Icteria virens (nesting) Yellow-breasted chat	— / — (SSC)	G5 S3	Nests in dense riparian habitats dominated by willows, alders, Oregon ash, tall weeds, blackberry vines and grapevines. (CWHR 2015)	No. Project site has no riparian habitat.
Lanius ludovicianus (nesting) Loggerhead shrike	— / — (SSC)	G4 S4	Open habitats with scattered shrubs, posts, etc. for perches. Nests in densely-foliated shrub or tree (CWHR 2015)	Yes. See text for further discussion.
Laterallus jamaicensis coturniculus **California black rail**	— / **T**	G3G4T1 S1	Freshwater marshes, wet meadows, shallow margins of saltwater marshes around larger bays. Requires non-fluctuating water depths of about one inch; dense vegetation for nesting. (CWHR 2015)	No. Project site has no suitable wetland habitat.
Melanerpes lewis (nesting) Lewis's woodpecker	— / — (IUCN: LC)	G4 S4	Winters in open oak savannah, broken deciduous and coniferous habitats. Nests in Coast Ranges, Modoc Plateau and eastern slope of Sierra Nevada. (CWHR 2015)	No. Project site is out of the nesting range of the species, but has suitable winter forage habitat.
Melospiza melodia (Modesto population) Modesto song sparrow	— / — (SSC)	G5 S3?	Freshwater wetlands, early succession riparian thickets and valley oak riparian groves below 200 ft. (61 m.) elevation. (Shuford & Gardali 2008)	No. Project site is out of the range of the species.
Numenius americanus (nesting) Long-billed curlew	— / — (BCC)	G5 S2	Grasslands and wet meadows, usually adjacent to lakes, marshes, or estuaries. Breeds on grazed, mixed-grass ands short grass prairies in Siskiyou, Modoc, and Lassen counties. (CWHR 2015)	No. Project site is out of the known breeding range of the species.
Otus flammeolus (nesting) Flammulated owl	— / — (BCC)	G4 S2S3	Coniferous forests between 1830-3048 m (6000-10,000 ft) elevation. Favors small openings and edges with snags. (CWHR 2015)	No. Project site has no coniferous forest habitat.
Pandion haliaetus (nesting) Osprey	— / — (CDF :S) (CDFW: WL) (IUCN: LC)	G5 S4	Associated strictly with large, fish-bearing waters, primarily in Ponderosa pine and higher-elevation conifer habitats. Preys mostly on fish; also takes a few mammals, birds, reptiles, amphibians, and invertebrates. (CWHR, 2015)	No. Project site has no large, fish-bearing waters.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
Passerella iliaca Fox sparrow	— / — (IUCN: LC)	G5 S5	Breeds commonly in mountains of California, in dense montane chaparral and brushy understory of other wooded, montane habitats. Winters in dense brush habitats, throughout foothills and lowlands, except in southern deserts. (CWHR 2015)	No. Project site has no brushy habitat.
Phalacrocorax auritus (nesting colony) Double-crested cormorant	— / — (CDFW: WL) (IUCN: LC)	G5 S4	Resident along the entire coast of California and on inland lakes, in fresh, salt and estuarine waters. Feeds mainly on fish; also on crustaceans and amphibians. Requires undisturbed nest-sites beside water, on islands or mainland. Nests in colonies of a few to hundreds of pairs, or even thousands. (CWHR 2015)	No. Project site has no permanent water habitats.
Pica nuttallii (nesting and communal roosts) Yellow-billed magpie	— / — (BCC)	G3G4 S3S4	Resident of the Central Valley, and coastal mountain ranges south from San Francisco Bay to Santa Barbara Co. Inhabits valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, orchard, vineyard, cropland, pasture, and urban habitats. (CWHR 2015)	No. Project site is outside of the range of the species.
Picoides albolarvatus (nesting) White-headed woodpecker	— / — (BCC)	G4 S4	Montane pine and fir forests with large trees, snags and tree/shrub or tree/herbaceous ecotones. (CWHR 2013)	No. Has no mature pine or fir forest habitats.
Picoides nuttallii (nesting) Nuttall's woodpecker	— / — (BCC)	G4G5 S4S5	Frequents a mix of deciduous riparian and adjacent oak habitats. Requires snags and dead limbs for nest excavation. (CWHR 2015)	Yes. See text for further discussion.
Pipilio chlorurus Green-tailed towhee	— / — (IUCN:LC)	G5 SNRB	Montane chaparral, sagebrush, low sagebrush, and bitterbrush habitats. Where such habitats form understory, sparse coniferous forests also are occupied. (CWHR 2015)	No. Project site lacks chaparral, sagebrush and bitterbrush habitats.
Plegadis chihi (rookeries) White-faced ibis	— / — (SSC)	G5 S3S4	Fresh emergent wetlands, shallow lakes, irrigated pastures or cropland. Nests amid tall marsh plants in extensive marshes (CWHR 2015)	No. Project site has no suitable wetland or cropland habitats.
Progne subis (nesting) Purple martin	— / — (SSC)	G5 S3	Uses valley foothill, montane hardwood, montane hardwood-conifer, and riparian habitats. Also occurs in coniferous habitats. Inhabits open forests, woodlands, and riparian areas in breeding season. Nests in tree cavities. (CWHR 2015)	Yes. See text for further discussion.
Riparia riparia (nesting) **Bank swallow**	— / **T**	G5 S2	Open riparian areas, brushland, grassland and cropland. Nests in vertical banks and cliffs with fine-textured soils near water. (CWHR 2015)	No. Project site lacks suitable bank or cliff nesting habitat, and is out of the known range of the species.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
Selasphorus calliope Calliope hummingbird	— / — (IUCN:LC)	G5 S?	Summer resident of California, breeding in mountain ranges throughout the state; absent in winter. Breeds in wooded habitats from ponderosa pine and montane hardwood-conifer up through lodgepole pine, favoring montane riparian, aspen, and other open forests near streams. (CWHR 2015)	No. Project site lacks ponderosa montane coniferous and riparian habitats.
Setophaga petechia (nesting) Yellow warbler	— / — (SSC)	G5 S4	Nests in riparian habitats dominated by willows, cottonwoods, sycamores or alders, or in mature chaparral. (CWHR 2015)	No. Project site has no riparian or chaparral habitats.
Sphyrapicus ruber (nesting) Red-breasted sapsucker	— / — (BCC)	G5 S4	Riparian areas in deciduous and coniferous forest habitats, especially near aspens, open meadows, clearings, lakes. Breeds from ~ 1200-2500 m (4000-8000 ft) elevation in the Sierras. (CWHR 2015)	No. Project site is out of the nesting range of the species, but may provide winter forage areas.
Sphyrapicus thyroideus Williamson's sapsucker	— / — (IUCN:LC)	G5TU S?	Conifer forests, 1700-2900m elevation. Prefers to nest in lodgepole pine, but also red fir, Jeffry pine and eastside pine habitats. (CWHR 2015)	No. Project site lacks montane conifer habitats and is outside the range of the species.
Spinus lawrencei (nesting) Lawrence's goldfinch	— / — (BCC)	G3G4 S3	Breeds in open oak or other arid woodland within 0.5 mi. of water. Prefers to nest in an oak, most often near water, but also uses chaparral. (CWHR 2015)	Yes. See text for further discussion.
Spizella passerina (nesting) Chipping sparrow	— / — (IUCN:LC)	G5 S3S4	Oak woodland, orchards, mixed coniferous forest, montane and subalpine forest. Prefers open woody habitats with sparse or low herbaceous layer and few shrubs, if any. Prefers to nest in conifers, but deciduous trees and shrubs also used. (CWHR 2015)	Yes. See text for further discussion.
Strix occidentalis occidentalis California spotted owl	— / — (SSC)	G3T3 S3	In northern California, found in dense, old-growth mixed conifer habitats (canopy closure >40%) in narrow, steep-sided canyons with north-facing slopes, within 300 meters of water (CWHR 2015)	No. Project site lacks mixed conifer habitat.

Special-status Species Common Name	Listing Status Federal / State (OTHER)	CNDDB Rank Global/State	Habitat Requirements	Potential to occur on project site?
Mammals				
Antrozous pallidus Pallid bat	— / — (SSC)	G5 S3	Found in grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. Prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Roosts must protect bats from high temperatures. (CWHR 2015)	Yes. See text for further discussion.
Lasionycteris noctivagans Silver-haired bat	— / — (IUCN: LC)	G5 S3S4	Primarily found in coastal and montane forests, but also valley foothill woodlands and riparian areas. Feeds over ponds, streams and open brushy areas. Roosts in hollow trees, beneath loose bark, in abandoned woodpecker holes; rarely under rocks. Requires drinking water. (CWHR 2015)	Yes. See text for further discussion.
Pekania pennanti Fisher–West Coast DPS (Distinct Population Segment)	**T / CT** (SSC)	G5T2T3Q S2S3	Suitable habitat is large areas of mature, dense coniferous forest stands or deciduous-riparian habitats with ≥50% canopy closure (CWHR 2013).	No. Project site lacks conifer and deciduous-riparian habitats.
Myotis yumanensis Yuma myotis	— / — (IUCN: LC)	G5 S4	Many habitats from sea level to 2400 m. in Sierras, roosting in caves, mines, buildings, bridges, crevices. Forages for insects over water bodies. (CWHR 2013)	Yes. See text for further discussion.
Plants				
Allium jepsonii Jepson's onion	— / — (1B.2)	G1 S1	Chaparral, cismontane woodland or lower montane coniferous forest on serpentine or volcanic soils, 300-1320 meters elevation. (CNPS 2015) On serpentine soils in Sierra foothills, volcanic soil on Table Mtn. on slopes and flats, usually in an open area. (CNDDB 2015)	No. Project site has neither serpentine nor volcanic soils.
Arctostaphylos myrtifolia Ione manzanita	**T** / — (1B.2)	G2 S2	Chaparral, cismontane woodland on Ione clay with chaparral associates, 75-560 m elevation.	No. Project site has no Ione soils.
Arctostaphylos nissenana Nissenan manzanita	— / — (1B.2)	G1 S1	Open rocky ridges in chaparral or closed-cone coniferous forest between 450-1100 m elevation. (CNDDB 2015)	No. Project site has neither chaparral nor closed-cone coniferous forest habitats and is below the known elevation range of the species.
Balsamorhiza macrolepis var. macrolepis Big-scale balsamroot	— / — (1B.2)	G2 S2	Open grassy or rocky slopes and valleys in Sierra Nevada foothills, Sacramento Valley and eastern San Francisco Bay area. (Jepson 2015) Sometimes found on Serpentine soils. 90-1555 m elevation (CNDDB 2015)	Yes. See text for further discussion.

Calystegia stebbinsii **Stebbins's morning-glory**	**E / E** **(1B.1)**	G1 S1.1	Chaparral on gabbro or serpentine soils. (USFWS 2002) Usually absent from areas with understory dominated by grasses (Wilson 1986, Hunter and Horenstein 1991); 185-1090 m. elevation (CNPS 2015)	No. Project site has neither chaparral vegetation nor gabbro or serpentine soils.
Ceanothus roderickii **Pine Hill ceanothus**	**E / R** **(1B.2)**	G1 S1	Openings or disturbed areas in chaparral or cismontane woodland on gabbro or serpentine soils (USFWS 2002, CNPS 2015) Usually absent from areas with understory dominated by grasses (Wilson 1986, Hunter and Horenstein 1991). 245-1090 m. elevation (CNPS 2015)	No. Project site has neither gabbro nor serpentine soils.
Chlorogalum grandiflorum Red Hills soaproot	— / — (1B.2)	G3 S3	Open chaparral on gabbro or serpentine soils. (Hunter and Horenstein 1991) Chaparral, cismontane woodland, lower coniferous forest, 245-1240 m elevation (CNPS 2015).	No. Project site has neither chaparral vegetation nor suitable soils.
Clarkia biloba ssp. *brandegeeae* Brandegee's clarkia	— / — (4.2)	G4G5T4 S4	Chaparral, cismontane woodland, often on road cuts, 75-915 m. elevation. (CNDDB 2015)	Yes. See text for further discussion.
Crocanthemum suffrutescens Bisbee Peak rush-rose	— / — (3.2)	G2Q S2	Chaparral on gabbro soils in El Dorado County or on serpentine or Ione soils elsewhere (Wilson 1986, CNPS 2015); 45-840 m. elevation (CNDDB 2015).	No. Project site has no chaparral habitat.
Downingia pusilla Dwarf downingia	— / — (2B.2)	GU S2	Vernal pools and wetlands in valley and foothill grasslands, 1-445 m. elevation. (CNDDB 2015)	Yes. See text for further discussion.
Erigeron miser Starved daisy	— / — (1B.3)	G2 S2	Upper montane coniferous forest, 1080-2620 m elevation. (CNPS 2015) Rocky, granitic outcrops (CNDDB 2015)	No. Project site is too low in elevation for the species.
Eriogonum apricum var. *apricum* Ione buckwheat	E / E 1B.1	G2T1 S1	Gravelly openings within chaparral on Ione soils, 60-145 m elevation. (CNDDB 2015)	No. Project site has no Ione soils.
Eriogonum apricum var. *prostratum* Irish Hill buckwheat	E / E 1B.1	G2T1 S1	Gravelly openings within chaparral on Ione soils, 90-120 m elevation. (CNDDB 2015)	No. Project site has no Ione soils.
Eryngium pinnatisectum Tuolumne button-celery	— / — (1B.2)	G2 S2	Vernal pools and mesic sites in cismontane woodland and lower coniferous forest habitats on volcanic soils between 250-450 m. elevation. (CNDDB 2015)	No. Project site has no volcanic soils.
Fremontodendron decumbens **Pine Hill flannelbush**	**E / R** (1B.2)	G1 S1	On scattered rocky outcrops in chaparral or cismontane woodland, gabbro or serpentine soils, 425-760 m. elevation. (CNDDB 2015)	No. Project site has neither gabbro nor serpentine soils.
Galium californicum* ssp. *sierrae **El Dorado bedstraw**	**E / R** (1B.2)	G5T1 S1	Oak woodland on gabbro soils. (USFWS 2002) Absent from areas with understory dominated by grasses (Wilson 1986, Hunter and Horenstein 1991); 100-585 m. elevation (CNDDB 2015).	No. Project site has no gabbro soils.
Horkelia parryi Parry's horkelia	— / — (1B.2)	G2 S2	Chaparral and cismontane woodland, on Ione or limestone soils, between 80-1035 m. elevation. (CNDDB 2015)	No. Neither Ione nor limestone soils, required by the species, are found on the project site.

Legenere limosa **Legenere**	— / — **(1B.1)**	G2 S2	In beds of vernal pools, 1-880 m elevation. (CNDDB 2015) Known occurrences limited to Sacramento and Solano cos.; presumed extant in Alameda, Santa Clara, Sonoma, Lake, Napa, Placer, San Joaquin, San Mateo, Shasta, Tehama, and Yuba cos. (USFWS 2015)	No. Project site has no suitable vernal pools; species is not known in El Dorado County.
Navarretia myersii ssp. *myersii* Pincushion navarretia	— / — (1B.1)	G1T1 S1	Vernal pools on clay soils within non-native grassland, 20-330 m elevation. (CNDDB 2015) Known from Amador, Calaveras, Merced, Placer and Sacramento cos. (CNPS 2015)	No. Project site has no suitable vernal pool habitat.
Orcuttia viscida **Sacramento orcutt grass**	E / E (1B.1)	G1 S1	Vernal pools, 30-100 m elevation. (CNDDB 3015)	No. Project site is too high in elevation and has no suitable vernal pool habitat.
Packera layneae (=Senecio layneae) **Layne's butterwort**	T / R (1B.2)	G2 S2	Open rocky areas in chaparral or cismontane woodland on gabbro or serpentine soils (USFWS 2002b); 200-1000 m. elevation (CNDDB 2013).	No. Project site has neither gabbro nor serpentine soils.
Sagittaria sanfordii Sanford's arrowhead	— / — (1B.2)	G3 S3	Emergent from shallow, standing, fresh water within marshes, ponds and ditches, 0-650 m. elevation. (CNDDB 2015)	Yes. See text for further discussion.
Viburnum ellipticum Oval-leaved viburnum	— / — (2B.3)	G5 S3	Chaparral, cismontane woodland or lower montane coniferous forest between 215-1400 m. elevation (CNDDB 2015)	No. Chaparral vegetation is not found on the project site.
Wyethia reticulata El Dorado mule-ears	— / — (1B.2)	G2 S2	Occurs in chaparral, cismontane woodland and lower montane coniferous forest on stony red clay and gabbro soils (USFWS 2002b); 185-630 m. (CNDDB 2015)	No. Project site has no stony red clay or gabbro soil types.
Special Habitats				
Central Valley Drainage Hardhead/Squawfish Stream	— / —	GNR / SNR	Small to large perennial streams within the Sacramento-San Joaquin, Pajaro-Salinas, Russian, Clear Lake and upper Pit River drainages in California. (UC Davis 2014)	No. Project site has no perennial streams.
Northern Hardpan Vernal Pool	— / —	G3 S3.1	Northern Hardpan vernal pools are formed on alluvial terraces with silicate-cement soil layers. These pool types are on acidic soils and exhibit well-developed mima mound topography found on the eastern margins of the Central Valley.	No. Project site has no vernal pool/mima mound topography.

APPENDIX E

Plant Species Found on the Project Site
May 13, 18, 20 and June 17, 2015

Plant Species Found on the Project Site
May 13, 18, 20 and June 20, 2015

Amaranthaceae
Amaranthus sp. **Pigweed**
Apiaceae
Daucus pusillus Michx., **Queen Ann's lace**
Torilis arvensis (Huds.) Link, **Tall sock-destroyer**
Sanicula sp., **Sanicle**
Scandix pecten-veneris L., **Venus' needle**
Asteraceae
Achillea millefolium L., **Yarrow**
Anthemis cotula L., **Mayweed**
Carduus pycnocephalus L., **Italian plumeless thistle**
Chondrilla juncea L., **Skeleton weed**
Hypochaeris radicata L., **Rough cat's-ear**
Lacttuca serriola L., **Prickly lettuce**
Leontodon saxatilis Lam., **Hairy hawkbit**
Logfia filaginoides (Hook. & Arn.) Morefield, **California cottonrose**
Pseudognaphalium luteoalbum Hilliard & B.L. Burtt, **Red-tipped rabbit-tobacco**
Senecio vulgaris L., **Common groundsel**
Silybum marianum (L.) Gaertn., **Milk thistle**
Sonchus asper (L.) Hill, subsp. *asper,* **Prickly sow thistle**
Boraginaceae
Amsinckia sp. **Fiddleneck**
Heliotropium europaeum L., **European heliotrope**
Plagiobothrys tenellus (Hook.) A. Gray, **Pacific popcornflower**
Brassicaceae
Brassica nigra (L.) W.D.J. Koch, **Black mustard**
Capsella bursa-pastoris (L.) Medik, **Shepherd's purse.**
Nasturtium officiale W.T. Aiton, **Water cress**
Cyperaceae
Cyperus eragrostis Lam., **Tall flatsedge**
Eleocharis palustris (L.)Roemer & J.A. Schultes, **Common spikerush**
Chenopodiaceae
Chenopodium album L., **Lamb's quarters**
Euphorbiaceae
Croton setiger Hook., **Turkey-mullein**
Fabaceae
Acmispon brachycarpus (Benth.) D.D. Sokoloff, **Deerweed**
Lupinus nanus Benth., **Sky lupine**
Medicago sp., **Bur-clover**
Trifolium dubium Sibth., **Little hop clover**
Trifolium hirtum All., **Rose clover**
Trifolium subterraneum L., **Subterranean clover**
Vicia sp., **Vetch**
Fagaceae
Quercus douglasii Hook & Arn., **Blue oak**
Quercus lobata Nee, **Valley oak**
Geraniaceae
Erodium sp., **Filaree**
Geranium molle L.
Gentianaceae
Zeltnera venusta (A.Gray) G. Mans., **California centaury**
Hypericaceae
Hypericum perforatum L. ssp. *perforatum* **klamathweed**
Juncaceae
Juncus bufonius L., **Toad rush**
Liliaceae
Chlorogalum pomeridianum (DC.) Kunth var. *pomeridianum*, **Common soaproot**
Linaceae
Linum biennne Mill., **Flax**
Lythraceae
Lythrum hyssopifolia L., **Hyssop loosestrife**
Malvaceae
Malva parviflora L., **Cheeseweed**
Myrsinaceae
Anagallis arvensis L., **Scarlet pimpernel**
Onagraceae
Epilobium torreyi (S. Watson) Hoch & P.H. Raven, **Torrey's willowherb**
Phrymaceae
Mimulus guttatus DC., **Seep monkeyflower**
Plantaginaceae
Kickxia sp., **Fluellin**
Plantago lanceolata L., **Italian plantain**
Poaceae
Aegilops triuncialis L., **Barbed goat grass**
Aira caryophyllea L., **Silver hair grass**
Avena barbata Link., **Slender wild oat**
Briza minor L., **Annual quaking grass**
Bromus hordeaceus L., **Soft chess**
Bromus madritensis L., **Foxtail chess**
Bromus tectorum L., **Cheat grass**
Cynodon dactylon (L.) Pers., **Bermuda grass**
Cynosurus echinatus L., **Hedgehog dogtail**
Elymus caput-medusae L., **Medusa head**
Festuca perennis (L.) Columbus & J.P.Sm., **Ryegrass**
Hordeum sp., **Barley**
Polypogon monspeliensis (L.) Desf., **Annual beard grass, rabbitfoot grass**
Polemoniaceae
Navarretia intertexta (Benth.) Hook., **Needleleaf navarretia**
Polygonaceae
Rumex congleratus Murray., **Clustered dock**
Ranunculaceae
Ranunculus canus Benth., var. *canus*, Sacramento Valley buttercup
Rubiaceae
Galium paresiense L., **Wall bedstraw**
Sherardia arvensis L., **Field madder**
Scrophulariaceae
Verbascum blattaria L., **Moth mullein**
Solanaceae
Datura sp., **Jimson weed**
Nicotiana attenuata S. Watson, **Coyote tobacco**
Themidaceae
Dichelostemma capitatum (Benth.) Alph. Wood, **Blue Dicks**
Triteleia hyacinthina (Lindl.) Greene, **White brodiaea**
Triteleia laxa Benth., **Ithuriel's spear**
Viscaceae
Phoradendron villosum (Nutt.) Nutt., **Oak mistletoe**
Zygophyllaceae
Tribulus terrestris L., **Puncture vine**

APPENDIX F

Oak Tree Assessments

TREE NO.	COMMON NAME	SCIENTIFIC NAME *Quercus* sp.	DBH in.	DRIP RADIUS ft	HEALTH			STRUCTURE			OVERALL CONDITION[7]	DEFECTS[8]
					GOOD	FAIR	POOR	GOOD	FAIR	POOR		
100	Blue oak	*Quercus douglasii*	27	31	✔			✔			4	11, 14
101	Blue oak	*Q. douglasii*	28	37	✔			✔			4.5	11
102	Blue oak	*Q. douglasii*	21	24	✔			✔			4.5	11
103	Blue oak	*Q. douglasii*	21	18	✔				✔		4	11, 13
104	Blue oak	*Q. douglasii*	20	32	✔			✔			4.5	11
105	Blue oak	*Q. douglasii*	8	16	✔			✔			4.5	11
106	Blue oak	*Q. douglasii*	16	29	✔			✔			5	
107	Blue oak	*Q. douglasii*	12	21	✔			✔			4	11, 13
108	Blue oak	*Q. douglasii*	11.5	22	✔				✔		3	3, 11, 13
109	Blue oak	*Q. douglasii*	15	23	✔				✔		3	3, 11, 13
110	Blue oak	*Q. douglasii*	18	24	✔			✔			4.5	11
111	Blue oak	*Q. douglasii*	21	23		✔			✔		4.5	11
112	Blue oak	*Q. douglasii*	20	20	✔			✔			4	11
113	Blue oak	*Q. douglasii*	17	25	✔				✔		4	11
114	Blue oak	*Q. douglasii*	21	33	✔			✔			4	11
115	Blue oak	*Q. douglasii*	14	17	✔			✔			4.5	11
116	Blue oak	*Q. douglasii*	19	20	✔				✔		4	2, 11
117	Blue oak	*Q. douglasii*	18	21	✔				✔		3	11, 13
118	Blue oak	*Q. douglasii*	12	16	✔				✔		4	11, 13
119	Blue oak	*Q. douglasii*	11	19	✔				✔		4	11, 13
120	Blue oak	*Q. douglasii*	12.5	17	✔				✔		4	3, 11, 13
121	Blue oak	*Q. douglasii*	14	17	✔			✔			4.5	11
122	Blue oak	*Q. douglasii*	16.5	24	✔			✔			4.5	11
123	Blue oak	*Q. douglasii*	25.5	27		✔			✔		3	3, 11, 14
124	Blue oak	*Q. douglasii*	21	29	✔				✔		4	11, 13

[7] 0 = Dead, 1 = Severe decline, 2 = Declining, 3 = Fair, 4 = Good, 5 = Excellent

[8] 1=Co-dominant stem without included bark; 2=Co-dominant stem with included bark; 3=Leaning tree; 4= cavities; 5=many suckers; 6=multiple trunks; 7=wire in trunk; 8= growing beneath utility lines, 9= large wound, 10=rot, 11=dead limbs, 12=mostly dead; 13=tree shaded by others so that all limbs spread in one direction; 14=many healed wounds or loose bark; possible internal rot.; 15=dieback of branches indicates health decline.

TREE NO.	COMMON NAME	SCIENTIFIC NAME *Quercus* sp.	DBH in.	DRIP RADIUS ft	HEALTH			STRUCTURE			OVERALL CONDITION[9]	DEFECTS[10]
					GOOD	FAIR	POOR	GOOD	FAIR	POOR		
125	Blue oak	*Q. douglasii*	15	27	✔				✔		4	11, 13
126	Blue oak	*Q. douglasii*	15.5	19	✔			✔			4.5	11
127	Blue oak	*Q. douglasii*	27	35		✔			✔		3	11, 14
128	Blue oak	*Q. douglasii*	22	24		✔		✔			4	11
129	Blue oak	*Q. douglasii*	33	32	✔					✔	3	2, 4, 9, 11
130	Blue oak	*Q. douglasii*	24	29	✔			✔			4	11
131	Blue oak	*Q. douglasii*	29	28	✔			✔			4.5	11
132	Blue oak	*Q. douglasii*	32		✔				✔		4	2, 11
133	Blue oak	*Q. douglasii*	27	29	✔				✔		4	1, 11
134	Blue oak	*Q. douglasii*	26.5	29	✔				✔		4	2, 11
135	Blue oak	*Q. douglasii*	20	20	✔			✔			4.5	11
136	Blue oak	*Q. douglasii*	25.5	31	✔			✔			4	11
137	Blue oak	*Q. douglasii*	20.5	20	✔			✔			4.5	11
138	Blue oak	*Q. douglasii*	15	19	✔			✔			4.5	11
139	Blue oak	*Q. douglasii*	23	22	✔				✔		4	2, 3, 11
140	Blue oak	*Q. douglasii*	17	23	✔			✔			4.5	11
141	Blue oak	*Q. douglasii*	29	34	✔				✔		4	3, 11
142	Blue oak	*Q. douglasii*	28	33	✔			✔			4.5	11
143	Blue oak	*Q. douglasii*	26.5	27		✔			✔		3	11, 14
144	Blue oak	*Q. douglasii*	20	26		✔			✔		3	4, 11, 14
145	Blue oak	*Q. douglasii*	25	33	✔			✔			4.5	11

[9] 0 = Dead, 1 = Severe decline, 2 = Declining, 3 = Fair, 4 = Good, 5 = Excellent

[10] 1=Co-dominant stem without included bark; 2=Co-dominant stem with included bark; 3=Leaning tree; 4= cavities; 5=many suckers; 6=multiple trunks; 7=wire in trunk; 8= growing beneath utility lines, 9= large wound, 10=rot, 11=dead limbs, 12=mostly dead; 13=tree shaded by others so that all limbs spread in one direction; 14=many healed wounds or loose bark; possible internal rot.; 15=dieback of branches indicates health decline.

TREE NO.	COMMON NAME	SCIENTIFIC NAME *Quercus* sp.	DBH in.	DRIP RADIUS ft	HEALTH			STRUCTURE			OVERALL CONDITION[11]	DEFECTS[12]
					GOOD	FAIR	POOR	GOOD	FAIR	POOR		
146	Valley oak	*Q. lobata*	32	44	✔			✔			4.8	11
147	Blue oak	*Q. douglasii*	20	24	✔			✔			4	4, 11
148	Blue oak	*Q. douglasii*	22	29	✔			✔			4	11
149	Blue oak	*Q. douglasii*	34.5	38	✔			✔			4.5	11
150	Valley oak	*Q. lobata*	39	35		✔		✔			4.5	11
151	Blue oak	*Q. douglasii*	31	30	✔			✔			4	11
152	Blue oak	*Q. douglasii*	25	38	✔				✔		4	11, 13
153	Valley oak	*Q. lobata*	20	33	✔			✔			5	
154	Valley oak	*Q. lobata*	69*	41	✔				✔		4	1, 11
155	Blue oak	*Q. douglasii*	26	23	✔				✔		4	1, 11
156	Blue oak	*Q. douglasii*	15	28	✔				✔		3	3, 11, 13, 14
157	Blue oak	*Q. douglasii*	23	16	✔				✔		3	3, 11, 13
158	Valley oak	*Q. lobata*	36	47	✔			✔			4.5	11
159	Blue oak	*Q. douglasii*	30	30	✔			✔			4.5	11
160	Blue oak	*Q. douglasii*	38	37	✔				✔		3.5	2, 4, 11
161	Valley oak	*Q. lobata*	31	38	✔				✔		4	2, 11
162	Valley oak	*Q. lobata*	36	40		✔		✔			2.5	11, 15
163	Blue oak	*Q. douglasii*	26	33	✔			✔			3.5	11, 15
164	Blue oak	*Q. douglasii*	33	33	✔			✔			4.5	8, 11
165	Blue oak	*Q. douglasii*	27	34	✔				✔		4	1, 8, 11

[11] 0 = Dead, 1 = Severe decline, 2 = Declining, 3 = Fair, 4 = Good, 5 = Excellent

[12] 1=Co-dominant stem without included bark; 2=Co-dominant stem with included bark; 3=Leaning tree; 4= cavities; 5=many suckers; 6=multiple trunks; 7=wire in trunk; 8= growing beneath utility lines, 9= large wound, 10=rot, 11=dead limbs, 12=mostly dead; 13=tree shaded by others so that all limbs spread in one direction; 14=many healed wounds or loose bark; possible internal rot. 15=dieback of branches indicates health decline.

* Tree 154 has two trunks, one with 34" dbh and the other 34" dbh.

TREE NO.	COMMON NAME	SCIENTIFIC NAME *Quercus* sp.	DBH in.	DRIP RADIUS ft	HEALTH			STRUCTURE			OVERALL CONDITION[13]	DEFECTS[14]
					GOOD	FAIR	POOR	GOOD	FAIR	POOR		
166	Blue oak	*Q. douglasii*	27	27	✔				✔		4	1, 8, 11
167	Valley oak	*Q. lobata*	36	40	✔			✔			4.5	1, 8, 11
168	Valley oak	*Q. lobata*	33	29	✔			✔			4.5	1, 8, 11
169	Blue oak	*Q. douglasii*	14	22		✔			✔		3	11, 13
170	Blue oak	*Q. douglasii*	29	32	✔			✔			4.5	11
171	Valley oak	*Q. lobata*	32	36	✔			✔			4.5	11
172	Valley oak	*Q. lobata*	33	40	✔			✔			4.5	11
173	Valley oak	*Q. lobata*	38	42		✔		✔			3	3, 11, 15
174	Blue oak	*Q. douglasii*	35.5	33	✔			✔			4	6, 11
175	Blue oak	*Q. douglasii*	32	37		✔		✔			2.5	11, 14, 15
176	Valley oak	*Q. lobata*	31	40	✔			✔			4.5	11
177*	Valley oak	*Q. lobata*	38	—							0	
178	Blue oak	*Q. douglasii*	32	36		✔		✔			3.5	11, 15
179	Valley oak	*Q. lobata*	42	34		✔			✔		3	2, 11
180	Valley oak	*Q. lobata*	43	44	✔				✔		4	11
181	Blue oak	*Q. douglasii*	28.5	33		✔		✔			4	11

[13] 0 = Dead, 1 = Severe decline, 2 = Declining, 3 = Fair, 4 = Good, 5 = Excellent

[14] 1=Co-dominant stem without included bark; 2=Co-dominant stem with included bark; 3=Leaning tree; 4= cavities; 5=many suckers; 6=multiple trunks; 7=wire in trunk; 8= growing beneath utility lines, 9= large wound, 10=rot, 11=dead limbs, 12=mostly dead; 13=tree shaded by others so that all limbs spread in one direction; 14=many healed wounds or loose bark; possible internal rot. 15=dieback of branches indicates health decline.

* Tree 177 is a dead snag with some woodpecker holes and loose bark that could harbor bats. It is a potential wildlife tree that is recommended to be retained.

APPENDIX G

El Dorado County
Oak Canopy Site Assessment Report

El Dorado County

OAK/CANOPY SITE ASSESSMENT FORM

Qualified Professional & Contact Information: *(attach qualifications)*	Ruth Willson, 3460 Angel Lane, Placerville, CA 95667; 530/622-7014; ruthwillson@comcast.net
Property Owner's Name/APN(s):	Allen J. Hansen; Assessor' Parcel Number 087-021-05
Address:	Physical address: 6740 South Shingle Road, Latrobe; mailing address: P.O. Box 2163, Shingle Springs, CA 95682
General Plan Designation:	RR
Zoning:	AE
Project Description: *(attach site photos)*	The project would subdivide the parcel into four single-family residential lots, 10.1 to 13.4 acres.

Would the project, directly or indirectly, have the potential to cause any impact, conflict with, or disturbance to:	**YES**	**NO**
a) Individual landmark or heritage trees (of any species) subject to review under General Plan Policy 7.4.5.2?	☐	☑
c) Oak woodland corridor continuity (General Plan Policy 7.4.4.5)?	☐	☑
d) Sensitive or important oak woodland habitat as defined in the Guidelines?	☐	☑
e) Movement of Wildlife and/or Any Wildlife Migration Corridor?	☐	☑
f) Any Candidate, Listed or Special Status Plant or Animal Species observed or expected to occur on or adjacent to the project site?	☐	☑
g) Is the affected area of oak canopy within or directly adjacent to an Important Biological Corridor or Ecological Preserve overlay?	☐	☑
h) Does the removal of oak canopy comply with the retention requirements of Policy 7.4.4.4?	☑	☐
i) Was project subject to prior County approval? (If yes, provide Tentative Map # and environmental documents if available)	☐	☑
j) For Discretionary Projects, would the project have the potential to cause a significant environmental impact on biological resources?	☐	☑

I affirm that all of the information contained in this document is true and correct to the best of my knowledge and I acknowledge and agree that any material misinformation in this document can result in the denial or revocation of any permits or County approvals for this project.

Qualified Professional:_____ **Date:** June 30, 2015

Applicant/Owner:_____ **Date:**_____

Required Attachments: 1) Qualified Professional Qualifications; 2) Site Photos; 3) Required Tree Survey, Preservation, and Replacement Plan *or* Biological Resources Study and Important Habitat Mitigation Program (see Interim Interpretive Guidelines for El Dorado County Policy 7.4.4.4 Option A)

Existing improvements on the project site include a single-family dwelling within grasslands on Parcel 1 (left), and a barn and corrals on Parcel 2 (right).

Bryant Cemetery occupies oak woodland on Parcel 3 (left and right).

Oak woodland on Parcel 3 (left and right), is typical of woodland found on Parcel 4.

Professional Qualifications

Ruth A. Willson, M.A., Biology, California State University, Fresno, has been preparing biological reports in El Dorado County since 1992. Her educational and experiential background includes proficiency in botany, entomology, ornithology, wildlife biology and ecology. She is an ISA Certified Arborist, No. WE-8335A.