

**Botanical/Floristic Survey of Blue Oak Farms
1756 Ogulin Canyon Rd., Clearlake, CA**

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1.0 PROJECT DESCRIPTION

1.1 Proposed Project: This survey covers a legal parcel of approximately 46.52 acres located in S.W. Lake County proposed for a 2.0-acre cannabis cultivation project. **Lake County Tax Assessor Parcel (APN) 010-055-46.** Cultivation area delineated on **Figure 1 attached.**

The blue oak woodland portion of the property appears to have been used for agricultural purposes (grazing) in the past. Evidence of pasture improvement is present. There does not appear to be evidence of recent fire. Historic fires that appear on the Appendix E, Lake County Wildfire History compiled by Cal Fire list two fires in the area. One in June 1961 Dump Fire #2 and Dump Fire #12 in June 1966.

The local permitting agency is requesting completion of a botanical survey on the property as part of the California Environmental Quality Act (CEQA) review required for new development. The initial phase of this assessment evaluates the potential of the property to contain sensitive plant habitat. The second phase consists of field surveys, including a botanical survey listing all plant taxa. The biological resource assessment will determine whether the property contains sensitive plants requiring mitigation under the California Environmental Quality Act (CEQA). As used here, the terms sensitive plant includes all state or federal rare, threatened, or endangered species as well as CA Native Plant Society plant status designations. This includes all species listed in the California Natural Diversity Database (CNDDDB) list of "Special Vascular Plants, Bryophytes, and Lichens List", April 2021.

1.2 Location: The project site is located along Ogulin Canyon Road Northeast of Clearlake, California. A location map is provided in **Figure 2.**

2.0 PRE-SURVEY RESEARCH

2.1 A pre-site survey was conducted prior to on-site field surveys. CNPS On-Line Electronic Inventory Analysis. **A California Native Plant Society (CNPS)** analysis was conducted for all plants with federal and state regulatory status, and all non-status plants on the CNPS Lists 1B through 4. The query included all plants within this area of the county occurring within the plant communities identified on the project site. The inventory lists species potentially occurring at the site; these are listed in **Table 1.** These species were included in the list of potentially sensitive species specifically searched for during field surveys. It is important to note that this list includes species for which appropriate habitat is not present on the parcel. The CNPS database search does not allow fine tuning for specific soil types and many specific habitats.

2.2 California Natural Diversity Database: The California Natural Diversity Database (CNDDDB) and CDFW RareFind 5 data and maps for Lake County were reviewed for this project. **Table 2** presents a list of sensitive plant and wildlife species known to occur within this county. In addition to listing the species present within the county, the table provides a brief descriptor of the habitat requirements and blooming season, along with an assessment of whether the project area contains the necessary habitat requirements for each species.

3.0 ASSESSMENT METHODOLOGY

An in-season field survey of the parcel was performed utilizing the California Native Plant Society Vegetation Rapid Assessment Protocol (revised Feb 21, 2007). The basis of the botanical assessment is a comparison of existing habitat conditions within the project boundaries to the geographic range and habitat requirements of sensitive plants. It includes all sensitive species that occupy habitats similar to those found in the project area and whose known geographic ranges encompass this parcel. The approach is conservative in that it tends to over-estimate the actual number of species present. The analysis includes the following site characteristics:

- Location of the project area with regard to the geographic range of sensitive plant species.
- Location(s) of known populations of sensitive plant species as mapped in the California Natural Diversity Database (CNDDDB).
- Presence or absence of special features such as vernal pools and serpentine soils.

In addition to knowledge of the local plants and habitats, the following computer databases were used to analyze the suitability of the site for sensitive species:

- California Department of Fish and Wildlife (CDFW), *California Natural Diversity Database (CNDDDB)*; RareFind 5, 2021
- California Native Plant Society, Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 22 May 2021].

The CNDDDB and RareFind 5 databases consist of maps and records of all known populations of sensitive plants and wildlife in California. This data is continually updated by the CDFW with new sensitive species population data.

The CNPS database produces a list of sensitive plants potentially occurring at a site based on the various site characteristics listed above. While use of the CNPS inventory does not in itself eliminate the need for an in-season botanical survey, it can, when used in conjunction with other information, provide a very good indication of the suitability of a site as habitat for sensitive plant species.

3.1 Survey Dates: Site visits for the plant surveys and vegetation mapping were conducted on April 19th, 27th and May 10th and 11th, 2021.

3.2 Botanical Assessment Staff: The field surveys, plant taxonomy, and vegetation mapping, were conducted by Lawrence Ray principal biologist. Mr. Ray has a Master of Science Degree in Ecology from the Antioch University/UC Berkeley and a Bachelor of Science Degree in Environmental Studies from the Antioch University. He has over 35 years of experience as a biologist in the government and private sectors. Support staff was provided by Austin Ray who holds an AA Degree in Horticulture from Cabrillo College.

3.3 Botanical Survey Analysis Methods: An in-season botanical survey was conducted for the project site. The CNDDDB report and maps for the Lake County and the project area was referenced prior to the survey. Vegetation communities were identified based on the nomenclature of *A Manual of California Vegetation* (Sawyer, Keeler-Wolf, and Evens, Second Edition, 2009), and mapped using ARC GIS formatting. Vegetation type names are based on an assessment of dominant cover species.

3.4 CNPS Vegetation Alliance Descriptions: Four distinct Vegetation Alliances were encountered during the site visits. Acreage is illustrated in **Table 3**.

1. Blue Oak Woodland/*Quercus douglasii* Woodland Alliance. *Quercus douglasii* is dominant or co-dominant in the tree canopy with *Aesculus californica*, *Juniperus californica*, *Pinus sabiniana*, *Quercus agrifolia*, *Q. lobata*, and *Q. wislizeni*. Trees < 20 m; with conifers 35m; canopy is intermittent to continuous, or savanna-like; it may be one or two tiered. Shrub layer is sparse to intermittent. Herbaceous layer is sparse or grassy, and forbs are present seasonally. **Habitats:** Valley bottoms, foothills, rocky outcroppings. Soils are shallow, low in fertility, moderately to excessively drained with extensive rock fragments. **Elevation:** 30-1900 m.

2. Chamise chaparral/*Adenostoma fasciculatum* Shrub Alliance. *Adenostoma fasciculatum* is dominant in the shrub canopy with *A. sparsifolium*, *Arctostaphylos glandulosa*, *A. manzanita*, *A. viscida*, *Ceanothus* spp., *Diplacus aurantiacus*, *Eroidictyon californicum*, *Eriogonum fasciculatum*, *Hesperoyucca whipplei*, *Heteromeles arbutifolia*, *Quercus berberidifolia*, *Q. wislizeni*, *Salvia apiana*, *S. leucophylla*, *S. mellifera*, and *Toxicodendron diversilobum*. Emergent trees may be present at low cover. Shrubs < 4 m; canopy is intermittent to continuous. Herbaceous layer is sparse to intermittent. **Habitats:** Varied topography. Soils are commonly shallow over colluvium and many kinds of bedrock. **Elevation:** 10-1800 m.

3. Ghost pine woodland/*Pinus sabiniana* Woodland Alliance. *Pinus sabiniana* is dominant or co-dominant in the tree canopy with *Aesculus californica*, *Juniperus californica*, *J. occidentalis*, *P. coulteri*, *Quercus chrysolepis*, *Q. douglasii*, and *Q. wislizeni*. Trees < 20m; canopy open to intermittent and one or two tiered. Shrubs are common or infrequent. Herbaceous layer is sparse or grassy. **Habitats:** Streamside terraces, valleys, slopes, and ridges. Soils are shallow, often stony, infertile, and moderately to excessively drained. **Elevation:** 300-2100 m.

4. Annual brome grasslands/*Bromus (diandrus, hordeaceus)* – *Brachypodium distachyon*

Bromus diandrus, *B. hordeaceus*, or *Brachypodium distachyon* is dominant or co-dominant with non-natives in the herbaceous layer. Emergent trees and shrubs may be present at low cover. Herbs < 75 cm; cover is intermittent to continuous. **Habitats:** All topographic settings in foothills, waste places, rangelands, openings in woodlands. **Elevation:** 0-2200 m.

Plants occurring on the site were identified using *The Jepson Manual, Higher Plants of California, Second Edition 2012*. Where necessary, species names were updated based on the 6th edition, *CNPS Inventory of Rare and Endangered Plants of California*.

3.5 Botanical Survey Results

A map of the vegetation types at the site is provided in **Figure 3**. A species list of all vegetation types is provided in **Table 4** attached to this report.

4.0 SITE CHARACTERISTICS

4.1 Site Topography and Drainage: Blue Oak Farms occupies a set of small ridges, northeast-to-southwest trending gullies along the central ridge in the Coast Range Mountains between Clear Lake and Long Valley. Elevations range from 1,610 feet msl (mean sea level) along the ridgetop on the center of the property to 1,540 feet msl at the southern end of the two gullies. Drainage from the surrounding slopes is to Buckeye Canyon which drains to the southwest via Burns Valley Creek. Burns Valley Creek is a seasonally intermittent waterway flowing to Clear Lake. Topography is shown in **Figure 4**.

4.2 Soils: Based on the *Soil Surveys of Lake County, California* prepared by the U.S. Resource Conservation Service, the survey area contains the following soil types:

107; Bally-Phipps complex, 15 to 30 percent slopes. This map unit is on uplifted, dissected hills. The vegetation is mainly brush. Elevation is 1,400 to 2,500 feet. The average annual precipitation is 25 to 35 inches, the average annual air temperature is 55 to 59 degrees F, and the average frost-free period is 160 to 200 days. This unit is about 40 percent Bally gravelly sandy clayloam and 35 percent Phipps loam. The components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used.

196: Phipps complex, 15 to 30 percent slopes.

This map unit is on uplifted, dissected hills. These soils are susceptible to slumping and gullyng. The vegetation is mainly oak and annual grasses. Elevation is 1,100 to 2,000 feet. The average annual precipitation is about 25 to 35 inches, the average annual air temperature is about 55 to 59 degrees F, and the average frost-free period is about 160 to 200 days.

This unit is about 60 percent Phipps clay loam, loam substratum, and 15 percent Phipps loam. The components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used.

197: Phipps complex, 30 to 50 percent slopes.

This map unit is on uplifted, dissected hills. These soils are susceptible to slumping and gulying. The vegetation is mainly oak and annual grasses. Elevation is 1,100 to 2,000 feet. The average annual precipitation is about 25 to 35 inches, the average annual air temperature is about 55 to 59 degrees F, and the average frost-free period is about 160 to 200 days.

This unit is about 50 percent Phipps clay loam, loamy substratum, and 15 percent Phipps loam. The components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used.

- A soils report for the parcel is attached as **Appendix A** of this report.

5.0 Conclusion

The proposed project is small in scope and is located in a highly disturbed landscape. The cultivation site is relatively level and soils are well drained. The habitat in the cultivation area is low in value and is primarily comprised of non-native grasslands. The surrounding areas have intermittent stands of native habitat of higher value which will remain intact.

TABLE 1. CALIFORNIA NATIVE PLANT SOCIETY'S INVENTORY OF RARE AND ENDANGERED PLANTS

Selected CNPS Plants by Scientific Name

Blue Oak Farms

Scientific Name	Common Name	Family	Lifeform	CRPR	CESA	FESA	Blooming Period	Habitat
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	Boraginaceae	annual herb	1B.2	None	None	Mar-Jun	Coastal bluff scrub, Cismontane woodland, Valley and foothill grassland
<i>Antirrhinum virga</i>	twig-like snapdragon	Plantaginaceae	perennial herb	4.3	None	None	Jun-Jul	Chaparral, Lower montane coniferous forest; rocky, openings, often serpentinite
<i>Arctostaphylos manzanita ssp. elegans</i>	Konocti manzanita	Ericaceae	perennial evergreen shrub	1B.3	None	None	(Jan)Mar-May(Jul)	Chaparral, Cismontane woodland, Lower montane coniferous forest; volcanic
<i>Arctostaphylos stanfordiana ssp. raichei</i>	Raiche's manzanita	Ericaceae	perennial evergreen shrub	1B.1	None	None	Feb-Apr	Chaparral, Lower montane coniferous forest (openings); rocky, often serpentinite
<i>Astragalus breweri</i>	Brewer's milk-vetch	Fabaceae	annual herb	4.2	None	None	Apr-Jun	Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland (open, often gravelly); often serpentinite, volcanic
<i>Brasenia schreberi</i>	watershield	Cabombaceae	perennial rhizomatous herb (aquatic)	2B.3	None	None	Jun-Sep	Marshes and swamps (freshwater)
<i>Calystegia collina ssp. oxyphylla</i>	Mt. Saint Helena morning-glory	Convolvulaceae	perennial rhizomatous herb	4.2	None	None	Apr-Jun	Chaparral, Lower montane coniferous forest, Valley and foothill grassland; serpentinite
<i>Carex comosa</i>	bristly sedge	Cyperaceae	perennial rhizomatous herb	2B.1	None	None	May-Sep	Coastal prairie, Marshes and swamps (lake margins), Valley and foothill grassland
<i>Ceanothus confusus</i>	Rincon Ridge ceanothus	Rhamnaceae	perennial evergreen shrub	1B.1	None	None	Feb-Jun	Closed-cone coniferous forest, Chaparral, Cismontane woodland; volcanic or serpentinite

Table 1-Continued

Scientific Name	Common Name	Family	Lifeform	CRPR	CESA	FESA	Blooming Period	Habitat
<i>Clarkia gracilis ssp. tracyi</i>	Tracy's clarkia	Onagraceae	annual herb	4.2	None	None	Apr-Jul	Chaparral (openings, usually serpentinite)
<i>Collomia diversifolia</i>	serpentine collomia	Polemoniaceae	annual herb	4.3	None	None	May-Jun	Chaparral, Cismontane woodland serpentinite, rocky or gravelly
<i>Cryptantha dissita</i>	serpentine cryptantha	Boraginaceae	annual herb	1B.2	None	None	Apr-Jun	Chaparral (serpentinite)
<i>Fritillaria purdyi</i>	Purdy's fritillary	Liliaceae	perennial bulbiferous herb	4.3	None	None	Mar-Jun	Chaparral, Cismontane woodland, Lower montane coniferous forest; usually serpentinite
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	1B.2	CE	None	Apr-Aug	Marshes and swamps (lake margins), Vernal pools; clay
<i>Hesperolinon adenophyllum</i>	glandular western flax	Linaceae	annual herb	1B.2	None	None	May-Aug	Chaparral, Cismontane woodland, Valley and foothill grassland; usually serpentinite
<i>Horkelia bolanderi</i>	Bolander's horkelia	Rosaceae	perennial herb	1B.2	None	None	(May)Jun-Aug	Chaparral, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland; edges, vernal mesic areas
<i>Layia septentrionalis</i>	Colusa layia	Asteraceae	annual herb	1B.2	None	None	Apr-May	Chaparral, Cismontane woodland, Valley and foothill grassland; sandy, serpentinite
<i>Lilium rubescens</i>	redwood lily	Liliaceae	perennial bulbiferous herb	4.2	None	None	Apr-Aug(Sep)	Broadleafed upland forest, Chaparral, Lower montane coniferous forest, North Coast coniferous forest, Upper montane coniferous forest. Sometimes serpentinite, sometimes roadsides
<i>Monardella viridis</i>	green monardella	Lamiaceae	perennial rhizomatous herb	4.3	None	None	Jun-Sep	Broadleafed upland forest, Chaparral, Cismontane woodland
<i>Streptanthus glandulosus ssp. hoffmanii</i>	Hoffman's bristly jewelflower	Brassicaceae	annual herb	1B.3	None	None	Mar-Jul	Chaparral, Cismontane woodland, Valley and foothill grassland (often serpentinite); rocky
<i>Streptanthus hesperidis</i>	green jewelflower	Brassicaceae	annual herb	1B.2	None	None	May-Jul	Chaparral (openings), Cismontane woodland; serpentinite, rocky

Table 1-cont.

Scientific Name	Common Name	Family	Lifeform	CRPR	CESA	FESA	Blooming Period	Habitat
<i>Tracyina rostrata</i>	beaked tracyina	Asteraceae	annual herb	1B.2	None	None	May-Jun	Chaparral, Cismontane woodland, Valley and foothill grassland
<i>Viburnum ellipticum</i>	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	2B.3	None	None	May-Jun	Chaparral, Cismontane woodland, Lower montane coniferous forest

KEY FOR TABLE 1:

CNPS Rare Plant-Threat Rank Definitions:

- 1B.1 = Rare, threatened, or endangered in California and elsewhere; seriously threatened in California*
- 1B.2 = Rare, threatened, or endangered in California and elsewhere; moderately threatened in California*
- 1B.3 = Rare, threatened, or endangered in California and elsewhere; not very threatened in California*
- 2A = Presumed extinct in California, but extant elsewhere*
- 2B.1 = Rare, threatened, or endangered in Calif., but more common elsewhere; seriously threatened in Calif.*
- 2B.2 = Rare, threatened, or endangered in Calif., but more common elsewhere; moderately threatened in Calif.*
- 2B.3 = Rare, threatened, or endangered in Calif., but more common elsewhere; not very threatened in Calif.*
- 3 = Plants about which we need more information (Review List)*
- 3.1 = Plants about which we need more information (Review List); seriously threatened in California*
- 3.2 = Plants about which we need more information (Review List); moderately threatened in California*
- 3.3 = Plants about which we need more information (Review List); not very threatened in California*
- 4.1 = Plants of limited distribution (watch list); seriously threatened in California*
- 4.2 = Plants of limited distribution (watch list); moderately threatened in California*
- 4.3 = Plants of limited distribution (watch list); not very threatened in California*

State and Federal Status:

- CESA = California Endangered Species Act*
- FESA = Federal Endangered Species Act*
- SR = State. Rare*
- ST = State. Threatened*
- SSC = CDFW Species of Special Concern*
- WL = CDFW Watch List*
- FT = Federal Threatened*
- SE = State Endangered.*
- SD = State Delisted*
- FP = CDFW Fully Protected*
- FE = Federal Endangered*
- FD = Federal Delisted*

TABLE 2. CNDDDB SENSITIVE PLANT AND WILDLIFE SPECIES WITHIN Lake, Napa and Yolo Counties

Habitat Type	Habitat Present
<i>Northern Interior Cypress Forest</i>	No
<i>Serpentine Bunchgrass</i>	No

Plant Species	Common Name	Habitat Requirements/ Fed-State-CNPS* Status	Blooming Season/Form	Habitat Present
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	Coastal bluff scrub, cismontane woodland, valley & foothill grassland; --/--/1B.2	March-June ann. herb	Habitat present but not found during surveys
<i>Antirrhinum virga</i>	twig-like snapdragon	Chaparral, lower montane coniferous forest./rocky, openings, often serpentinite; --/--/4.3	June-July per. herb	Poor habitat present
<i>Arctostaphylos manzanita ssp. elegans</i>	Konocti manzanita	Chaparral, cismontane woodland, lower montane conif. forest/volcanic; --/--/1B.3	March-May everg. shrub	Poor habitat present
<i>Arctostaphylos stanfordiana ssp. raichei</i>	Raiche's manzanita	Chaparral, lower montane coniferous forest/rocky, often serpentinite; --/--/1B.1	Feb.-April ann. herb	Poor habitat present
<i>Astragalus breweri</i>	Brewer's milk-vetch	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland (open, often gravelly)/often serpentinite, volcanic; --/--/4.2	April-June ann. herb	Poor habitat present
<i>Brasenia schreiberi</i>	watershield	Marshes & swamps/freshwater; --/--/2B.3	March-Sept rhizom. herb	Habitat not present
<i>Calystegia collina ssp. oxyphylla</i>	Mt. Saint Helena morning-glory	Chaparral, lower montane conif. forest, valley & foothill grassland/serpentinite; --/--/4.2	April-June rhizom. herb	Habitat not present
<i>Carex comosa</i>	bristly sedge	Coastal prairie, marshes and swamps (lake margins), valley and foothill grassland; --/--/2B.1	May-Sept. per. rhizom. herb	Habitat present but not found during surveys
<i>Ceanothus confusus</i>	Rincon ridge ceanothus	Closed cone conif. forest, chaparral, cismontane woodland/volcanic; --/--/1B.1	Feb.-April everg. shrub	Poor habitat present
<i>Clarkia gracilis ssp. tracyi</i>	Tracy's clarkia	Chaparral (openings, usually serpentinite); --/--/4.2	April-June ann. herb	Habitat not present
<i>Collomia diversifolia</i>	serpentine collomia	Chaparral, cismontane woodland/serpentinite, rocky or gravelly; --/--/4.3	May-June ann. herb	Habitat not present
<i>Cryptantha dissita</i>	serpentine cryptantha	Chaparral/serpentine outcrops; --/--/1B.2	April-June ann. herb	Habitat not present

Table 2 - continued

Plant Species	Common Name	Habitat Requirements/ Fed-State-CNPS* Status	Blooming Season/Form	Habitat Present
<i>Entosthodon kochii</i>	Koch's cord moss	Cismontane woodland (soil); --/--/1B.3	moss	Habitat present but not found during surveys
<i>Erythranthe nudata</i>	bare monkeyflower	Chaparral, cismontane woodland, serpentinite seeps; --/--/4.3	May-June ann. herb	Habitat not present
<i>Fritillaria purdyi</i>	Purdy's fritillary	Chaparral, cismontane woodland, lower montane coniferous forest; usually serpentinite; --/--/4.3	March-June bulb. herb	Habitat not present
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	Freshwater marsh, marshes & swamps (freshwater), vernal pools, sometimes lake margins/clay; --/SE/1B.2	April-Aug. ann. herb	Habitat not present
<i>Hesperolinon adenophyllum</i>	glandular western flax	Chaparral, cismontane woodland, valley & foothill grassland/usually serpentine chaparral; --/--/1B.2	May-Aug. ann. herb	Habitat not present
<i>Horkelia bolanderi</i>	Bolander's horkelia	Lower montane conif. forest, chaparral, meadows & seeps, valley & foothill grassland/grassy margins of vernal pools and meadows; --/ --/1B.2	June-Aug. per. herb	Habitat present but not found during surveys
<i>Kopsiopsis hookeri</i>	small groundcone	North Coast coniferous forest/redwood forest; --/-- /2B.3 (parasitic)	April-August per. rhizom. herb	Habitat not present
<i>Layia septentrionalis</i>	Colusa layia	Chaparral, cismontane woodland, valley & foothill grassland/sandy or serpentine; --/--/1B.2	April-May ann. herb	Habitat not present
<i>Leptosiphon acicularis</i>	bristly leptisiphon	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland; --/--/4.2	April-July ann. herb	Habitat present but not found during surveys
<i>Monardella viridis</i>	green monardella	Broadleaved upland forest, chaparral, cismontane woodland; --/--/4.3	June-Sept. rhizom. herb	Habitat present but not found during surveys
<i>Plagiobothrys lithocaryus</i>	Mayacamas popcorn-flower	Chaparral, cismontane woodland, valley & foothill grassland/mesic; --/--/1A (presumed extinct)	April-May ann. herb	Poor habitat present
<i>Ranunculus lobbii</i>	Lobb's aquatic buttercup	Cismontane woodland, North Coast coniferous forest, valley and foothill grassland, vernal pools/mesic--/-- /4.2	Feb.-May ann. herb (aquatic)	Habitat not present
<i>Streptanthus glandulosus ssp. hoffmanii</i>	Hoffman's bristly jewelflower	Chaparral, cismontane woodland, valley and foothill grassland/rocky, often serpentinite; --/--/1B.3	March-July ann. herb	Habitat not present
<i>Tracyina rostrata</i>	beaked tracyina	Cismontane woodland, valley & foothill grassland; --/-- /1B.2	May-June ann. herb	Habitat present but not found during surveys

Table 2- continued

Plant Species	Common Name	Habitat Requirements/ Fed-State-CNPS* Status
<i>Viburnum ellipticum</i>	oval-leaved viburnum	Chaparral, cismontane woodland, lower montane coniferous forest; --/--/2B.3

*See CNPS list for key

TABLE 3. PLANT COMMUNITIES AND OTHER COVER TYPES PRESENT Blue Oak Farms

COVER TYPE	Total Acres of Cover Type on Property	Percent of Property Supporting Cover Type
Blue Oak Woodland- <i>Quercus douglasii</i> Woodland Alliance	27.48	59
Ghost pine woodland- <i>Pinus sabiniana</i> Woodland Alliance	0.93	2
Chamise chaparral- <i>Adenostoma fasciculatum</i> Shrubland Alliance	11.44	24.6
Annual brome grasslands - <i>Bromus</i> (<i>diandrus</i> , <i>hordeaceus</i>)	6.67	14.4
Total	46.52	100.00

TABLE 4. FLORA; Blue Oak Farms 1756 Ogulin Canyon Road

Habit	Species	Common Name	Family	Origin
forb	<i>Chlorogalum pomeridianum</i>	Wavyleaf soap plant	Agavaceae	N
forb	<i>Andostoma fasciculatum</i>	chamise	Alismataceae	N
forb	<i>Allium serra</i>	jeweled onion	Alliaceae	N
forb	<i>Conium maculatum</i>	poison hemlock	Apiaceae	A
forb	<i>Lomatium dasycarpum ssp. dasycarpum</i>	woolly-fruited lomatium	Apiaceae	N
forb	<i>Lomatium macrocarpum</i>	Large fruited lomatium	Apiaceae	N
forb	<i>Sanicula bipinnata</i>	Poison sanicle	Apiaceae	N
forb	<i>Achillea millefolium</i>	common yarrow	Asteraceae	N
forb	<i>Agoseris apargioides var apargioides</i>	coast dandelion	Asteraceae	N
forb	<i>Chamomilla suaveolens</i>	pineapple weed	Asteraceae	A
forb	<i>Centaurea solstitialis</i>	Yellow star thistle	Asteraceae	A
forb	<i>Eriophyllum lanatum var. lanatum</i>	common woolly sunflower	Asteraceae	N
forb	<i>Madia gracilis</i>	gumweed, slender tarweed	Asteraceae	N
forb	<i>Micropus californicus</i>	cottontop	Asteraceae	N
forb	<i>Psilocarpus tenellus</i>	slender woolly marbles	Asteraceae	N
forb	<i>Wyethia angustifolia</i>	narrow-leaved mule ears	Asteraceae	N
forb	<i>Wyethia glabra</i>	green mule ears, shining mule ears	Asteraceae	N
forb	<i>Cynoglossum grande</i>	grand hound's tongue	Boraginaceae	N
forb	<i>Lepidium nitidum var. nitidum</i>	shining peppergrass	Brassicaceae	N
forb	<i>Dichelostemma capitatum</i>	Blue dicks	Brodiaea	N
forb	<i>Lonicera interrupta</i>	Chaparral honeysuckle	Caprifoliaceae	N
forb	<i>Cerastium glomeratum</i>	mouse-ear chickweed, sticky mouse-ear	Caryophyllaceae	A

Habit	Species	Common Name	Family	Origin
forb	<i>Acemison glaber</i>	deerweed	Fabaceae	N
forb	<i>Lupinus bicolor</i>	miniature lupine	Fabaceae	N
forb	<i>Trifolium hirtum</i>	rose clover	Fabaceae	A
forb	<i>Vicia americana var. americana</i>	American vetch	Fabaceae	N
forb	<i>Erodium cicutarium</i>	red-stem storksbill	Geraniaceae	A
forb	<i>Geranium dissectum</i>	cut-leaved geranium	Geraniaceae	A
forb	<i>Nemophila menziesii</i>	baby blue eyes	Hydrophylaceae	N
forb	<i>Calochortus superbus</i>	Yellow mariposa	Lillaceae	N

Table 4-continued

Habit	Species	Common Name	Family	Origin
forb	<i>Dichelostemma congestum</i>	fork-toothed ookow	Liliaceae	N
forb	<i>Triteleia laxa</i>	Ithuriel's spear	Liliaceae	N
forb	<i>Toxicoscordion fremontii</i>	Fremont's death camas	Liliaceae	
forb	<i>Clarkia purpurea</i>	purple clarkia, winecup clarkia, four-spot	Onagraceae	N
forb	<i>Eschscholzia californica</i>	California poppy	Papaveraceae	N
forb	<i>Delphinium hesperium</i>	foothill larkspur	Ranunculaceae	N
forb	<i>Galium divaricatum</i>	Lamarck's bedstraw	Rubiaceae	N
forb	<i>Penstemon heterophyllus</i>	foothill penstemon	Scrophulariaceae	N

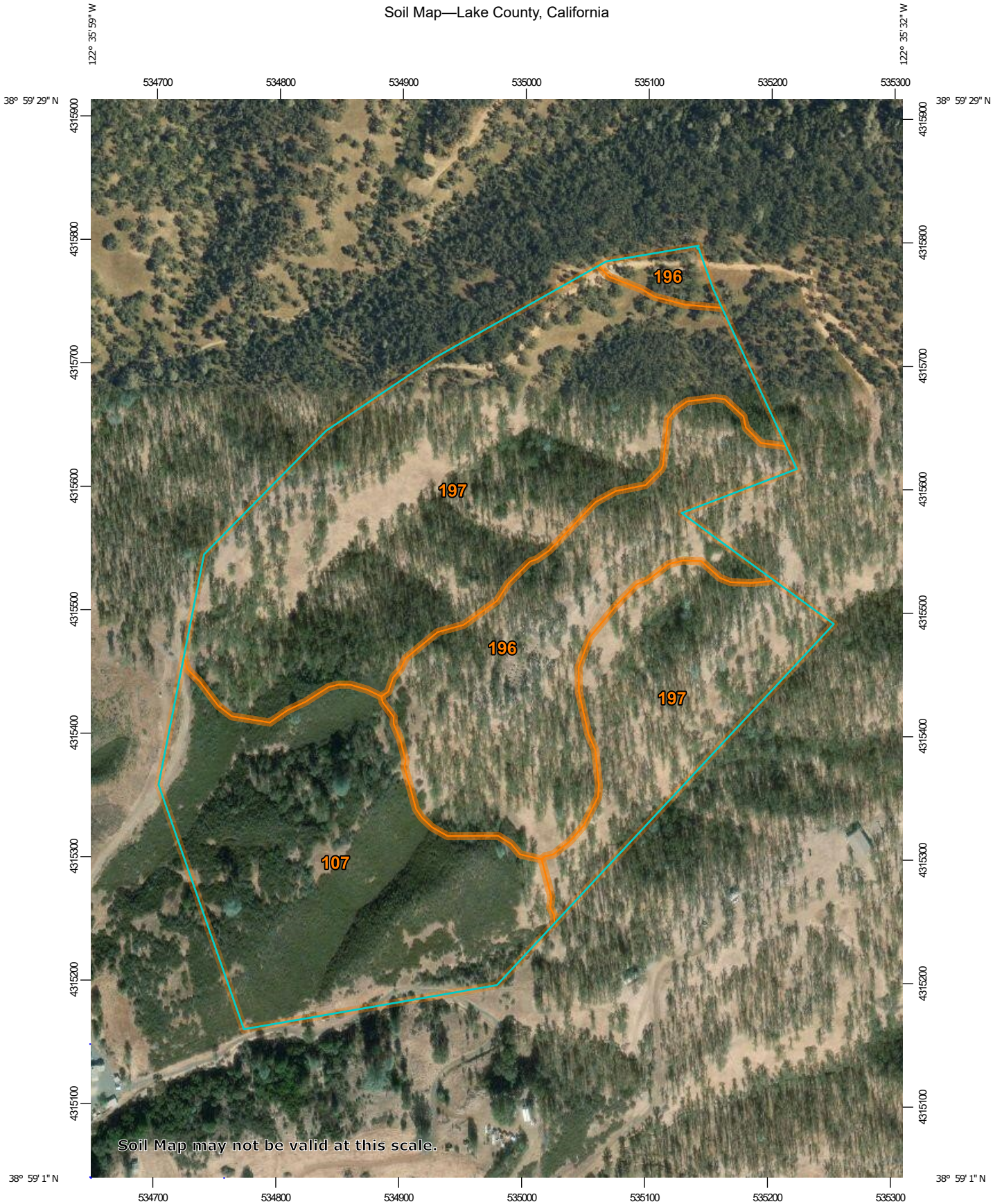
Habit	Species	Common Name	Family	Origin
grass	<i>Avena barbata</i>	slender wild oat	Poaceae	A
grass	<i>Briza minor</i>	small quaking grass	Poaceae	A
grass	<i>Bromus diandrus</i>	ripgut grass, ripgut brome	Poaceae	A
grass	<i>Bromus hordeaceus</i>	soft chess	Poaceae	A
grass	<i>Bromus jinermis</i>	smooth brome	Poaceae	A
grass	<i>Bromus laevipes</i>	woodland brome	Poaceae	N
grass	<i>Bromus madritensis ssp. rubens</i>	red brome	Poaceae	A
grass	<i>Elymus caput-medusae</i>	medusahead	Poaceae	A
grass	<i>Elymus glaucus ssp. glaucus</i>	blue wildrye	Poaceae	N
grass	<i>Elymus multisetus</i>	big squirreltail	Poaceae	N
grass	<i>Festuca myuros</i>	rattail sixweeks grass	Poaceae	A
shrub	<i>Sambucus nigra ssp. caerulea</i>	blue elderberry	Adoxaceae	N
shrub	<i>Toxicodendron diversilobum</i>	poison oak	Anacardiaceae	N
shrub	<i>Baccharis pilularis</i>	coyote brush, chaparral broom	Asteraceae	N
shrub	<i>Symphoricarpos albus var. laevigatus</i>	common snowberry	Caryophyllaceae	N

Table 4- continued

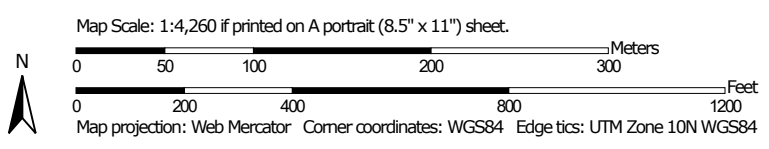
Habit	Species	Common Name	Family	Origin
shrub	<i>Arctostaphylos manzanita ssp. manzanita</i>	common manzanita	Ericaceae	N
shrub	<i>Arctostaphylos viscida</i>	white-leaf manzanita	Ericaceae	N
shrub	<i>Pickeringia montana</i>	chaparral pea	Fabaceae	N
shrub	<i>Eriodictyon californicum</i>	California yerba santa	Hydrophyllaceae	N
shrub	<i>Lepechinia calycina</i>	pitcher sage	Lamiaceae	N
shrub	<i>Ceanothus cuneatus var. cuneatus</i>	buckbrush	Rhamnaceae	N
shrub	<i>Adenostoma fasciculatum</i>	chamise	Rosaceae	N
shrub	<i>Cercocarpus betuloides var. betuloides</i>	birch-leaf mountain mahogany	Rosaceae	N
shrub	<i>Heteromeles arbutifolia</i>	toyon	Rosaceae	N
tree	<i>Quercus douglasii</i>	Blue oak	Fagaceae	N
Tree	<i>Quercus wislizeni</i>	interior live oak	Fagaceae	N
Tree	<i>Pinus sabiniana</i>	California foothill pine	Pinaceae	N

Habit	Species	Common Name	Family	Origin
vine	<i>Calystegia occidentalis ssp. occidentalis</i>	western morning-glory	Convolvulaceae	N

Soil Map—Lake County, California




Soil Map may not be valid at this scale.




MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lake County, California

Survey Area Data: Version 17, Jun 1, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 2, 2019—Jul 5, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
107	Bally-Phipps complex, 15 to 30 percent slopes	14.4	26.9%
196	Phipps complex, 15 to 30 percent slopes	11.7	21.9%
197	Phipps complex, 30 to 50 percent slopes	27.4	51.2%
Totals for Area of Interest		53.6	100.0%