



October 25, 2024

Dana Morrison
County of Napa
Planning, Building, and Environmental Services
1195 Third Street, Suite 210
Napa, California 94559

RE: Partial Response to Comments (Biology) – Desiree Vineyard Agricultural Erosion Control Plan (ECPA) File #P24-00028-ECPA; 5681 Silverado Trail: APN 039-040-042 (WRA Project # 31025)

Ms. Morrison,

This letter provides a partial response to a request from Napa County for additional information/analysis regarding biological resources for the property located at 5681 Silverado Trail (APN 039-040-042) in Napa County, California. The request for additional information is outlined in a letter from the Planning, Building, and Environmental Services Department, *Application Completeness Determination – Desiree Vineyard Agricultural Erosion Control Plan (ECPA) File #P24-00028-ECPA* dated March 11, 2024.

The proposed project is the installation of a new 2.9-acre (4.1 gross acres) vineyard block on the property. WRA analyzed the potential impacts to sensitive biological resources. The following addresses the County of Napa's follow-up requests for additional information.

Response to County Request

The following section directly addresses the comments from the County point-by-point (with text from the County in *italics*).

3. *Oak Woodland Retention/Preservation figure: Please provide a figure demonstrating the 2:1 oak woodland areas to be preserved. Also, as discussed later, please provide an addendum to the Bio report including a discussion as to why the habitat identified to be preserved is of the same or better quality than what is proposed to be removed. Also, have the addendum speak to the stand of Coniferous forest, while some appear to be declining there are a number of new trees sprouting in the lower portion of the stand; unless clearly discussed as to why this not be assessed as Coniferous forest, then this area should be identified as Coniferous forest and the area should NOT be counted towards the 2:1 oak retention/preservation (however, if less than 30% this area could be counted towards the GHG 1:1).*

Please find Figure A-2 attached which outlines those areas of coast live oak woodland that will be converted and preserved. Similarly, Figure A-3 illustrates the relatively higher quality habitat to be converted versus the same that will be preserved, and likewise with lower quality habitat. An assessment of the relative quality of habitat is discussed under 6b below.

The stand of Douglas fir (*Pseudotsuga menziesii*) is less than one acre and in substantial decline. Two WRA botanists revisited the site on April 5, 2024 to re-evaluate this stand and assess the quality, health, and integrity. As noted by the County, there are some conifer saplings, but these are limited to a small area on the northern edge of the stand, while the remainder of the stand does not contain regeneration of Douglas fir. Conversely, there is substantial regeneration of coast live oak (*Quercus agrifolia*) (Attachment B). It is likely that this stand will continue to decline and be overtaken by coast live oak based on the small size of the stand, the lack of regeneration, the pronounced senescence of mature trees, and the presence of young coast live oak trees. Furthermore, the greater Wappo Hill is dominated by oak woodland with a similar stand of Douglas fir located several properties to the north. This stand appears to be of a similar age cohort and is in decline with a substantial portion of the trees dead or dying.

6. Biological Resource Information: Please provide an addendum or update to the Project Biological Resource Survey prepared that includes the following:

a. Manual of California Vegetation (MCV2) alliance/vegetation mapping for the entire property with a breakdown in table format of the acreages.

All land cover types were mapped across the entire property; however, neither a table nor clear MCV names were provided. Figure A-4 is an updated land cover figure with these requests.

b. An assessment and discussion of 'relative quality' of the various Plant Communities/Alliance (or habitat types) occurring on the property and project area, in particular the oak woodlands and clear areas note in the survey.

On April 5, 2024, two WRA botanists traversed the property to assess the relative quality of habitat concurrent with sampling at tree plots (see below). The assessment noted the diversity of native understory species, the diversity and density of non-native species, the amount of vertical heterogeneity, and the level of disturbance. The mapped relatively lower quality areas have an understory with few native species, a higher biomass of non-native species, little vertical heterogeneity, and/or significant disturbance. The lower quality coast live oak woodland is located near the developed areas (i.e., house, roads) and is routinely managed for fire safety.

Attachment B includes photographs demonstrating the difference between habitat quality. Figure A-3 illustrates the respective lower and higher quality habitats in to-be converted and to-be preserved areas. Of those habitats (including developed areas and non-native grasslands) that are of lower quality, 9.18 acres will be converted to vineyard, while those that will be avoided total 14.345 acres. Likewise, those of higher quality that will be converted total 7.48 acres, while 22.78 acres will be preserved.

c. An estimation of the number and species of trees with a diameter at breast height (DBH) of 6-inches or greater located within the entire parcel and an estimation of trees to be removed as part of the proposed project.

On April 5, 2024, two WRA botanists installed 13 tree plots to extrapolate an estimated number, species, and size of trees across the proposed grading limits and the entire property. The plots had a radius of 10 meters (3,380 square feet) and were spread across the site to represent the several dominant aspects and slopes of the property (Figure A-5). Every tree over 6 inches DBH within the tree plot was measured and the species documented (Attachment C).

Across the 13 plots, there were a total of 113 trees from five species: California buckeye (*Aesculus californica*, n=3), Pacific madrone (*Arbutus menziesii*, n=22), Douglas fir (*Pseudotsuga menziesii*, n=2), coast live oak (*Quercus agrifolia*, n=80), and California black oak (*Quercus agrifolia*, n=6). Their DBH ranges from 6.0 inches to 77.6 inches for an average of 16.9 inches. The table below summarizes the results of the tree plot sampling across all plots and provides the estimated number of trees across the coast live oak woodland across the property and within the grading limits. (This estimate was limited to coast live oak woodland due a general lack of trees in other land cover types).

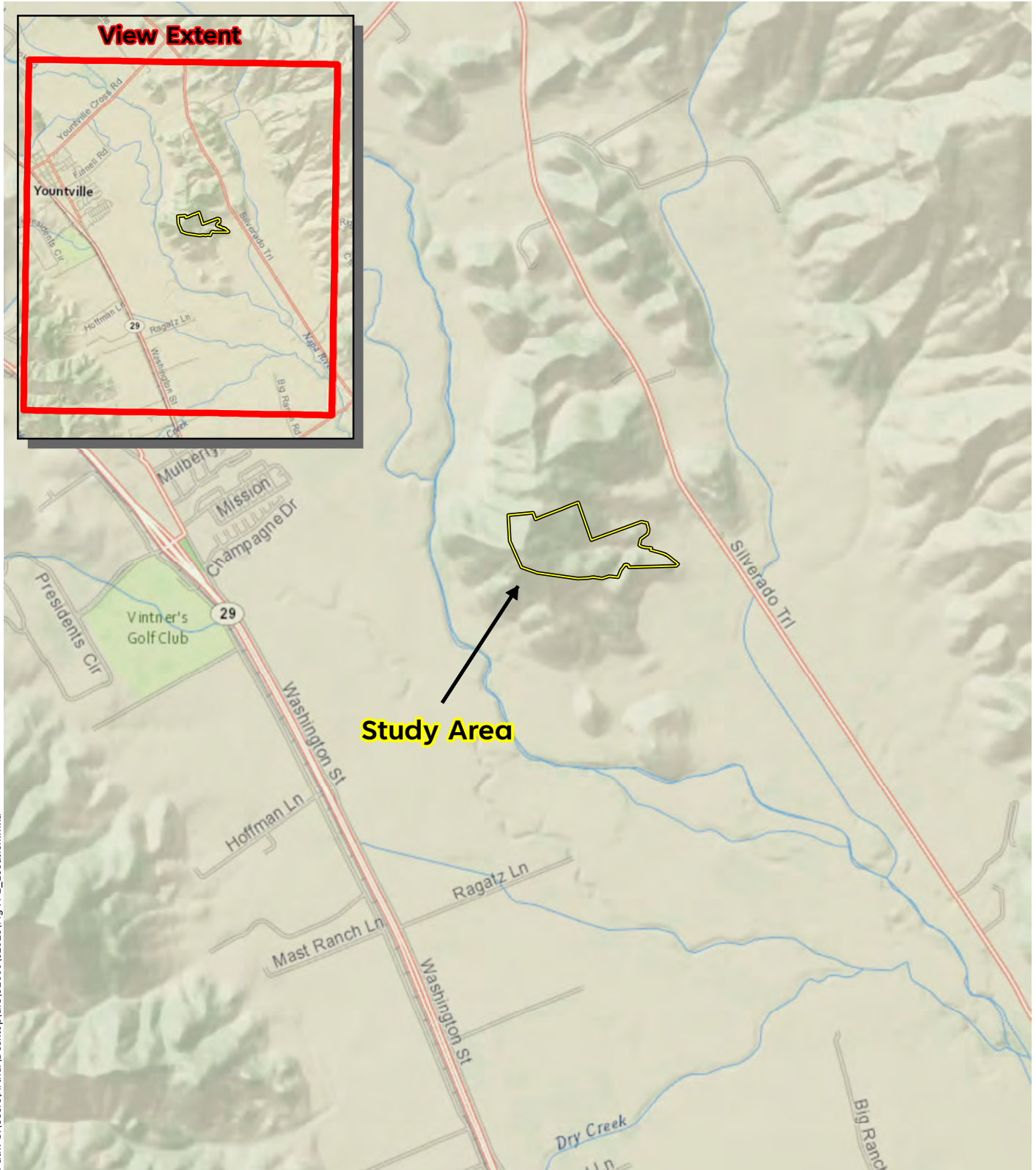
Species	Total No. across Plots	Average / Plot	Average DBH (in.)	Estimated No. across Grading Limits	Estimated No. across Property
California buckeye (<i>Aesculus californica</i>)	3	0.2	6.0	37	123
Pacific madrone (<i>Arbutus menziesii</i>)	22	1.6	7.1	269	899
Douglas fir (<i>Pseudotsuga menziesii</i>)	2	0.1	8.5	24	82
coast live oak (<i>Quercus agrifolia</i>)	80	5.7	17.1	977	3,269
California black oak (<i>Quercus kelloggii</i>)	6	0.4	61.9	73	245
TOTAL	113	8.1	--	1,380	4,617

Please contact me if you have questions or require additional information. Sincerely,



Aaron Arthur
 Associate Biologist
 WRA, Inc.
 arthur@wra-ca.com

ENCLOSURES: Attachment A: Figures
 Attachment B: Representative Photographs
 Attachment C: Tree Plot Data

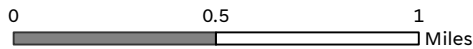


Path: C:\Users\Arthur\Desktop\GIS\31000\31025\Fig A-1_Location.mxd

Sources: National Geographic, WRA | Prepared By: Arthur, 8/10/2023

Figure A-1. Study Area Location

5681 Silverado Trail
Napa County, CA



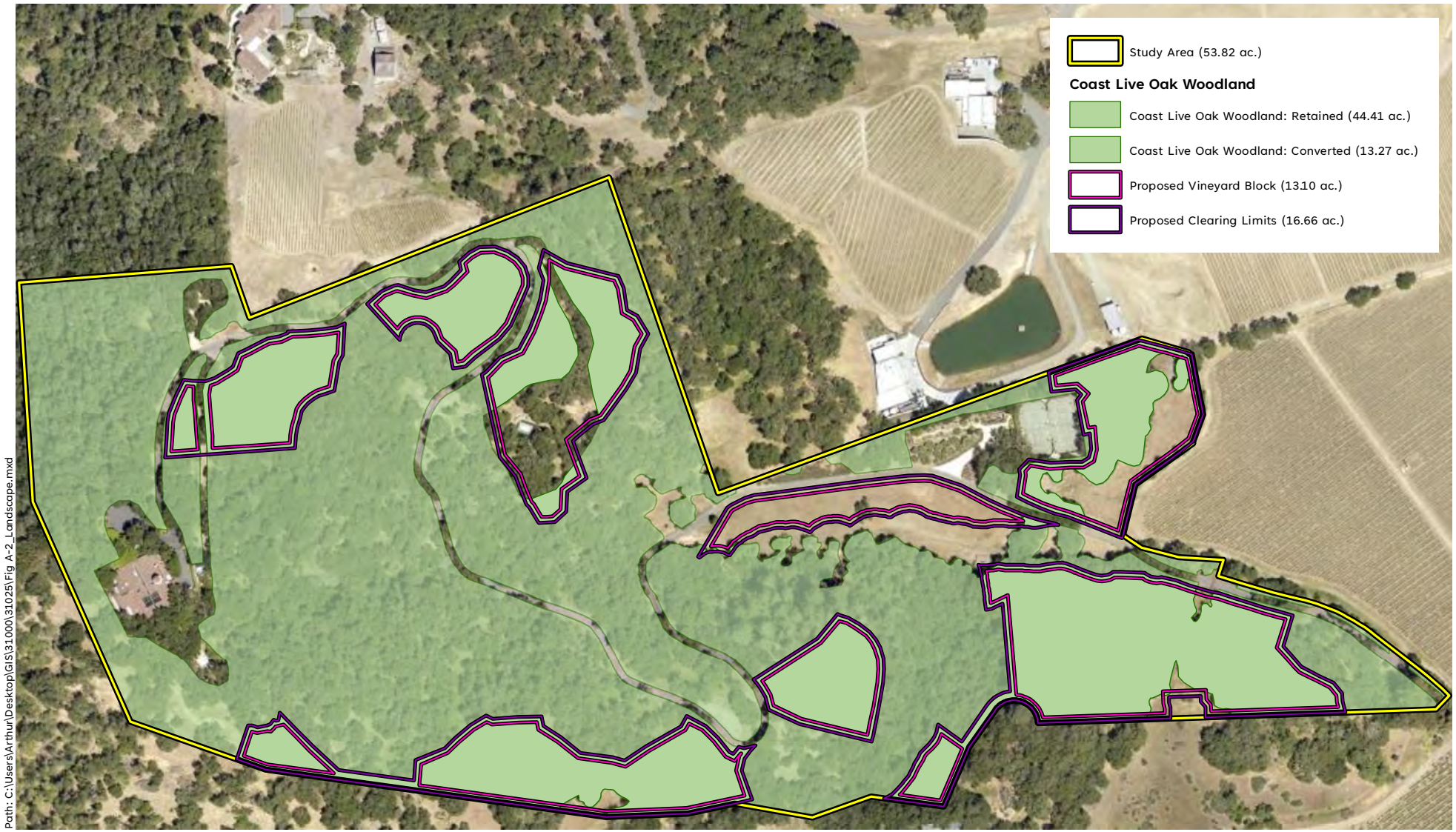
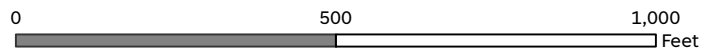


Figure A-2. Coast Live Oak Woodland

5681 Silverado Trail
Napa County, CA



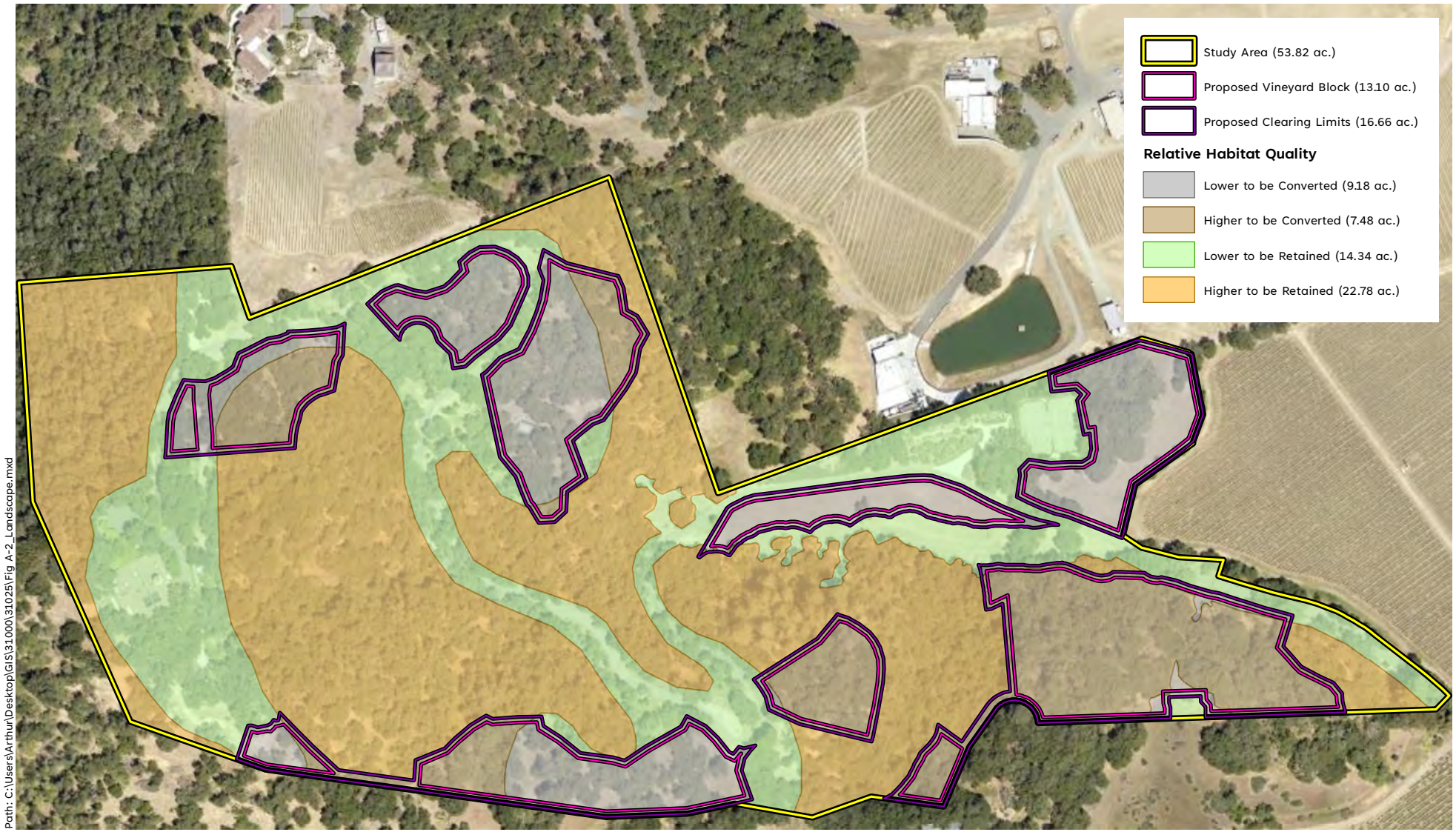


Figure A-3. Relative Habitat Quality

5681 Silverado Trail
Napa County, CA

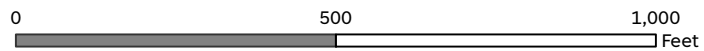
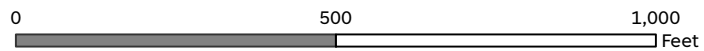




Figure A-4. Updated Land Cover

5681 Silverado Trail
Napa County, CA








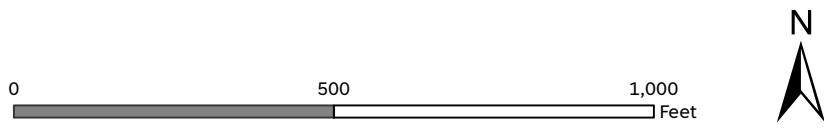
-  Study Area (53.82 ac.)
-  Contours (20')
-  Tree Plots

Figure A-5. Tree Plots

5681 Silverado Trail
Napa County, CA





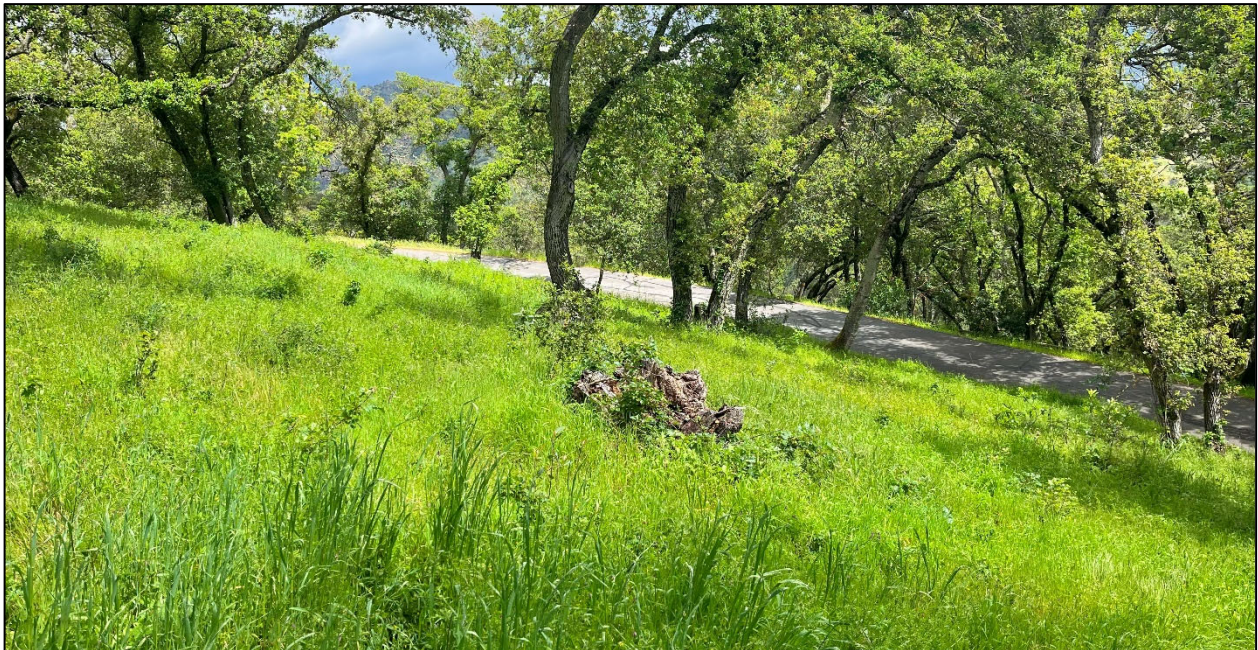
Example of higher quality coast live oak woodland; note vertical heterogeneity, diverse mix of species, and mixed age cohorts of trees



Example of higher quality coast live oak woodland; note vertical heterogeneity, diverse mix of species, and mixed age cohorts of trees



Example of lower quality coast live oak woodland; note understory managed for fire safety, very little vertical heterogeneity, and low species diversity with no native understory species



Example of lower quality coast live oak woodland; note understory managed for fire safety, very little vertical heterogeneity, and low species diversity with no native understory species



Dead and dying canopy of mature Douglas fir trees



Understory and middle story composed of regenerating coast live oaks; note no Douglas fir regeneration

Attachment C. Tree Plot Data

Plot E-01OW

SCIENTIFIC NAME	COMMON NAME	STEM DBH (in.)	TOTAL DBH (in.)
<i>Arbutus menziesii</i>	Pacific madrone	13.6	13.6
<i>Arbutus menziesii</i>	Pacific madrone	8.0	8.0
<i>Arbutus menziesii</i>	Pacific madrone	8.5	8.5
<i>Quercus agrifolia</i>	coast live oak	12.0	12.0
<i>Quercus agrifolia</i>	coast live oak	9.3/6.1/8.2	23.6
<i>Quercus agrifolia</i>	coast live oak	9.5	9.5
<i>Quercus agrifolia</i>	coast live oak	12.1	12.1

Plot E-02OW

SCIENTIFIC NAME	COMMON NAME	STEM DBH (in.)	TOTAL DBH (in.)
<i>Aesculus californica</i>	California buckeye	6.2	6.2
<i>Arbutus menziesii</i>	Pacific madrone	12.5	12.5
<i>Quercus agrifolia</i>	coast live oak	9.1	9.1
<i>Quercus agrifolia</i>	coast live oak	10.1/9.0/12.5/9.2/13.0	53.8
<i>Quercus agrifolia</i>	coast live oak	6.6	6.6
<i>Quercus kelloggii</i>	California black oak	10.8	10.8
<i>Quercus kelloggii</i>	California black oak	11.3	11.3
<i>Quercus kelloggii</i>	California black oak	15.3/13.6/13.6/11.5	54.0
<i>Quercus kelloggii</i>	California black oak	14.2	14.2

Plot E-03OW

SCIENTIFIC NAME	COMMON NAME	STEM DBH (in.)	TOTAL DBH (in.)
<i>Arbutus menziesii</i>	Pacific madrone	6.5	6.5
<i>Quercus agrifolia</i>	coast live oak	19.2	19.2
<i>Quercus agrifolia</i>	coast live oak	16.2	16.2
<i>Quercus agrifolia</i>	coast live oak	11.5	11.5
<i>Quercus agrifolia</i>	coast live oak	19.5	19.5
<i>Quercus kelloggii</i>	California black oak	11.0	11.0

Plot E-04OW

SCIENTIFIC NAME	COMMON NAME	STEM DBH (in.)	TOTAL DBH (in.)
<i>Arbutus menziesii</i>	Pacific madrone	6.8/6.2	13.0
<i>Quercus agrifolia</i>	coast live oak	7.7/4.3	12.0
<i>Quercus agrifolia</i>	coast live oak	10.2/13.8	24.0
<i>Quercus agrifolia</i>	coast live oak	9.3/12.6	21.9
<i>Quercus agrifolia</i>	coast live oak	47.5	47.5
<i>Quercus agrifolia</i>	coast live oak	8.2/10.5	18.7
<i>Quercus agrifolia</i>	coast live oak	26.1	26.1

Plot N-01OW

SCIENTIFIC NAME	COMMON NAME	STEM DBH (in.)	TOTAL DBH (in.)
<i>Arbutus menziesii</i>	Pacific madrone	8.5	8.5
<i>Arbutus menziesii</i>	Pacific madrone	8.4	8.4
<i>Arbutus menziesii</i>	Pacific madrone	6.6	6.6
<i>Arbutus menziesii</i>	Pacific madrone	7.2	7.2
<i>Arbutus menziesii</i>	Pacific madrone	6.4	6.4
<i>Arbutus menziesii</i>	Pacific madrone	7.2	7.2
<i>Arbutus menziesii</i>	Pacific madrone	6.3	6.3
<i>Quercus agrifolia</i>	coast live oak	11.5	11.5
<i>Quercus agrifolia</i>	coast live oak	14.9	14.9
<i>Quercus agrifolia</i>	coast live oak	14.8	14.8

Plot N-02OW

SCIENTIFIC NAME	COMMON NAME	STEM DBH (in.)	TOTAL DBH (in.)
<i>Quercus agrifolia</i>	coast live oak	10.1/10.0/21.7/15.5/15.0	72.3
<i>Quercus agrifolia</i>	coast live oak	8.7/14.0	22.7
<i>Quercus agrifolia</i>	coast live oak	7.0	7.0
<i>Quercus agrifolia</i>	coast live oak	8.3	8.3
<i>Quercus agrifolia</i>	coast live oak	10.5	10.5
<i>Quercus agrifolia</i>	coast live oak	16.5	16.5
<i>Quercus agrifolia</i>	coast live oak	18.6	18.6
<i>Quercus agrifolia</i>	coast live oak	8.0	8.0

Plot NE-01OW

SCIENTIFIC NAME	COMMON NAME	STEM DBH (in.)	TOTAL DBH (in.)
<i>Pseudotsuga menziesii</i>	Douglas fir	14.0	14.0
<i>Quercus agrifolia</i>	coast live oak	7.6	7.6
<i>Quercus agrifolia</i>	coast live oak	9.5/9.0	18.0
<i>Quercus agrifolia</i>	coast live oak	17.3	17.3
<i>Quercus agrifolia</i>	coast live oak	10.5	10.5
<i>Quercus agrifolia</i>	coast live oak	8.0	8.0
<i>Quercus agrifolia</i>	coast live oak	6.2	6.2
<i>Quercus agrifolia</i>	coast live oak	18	18
<i>Quercus agrifolia</i>	coast live oak	9.7	9.7
<i>Quercus agrifolia</i>	coast live oak	6.1	6.1
<i>Quercus agrifolia</i>	coast live oak	7.3	7.3
<i>Quercus agrifolia</i>	coast live oak	9.8	9.8
<i>Quercus agrifolia</i>	coast live oak	15.1	15.1
<i>Quercus agrifolia</i>	coast live oak	13.7	13.7
<i>Quercus agrifolia</i>	coast live oak	8.6	8.6
<i>Quercus agrifolia</i>	coast live oak	15.1	15.1

Plot NE-02OW

SCIENTIFIC NAME	COMMON NAME	STEM DBH (in.)	TOTAL DBH (in.)
<i>Aesculus californica</i>	California buckeye	7.1	7.1
<i>Quercus agrifolia</i>	coast live oak	17.4	17.4
<i>Quercus agrifolia</i>	coast live oak	24.8	24.8
<i>Quercus agrifolia</i>	coast live oak	13.0	13.0
<i>Quercus agrifolia</i>	coast live oak	15.9	15.9
<i>Quercus agrifolia</i>	coast live oak	28.3	28.3

Plot NE-03OW

SCIENTIFIC NAME	COMMON NAME	STEM DBH (in.)	TOTAL DBH (in.)
<i>Arbutus menziesii</i>	Pacific madrone	9.8	9.8
<i>Arbutus menziesii</i>	Pacific madrone	6.0	6.0
<i>Quercus agrifolia</i>	coast live oak	12.7/11.0	23.7
<i>Quercus agrifolia</i>	coast live oak	10.0/13.3/7.3	30.6
<i>Quercus agrifolia</i>	coast live oak	9.4/13.4/9.3/14.2/12.8	59.1
<i>Quercus agrifolia</i>	coast live oak	11.3	11.3
<i>Quercus agrifolia</i>	coast live oak	9.8	9.8

Plot NE-04OW

SCIENTIFIC NAME	COMMON NAME	STEM DBH (in.)	TOTAL DBH (in.)
<i>Aesculus californica</i>	California buckeye	6.9	6.9
<i>Arbutus menziesii</i>	Pacific madrone	11.0/6.8	17.8
<i>Arbutus menziesii</i>	Pacific madrone	8.4	8.4
<i>Arbutus menziesii</i>	Pacific madrone	6.0	6.0
<i>Arbutus menziesii</i>	Pacific madrone	12.2	12.2
<i>Arbutus menziesii</i>	Pacific madrone	7.0	7.0
<i>Arbutus menziesii</i>	Pacific madrone	6.3	6.3
<i>Arbutus menziesii</i>	Pacific madrone	11.0	11.0
<i>Pseudotsuga menziesii</i>	Douglas fir	11.1	11.1
<i>Quercus agrifolia</i>	coast live oak	8.7	8.7
<i>Quercus agrifolia</i>	coast live oak	18.0	18.0
<i>Quercus agrifolia</i>	coast live oak	10.2	10.2
<i>Quercus kelloggii</i>	California black oak	24.0	24.0

Plot S-01OW

SCIENTIFIC NAME	COMMON NAME	STEM DBH (in.)	TOTAL DBH (in.)
<i>Quercus agrifolia</i>	coast live oak	17.0	26.2
<i>Quercus agrifolia</i>	coast live oak	11.3	11.3
<i>Quercus agrifolia</i>	coast live oak	30.6	30.6
<i>Quercus agrifolia</i>	coast live oak	13.3/10.8/10.0/11.3	45.4
<i>Quercus agrifolia</i>	coast live oak	16.9/22.5/16.2/22.0	77.6
<i>Quercus agrifolia</i>	coast live oak	18.7	18.7
<i>Quercus agrifolia</i>	coast live oak	14.8	14.8

Plot S-02OW

SCIENTIFIC NAME	COMMON NAME	STEM DBH (in.)	TOTAL DBH (in.)
<i>Quercus agrifolia</i>	coast live oak	7.4	7.4
<i>Quercus agrifolia</i>	coast live oak	10.1	10.1
<i>Quercus agrifolia</i>	coast live oak	12.7	12.7
<i>Quercus agrifolia</i>	coast live oak	24.5	24.5
<i>Quercus agrifolia</i>	coast live oak	12.6/9.2/10.9	32.7
<i>Quercus agrifolia</i>	coast live oak	8.9	8.9
<i>Quercus agrifolia</i>	coast live oak	9.0	9.0
<i>Quercus agrifolia</i>	coast live oak	14.1/9.6/10.8/9./10.6	54.7
<i>Quercus agrifolia</i>	coast live oak	11.0	11.0
<i>Quercus agrifolia</i>	coast live oak	10.8	10.8
<i>Quercus agrifolia</i>	coast live oak	10.2	10.2

Plot S-03OW

SCIENTIFIC NAME	COMMON NAME	STEM DBH (in.)	TOTAL DBH (in.)
<i>Quercus agrifolia</i>	coast live oak	23.9	23.9
<i>Quercus agrifolia</i>	coast live oak	11.6/6.3	17.9
<i>Quercus agrifolia</i>	coast live oak	7.1/9.0/11.2	27.3
<i>Quercus agrifolia</i>	coast live oak	7.7	7.7
<i>Quercus agrifolia</i>	coast live oak	9.7/17.1/10.8/8.3	45.9
<i>Quercus agrifolia</i>	coast live oak	11.5	11.5