



June 4, 2019

Helios Dayspring  
*Sent via email*

**RE: Spring Botanical Survey Memorandum for the Rancho Road Cannabis Expansion Project, 510 Rancho Road, San Luis Obispo County, California (APN 090-241-003)**

Dear Mr. Dayspring,

Terra Verde Environmental Consulting, LLC (Terra Verde) conducted a biological survey of the subject property on August 6, 2018 in support of the proposed development of a cannabis cultivation operation, located at 510 Rancho Road near the unincorporated community of Nipomo, San Luis Obispo County, California. The purpose of the survey was to identify sensitive biological resources that occur or have potential to occur within the proposed project site, including special-status botanical and wildlife species. Following completion of the surveys, a Biological Resources Assessment report (Terra Verde 2018) was prepared to support the permitting and environmental review process for the proposed development. However, due to the seasonal timing of the surveys, which occurred outside the typical blooming period for regionally-occurring special-status plant species with the potential to occur on site (i.e., April – June), the presence/absence of special-status botanical species could not be confirmed. As such, an appropriately timed spring botanical survey was completed on May 31, 2019, which included the entire project site and an immediate buffer. Specifically, the survey focused on determining the presence/absence of the following species:

- Cambria morning-glory (*Calystegia subacaulis* subsp. *episcopalis*), California Rare Plant Rank (CRPR) 4.2

The methods and results of the survey are described below. Please refer to the Biological Resources Assessment report (Terra Verde 2018) for a discussion of the habitat requirements and potential for the above species to occur.

### **Methodology**

The survey was completed by Terra Verde botanist Kristen Nelson and biologist Riley Chestnut on May 31, 2019. The survey included the entire project development area; though focused on



the perennial rye grassland located in the southwestern portion of the site (see Attachment A – Figure 1: Survey Area Map). The remainder of the survey area was recently or actively tilled and did not provide suitable habitat for this species. The area was surveyed on foot to ensure complete visual coverage of the survey area. The survey included an inventory of all botanical species observed, an assessment of the type and quality of habitat present, and incidental wildlife observations. The survey was timed to coincide with the typical peak blooming period for regionally occurring special-status plant species determined to have potential to occur on site. Botanical species identifications and taxonomic nomenclature followed *The Jepson Manual: Vascular Plants of California*, 2nd edition (Baldwin et al. 2012) as well as taxonomic updates provided in the Jepson eFlora (Jepson Flora Project 2019). A complete list of botanical species observed during the two surveys is included as Attachment B.

### Results

No special-status species were identified within the survey area and no unknown or unidentifiable plants were observed on site. The type, extent, and quality of habitat observed on site was the same as what was documented in August 2018, as reported in the Biological Resources Assessment report prepared for the project (Terra Verde 2018). Representative site photographs are included as Attachment C. As such, it is assumed that no special-status botanical species currently exist on site, and no impacts to special-status plant populations will occur as a result of the proposed development.

If you should have any questions or require additional information, please contact me at (415) 533-7372 or [agolub@terraverdeweb.com](mailto:agolub@terraverdeweb.com), or Kristen Nelson at (702) 596-5038 or [knelson@terraverdeweb.com](mailto:knelson@terraverdeweb.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Amy Golub".

Amy Golub, Botanist  
Terra Verde Environmental Consulting, LLC  
3765 South Higuera Street, Suite 102  
San Luis Obispo, California 93401



Attachments:

A – Figures

Figure 1: Survey Area Map

B – Botanical Species Observed

C – Representative Site Photographs



## References

Baldwin, Bruce G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken. 2012. *The Jepson Manual: Vascular Plants of California*, Second Edition. University of California Press. Berkeley, California.

Jepson Flora Project (eds.). 2019. *Jepson eFlora*. Available online at: <http://ucjeps.berkeley.edu/eflora/>. Accessed May 2019.

Terra Verde Environmental Consulting, LLC. 2018. Biological Resources Assessment, Rancho Road Cannabis Expansion Project (APN: 090-241-003) (August 2018).



## **Attachment A –**

Figure 1: Survey Area Map

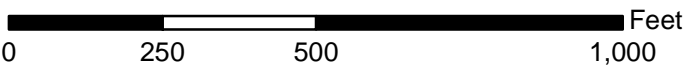


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**510 Rancho Road Cannabis Expansion Project**  
**Figure 1: Survey Area Map**

Survey Area
 - - - Swale\*
— Drainage Feature



\*Limits approximated by Terra Verde.  
 Stream data: County of San Luis Obispo, 2006; accessed August 2018.



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## **Attachment B – Botanical Species Observed**



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**List of Botanical Species Observed at the 510 Rancho Road Improvement and Expansion Project Site**  
August 6, 2018 and May 31, 2019

Family	Scientific Name	Common Name	Cal-IPC Status <sup>1</sup>	Origin
<b>Adoxaceae, Muskroot Family</b>	<i>Sambucus nigra</i> subsp. <i>caerulea</i>	Blue elderberry	--	Native
<b>Amaranthaceae, Amaranth Family</b>	<i>Amaranthus albus</i>	Tumbleweed	--	Naturalized
<b>Anacardiaceae, Sumac Family</b>	<i>Schinus molle</i>	Pepper tree	Lim	Naturalized
	<i>Toxicodendron diversilobum</i>	Western poison oak	--	Native
<b>Apiaceae, Carrot Family</b>	<i>Conium maculatum</i>	Poison hemlock	Mod	Naturalized
	<i>Foeniculum vulgare</i>	Fennel	Mod	Naturalized
<b>Apocynaceae, Dogbane Family</b>	<i>Asclepias fascicularis</i>	Narrow-leaf milkweed	--	Native
<b>Asteraceae, Sunflower Family</b>	<i>Anthemis cotula</i>	Mayweed	--	Naturalized
	<i>Baccharis pilularis</i>	Coyote brush	--	Native
	<i>Centaurea melitensis</i>	Tocalote	Mod	Naturalized
	<i>Erigeron bonariensis</i>	Flax-leaved horseweed	--	Naturalized
	<i>Helianthus annuus</i>	Hairy leaved sunflower	--	Native
	<i>Helminthotheca echiioides</i>	Bristly ox-tongue	Lim	Naturalized
	<i>Heterotheca grandiflora</i>	Telegraph weed	--	Native
	<i>Hypochaeris glabra</i>	Smooth cat's-ear	--	Naturalized
	<i>Lactuca serriola</i>	Prickly lettuce	--	Naturalized
	<i>Logfia gallica</i>	Daggerleaf cottonrose	--	Naturalized
	<i>Matricaria discoidea</i>	Pineapple weed	--	Naturalized
	<i>Pseudognaphalium luteoalbum</i>	Jersey cudweed	--	Naturalized
	<i>Sonchus asper</i> subsp. <i>asper</i>	Prickly sow thistle	--	Naturalized
	<i>Sonchus oleraceus</i>	Common sow thistle	--	Naturalized
<i>Xanthium spinosum</i>	Spiny cocklebur	--	Native	
<b>Boraginaceae, Borage Family</b>	<i>Amsinckia menziesii</i>	Common fiddleneck	--	Native
<b>Brassicaceae, Mustard Family</b>	<i>Brassica nigra</i>	Black mustard	Mod	Naturalized
	<i>Hirschfeldia incana</i>	Mediterranean hoary mustard	Mod	Naturalized
<b>Cactaceae, Cactus Family</b>	<i>Opuntia ficus-indica</i>	Mission prickly-pear	--	Naturalized / Ornamental
<b>Caryophyllaceae, Pink Family</b>	<i>Silene gallica</i>	Small-flower catchfly	--	Naturalized
	<i>Spergularia</i> sp.	Sand-spurrey	--	Naturalized



Family	Scientific Name	Common Name	Cal-IPC Status <sup>1</sup>	Origin
<b>Chenopodiaceae, Goosefoot Family</b>	<i>Chenopodium album</i>	Lamb's quarters	--	Naturalized
<b>Convolvulaceae, Morning-glory Family</b>	<i>Convolvulus arvensis</i>	Bindweed	--	Naturalized
<b>Cupressaceae, Cypress Family</b>	<i>Sequoia sempervirens</i>	Coast redwood	--	Native / Ornamental
<b>Euphorbiaceae, Spurge Family</b>	<i>Euphorbia lathyris</i>	Caper spurge	Watch	Naturalized
<b>Fabaceae, Legume Family</b>	<i>Medicago polymorpha</i>	California burclover	Lim	Naturalized
	<i>Vicia villosa</i>	Hairy vetch	--	Naturalized
<b>Fagaceae, Oak Family</b>	<i>Quercus agrifolia</i> var. <i>agrifolia</i>	Coast live oak	--	Native
<b>Geraniaceae, Geranium Family</b>	<i>Erodium botrys</i>	Big heron bill	--	Naturalized
	<i>Erodium cicutarium</i>	Redstem filaree	Lim	Naturalized
<b>Lamiaceae, Mint Family</b>	<i>Marrubium vulgare</i>	White horehound	Lim	Naturalized
<b>Malvaceae, Mallow Family</b>	<i>Malva parviflora</i>	Cheeseweed	--	Naturalized
<b>Myrsinaceae, Myrsine Family</b>	<i>Lysimachia arvensis</i>	Scarlet pimpernel	--	Naturalized
<b>Myrtaceae, Myrtle Family</b>	<i>Eucalyptus globulus</i>	Blue gum	--	Naturalized / Ornamental
<b>Plantaginaceae, Plantain Family</b>	<i>Plantago lanceolata</i>	English plantain	Lim	Naturalized
<b>Poaceae, Grass Family</b>	<i>Avena barbata</i>	Slender wild oat	Mod	Naturalized
	<i>Cynodon dactylon</i>	Bermuda grass	Mod	Naturalized
	<i>Bromus diandrus</i>	Ripgut brome	Mod	Naturalized
	<i>Bromus madritensis</i> subsp. <i>rubens</i>	Red brome	High	Naturalized
	<i>Festuca myuros</i>	Rattail sixweeks grass	Mod	Naturalized
	<i>Festuca perennis</i>	Rye grass	Mod	Naturalized
	<i>Hordeum murinum</i>	Wall barley	Mod	Naturalized
	<i>Hordeum vulgare</i>	Cultivated barley	--	Naturalized
	<i>Phalaris minor</i>	Little-seeded canary grass	--	Naturalized
	<i>Phalaris paradoxa</i>	Hood canary grass	--	Naturalized
	<i>Stipa miliacea</i> var. <i>miliacea</i>	Smilo grass	--	Naturalized



Family	Scientific Name	Common Name	Cal-IPC Status <sup>1</sup>	Origin
Polygonaceae, Buckwheat Family	<i>Rumex crispus</i>	Curly dock	Lim	Naturalized
	<i>Polygonum aviculare</i>	Knotweed	--	Naturalized
Rutaceae, Rue Family	<i>Citrus</i> sp.	Lemon tree	--	Orchard
Salicaceae, Willow Family	<i>Salix lasiolepis</i>	Arroyo willow	--	Native
Solanaceae, Nightshade Family	<i>Solanum douglasii</i>	Douglas' nightshade	--	Native

<sup>1</sup>Taxa included on the California Invasive Plant Council (Cal-IPC invasive Plant Inventory (Cal-IPC, 2018) are indicated above with a listing rank. Cal-IPC rankings included on this list are defined as:

- **Limited (Lim):** invasive but minor statewide ecological impacts, or insufficient information to justify a higher score.
- **Moderate (Mod):** substantial and apparent, but generally not severe ecological impacts on physical processes, plant and animal communities, and vegetation structure.
- **High:** severe ecological impacts on physical processes, plant and animal communities, and vegetation structure.
- **Watch:** species that pose a high risk of becoming invasive in the future in California.



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## **Attachment C – Representative Site Photographs**



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**Photo 1.** View of the perennial rye grassland habitat on site (May 31, 2019).



**Photo 2.** View of the ruderal herbaceous vegetation in anthropogenic areas on site (May 31, 2019).