

**Special-Status Species  
Botanical Survey Report  
2000 Los Alamos Road Project  
Sonoma County, California**

*Prepared for:*

**Joe Henderson  
2000 Los Alamos Road  
Santa Rosa, California 95409  
(707) 838-8888**

*Prepared by:*

**Synthesis Planning, Inc.  
442 San Marin Drive  
Novato, California 94945  
(415) 328-7923**

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## **1.0 Introduction**

### **1.1 Project Overview and Study Objectives**

Mr. Henderson is proposing to expand an existing cannabis growing facility he owns and operates at 2000 Los Alamos Road, east of the City of Santa Rosa, in unincorporated Sonoma County, California. Existing indoor growing and production areas total approximately 3,000 square feet, or 0.07 acres. Under the proposed expansion plan, the indoor cultivation and production area would be expanded by approximately 2,850 square feet, or 0.06 acres. Under the expanded plan, the indoor cultivation and production facility would utilize 5,850 square feet, or 0.13 acres.

In order to expand the cultivation and production site, the new areas proposed for development would need to be cleared of trees and brush. The first step in clearing existing vegetation will involve workers using chainsaws and handsaws to remove the vegetation. Trees and brush materials will be cut up, and placed at the edges of the new cultivation/production areas. After above ground removal of woody vegetative material is achieved, a backhoe will be used to grub tree stumps, and shrub stumps and roots, from the ground. The next step will involve using a backhoe to re-contour the area into terraced flat areas onto which two (2) new concrete pads and two (2) new green houses will be placed for cannabis cultivation, as well as to expand the existing parking to accommodate ADA accessible parking and passenger loading zone. Sloped areas of the graded areas will be seeded with a Sonoma County approved native grass seed mix to stabilize slopes and avoid runoff of sediment into adjacent cismontane woodland habitat, and non-native foothill grassland habitat. No new roadways will be required as part of the proposed project.

The location of the proposed project is illustrated on the attached Project Vicinity (Figure 1) and Location (see Figures 2) maps.

To comply with the requirements of the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), and the various requirements of permitting agencies for the proposed project, rare plant surveys were conducted throughout the project area, with particular emphasis on sensitive habitats.

During the rare plant surveys, no rare plant species were identified in the study area.

### **1.2 Description of Study Area**

The proposed project site is located in central Sonoma County, California (see Figure 1). The proposed project site is located in Section 1, Township 7 North, Range 7 West, MDBM of the U.S. Geological Survey [USGS] Kenwood 7.5-minute

quadrangle map. Figures 1 and 2 depict the location of the proposed project site. The proposed project site is located in areas of ruderal disturbed habitat, cismontane woodland habitat areas, and a foothill grassland habitat area.

The proposed project site and buffer area do not lie within any USFWS designated critical habitat areas for protected wildlife or plant species (USFWS 2018b). Habitat types observed during our biological field surveys are described below.

**Annual Grassland.** The annual grassland vegetative community was observed within both the proposed project site and buffer area. This vegetative community makes up the majority of the proposed project site and buffer area. This plant community is generally composed of introduced grasses and broadleaf weedy species, which quickly re-colonize disturbed areas. Common dominant and subdominant plant species that were observed within this vegetative community during biological surveys included: yarrow (*Achillea millefolium*), fiddleneck (*Amsinckia menziesii* var. *intermedia*), slender wild oat (*Avena barbata*), purple false brome (*Brachypodium distachyon*), black mustard (*Brassica nigra*), rattlesnake grass (*Briza maxima*), ripgut grass (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), morning-glory (*Calystegia purpurata* var. *purpurata*), owl's-clover (*Castilleja densiflora* ssp. *densiflora*), yellow-star thistle (*Centaurea solstitialis*), Monterey centaury (*Centaureum muehlenbergii*), bindweed (*Convolvulus arvensis*), northern willow herb (*Epilobium ciliatum* ssp. *ciliatum*), broad-leaf filaree (*Erodium botrys*), red-stem filaree (*Erodium cicutarium*), California poppy (*Eschscholzia californica*), fennel (*Foeniculum vulgare*), hayfield tarplant (*Hemizonia congesta* ssp. *congesta*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), hare barley (*Hordeum murinum* ssp. *leporinum*), Italian ryegrass (*Lolium multiflorum*), bur clover (*Medicago polymorpha*), bristly ox tongue (*Picris echioides*), common plantain (*Plantago major*), radish (*Raphanus sativus*), dandelion (*Taraxacum officinale*), subterranean clover (*Trifolium subterraneum*), and six-weeks fescue (*Vulpia bromoides*). Annual grasslands within and adjacent to the project site provides moderate habitat value for wildlife. This habitat type has the potential to support a variety of small mammals and provides important foraging habitat for raptors and other bird species. Birds commonly found in annual grasslands include Cooper's hawk (*Accipiter cooperii*), red-tailed hawks (*Buteo jamaicensis*), red-winged blackbird, coyote (*Canis latrans*), house finch (*Carpodacus mexicanus*), turkey vulture (*Cathartes aura*), killdeer (*Charadrius vociferus*), common raven (*Corvus corax*), Brewer's blackbirds (*Euphagus cyanocephalus*), American kestrels (*Falco sparverius*), black-tailed jackrabbit (*Lepus californicus*), wild turkey (*Meleagris gallopavo*), northern mockingbird (*Mimus polyglottos*), western fence lizard (*Sceloporus occidentalis*), western bluebird (*Sialia mexicana*), western meadowlark (*Sturnella neglecta*), California ground squirrels (*Spermophilus beecheyi*), and Botta's pocket gophers (*Thomomys bottae*).

**Montane Hardwood Forest.** This vegetative community was observed in portions of the project site and throughout the project buffer area. The montane hardwood

vegetative community occurs within the project study area intermixed in upland areas with ruderal disturbed habitat. Montane hardwood habitat is composed of a pronounced hardwood tree layer, with an infrequent and poorly developed shrub stratum, and a sparse herbaceous layer. In mature stands, the hardwood tree canopy tends to be uniform, but is subordinate to conifers. A very stable community, the large number of species in the type, both conifer and hardwood, allow it to occupy and persist on a wide range of sites. Common dominant and subdominant plant species that were observed within this vegetative community during biological surveys included California maidenhair (*Adiantum jordanii*), California buckeye (*Aesculus californica*), madrone (*Arbutus menziesii*), wild ginger (*Asarum caudatum*), climbing bedstraw (*Galium porrigens* var. *porrigens*), tanbark oak (*Lithocarpus densiflorus* var. *densiflorus*), western sword fern (*Polystichum munitum*), coast live oak (*Quercus agrifolia* var. *agrifolia*), and canyon live oak (*Quercus chrysolepis*). Herbaceous understory consisted of plant species found in the annual grassland vegetative community. Bird and animal species typically found in montane hardwood forest include disseminators of acorns (scrub and Steller's [*Cyanocitta stelleri*] jays, acorn woodpecker [*Melanerpes formicivorus*], and western gray squirrel [*Sciurus griseus*]), plus those that utilize acorns as a major food source including wild turkey (*Meleagris gallopavo*), mountain quail (*Oreortyx pictus*), band-tailed pigeon (*Columba fasciata*), California ground squirrel (*Spermophilus beecheyi*), and black-tailed deer (*Odocoileus hemionus*). Many amphibians and reptiles are found on the forest floor in the montane hardwood community. Among them are ensatina (*Ensatina eschscholtzii*), relictual slender salamander (*Batrachoseps relictus*), and western fence lizard (*Sceloporus occidentalis*). Snakes include rubber boa (*Charina bottae*), western rattlesnake (*Crotelus atrox*), and sharp-tailed snake (*Contia tenuis*).

**Ruderal/Disturbed.** The ruderal/disturbed vegetative community type was identified throughout the Project site wherever disturbed soils occurred, active land uses were present, or active land uses were absent where disturbance had occurred in the recent past. Common vegetative species found in this community were composed of weedy non-native and weedy native species. Although often comprised of non-native plant species, ruderal habitats, particularly at edges of natural communities, can provide foraging habitat for many species of birds and mammals.

## 2.0 Methods

The proposed project site and buffer area were previously surveyed for sensitive botanical species on September 20, 2017. The findings of these surveys were discussed in the biological assessment report, dated December 2017. No sensitive plant species were identified during these studies.

Study methods for this survey included a literature review to determine special status plant species that could potentially occur within areas influenced by the construction of and operation/maintenance of the project. The review consisted of

a search of the CNDDDB (CDFW 2019) and the CNPS Online Inventory (CNPS 2019) for all rare plants occurring within the project site and buffer area. For the purpose of this study, rare plants were defined as those species that are: 1) listed, proposed or under review as rare, threatened or endangered under the Federal Endangered Species Act or California Endangered Species Act; 2) considered rare or endangered by CNPS, including watch list species. A list of target species is included in Table 1.

A botanical survey of the project area for special status plant species was conducted by Mr. Cord Hute on May 24, 2019. This survey was floristic in nature and were completed concurrent with surveys to detect sensitive wildlife species. Surveys were conducted in accordance with the USFWS *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000) and the CDFW *Protocols for Surveying and evaluating impacts to special-status native plant populations and natural communities* (CDFW 2018). Rare plant surveys were also performed using demographic survey techniques derived from the CNPS rare plant monitoring guidelines (CNPS 2011). These guidelines include conducting floristically based surveys, identifying all plants encountered to the species level, or identifying to the level necessary to detect rare plants if present. The survey was conducted during the correct phenological time to detect targeted special status plants.

Biologists surveyed 30 to 50 feet wide transects within the proposed project site and the 500-foot radius buffer area. Biologists identified vascular plant species encountered in the surveys using standard manuals (Hickman 1996). Scientific nomenclature used for plant species in this report follows Hickman (1996) and biologists used *A Manual of California Vegetation* (Sawyer et al. 2009) to describe habitat types found in the proposed project site and buffer area. Animal species observed during biological surveys are listed in Table 2. Plant species identified are discussed in the text of the report.

16 special-status plant species were identified as having potential to occur within the proposed project site and buffer area (see Table 1 below). A species was included as having potential to occur based on a combination of suitable habitat presence, and previously known occurrences in the area. All botanical species encountered on the project were recorded, a list of these species is provided in Section 5.

**Table 1. Target Species for special-status plant survey.**

COMMON NAME	SCIENTIFIC NAME	Federal Status	California Status	HABITAT PREFERENCE
Franciscan onion	<i>Allium peninsulare</i> var. <i>franciscanum</i>	-	List 1B.2	Cismontane woodland, and valley and foothill grassland. Elevational range: 50 to 300 meters. Blooming period: May through June.
Sonoma alopecurus	<i>Alopecurus aequalis</i> var. <i>sonomensis</i>	FE	List 1B.1	Freshwater marshes and swamps, riparian scrub. Found in wet areas, marshes, and riparian banks with other wetland species. Elevational range: 5 to 360 meters. Blooming period: May through July.
Napa false indigo	<i>Amorpha californica</i> var. <i>napensis</i>	-	List 1B.2	Broadleaved upland forest, chaparral, and cismontane woodland. Found in openings in forest, woodland, or chaparral. Elevational range: 150 to 2,000 meters. Blooming period: April through July.
Bent-flowered fiddleneck	<i>Amsinckia lunaris</i>	-	List 1B.2	Coastal bluff scrub, cismontane woodland, and valley and foothill grassland. Elevational range: 3 to 500 meters. Blooming period: March through June.
Slender silver moss	<i>Anomobryum julaceum</i>	-	List 4.2	Found in broadleaved upland forest, lower montane coniferous forest, and north coast coniferous forest. Elevational range: 100 to 1,000 meters. Blooming period: n/a
Twig-like snapdragon	<i>Antirrhinum virga</i>	-	List 4.3	Found in chaparral and lower montane coniferous forest. Elevational range: 100 to 2,015 meters. Blooming period: June to July.
Baker's manzanita-	<i>Arctostaphylos bakeri</i> ssp. <i>bakeri</i>	-	CR, 1B.1	Found in broadleaved upland forest, and chaparral. Elevational range: 75 to 300 meters. Blooming period: February through April.
Rincon Ridge manzanita	<i>Arctostaphylos stanfordiana</i> var. <i>repens</i>	-	List 1B.1	Found in chaparral, and cismontane woodland. Elevation ranges from 75 to 370 meters. Blooms February-April (May).
Brewer's milk-vetch	<i>Astragalus breweri</i>	-	List 4.2	Found in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland (open, often gravelly). Elevational range: 90 to 730 meters. Blooming period: April to June.
Clara Hunt's milk-vetch	<i>Astragalus claranus</i>	FE	CE, List 1B.1	Found in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland (open, often gravelly). Elevational range: 75 to 275 meters. Blooming period: March to May.
Cleveland's milk-vetch	<i>Astragalus clevelandii</i>	-	4.3	Found in chaparral, cismontane woodland, riparian forest. Elevational range: 200 to 1,500 meters. Blooming period: June to September.
Big-scale balsamroot	<i>Balsamorhiza macrolepis</i>	-	List 1B.2	Found in chaparral, cismontane woodland, valley and foothill grassland. Elevational range: 90 to 1,555 meters. Blooming period: March to June.
Sonoma sunshine	<i>Blennosperma bakeri</i>	FE	CE, List 1B.1	Valley and foothill grassland (mesic), vernal pools. Elevation range: 10 to 110 meters. Blooming period: March through May.
Narrow-anthered brodiaea	<i>Brodiaea leptandra</i>	-	List 1B.2	Found in broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland/volcanic. Elevation ranges from 110 to 915 meters. Blooms May through July.
Serpentine reed grass	<i>Calamagrostis ophitidis</i>	-	List 4.3	Found in chaparral (open, often north-facing slopes), lower montane coniferous forest, meadows and seeps, valley and foothill grassland. Elevational range: 90 to 1,065 meters. Blooming period: April to July.
Brewer's calandrinia	<i>Calandrinia breweri</i>	-	List 4.2	Found in chaparral, and coastal scrub. Elevational range: 10 to 1,220 meters. Blooming period: (January) March to June.
Pink star-tulip	<i>Calochortus uniflorus</i>	-	List 4.2	Found in coastal prairie, coastal scrub, meadows and seeps, north coast coniferous forest. Elevational range: 10 to 1,070 meters. Blooming period: April to June.
Mt. Saint Helena morning-glory	<i>Calystegia collina</i> ssp. <i>oxyphylla</i>	-	List 4.2	Found in chaparral, lower montane coniferous forest, valley and foothill grassland. Elevational range: 279 to 1,010 meters. Blooming period: April through June.

Johnny-nip	<i>Castilleja ambigua</i> var. <i>ambigua</i>	-	List 4.2	Found in coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pools margins. Elevational range: 0 to 625 meters. Blooming period: March to August.
Rincon Ridge ceanothus	<i>Ceanothus confusus</i>	-	List 1B.1	Found in chaparral, cismontane woodland and closed-cone coniferous forests. Elevational range: 75 to 1065 meters. Blooming period: February through June.
Calistoga ceanothus	<i>Ceanothus divergens</i>	-	List 1B.2	Found in chaparral (serpentinite or volcanic, rocky). Elevational range: 170 to 950 meters. Blooming period: February through April.
Glory brush	<i>Ceanothus gloriosus</i> var. <i>exaltatus</i>	-	List 4.3	Found in chaparral. Elevational range: 30 to 610 meters. Blooming period: March to June (August)
Holly-leaved ceanothus	<i>Ceanothus purpureus</i>	-	List 1B.2	Found in chaparral and cismontane woodland. Elevational range: 120 to 640 meters. Blooming period: February through June.
Sonoma ceanothus	<i>Ceanothus sonomensis</i>	-	List 1B.2	Found in California chaparral and woodlands (sandy, serpentinite or volcanic). Elevational range: 215 to 800 meters. Blooming period: February through April.
Pappose tarplant	<i>Centromadia parryi</i> ssp. <i>parryi</i>	-	List 1B.2	Found in chaparral, coastal prairie, meadows and seeps, marshes and swamps (coastal salt), valley and foothill grassland (vernally mesic)/often alkaline. Elevation range: 0 to 420 meters. Blooms May to November.
Brewer's clarkia	<i>Clarkia breweri</i>	-	4.2	Found in chaparral, cismontane woodland, and coastal scrub. Elevational range: 230 to 1860 meters. Blooming period: April to June.
Tracy's clarkia	<i>Clarkia gracilis</i> ssp. <i>tracyi</i>	-	4.2	Found in chaparral and cismontane woodland. Elevational range: 65 to 650 meters. Blooming period: April through July.
Serpentine collomia	<i>Collomia diversifolia</i>	-	List 4.2	Found in chaparral, cismontane woodland. Elevational range: 200 to 600 meters. Blooming period: May through June.
Serpentine bird's-beak	<i>Cordylanthus tenuis</i> ssp. <i>brunneus</i>	-	List 4.3	Found in closed-cone coniferous forest, chaparral, cismontane woodland. Elevational range: 305 to 915 meters. Blooming period: July to August.
Swamp larkspur	<i>Delphinium uliginosum</i>	-	4.2	Found in chaparral, valley and foothill grassland. Elevational range: 340 to 610 meters. Blooming period: May through June.
Dwarf downingia	<i>Downingia pusilla</i>	-	List 2B.2	Found in valley and foothill grasslands and vernal pools. Found in vernal lake and pool margins with a variety of associates. Elevational range: 1 to 485 meters. Blooming period: March through May.
Streamside daisy	<i>Erigeron biolettii</i>	-	List 3	Found in broadleaved upland forest, cismontane woodland, and north coast coniferous forest. Elevational range: 30 to 1,100 meters. Blooming period: June through September.
Greene's narrow-leaved daisy	<i>Erigeron greenei</i>	-	List 1B.2	Found in chaparral. Elevational range: 80 to 1005 meters. Blooming period: May through September.
Serpentine daisy	<i>Erigeron serpentinus</i>	-	List 1B.2	Found in chaparral. Elevational range: 60 to 670 meters. Blooming period: May through August.
Fragrant fritillary	<i>Fritillaria liliacea</i>	-	List 1B.2	Found in cismontane woodland, coastal scrub, coastal prairie, and valley and foothill grassland. Elevational range: 3 to 410 meters. Blooming period: February through April.
Boggs Lake hedge-hyssop	<i>Gratiola heterosepala</i>	-	CE, List 1B.2	Found in marshes and swamps (lake margins), vernal pools. Elevational range: 10 to 2,375 meters. Blooming period: April through August.
Nodding harmonia	<i>Harmonia nutans</i>	-	4.3	Found in chaparral, cismontane woodland. Elevational range: 75 to 975 meters. Blooming period: March to May.
Congested-headed hayfield tarplant	<i>Hemizonia congesta</i> ssp. <i>congesta</i>	-	List 1B.2	Valley and foothill grassland/sometimes roadsides. Elevation ranges from 20 to 560 meters. Blooms April to November.
Two-carpellate western flax	<i>Hesperolinon bicarpellatum</i>	-	List 1B.2	Found chaparral (serpentinite). Elevational range: 60 to 1,005 meters. Blooming period: May to July.
Sharsmith's western flax	<i>Hesperolinon sharsmithiae</i>	-	List 1B.2	Found in chaparral. Elevational range: 270 to 300 meters. Blooming period: March to May.



Thin-lobed horkelia	<i>Horkelia tenuiloba</i>	-	List 1B.2	Found in broadleaved upland forest, chaparral, and valley and foothill grassland. Elevational range: 50 to 500 meters. Blooming period: May through August.
Coast iris	<i>Iris longipetala</i>	-	4.2	Found in north coastal prairie, lower montane coniferous forest, meadows and seeps. Elevational range: 0 to 600 meters. Blooming period: March through May.
Contra Costa goldfields	<i>Lasthenia conjugens</i>	FE	1B.1	Found in cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools. Elevational range: 0 to 470 meters. Blooming period: March through June.
Colusa layia	<i>Layia septentrionalis</i>	-	1B.2	Found in chaparral, cismontane woodland, valley and foothill grassland. Elevational range: 100 to 1095 meters. Blooming period: April through May.
Legenere	<i>Legenere limosa</i>	-	1B.1	Found in chaparral, cismontane woodland, valley and foothill grassland. Elevational range: 1 to 880 meters. Blooming period: April through June.
Bristly leptosiphon	<i>Leptosiphon acicularis</i>	-	4.2	Found in chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Elevational range: 55 to 1,500 meters. Blooming period: April through July.
Jepson's leptosiphon	<i>Leptosiphon jepsonii</i>	-	List 1B.2	Chaparral, cismontane woodland/usually volcanic. Elevation ranges from 100 to 500 meters. Blooms March through May.
Woolly-headed lessingia	<i>Lessingia hololeuca</i>	-	3	Found in broadleaved upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Elevational range: 15 to 305 meters. Blooming period: June through October.
Redwood lily	<i>Lilium rubescens</i>		4.2	Found in broadleaved upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Elevational range: 30 to 1,910 meters. Blooming period: April through August (September).
Sebastopol meadowfoam	<i>Limnanthes vinculans</i>	FE	CE, List 1B.1	Meadows and seeps, valley and foothill grassland, vernal pools/vernally mesic. Elevation ranges from 15 to 305 meters. Blooms April and May.
Napa lomatium	<i>Lomatium repostum</i>	-	4.3	Found in chaparral and cismontane woodland. Elevational range: 90 to 830 meters. Blooming period: March to June.
Cobb Mountain lupine	<i>Lupinus sericatus</i>	-	1B.2	Found in broadleaved upland forest, chaparral, cismontane woodland, and lower montane coniferous forest. Elevational range: 275 to 1,525 meters. Blooming period: March to June.
Mt. Diablo cottonweed	<i>Micropus amphibolus</i>	-	3.2	Found in broadleaved upland forest, chaparral, cismontane woodland, valley and foothill grassland. Elevational range: 45 to 825 meters. Blooming period: March to May.
Marsh microseris	<i>Microseris paludosa</i>	-	1B.2	Found in closed-cone coniferous forest, cismontane woodland, coastal scrub, valley and foothill grassland. Elevational range: 5 to 355 meters. Blooming period: April to June. (July)
Green monardella	<i>Monardella viridis</i>	-	4.3	Found in broadleaved upland forest, chaparral, and cismontane woodland. Elevational range: 100 to 1,010 meters. Blooming period: June through September.
Cotula navarretia	<i>Navarretia cotulifolia</i>	-	4.2	Found in chaparral, cismontane woodland, valley and foothill grassland. Elevational range: 4 to 1,830 meters. Blooming period: May to June.
Tehama navarretia	<i>Navarretia heterandra</i>	-	4.3	Found in valley and foothill grassland (mesic), and vernal pools. Elevational range: 30 to 1,010 meters. Blooming period: April through June.
Baker's navarretia	<i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	-	1B.1	Found in cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, Vernal pools. Elevational range: 5 to 1,740 meters. Blooming period: April to July.
Many-flowered navarretia	<i>Navarretia leucocephala</i> ssp. <i>plieantha</i>	FE	CE, List 1B.2	Found in cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, vernal pools/mesic. Elevation ranges from 20 to 5710 feet (5 to 1740 meters). Blooms April through July.
Sonoma beardtongue	<i>Penstemon newberryi</i> var. <i>sonomensis</i>	-	List 1B.3	Found in chaparral (rocky). Elevational range: 700 to 1,370 meters. Blooming period: April through August.
Calistoga popcornflower	<i>Plagiobothrys strictus</i>	FE	CT, List 1B.1	Found in meadows and seeps, valley and foothill grassland, vernal pools. Elevational range: 90 to 160 meters. Blooming period: March through June.

North Coast semaphore grass	<i>Pleuropogon hooverianus</i>	-	CT, List 1B.1	Found in broadleaved upland forest, meadows and seeps, north coast coniferous forest. Elevational range: 10 to 671 meters. Blooming period: April through June.
Nodding semaphore grass	<i>Pleuropogon refractus</i>	-	4.2	Found in lower montane coniferous forest, meadows and seeps, north coast coniferous forest, riparian forest. Elevational range: 0 to 1,600 meters. Blooming period: (March) April through August.
Napa blue grass	<i>Poa napensis</i>	FE	CE, List 1B.1	Found in lower montane coniferous forest, meadows and seeps, north coast coniferous forest, riparian forest. Elevational range: 100 to 200 meters. Blooming period: May through August.
California alkali grass	<i>Puccinellia simplex</i>	-	1B.2	Found in chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools. Elevational range: 2 to 930 meters. Blooming period: March through May.
Lobb's aquatic buttercup	<i>Ranunculus lobbii</i>	-	4.2	Found in cismontane woodland, north coast coniferous forest, valley and foothill grassland, vernal pools. Elevational range: 15 to 470 meters. Blooming period: February through May.
Cleveland's ragwort	<i>Senecio clevelandii</i> var. <i>clevelandii</i>	-	4.3	Found in chaparral (serpentinite seeps). Elevational range: 365 to 900 meters. Blooming period: June through July.
Napa checkerbloom	<i>Sidalcea hickmanii</i> ssp. <i>napensis</i>	-	1B.1	Found in chaparral. Elevational range: 415 to 610. meters. Blooming period: May through August.
Marsh checkerbloom	<i>Sidalcea oregana</i> ssp. <i>hydrophila</i>	-	1B.2	Found meadows and seeps, riparian forest. Elevational range: 1,100 to 2,300. meters. Blooming period: (June) July and August.
Long-styled sand-spurrey	<i>Spergularia macrotheca</i> var. <i>longistyla</i>	-	1B.2	Found in meadows and seeps, marshes and swamps. Elevational range: 0 to 255. meters. Blooming period: February through May.
Green jewelflower	<i>Streptanthus hesperidis</i>	-	1B.2	Found in chaparral (openings), cismontane woodland. Elevational range: 130 to 760. meters. Blooming period: May through July.
Marsh zigadenus	<i>Toxicoscordion fontanum</i>	-	4.2	Found in chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, marshes and swamps. Elevational range: 15 to 1,000. meters. Blooming period: April through July.
Napa bluecurls	<i>Trichostema ruygtii</i>	-	1B.2	Found chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, and vernal pools. Elevational range: 30 to 680. meters. Blooming period: June through October.
Two-fork clover	<i>Trifolium amoenum</i>	FE	1B.1	Found in coastal bluff scrub, valley and foothill grassland (sometimes serpentinite). Elevational range: 5 to 415 meters. Blooming period: April through June.
Saline clover	<i>Trifolium hydrophilum</i>	-	1B.2	Found marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools. Elevational range: 0 to 300. meters. Blooming period: April through June.
Dark-mouthed triteleia	<i>Triteleia lugens</i>	-	4.3	Found in broadleaved upland forest, chaparral, coastal scrub, lower montane coniferous forest. Elevational range: 100 to 1000. meters. Blooming period: April through June.
Oval-leaved viburnum	<i>Viburnum ellipticum</i>	-	2B.3	Found in chaparral, cismontane woodland, lower montane coniferous forest. Elevational range: 215 to 1,400. meters. Blooming period: May through June.

\*Status is defined as any plant listed or under review as rare or threatened under the endangered species act, or considered rare or endangered by California Native Plant Society.

## **3.0 Results**

### **3.1 Special Status Plants**

No targeted special-status plant species identified in Table 1 were observed in the study area during the botanical survey. Common plant species observed during field surveys are listed in Section 5 of this report. Our botanical surveys were conducted during the appropriate flowering season for all identified sensitive plant species. As long as project activities are confined to the proposed project site, we do not recommend further surveys or protection measures to protect these plant species. However, we do recommend implementation standard best management measures as described in Section 4.0.

## **4.0 Recommendations**

### **4.1 Special-Status Plants**

Synthesis Planning, Inc. recommends the following measures be implemented prior to and during the implementation of project construction activities:

- Environmental Awareness Training shall be presented to all personnel working in the field on the proposed project sites. Training shall consist of a brief presentation in which biologists knowledgeable of threatened, endangered, and special-status species biology and legislative protection shall explain sensitive species concerns. Training shall include a discussion of special-status plants and sensitive wildlife species. Species biology, habitat needs, status under the Federal and State Endangered Species Act, and measures being incorporated for the protection of these species and their habitats shall also be discussed.
- Project site boundaries shall be clearly delineated by stakes and /or flagging to minimize inadvertent degradation or loss of adjacent habitat during project site preparation and construction operations. Staff and/or its contractors shall post signs and/or place fence around the proposed project site to restrict access of vehicles and equipment unrelated to project operations.
- A project representative shall establish restrictions on project-related traffic to approved project areas, storage areas, staging and parking areas via signage. Off-road traffic outside of designated proposed project site shall be prohibited.
- Hazardous materials, fuels, lubricants, and solvents that spill accidentally during project-related activities shall be cleaned up and removed from the project as soon as possible according to applicable federal, state and local regulations.

- All equipment storage and parking during site development and operation shall be confined to the proposed project sites.

## 5.0 Plant Species Observed in the Project Study Area

The following is a list of plant species observed within the project study area during special-status plant surveys:

### Common Name (Scientific Name)

Common yarrow (*Achillea millefolium*)  
 Blow wives (*Achyraea mollis*)  
 Chamise (*Adenostoma fasciculatum*)  
 California buckeye (*Aesculus californica*)  
 Water plantain (*Alisma plantago-aquatica*)  
 Wild onion (*Allium dichlamydeum*)  
 Fiddleneck (*Amsinckia menziesii* var. *intermedia*)  
 Pacific madrone (*Arbutus menziesii*)  
 Manzanita (*Arctostaphylos manzanita* ssp. *manzanita*),  
 Slender wild oat (*Avena barbata*)  
 Coyote brush (*Baccharis pilularis*)  
 Black mustard (*Brassica nigra*)  
 Rattlesnake grass (*Briza maxima*)  
 Harvest brodiaea (*Brodiaea elegans*)  
 Ripgut grass (*Bromus diandrus*)  
 Soft chess (*Bromus hordeaceus*)  
 Morning-glory (*Calystegia purpurata* var. *purpurata*)  
 Purple owl's clover (*Castilleja exserta*)  
 Yellow-star thistle (*Centaurea solstitialis*)  
 Common soap plant (*Chlorogalum pomeridianum*)  
 Bindweed (*Convolvulus arvensis*)  
 Hound's tongue (*Cynoglossum grande*)  
 Blue dicks (*Dichelostemma capitatum*)  
 Northern willow herb (*Epilobium ciliatum* ssp. *ciliatum*)  
 Horsetail fern (*Equisetum arvense*)  
 Turkey mullein (*Eremocarpus setigerus*)  
 Broad-leaf filaree (*Erodium botrys*)  
 Red-stem filaree (*Erodium cicutarium*)  
 California poppy (*Eschscholzia californica*)  
 Fennel (*Foeniculum vulgare*)  
 California mustard (*Guillenia lasiophylla*)  
 Baltic rush (*Juncus balticus*)  
 Common rush (*Juncus effuses*)  
 Toyon (*Heteromeles arbutifolia*)  
 Hare barley (*Hordeum murinum* ssp. *leporinum*)  
 Douglas iris (*Iris douglasiana*)  
 Italian ryegrass (*Lolium multiflorum*)  
 Pink honeysuckle (*Lonicera hispidula* var. *vacillans*)  
 Sky lupine (*Lupinus nanus*)  
 Bur clover (*Medicago polymorpha*)  
 Sticky monkey flower (*Mimulus aurantiacus*)  
 Nodding needlegrass (*Nassella cernua*)  
 Baby blue eyes (*Nemophila heterophylla*)

**Common Name (Scientific Name)**

Indian Warrior (*Pedicularis densiflora*)  
Reed grass (*Phalaris aquatica*)  
Bristly ox tongue (*Picris echioides*)  
Common plantain (*Plantago major*)  
Coast live oak (*Quercus agrifolia*)  
Scrub oak (*Quercus berberidifolia*)  
Canyon live oak (*Quercus chrysolepis*)  
Interior live oak (*Quercus wislizenii*)  
California buttercup (*Ranunculus californicus*)  
Radish (*Raphanus sativus*)  
Western thimbleberry (*Rubus parviflorus*)  
Blue-eyed grass (*Sisyrinchium bellum*)  
Dandelion (*Taraxacum officinale*)  
Poison oak (*Toxicodendron diversilobum*)  
Subterranean clover (*Trifolium subterraneum*)  
California bay (*Umbellularia californica*)  
Star lily (*Zigadenus fremontii*)

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# **Attachment A**

## **Site Photos**





**Photograph 1**

Proposed project site. View looking east at proposed east (large) greenhouse site.



**Photograph 2**

Proposed project site. View looking north at proposed west (small) greenhouse site.



**Photograph 3**

Proposed project site. View looking north at proposed improved parking area.

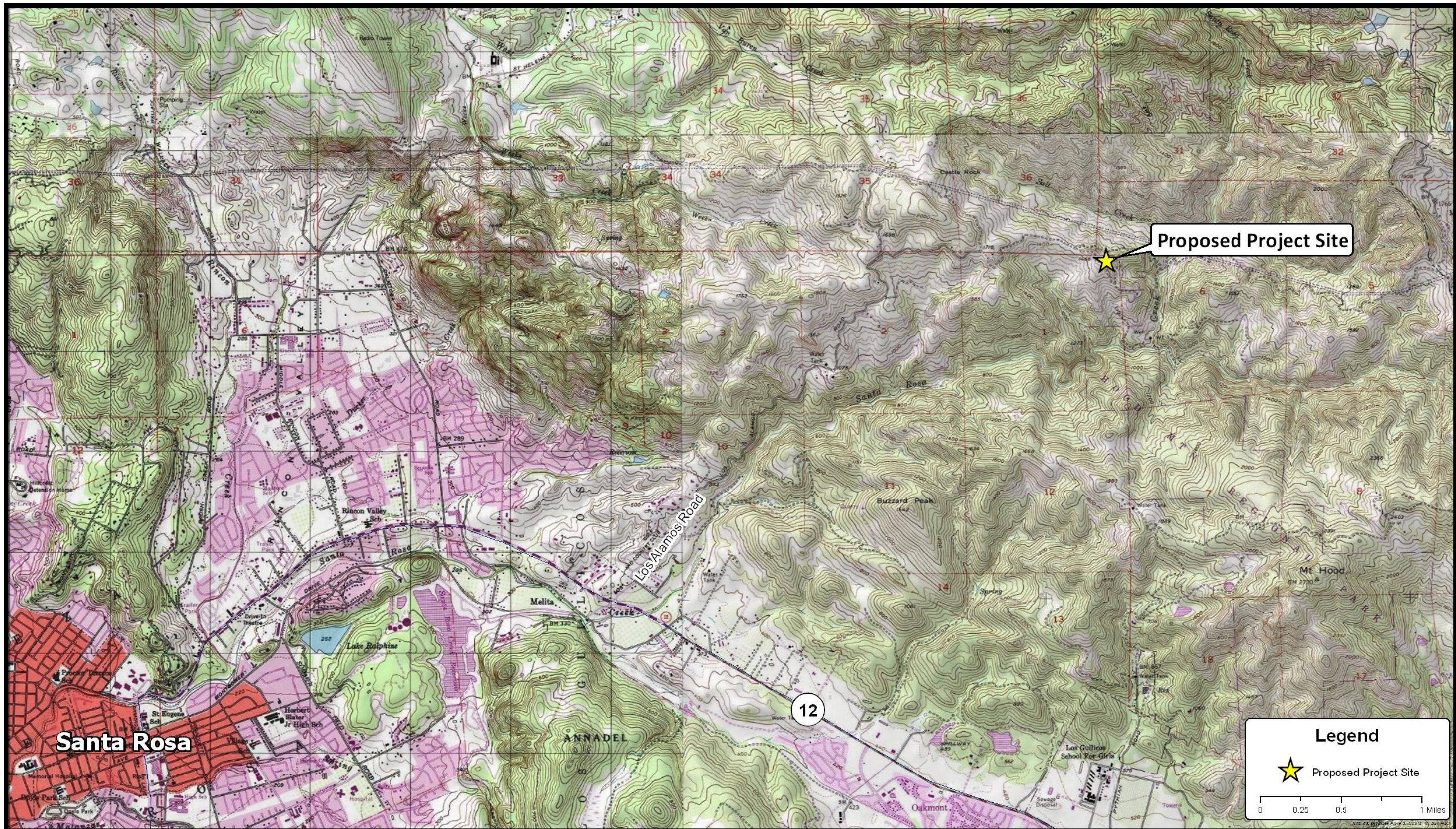


**Photograph 4**

Existing access road. View looking west from proposed project site.

# **Attachment B**

## **Project Figures**



**Santa Rosa**

**Proposed Project Site**

**Legend**

★ Proposed Project Site

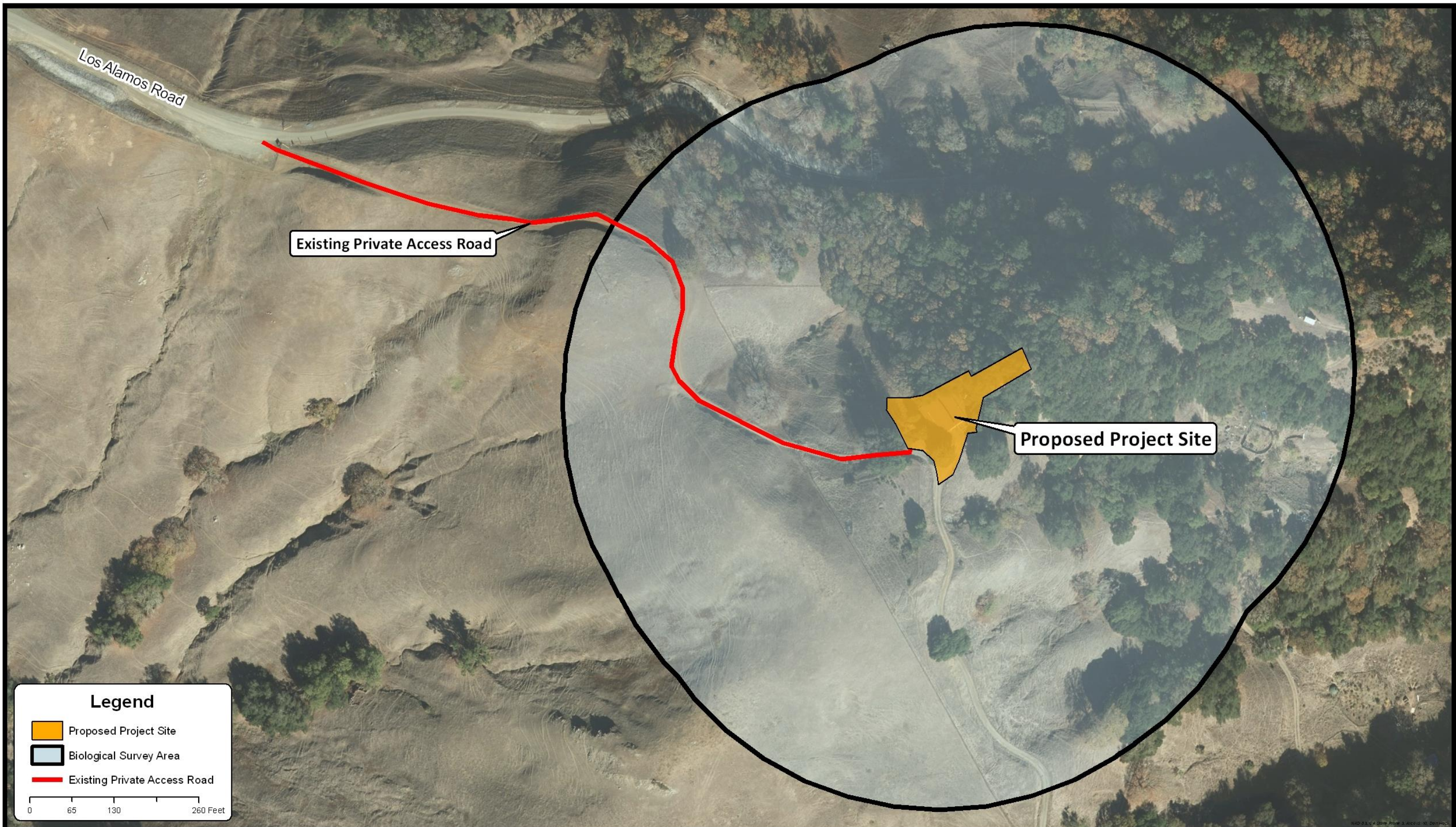
0 0.25 0.5 1 Miles

Synthesis Planning  
 6 Carmen Court  
 Novato, California 94945  
 Telephone (415) 328-7923

**FIGURE 1**  
**Project Vicinity Map**

Joe Henderson  
 2000 Los Alamos Road  
 Santa Rosa, CA 95409  
 Phone: (707)838-8888





**Legend**


- Proposed Project Site
- Biological Survey Area
- Existing Private Access Road

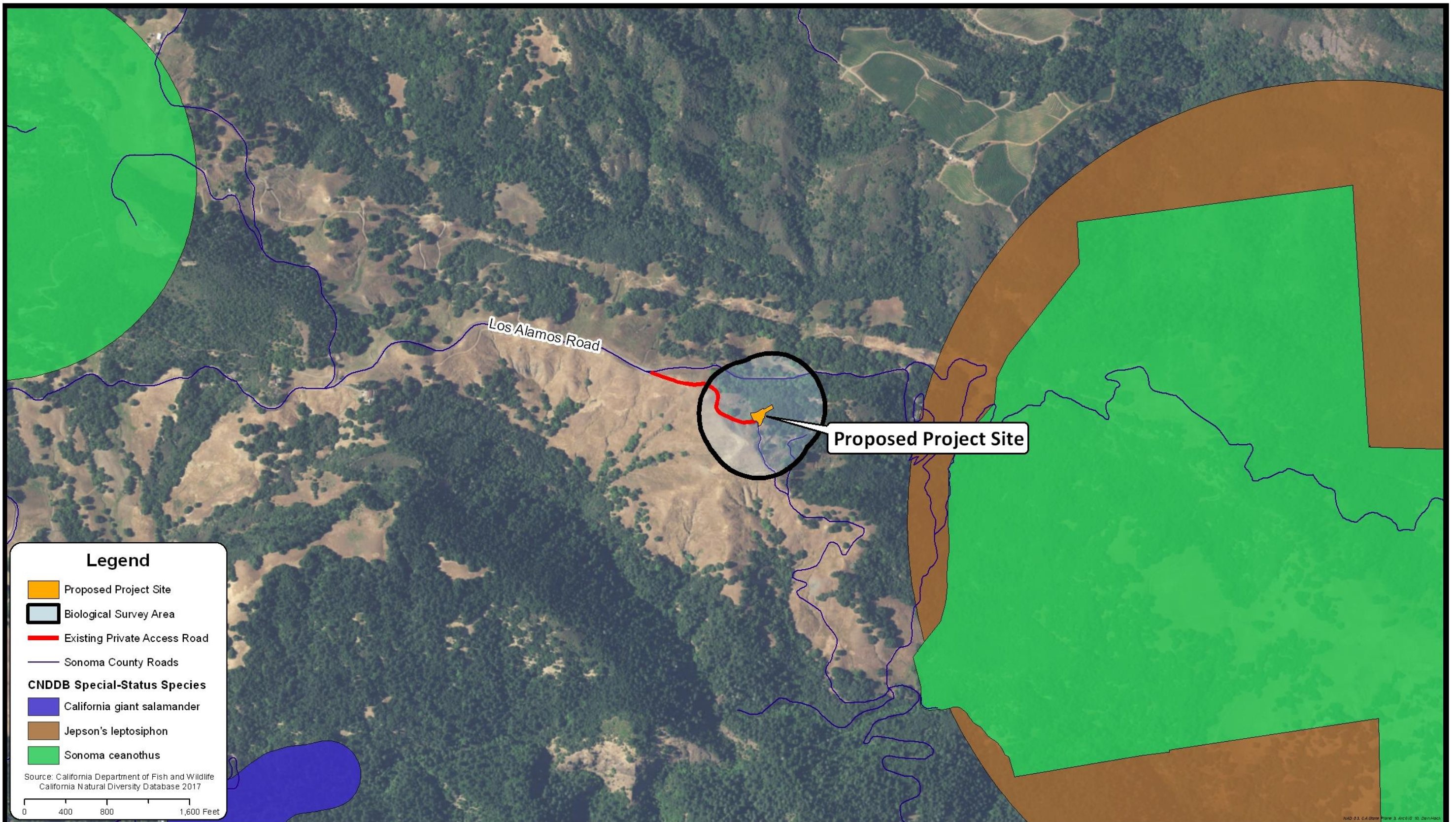
0      65      130      260 Feet

Synthesis Planning  
 6 Carmen Court  
 Novato, California 94945  
 Telephone (415) 328-7923

**FIGURE 2**  
**Project Location Map**

Joe Henderson  
 2000 Los Alamos Road  
 Santa Rosa, CA 95409  
 Phone: (707)838-8888

  
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**FIGURE 3**  
**CNDDDB Species Occurrences in the Vicinity of the Project Area**

Synthesis Planning  
 6 Carmen Court  
 Novato, California 94945  
 Telephone (415) 328-7923

Joe Henderson  
 2000 Los Alamos Road  
 Santa Rosa, CA 95409  
 Phone: (707)838-8888

