ALTHOUSE AND MEADE, INC.
BIOLOGICAL AND ENVIRONMENTAL SERVICES

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November 19, 2018
Project 1152.01

Helios Dayspring
c/o Lisa Bugrova
Kirk Consulting
8830 Morro Road
Atascadero, CA 93422

Re: Biological Resource Assessment for 1255 Tierra Redonda, APN 080-021-052, Bradley, San Luis Obispo County

Dear Mr. Dayspring:

This report provides the results of a reconnaissance level biological survey conducted for an approximately 30.5-acre Study Area located in the central portion of a 34-acre property (Property) at 1255 Tierra Redonda in Bradley, California (refer to Attachment C, Figures 1 and 2). Approximate coordinates for the center of the Property are 35.777 N, 120.9689 W (WGS 84) in the USGS 7.5' topographic quadrangle Tierra Redonda Mountain. The Property is composed of assessor's parcel number (APN) 080-021-052. This survey was conducted to provide baseline biological information and an assessment of potential special status plant and animal species that could occur in the Study Area or be affected by the proposed project (Project), a Cannabis Cultivation Minor Use Permit.

The proposed cannabis cultivation project would consist of 0.97 acres of outdoor cultivation in existing hoophouses, 0.03 acres of outdoor nursery in existing hoophouses, 0.44 acres of outdoor drying in existing hoophouses, 320 square feet of pesticide storage and 320 square feet of nutrition storage. A Site Plan is provided in Attachment C, for reference.

Methods

The Study Area was surveyed for biological resources on August 30 and October 26, 2018 by Althouse and Meade, Inc. Principal Biologist Jason Dart and Biologist Kristen Andersen. The survey method included meandering transects with an emphasis on identifying plants and animals occurring within the Study Area. Transects were also utilized to describe general conditions and dominant species, compile species lists, and evaluate potential habitat for special status species. Photographs were taken throughout the Study Area (Attachment B). All habitats in the Study Area were mapped (Attachment C, Figure 3). Identification of botanical resources included field observations and laboratory analysis of collected material. The botanical survey was conducted too late in the season to qualify as a full season protocol level survey, however it was appropriately

timed for select late season special status species (refer to Attachment D, Table 1). Botanical nomenclature used in this document follows the Jepson Manual, Second Edition (Baldwin et al. 2012). A list of plants observed in the Study Area was compiled (Attachment E, Table 3).

Wildlife documentation included observations of animal presence and other wildlife sign. Observations of wildlife were recorded throughout the Study Area. The survey focused on special status animals with potential to occur (refer to Attachment D, Table 2). Birds were identified by sight or by vocalizations. A list of animals observed in the Study Area was compiled (Attachment F, Table 4).

The California Natural Diversity Database (CNDDB; August 2018 data) and the California Native Plant Society (CNPS) On-line Inventory of Rare and Endangered Plants of California were reviewed for special status species known to occur in the nine USGS 7.5-minute quadrangles surrounding the site, including: Adelaida, Bradley, Bryson, Hames Valley, Lime Mountain, Pebblestone Shut-In, Tierra Redondo Mountain, Williams Hill, and Wunpost. Tables of potential special status plants and animals are provided in Attachment D.

Existing Conditions

The Property is situated on the northeastern aspect of Tierra Redonda Mountain within the Santa Lucia Range, nestled between Nacimiento Reservoir and San Antonio Lake at an elevation of approximately 1,330 feet. Tierra Redonda Road is an unpaved dirt road that leads south from Lynch Canyon Road for approximately one mile to the Property. The Study Area is centrally located within the Property in an open-canopy portion of foothill woodland habitat, where several hoop houses and other structures are currently in place, including water tanks and a soil storage facility. The central portion of the Study Area consists of approximately 5.3 acres of anthropogenic habitat. Review of historical aerials of the Study Area indicate cultivational land use dating to at least 2003. Foothill woodland habitat comprises 24.3 acres of the Study Area, and a small 0.9-acre area of grassland habitat is also mapped (Figure 3). The woodland canopy becomes more contiguous as slope increases toward Tierra Redonda Mountain in the southwest corner of the Property, where vegetation transitions from an open-canopy woodland with grassland and chaparral components, to a dense, more closed-canopy foothill woodland. An existing dirt road loops through the Study Area, with several access roads connecting within it.

Existing Cannabis cultivation and associated activities were present in the anthropogenic habitat area in the center of the Study Area. Most of the proposed hoop house locations as shown on Figure 3 were marked in the field by materials staged on the ground and upright posts installed. Minor grading and vegetation removal was evident at the hoop house location in the eastern portion of the Study Area adjacent to a drainage. Two oak trees appeared to have been removed and one was impacted at this location.

Three ephemeral drainages flow through the Property, each of which is potentially within the jurisdiction of California Department of Fish and Wildlife (DFG code 1602), U.S. Army Corps of Engineers (Clean Water Act, section 404), and Regional Water Quality Control Board (Clean Water Act, section 401). The drainage feature in the far northwestern portion of the Property is considered riverine habitat (NWI 2005), with intermittent streamflow that seasonally conveys water in a northeastern direction toward San Antonio Lake (refer to Figure 3). This feature was dry during our 2018 surveys and showed no sign of wetland or riparian vegetation.

A second potentially jurisdictional gully feature flows northward through the project footprint in the western portion of the Study Area. It is a deep gully feature with intermittent blue oak canopy that lacks wetland or riparian vegetation. The drainage likely only flows during storm events.

A third potentially jurisdictional gully feature occurs within the project footprint in the eastern portion of the Study Area, between the defined anthropogenic habitat and proposed hoop-house installation area to the east (Figure 3). It is vegetated with a blue oak canopy with shrubs and grasses in the understory and lacks wetland or riparian vegetation.

Results

Potential Special Status Species

The CNDDB and CNPS On-line Inventory of Rare and Endangered Plants of California listed 68 special status plant species, subspecies, and varieties and 29 special status animal species known to occur in the vicinity of the Study Area (Attachment D, Tables 1 and 2). The Study Area, as a previously disturbed subset of the Property, has potential to support 20 special status plants, though none were observed in August 2018. Special status animals were also not detected; however, the Property has potential to act as a wildlife corridor and could provide foraging habitat for select special status animal species. Below we discuss potential special status plants and animals, describe habitat, range restrictions, known occurrences, and survey results for the Study Area.

A. Special Status Plants. The Project vicinity is known to support numerous special status plant species in a variety of microhabitats (CNDDB 2018; Althouse and Meade, Inc. 2012). Twenty of the 68 special status plant species reported from the region have potential to occur in the Study Area (see Attachment D, Table 1). A few of these species are perennial shrubs that would be identifiable at any time of year, but most are annual species that bloom between February and June and cannot be detected in August. No special status plants were observed during our August 2018 survey.

B. American Badger *(Taxidea taxus*) is a California Species of Special Concern known from open grassland habitats throughout San Luis Obispo County and elsewhere in California. The Study Area is within the known range of the American badger, and numerous occurrences are reported (CNDDB 2018). Badgers are residents of grassland areas but will forage in areas where California ground squirrels have become established. Badgers are highly mobile and could be present anywhere in the region where suitable prey base is found. No sign of badgers was observed during our August 2018 survey; however, California ground squirrels were observed on the site and soils are friable and suitable for denning badgers. Badgers were not observed during our August 2018 survey, but they could be present in the future.

C. Special Status Birds. Two special status raptors have low to moderate potential to occur in the Study Area: bald eagle (*Haliaetus leucocephalus*) and golden eagle (*Aquila chrysaetos*), both of which are designated as Fully Protected species by the CDFW and are federally protected by the Bald and Golden Eagle Protection Act. Bald eagle is a state listed endangered species and a regular breeding resident on Nacimiento and San Antonio Lakes. Nesting habitat is not present in the Study Area, and foraging within the Study Area is highly unlikely. Bald eagles require ocean shores, lakes or rivers and usually nests in large trees with open branches within one mile of water. Although they primarily feed on fish, carrion of mammals is often taken where available.

Golden eagles have a range that extends throughout much of North America. In California they are found in broadleaved upland and montane coniferous forests, cismontane, pinon and juniper woodlands, coastal prairie, great basin scrub and great basin, valley and foothill grassland habitat types (CNDDB 2018). In California, golden eagles nest almost exclusively in trees and have moderate potential to occur on the Property, though no nests were observed during August 2018 surveys. The closest reported occurrence of nesting golden eagles is located approximately seven miles east of the Property (CNDDB #140), reported in 2000. Golden eagles are not currently nesting in the Study Area and are unlikely to be foraging within the project area unless carrion of large mammals were present.

D. Special Status Small Mammals. One special status small mammal, the Monterey dusky-footed woodrat (*Neotoma macrotis luciana*), is known from the region and has moderate potential to occur in the Study Area. Monterey dusky-footed woodrat is a California Species of Special Concern, with a range that extends from the Santa Lucia Mountains in Monterey Bay to Morro Bay and northwestern San Luis Obispo County. Monterey dusky-footed woodrat occurs in broadleaved upland forest and chaparral with moderate canopy and moderate to dense understory, using grass, leaves, sticks, feathers, etc., as nesting material. The foothill woodland understory could provide suitable nesting material for this species. The distinctively large middens of sticks and debris created by dusky-footed woodrats were not observed in the Study Area in August 2018, but a comprehensive survey was not conducted.

E. Special Status Reptiles. Three special status reptiles, northern California legless lizard (*Anniella pulchra*), San Joaquin whipsnake (*Masticophis flagellum ruddocki*), and coast horned lizard (*Phrynosoma blainvillii*) are known from the vicinity and could occur in the Study Area. None of these species were observed in the Study Area during our August 2018 site survey, however they are generally cryptic and occur in low abundance making detection difficult. Leaf litter in the understory of the foothill woodland could provide suitable habitat for northern California legless lizard and ground squirrel burrows and vegetation in the Study Area could provide suitable habitat for San Joaquin whipsnake. Though sandy washes and optimal habitat is not present in the Study Area, occurrences of coast horned lizard have been reported in the vicinity. Overall, these species could occur in the Study Area on occasion as transients moving through the site during appropriate weather conditions.

Botanical Survey Results

The August and October 2018 site visits included a late season botanical survey which identified 60 species and subspecies of vascular plants in the Study Area (Attachment E, Table 4). The botanical survey effort did not include early or mid-season coverage and therefore is not considered a protocol level survey. The plant list includes 40 species native to California, and 20 introduced (naturalized or planted) species. Special status species were not detected in the Study Area.

Wildlife Survey Results

Wildlife species detected in the Study Area include 7 birds and 2 mammal species (Attachment F, Table 4). The foothill woodland habitat is dominated by oaks, manzanita, and foothill pines, with open space and scrub occurring in the central portion of the Study Area where the Project facilities propose to expand (refer to Site Plan in Attachment C). Leaf litter and woody debris is abundant in the understory of the woodland canopy, which could provide habitat for special status species

such as northern California legless lizard and Monterey dusky-footed woodrat. Several common bird species were observed utilizing the oak trees and shrubs in the Study Area (see Table 4).

Small mammal trapping studies were beyond the scope of this study; however, several small mammal species are likely to occur.

Impacts and Mitigations

The proposed Project will encompass just over an acre of land when all phases of the Project are complete, including new fenced areas and added structures (refer to Site Plan in Attachment C). The Biological Resource map provided as Figure 3 indicates which Project features are existing and which are proposed. The Project area consists of foothill woodland habitat, where approximately 5.3 acres have been previously disturbed (refer to anthropogenic habitat shown on Figure 3). Based on review of aerial photographs dating back to 1994, the existing Cannabis project footprint is substantially the same as the disturbance footprint from prior agricultural uses. The site appears to have been occupied by numerous stock animal pens for many years.

Three drainage features potentially under CDFW, USACE, and RWQCB jurisdiction are located within the Study Area. Ordinary High Water Mark (OHWM) and top of bank were not defined as part of this study. Approximate boundary of the CDFW 1600 jurisdiction is indicated on Figure 6.

Several special status plants and animal species have potential to occur in the Study Area, but none were identified onsite during our 2018 site surveys. The following sections provide mitigation information and recommendations designed to reduce potential effects of the Project to a less than significant level. No plant or animal species listed under the federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA) are expected to be affected by the Project and therefore no federal or state take permits will be needed.

Special Status Plants

Special status plants were not detected in the Study Area during our August and October 2018 site surveys, however there is low to moderate potential for twenty special status plant species to occur on the site. A spring floristic survey of the Study Area should be conducted according to agency guidelines in the spring of 2019 prior to development of additional infrastructure. The survey should cover the entire Study Area to account for all proposed Project components. The survey should cover the blooming periods for all special status species with potential to occur, which are provided in Attachment D, Table 1.

American Badger

American badger was not present in the Study Area during our 2018 site surveys and has a very low likelihood of being present in the Project area in the future. No further surveys or mitigations are recommended for American badger.

Nesting Birds

Migratory non-game native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take (as defined therein) of all native

birds and their active nests, including raptors and other migratory non-game birds (as listed under the Federal MBTA).

BR-1. Within one week of commencement of new Project activities, if work occurs between March 15 and August 15, nesting bird surveys shall be conducted. If surveys do not locate nesting birds, construction activities may commence. If nesting birds are located, no construction activities shall occur within a distance specified by a qualified biologist, until chicks are fledged, or the nest fails. Buffer radius shall be specified according to special status rank of the nesting bird, intensity of construction activity or impact (i.e. high decibel levels or heavy ground disturbance) and where local, state, and federal regulations apply. A preconstruction survey report shall be submitted to the County immediately upon completion of the survey. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements**.** A map of the Project site and nest locations shall be included with the report. The qualified biologist conducting the nesting survey shall have the authority to reduce or increase the recommended buffer depending upon site conditions.

Monterey Dusky-footed Woodrat

Monterey dusky-footed woodrat was not detected in the Study Area during our 2018 surveys but could be present in the Project footprint at the time of construction. To reduce potential construction impacts to Monterey dusky-footed woodrat to a less than significant level, the following measure is recommended.

BR-2. Prior to Project activities that affect shrub or woodland habitat, a preconstruction survey shall be conducted to locate Monterey dusky-footed woodrat nests within 50 feet of Project areas. The survey shall be conducted within 30 days of starting any grading, grubbing, or oak tree removal. Orange construction fencing shall be installed under the direction of a project biologist in a manner sufficient to protect the woodrat nests from construction equipment. If a woodrat nest is located in a construction zone, the project biologist may dismantle the nest using hand tools in such a manner as to allow any inhabitants to escape into adjacent open space areas. A preconstruction survey letter report shall be submitted to the lead agency for review within one week after completion of the survey, and prior to start of work.

Special Status Reptiles

Special status reptiles were not detected in the Study Area during our August 2018 site survey but could potentially be present in the Project footprint at the time of construction. To reduce potential construction impacts to special status reptiles to a less than significant level, the following measure is recommended.

BR-3. A qualified biologist shall conduct a preconstruction survey immediately prior to initial ground disturbance (i.e. the morning of the commencement of disturbance). If any special status reptiles or amphibians are found in the area of disturbance, the biologist shall move the animal(s) to an appropriate location outside the area of disturbance.

Oak Trees

The Study Area has a high density of oak trees in wooded areas at the east and west ends. At the time of our site surveys in August and October 2018 there was one area of active Cannabis cultivation and most of the proposed hoop houses had been laid out and upright posts installed. One lone oak, likely a mature blue oak, appears to have been removed between 2015 and August 2018 at the location of the existing Cannabis cultivation area, based on review of aerials. At the east end of the Study Area two blue oaks were removed and one was impacted by soil disturbance around the base of the trunk. A final assessment of oak tree impacts should be prepared prior to commencement of Project activities.

Installation of hoop houses could affect oak trees near the eastern end of the project area. Specific oak tree impacts were not assessed for this report due to late changes in the site plan. Removal of the lone oak near the existing Cannabis cultivation area may not qualify for mitigation as its removal may have pre-dated the start of the Cannabis project. Two oak removals and one oak impact appear to be directly attributed to preparation activities for the hoop houses.

We recommend the following standard mitigation measures for the protection of existing trees and for the planting and monitoring of any replacement trees:

BR-4. Impacts to the oak canopy or CRZ should be avoided where practicable**.** Impacts include pruning branches greater than 4 inches in diameter, ground disturbance within the dripline or CRZ of the tree (whichever distance is greater), and trunk damage.

BR-5. Impacts to oak trees shall be mitigated by planting additional trees on site. Oaks removed shall be replaced in kind at a 4:1 ratio. Oaks impacted shall be replaced in kind at a 2:1 ratio. State in lieu fees may act as an alternative to replacement tree mitigation, at the discretion of the County.

BR-6. Replacement trees shall be one-gallon size or larger protected by tree tubes and root cages. Trees shall be of the same species of those removed (blue oak, valley oak, or coast live oak) and of local origin.

BR-7. Replacement trees should be seasonally maintained (browse protection, weed reduction and irrigation, as needed) and monitored annually for at least seven years, or as directed by the County. An annual monitoring report shall be submitted to the County.

Jurisdictional Drainages

The California Department of Fish and Wildlife regulates activities that divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or ban of any river, stream, or lake. The potentially jurisdictional drainage features in the Project area may be subject to regulation under Fish and Game code 1600. We recommend Project components be placed outside the top of bank or outer edge of riparian vegetation of potentially jurisdictional drainages. Figure 6 indicates approximate limit of 1600 jurisdiction in the Study Area.

CDFW has initiated a Cannabis cultivation permitting program that requires all applicants obtaining an Annual License from the California Department of Food and Agriculture to have a Lake and Streambed Alteration Agreement or written verification that one is not needed. If all Project components are set outside the 1600 jurisdiction a Self-Certification can be submitted online. More information about the CDFW Cannabis program and permitting can be found at https://www.wildlife.ca.gov/Conservation/Cannabis/Permitting.

Thank you for allowing us to be of assistance with your project. If you have any questions or concerns, please call our office at (805) 237-9626.

Sincerely,

Jason Dart
Principal Biologist

Attachments:

- Attachment A. References
- Attachment B. Photographs
- Attachment C. Figures
- Attachment D. CNDDB/CNPS Special Status Species Lists
- Attachment E. Plant List
- Attachment F. Wildlife List

Attachment A. References

Althouse and Meade, Inc. 2003. Botanical Assessment for APN 080-041-030, Tentative Vesting Parcel Map (CO 03-0058) – S020366P, San Luis Obispo County. October.

Althouse and Meade, Inc. 2006. Biological Report for the Cantinas Camp, Lake Nacimiento, San Luis Obispo County, California. Updated August 2012.

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Hoover, Robert F. 1970. The Vascular Plants of San Luis Obispo County, California. University of California Press. Berkeley, Los Angeles, and London.

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United States Department of Agriculture (USDA). 2014. Aerial photomosaic of San Luis Obispo County. National Agriculture Imagery Program (NAIP).

Attachment B. Photographs

Photo 1. Southwest portion of Study Area with current structures in place. View north. August 30, 2018.

Photo 2. Northeast portion of Study Area with current grow operation and existing structures. View Northeast, August 30, 2018.

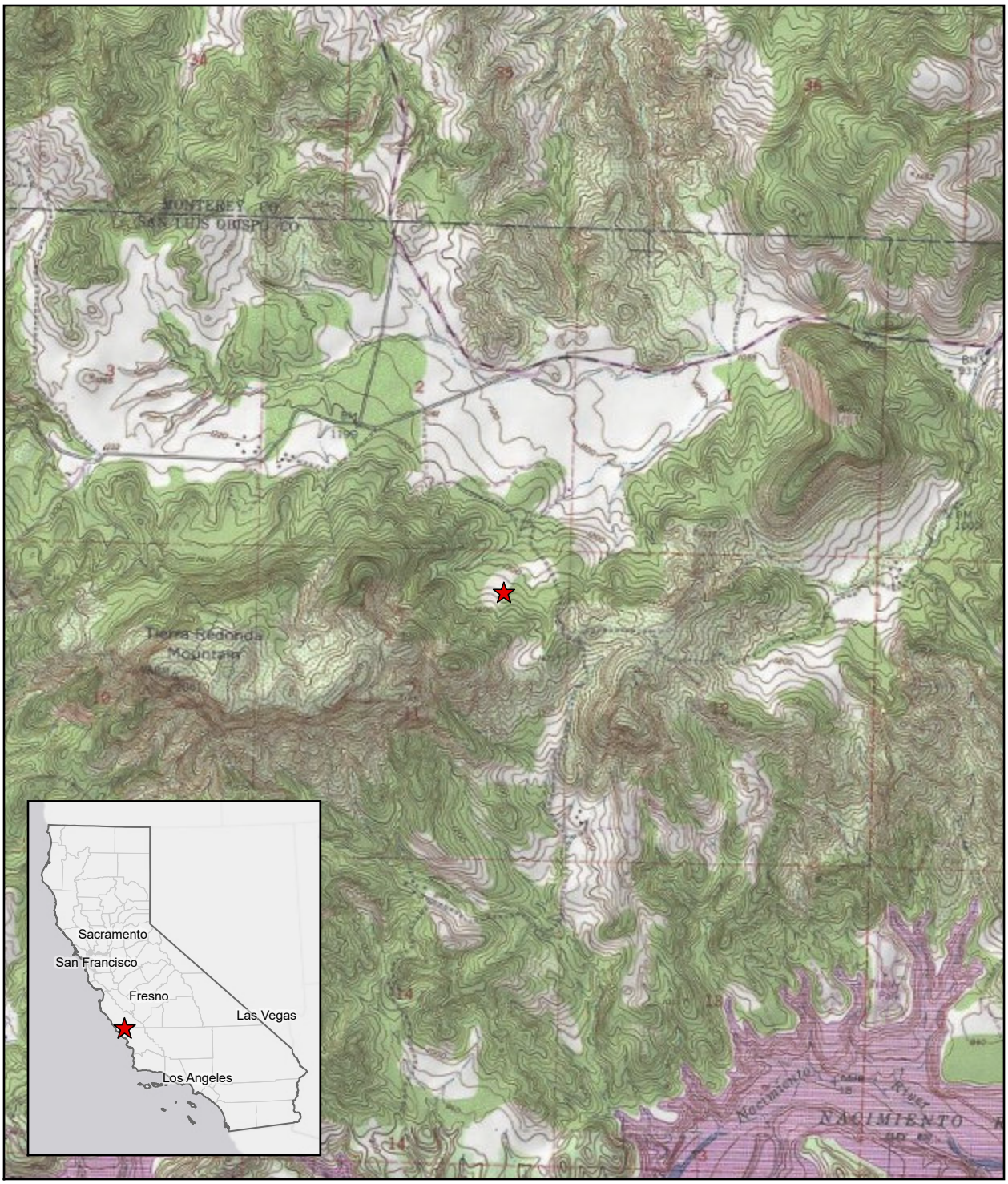
Photo 3. Southwest corner of Study Area with existing roads and surrounding foothill woodland habitat. View west, August 30, 2018.

Photo 4. View south along the existing hoop houses in the center of the Study Area. October 26, 2018.

Attachment C. Figures

- Figure 1. USGS Topographic Map
- Figure 2. Aerial Photograph
- Figure 3. Biological Resource Map
- Figure 4. CNDDB Map - Plants
- Figure 5. CNDDB Map – Animals
- Figure 6. CDFW 1600 Jurisdiction
- Site Plan for 1255 Tierra Redonda Road

Figure 1. United States Geological Survey Topographic Map



Legend

Project Location

N

0 1,000 2,000 4,000 Feet

Tierra Redonda
Map Center: 120.96712°W 35.77524°N
Bradley, San Luis Obispo County

USGS Quadrangle: Tierra Redondo Mountain

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Map Updated:
September 04, 2018 10:59 AM by MMP

Figure 2. Aerial Photograph

Legend

Parcel

Survey Area (31.1 acres)

N

0 200 400 600 800 Feet

Tierra Redonda
Map Center: 120.96702°W 35.77562°N
Bradley, San Luis Obispo County

Imagery Date: 09/28/2016

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Map Updated:
October 29, 2018 03:13 PM by MMP

Figure 3. Biological Resources

Legend

- Study Area
- Existing Structures
- Proposed Structures
- Existing Fence
- Proposed Fence
- Proposed Water Tanks
- Streams and Drainages

Habitats

- Anthropogenic (5.3 acres)
- Annual Grassland (0.9 acre)
- Foothill Woodlands (24.3 acres)

N

0 100 200 300 400 Feet

Tierra Redonda
Map Center: 120.9671°W 35.77586°N
Bradley, San Luis Obispo County

Biological Survey Date: 06/14/2017

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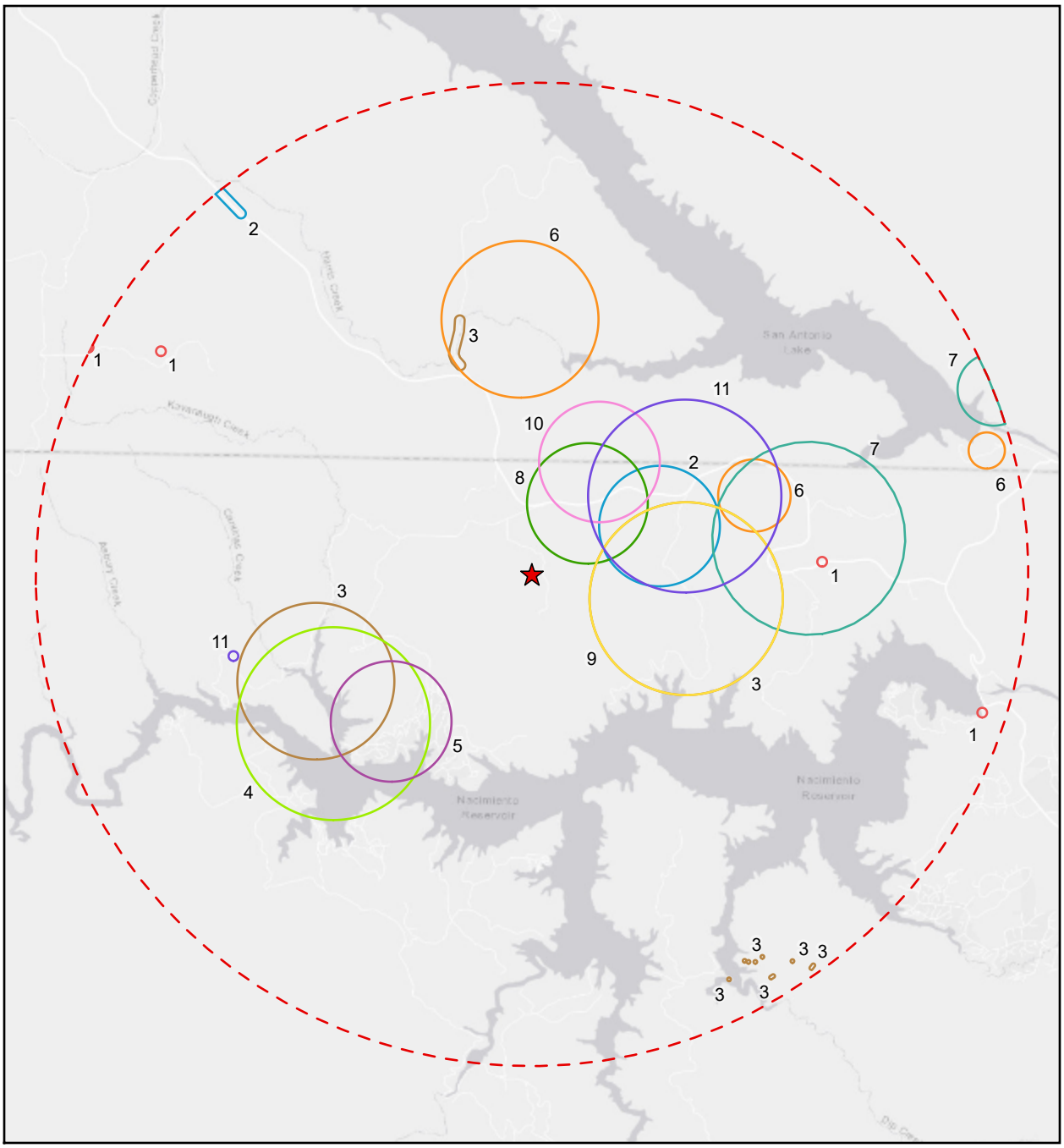
Map Updated:
November 19, 2018 01:09 PM by JBB

Figure 4. California Natural Diversity Database Plant Records



Label	Common Name
1	Abbott's bush-mallow
2	Davidson's bush-mallow
3	Dwarf calycadenia
4	Indian Valley spineflower
5	La Panza mariposa-lily
6	Lemmon's jewelflower
7	Pale-yellow layia
8	Robbins' nemacladus
9	Santa Lucia dwarf rush
10	Santa Lucia monkeyflower
11	Yellow-flowered eriastrum

Legend

★ Project Location

N

0 0.5 1 2 Miles

Tierra Redonda
Map Center: 120.96711°W 35.77557°N
Bradley, San Luis Obispo County

CNDDB GIS Data Last Updated: August 2018

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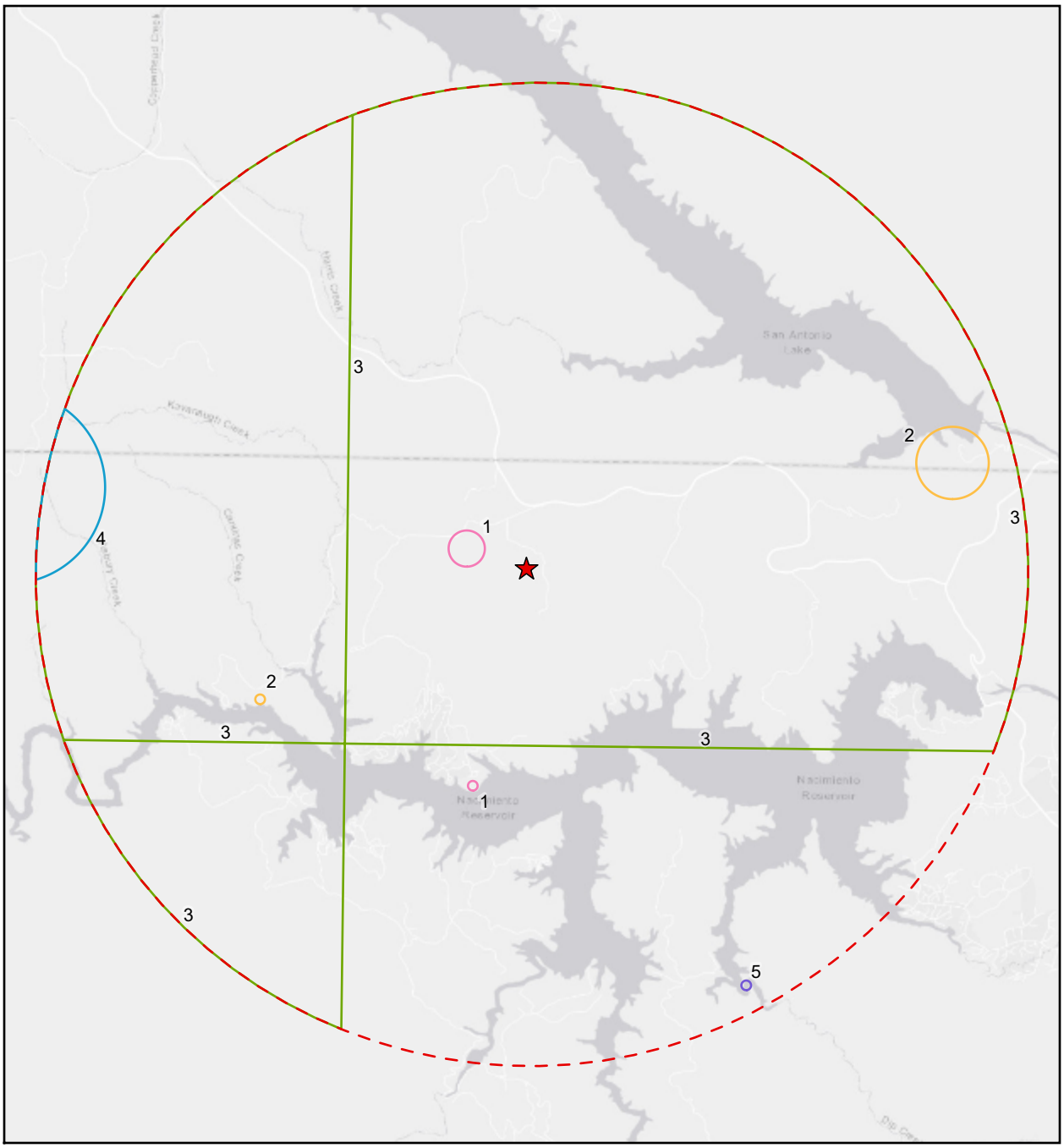
Map Updated:
September 12, 2018 04:14 PM by MMP

Figure 5. California Natural Diversity Database Animal Records



Label	Common Name
1	Bald eagle
2	Northern California legless lizard
3	Prairie falcon
4	Townsend's big-eared bat
5	Western pond turtle

Legend

★ Project Location

N

0 0.5 1 2 Miles

Tierra Redonda
Map Center: 120.96711°W 35.77557°N
Bradley, San Luis Obispo County

CNDDB GIS Data Last Updated: August 2018

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Map Updated:
September 05, 2018 12:33 PM by MMP

Figure 6. CDFW 1600 Jurisdiction

Legend

- CDFW 1600 Jurisdiction
- Drainages
- Study Area

N

0 100 200 300 400 Feet

Tierra Redonda
Map Center: 120.96712°W 35.77591°N
Bradley, San Luis Obispo County

Imagery Date: 02/24/2017

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Map Updated:
November 19, 2018 01:12 PM by JBB

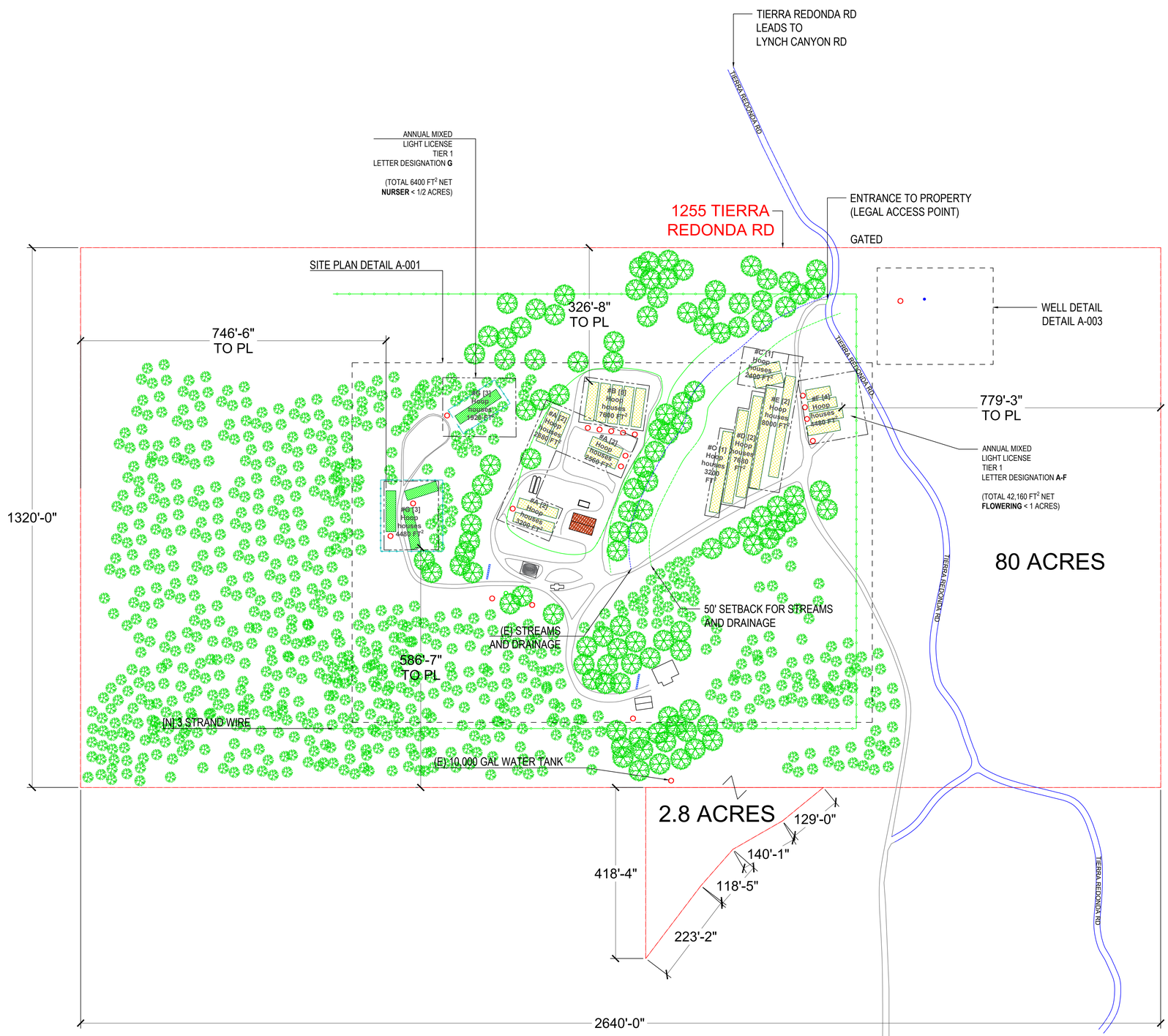
LEGEND

SYMBOL	DESCRIPTION
	SOIL COMPOST SITE
	YELLOW HOOP HOUSE BLOOMING/FLOWERING
	GREEN HOOP HOUSE VEGETATIVE PHASE
	BROWN HOOP HOUSE DRYING PHASE
	SEATRAIN 40' CONTAINER
	DUMPSTER CONTAINER
	PORTABLE POTTY
	SECURITY CAMERA
	DIESEL 5,000 LITER
MP	MAIN ELECTRICAL PANEL
	NEW FENCE LINE
	EXISTING FENCE LINE

SITE PLAN

SCALE: 1/128" = 1'-0"

0 200' 400'



PROJECT:

BRADLEY SITE

1255 TIERRA REDONDA RD
BRADLEY, CA 93426

DRAWN BY: GA

DATE: 8/4/18

SHEET NUMBER:

A-001

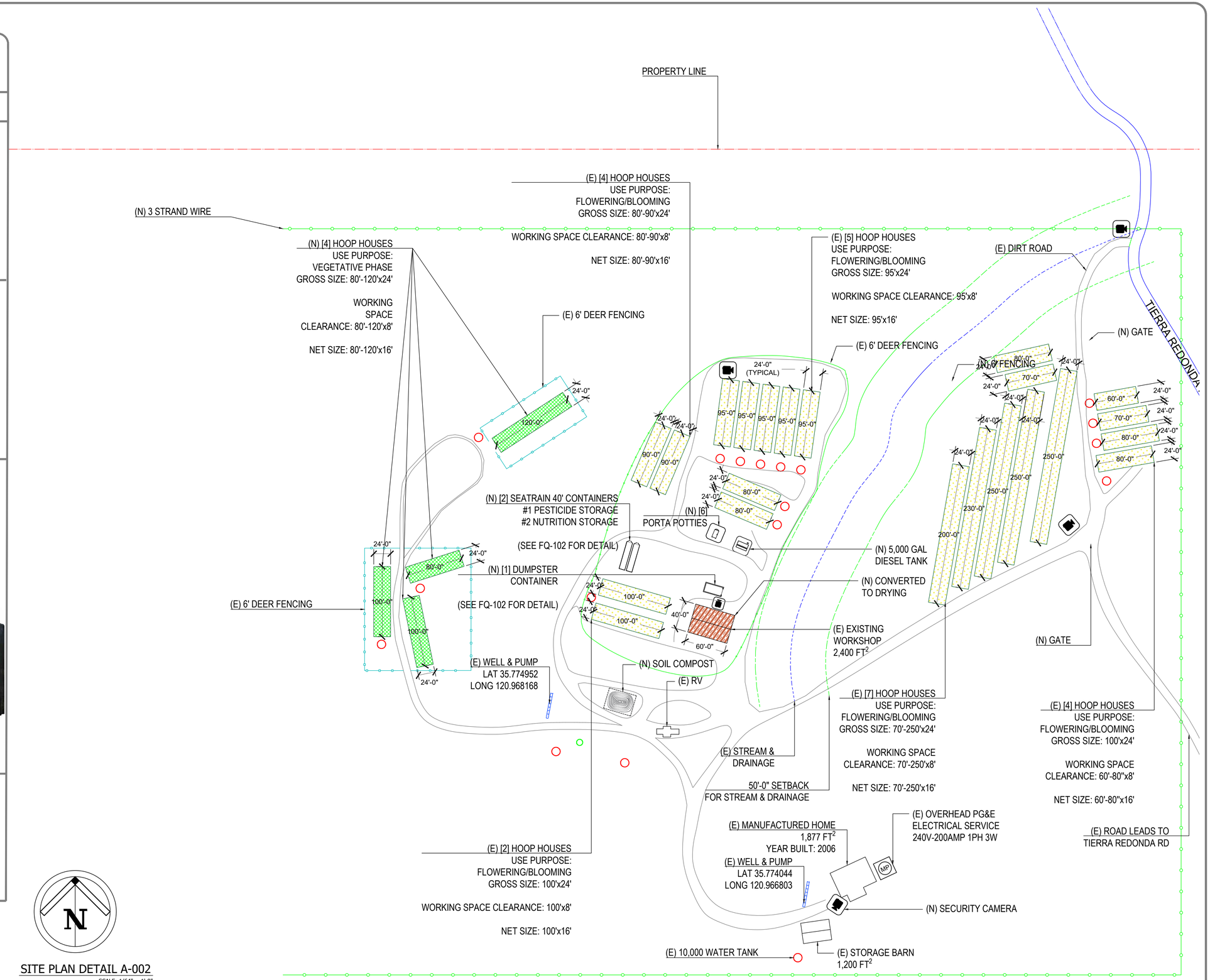
NOTE: (E) DENOTES EXISTING STRUCTURE
(N) DENOTES NEW STRUCTURE

LEGEND

SYMBOL	DESCRIPTION
	SOIL COMPOST SITE
	YELLOW HOOP HOUSE BLOOMING/FLOWERING
	GREEN HOOP HOUSE VEGETATIVE PHASE
	BROWN HOOP HOUSE DRYING PHASE
	SEATRAIN 40' CONTAINER
	DUMPSTER CONTAINER
	PORTABLE POTTY
	SECURITY CAMERA
	DIESEL 5,000 LITER
MP	MAIN ELECTRICAL PANEL
	NEW FENCE LINE
	EXISTING FENCE LINE

WIND BREAK 12'-0" FENCE
MADE FROM POLYETHYLENE
IN BLACK FOR PRIVACY.

NOTE: SECURITY CAMERAS ARE NOT FINAL
PLEASE SEE SECURITY PLAN(S) FOR FINAL
LOCATIONS OF CAMERA & FENCE LINES.



SITE PLAN DETAIL A-002
SCALE: 1/64" = 1'-0"
0 100' 200'

PROJECT:
BRADLEY SITE

1255 TIERRA REDONDA RD
BRADLEY, CA 93426

DRAWN BY: GA
DATE: 8/4/18

SHEET NUMBER:
A-002

Attachment D. CNDDB/CNPS Special Status Species Lists

Potential Special Status Plant List

Table 1 lists 22 of the 68 special status plant species reported from the region with potential to occur. Federal status, California State status, and CNPS ranking for each species are given. Typical blooming period, habitat preference, potential to occur on site, and whether or not the species was observed in the Study Area are also provided.

TABLE 1. POTENTIAL SPECIAL STATUS PLANT LIST.

	Common Name *Scientific Name*	**Fed/State Status Global/State Rank CRPR**	**Blooming Period**	**Habitat Preference**	**Potential to Occur**	**Detected Within Study Area?**	**Effect of Proposed Activity**
1.	**Hoover's Bent Grass** *Agrostis hooveri*	None/None G2/S2 1B.2	April - July	Sandy soil in oak woodland habitat; <600 m. Endemic to SLO & SB Counties.	Low. Appropriate habitat is present, but soils may not be suitable.	No	To Be Determined by Spring Survey
2.	**Douglas's Fiddleneck** *Amsinckia douglasiana*	None/None G4/S4 4.2	March - May	Unstable shaly sedimentary slopes; (100) 150–1600 m. SCoR, w WTR	No. Appropriate slope habitat is not present in the Study Area	No	No Effect
3.	**Indian Valley Spineflower** *Aristocapsa insignis*	None/None G1/S1 1B.2	May - September	Foothill woodland; 300-600 m. SCoRI (Monterey, SLO Counties)	Low. Appropriate habitat and potentially suitable soils may be present in the Study Area.	No	To Be Determined by Spring Survey

	Common Name *Scientific Name*	**Fed/State Status Global/State Rank CRPR**	**Blooming Period**	**Habitat Preference**	**Potential to Occur**	**Detected Within Study Area?**	**Effect of Proposed Activity**
4.	**Salinas Milk-Vetch** *Astragalus macrodon*	None/None G4/S4 4.3	April - July	Eroded pale shales or sandstone, or serpentine alluvium; 300-950 m. SCoR	Low. Occurrences of this species have been reported near the Study Area, though soils may not be suitable.	No	To Be Determined by Spring Survey
5.	**Dwarf Calycadenia** *Calycadenia villosa*	None/None G3/S3 1B.1	May - October	Dry, rocky hills, ridges, in chaparral, woodland, meadows and seeps; <1100 m. c&s SCoRO.	Moderate. Dry, rocky woodland habitat is present along the periphery of the Study Area.	No	To Be Determined by Spring Survey
6.	**Hardham's Evening-primrose** *Camissoniopsis hardhamiae*	None/None G2/S2 1B.2	March - May	Decomposed carbonate soils, in chaparral, cismontane woodland. Monterey, SLO Counties.	Moderate. Occurrences of this species have been reported near the Study Area with similar soil conditions.	No	To Be Determined by Spring Survey
7.	**Lemmon's Jewelflower** *Caulanthus lemmonii*	None/None G3/S3 1B.2	February - May	Dry, exposed slopes, grassland, chaparral, scrub; 80-1100 m. sw San Joaquin Valley, se SnFrb, e SCoRO, SCoRI.	Low. Some elements of appropriate habitat are present, but the species is not likely to occur in the Study Area.	No	To Be Determined by Spring Survey

	Common Name *Scientific Name*	**Fed/State Status Global/State Rank CRPR**	**Blooming Period**	**Habitat Preference**	**Potential to Occur**	**Detected Within Study Area?**	**Effect of Proposed Activity**
8.	**Santa Lucia Purple Amole** *Chlorogalum purpureum* var. *purpureum*	Threatened/None G2T2/S2 1B.1	April - June	Cismontane woodland, valley and foothill grassland, often with blue oaks. 300-330 m. Monterey, SLO Counties.	Low. Open woodland habitat is present in the Study Area, but grassland habitat is not abundant.	No	To Be Determined by Spring Survey
9.	**Douglas' Spineflower** *Chorizanthe douglasii*	None/None G4/S4 4.3	April - July	Foothill woodland, pine forest, chaparral, sandy or gravelly soils; 200-1600 m. e SCoRO, SCoRI.	Low. Appropriate foothill habitat is present in the Study Area, but soils may not be suitable.	No	To Be Determined by Spring Survey
10.	**Straight-awned Spineflower** *Chorizanthe rectispina*	None/None G2/S2 1B.3	April - July	Chaparral, dry woodland in sandy soil; 200-600 m. SCoRO.	Low. Appropriate dry woodland habitat is present in the Study Area, but soils may not be suitable.	No	To Be Determined by Spring Survey
11.	**Jolon Clarkia** *Clarkia jolonensis*	None/None G2/S2 1B.2	April - June	Dry woodland; approx 500 m. n SCoRO (near Jolon, Monterey Co.).	Low. Appropriate dry woodland habitat is present in the Study Area and occurrences have been reported in the vicinity. Not yet reported from SLO County.	No	To Be Determined by Spring Survey

	Common Name *Scientific Name*	**Fed/State Status Global/State Rank CRPR**	**Blooming Period**	**Habitat Preference**	**Potential to Occur**	**Detected Within Study Area?**	**Effect of Proposed Activity**
12.	**Rattan's Cryptantha** *Cryptantha rattanii*	None/None G4/S4 4.3	April - July	Rocky, gravelly slopes, grassland, coastal scrub, chaparral, foothill woodland; 150-780 m. n SCoR.	Low. Foothill woodland habitat with elements of chaparral is present in the Study Area, but rocky, sloping substrate is minimal.	No	To Be Determined by Spring Survey
13.	**Small-Flowered Gypsum-Loving Larkspur** *Delphinium gypsophilum* subsp. *parviflorum*	None/None G4T2T3Q/S2S3 3.2	(March) April - June	Clay soil in cismontane woodland; 200-350 m.	Moderate. Clay soils in woodland habitat are present in the Study Area.	No	To Be Determined by Spring Survey
14.	**Yellow-flowered Eriastrum** *Eriastrum luteum*	None/None G2/S2 1B.2	May - June	Bare sandy decomposed granite slopes in cismontane woodland, chaparral, forest; 360-1000 m. SCoR, Monterey, SLO Counties.	Low. Appropriate soils may not be present in the Study Area; however, occurrences have been reported in the vicinity.	No	To Be Determined by Spring Survey
15.	**Elegant Wild Buckwheat** *Eriogonum elegans*	None/None G3G4/S3S4 4.3	May - November	Sand or gravel; 200 – 1200 m. SnFrB, SCoR, WTR.	Low. Appropriate soils are minimal within the Study Area.	No	To Be Determined by Spring Survey

	Common Name *Scientific Name*	**Fed/State Status Global/State Rank CRPR**	**Blooming Period**	**Habitat Preference**	**Potential to Occur**	**Detected Within Study Area?**	**Effect of Proposed Activity**
16.	**Pale-Yellow Layia** *Layia heterotricha*	None/None G2/S2 1B.1	March - June	Alkaline or clay soils, open areas, in pinyon-juniper woodland, grassland; 270-1705 m. Teh, San Joaquin Valley, SCoR, n WTR.	Low. Appropriate habitat is not present in the Study Area; however, occurrences have been reported in the vicinity.	No	To Be Determined by Spring Survey
17.	**Jones' Bush Mallow** *Malacothamnus jonesii*	None/None G4/S4 4.3	(March) April - October	Open chaparral in foothill woodland; 250-830 m. SCoRO (Monterey, SLO Counties).	Moderate. Appropriate open foothill woodland habitat is present in the Study Area.	No	Confirmed Absent - No Effect
18.	**Carmel Valley Bush-mallow** *Malacothamnus palmeri* var. *involucratus*	None/None G3T2Q/S2 1B.2	April - October	Chaparral, cismontane woodland, coastal scrub; 30-1100 m. s CCo, SCoRO.	Low. Some elements of chaparral habitat are present in the Study Area, but known occurrences are not within the vicinity.	No	Confirmed Absent - No Effect
19.	**Santa Lucia Bush-mallow** *Malacothamnus palmeri* var. *palmeri*	None/None G3T2Q/S2 1B.2	May - July	Chaparral, cismontane woodland, coastal scrub; 30-1100 m. s CCo, SCoRO.	Low. Some elements of chaparral habitat are present in the Study Area, but known occurrences are not within the vicinity.	No	Confirmed Absent - No Effect

	Common Name *Scientific Name*	**Fed/State Status Global/State Rank CRPR**	**Blooming Period**	**Habitat Preference**	**Potential to Occur**	**Detected Within Study Area?**	**Effect of Proposed Activity**
20.	**San Antonio Hills Monardella** *Monardella antonina* subsp. *antonina*	None/None G4T1T3Q/S1S3 3	June - August	Chaparral, cis-montane woodland.	No. Chaparral habitat is present, but the species is not known from the area.	No	No Effect
21.	**Large-Flowered Nemacladus** *Nemacladus secundiflorus* var. *secundiflorus*	None/None G3T3?/S3? 4.3	April - June	Dry, gravelly slopes; 200-2000m. s SNH, SCoR.	Low. Appropriate habitat is minimal in the Study Area, though occurrences have been reported in the vicinity.	No	To Be Determined by Spring Survey
22.	**Vortriede's Spineflower** *Systenotheca vortriedei*	None/None G3/S3 4.3	May - September	Sand; 700-1500 m. SCoRO (Santa Lucia Range, Monterey, San Luis Obispo cos.).	Low. Appropriate soil is not present in the Study Area, and known occurrences are mostly reported from the western portion of the Santa Lucia Range.	No	To Be Determined by Spring Survey

Habitat Preference Abbreviations:

CCo: Central Coast
SCo: South Coast
SCoR: South Coast Ranges
SCoRO: Outer South Coast Ranges
SCoRI: Inner South Coast Ranges
SnFrB: San Francisco Bay
TR: Transverse Ranges
WTR: Western Transverse Ranges
SnJV: San Joaquin Valley
ScV: Sacramento Valley
SLO: San Luis Obispo
SN: Sierra Nevada
SnJt: San Jacinto Mtns
SnBr: San Bernardino
Teh: Tehachapi Mtn Area
CW: Central West
SW: South West
DMoj: Mojave Desert
PR: Peninsular Range

State/Rank Abbreviations:

FE: Federally Endangered
FT: Federally Threatened
PE: Proposed Federally Endangered
PT: Proposed Federally Threatened
CE: California Endangered
CR: California Rare
CT: California Threatened
Cand. CE: Candidate for California Endangered
Cand. CT: Candidate for California Threatened

California Rare Plant Ranks:
CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
CRPR 2A: Plants presumed extirpated in California, but common elsewhere
CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
CRPR 4: Plants of limited distribution - a watch list

CRPR Threat Ranks:
0.1 - Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 - Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3 - Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Potential Special Status Animals List

Table 2 lists 7 out of 29 special status animal species reported from the region with potential to occur. Federal status, California State status, and CDFW listing status for each species are given. Typical nesting or breeding period, habitat preference, to occur, and whether or not the species was observed in the Study Area are also provided.

TABLE 2. POTENTIAL SPECIAL STATUS ANIMAL LIST.

	Common Name *Scientific Name*	**Fed/State Status Global/State Rank CDFW Rank**	**Nesting/ Breeding Period**	**Habitat Preference**	**Potential to Occur**	**Detected Within Study Area?**	**Effect of Proposed Activity**
1.	**Northern California Legless Lizard** *Anniella pulchra*	None/None G3/S3 SSC	May - September	Sandy or loose loamy soils under coastal scrub or oak trees. Soil moisture essential.	Moderate. Loamy soils and leaf litter in oak tree habitat is present in the Study Area.	No	Potential adverse effect can be mitigated
2.	**Golden Eagle*** *Aquila chrysaetos*	None/None G5/S3 WL/Fully Protected	March 15 through August 15	Nests in large, prominent trees in valley and foothill woodland. Requires adjacent food source.	Moderate. Possible foraging habitat is present in the Study Area, but no nests on site.	No	No Effect
3.	**Bald Eagle** *Haliaeetus leucocephalus*	Delisted/ Endangered G5/S3 Fully Protected	March 15 through August 15	Nests within one mile of water in tall live tree with open branches.	Low. Water sources occur within approximately one mile of the Study Area, but no nests on site.	No	No Effect

	Common Name *Scientific Name*	**Fed/State Status Global/State Rank CDFW Rank**	**Nesting/ Breeding Period**	**Habitat Preference**	**Potential to Occur**	**Detected Within Study Area?**	**Effect of Proposed Activity**
4.	**San Joaquin Whipsnake** *Masticophis flagellum ruddocki*	None/None G5T2T3/S2? SSC	May	Open, dry, treeless areas, including grasslands and saltbush scrub; takes refuge in burrows and under shaded vegetation	Low. Grassland habitat elements and small mammal burrows are present in the Study Area, though nearest occurrence is approximately 9 miles southeast.	No	Potential adverse effect can be mitigated
5.	**Monterey Dusky-footed Woodrat** *Neotoma macrotis luciana*	None/None G5T3/S3 SSC	n/a	Variety of habitats with moderate to dense understory vegetation	Low. Appropriate understory vegetation is present in the Study Area for woodrat middens, though none were observed on site.	No	Potential adverse effect can be mitigated
6.	**Coast Horned Lizard** *Phrynosoma blainvillii*	None/None G3G4/S3S4 SSC	May - September	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	Low. Suitable habitat is not optimal in the Study Area; however, occurrences have been documented within less than ten miles of the site.	No	Potential adverse effect can be mitigated
7.	**American Badger** *Taxidea taxus*	None/None G5/S3 SSC	February – May	Needs friable soils in open ground with abundant food source such as California ground squirrels.	Low. Badgers are known from the vicinity but unlikely to occur onsite.	No	No Effect

Habitat characteristics are from the Jepson Manual and the CDNNB.
*not listed in the CNDDB or CNPS for the search area, but possibly for the location.

Abbreviations:

FE: Federally Endangered	CE: California Endangered	SA: CDFW Special Animal
FT: Federally Threatened	CT: California Threatened	SSC: CDFW Species of Special Concern
PE: Proposed Federally Endangered	Cand. CE: Candidate for California Endangered	FP: CDFW Fully-Protected
PT: Proposed Federally Threatened	Cand. CT: Candidate for California Threatened	WL: CDFW Watch List

Attachment E. Plant List

TABLE 3. PLANT LIST.

Scientific Name	Special Status	Origin	Common Name
Ferns - 1 Species			
Pentagramma triangularis	None	Native	Goldback fern
Trees – 3 Species			
Pinus sabiniana	None	Native	California foothill pine
Quercus agrifolia	None	Native	Coast live oak
Quercus douglasii	None	Native	Blue oak
Shrubs - 9 Species			
Adenostoma fasciculatum	None	Native	Chamise
Arctostaphylos glauca	None	Native	Big berry manzanita
Baccharis pilularis	None	Native	Coyote brush
Eriodictyon crassifolium	None	Native	Thick leaved yerba santa
Eriogonum fasciculatum	None	Native	California buckwheat
Galium porrigens	None	Native	Climbing bedstraw
Hazardia squarrosa var. *squarrosa*	None	Native	Saw toothed goldenbush
Heteromeles arbutifolia	None	Native	Toyon
Toxicodendron diversilobum	None	Native	Western poison oak
Forbs - 35 Species			
Achillea millefolium	None	Native	Yarrow
Acmispon americanus var. *americanus*	None	Native	American bird's foot trefoil
Acmispon glaber	None	Native	Deerweed
Allium crispum	None	Native	Crinkled onion
Amsinckia sp.	None	Native	Fiddleneck
Bloomeria crocea	None	Native	Common goldenstar
Calochortus albus	None	Native	White globe lily
Cannabis sativa	None	Planted	Hemp
Carduus pycnocephalus subsp. *pycnocephalus*	None	Introduced	Italian thistle
Castilleja sp.	None	Native	Castilleja
Centaurea melitensis	None	Introduced	Tocalote
Chondrilla juncea	None	Introduced	Skeleton weed
Clarkia sp.	None	Native	Clarkia
Corethrogyne filaginifolia	None	Native	Common sandaster

Scientific Name	Special Status	Origin	Common Name
Croton setigerus	None	Native	Turkey mullein
Deinandra lobbii	None	Native	Threeway tarweed
Dichelostemma capitatum	None	Native	Blue dicks
Erigeron canadensis	None	Native	Horseweed
Hirschfeldia incana	None	Introduced	Short podded mustard
Lepidium nitidum	None	Native	Shining pepper grass
Lessingia pectinata	None	Native	Lessingia
Logfia gallica	None	Introduced	Daggerleaf cottonrose
Lonicera hispidula	None	Native	Pink honeysuckle
Madia sp.	None	Native	Madia
Micropus californicus	None	Native	Q-tips
Navarretia atractyloides	None	Native	Holly leaf navarretia
Navarretia mitracarpa	None	Native	Paso robles navarretia
Phoradendron leucarpum	None	Native	Oak mistletoe
Primula clevelandii	None	Native	Cleveland's shooting star
Salvia spathacea	None	Native	California hummingbird sage
Sisyrinchium bellum	None	Native	Western blue-eyed-grass
Spergularia rubra	None	Introduced	Red sand-spurrey
Torilis arvensis	None	Introduced	Tall sock-destroyer
Trichostema lanceolatum	None	Native	Vinegar weed
Verbena lasiostachys	None	Native	Yarrow
Grasses - 12 Species			
Avena fatua	None	Introduced	Wildoats
Briza minor	None	Introduced	Annual quaking grass
Bromus diandrus	None	Introduced	Ripgut brome
Bromus hordeaceus	None	Introduced	Soft chess
Bromus madritensis subsp. *rubens*	None	Introduced	Red brome
Bromus tectorum	None	Introduced	Cheat grass
Festuca microstachys	None	Native	Small fescue
Festuca myuros	None	Introduced	Rattail sixweeks grass
Gastridium phleoides	None	Introduced	Nit grass
Hordeum murinum	None	Introduced	Foxtail barley
Koeleria gerardi	None	Introduced	Bristly koeleria
Schismus barbatus	None	Introduced	Common Mediterranean grass

Attachment F. Wildlife List

TABLE 4. WILDLIFE LIST.

Common Name	Scientific Name	Special Status	Habitat Type
Birds – 7 Species			
California Scrub Jay	*Aphelocoma californica*	None	Woodland, chaparral
Oak Titmouse	*Baeolophus inornatus*	None	Oak woodland
Anna's Hummingbird	*Calypte anna*	None	Open woodland
Turkey Vulture	*Cathartes aura*	None	Open country
American Crow	*Corvus brachyrhynchos*	None	Open woodland, urban
California Towhee	*Melozone crissalis*	None	Scrub and chaparral
Mourning Dove	*Zenaida macroura*	None	Open woodland
Mammals – 2 Species			
Mule Deer	*Odocoileus hemionus*	None	Grasslands, woodlands
California Ground Squirrel	*Otospermophilus beecheyi*	None	Grasslands