Appendix C-3

Rare Plant Survey

Michael Baker
INTERNATIONAL

We Make a Difference

September 14, 2020

UNIVERSITY OF CALIFORNIA, IRVINE
Attn: *Lindsey Hashimoto*
Environmental Planning & Sustainability
4199 Campus Drive, Suite 380
Irvine, California 92697

SUBJECT: 2020 Rare Plant Survey Results for the Health Campus Hospital & Ambulatory Care Project – City of Irvine, Orange County, California

Dear Ms. Hashimoto:

Michael Baker International, Inc. (Michael Baker) is pleased to submit this report to The University of California, Irvine (UCI) documenting the results of a rare plant survey that was conducted on September 11, 2020 for the Health Campus Hospital & Ambulatory Care Project (project or project site) located in the City of Irvine, Orange County, California. This report includes an analysis of the potential for the survey area, defined as all temporary and permanent impact areas, to support rare plants that are subject to provisions of the Federal Endangered Species Act of 1973 (FESA), California Endangered Species Act (CESA), and California Native Plant Protection Act. Michael Baker biologists conducted a rare plant survey prior to initiating project activities to document the presence or absence of rare[1] plant species for which the survey area provides suitable habitat.

Project Location

The proposed project site is located within the UCI North Campus, approximately 0.4 mile east of State Route 73 and 2.5 miles south of Interstate 405, in the City of Irvine, Orange County, California. Specifically, the survey area is depicted in Section 50 of Township 6 South, Range 9 West, of the U.S. Geological Survey (USGS) *Tustin, California* 7.5-minute topographic quadrangle map.

The survey area is inclusive of and bounded by Jamboree Road to the north and west, and undeveloped (disturbed) areas to the south and east (Figure 1, *Survey Area*). San Joaquin Marsh is located directly southeast, but is not located within the survey area boundaries.

Project Description

The project site is 14.2 acres, consisting of 9.91 acres associated with the permanent development footprint and another 4.29 acres associated with temporary construction areas. An additional 2.66 acres is associated with the San Joaquin Marsh Development Buffer, an area that will not be directly impacted by the project but which is a required setback from the marsh. The proposed project consists of the construction of an Acute Hospital, Clinics and Ambulatory Services Building, and Parking Structure immediately south of the

[1] As used in this report, "rare" refers to plant species that are Federally or State listed, proposed, or candidates, and those that have been designated a CNPS California Rare Plant Rank (CRPR).

proposed Center for Child Health/MOB Site (Irvine Campus Medical Complex or ICMC).

Survey Methodology

Literature Review

Prior to conducting the 2020 rare plant survey, Michael Baker identified rare plant species with the potential to occur within the survey area in the Health Campus Hospital & Ambulatory Care Project Biological Resources Report, dated August 2020. Previously recorded occurrences of rare plant species within a five-mile radius of the project footprint were determined through a query of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) RareFind 5 and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Vascular Plants of California. Perennial rare plant species identified with the potential to occur within the survey area include Coulter's saltbush (*Atriplex coulteri*), Catalina mariposa lily (*Calochortus catalinae*), Lewis' evening primrose (*Camissoniopsis lewisii*), southern tarplant (*Centromadia parryi* spp. *australis*), many-stemmed dudleya (*Dudleya multicaulis*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), mud nama (*Nama stenocarpum*), Gambel's water cress (*Nasturtium gambelii*), Sanford's arrowhead (*Sagittaria sanfordii*), and San Bernardino aster (*Symphyotrichum defoliatum*). Of these, all were determined to have a low potential to occur in the survey area besides many-stemmed dudleya.

Focused Survey

Michael Baker biologists Jeremy Rosenthal and Ryan Winkleman conducted a rare plant survey within the project site on September 11, 2020. The survey was conducted between the hours of 7:30AM and 11:00AM. Michael Baker biologists surveyed the site on foot where accessible, safe, and practical and otherwise used binoculars in areas that could not be directly accessed. The survey was floristic in nature, meaning that all plants observed on-site were identified, where possible, to the lowest taxonomic level necessary to determine conservation status. Field visits are typically conducted during the peak blooming periods for many plant species, particularly for those with a potential to occur on-site based on known records, known habitat preferences, and known distribution. However, due to project timing, Michael Baker's 2020 rare plant survey was not conducted during the peak blooming periods for some rare plant species, limiting identification of some species that bloom earlier in the year, particularly annual plant species that may no longer be growing above-ground. Representative photographs of the survey area are provided in Attachment A, *Site Photographs.*

Survey Results

No rare plant species were observed within the survey area during the rare plant survey. A total of sixty-five (65) plant species were observed within the survey area during Michael Baker's 2020 rare plant survey, each identified to the lowest taxonomic level necessary to determine conservation status. Plants in the UCI Arboretum (temporary laydown area) that were obviously part of landscaping or part of the collection of exotic species on display were not included as part of the plant list. Of those 65 species, roughly 42 percent (27 species) were native; the other 58 percent (38 species) were non-native, indicating a high level of

disturbance in the survey area. Refer to Attachment B, *Plant Species Observed List* for a complete list of plant species observed during the 2020 rare plant survey.

Conclusions and Recommendations

No rare plant species were observed during the 2020 rare plant survey. Therefore, no direct, indirect, or cumulative impacts to rare plants are anticipated to occur as a result of the proposed project. No additional measures to avoid, minimize, or mitigate impacts to rare plants is recommended.

Please feel free to contact me at (949) 472-3475 or at Jeremy.Rosenthal@mbakerintl.com, or Ryan Winkleman at (949) 533-0918 or Ryan.Winkleman@mbakerintl.com with any questions you may have regarding the results and/or conclusions of this report.

Sincerely,

Jeremy Rosenthal
Biologist
Natural Resources and Regulatory Permitting

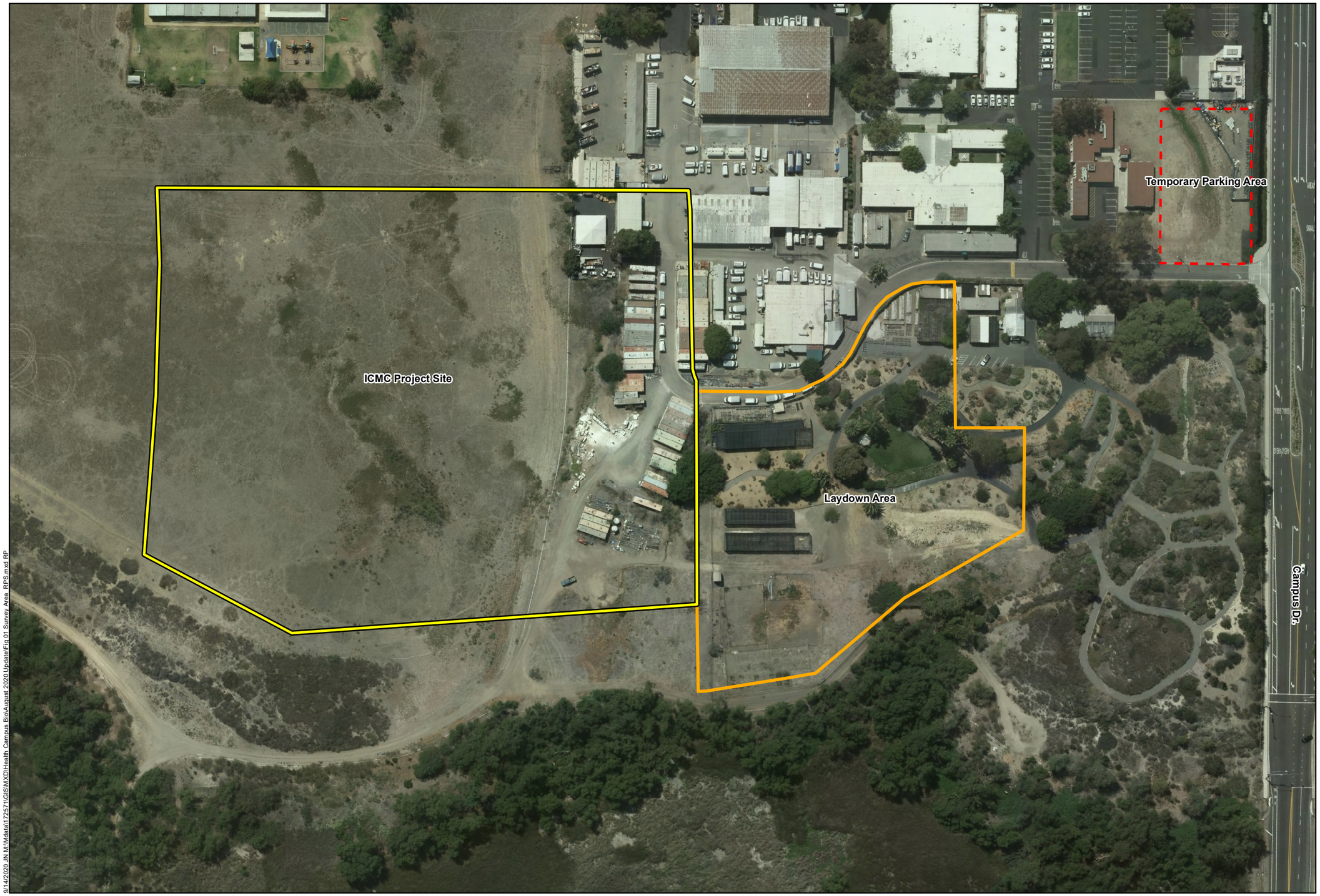
Ryan Winkleman
Senior Biologist
Natural Resources and Regulatory Permitting

Attachments:

A. *Figure 1 – Survey Area*
B. *Site Photographs*
C. *Plant Observed Species List*

Attachment A

Figure 1 – *Survey Area*



Legend

- ICMC Project Site
- Laydown Area
- Temporary Parking Area

0 65 130 Feet

9/14/2020 JN:M:\Mdata\172571\GIS\MXD\Health Campus Bio\August 2020 Update\Fig 01 Survey Area_RPS.mxd RP

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Source: Eagle Aerial, 2014

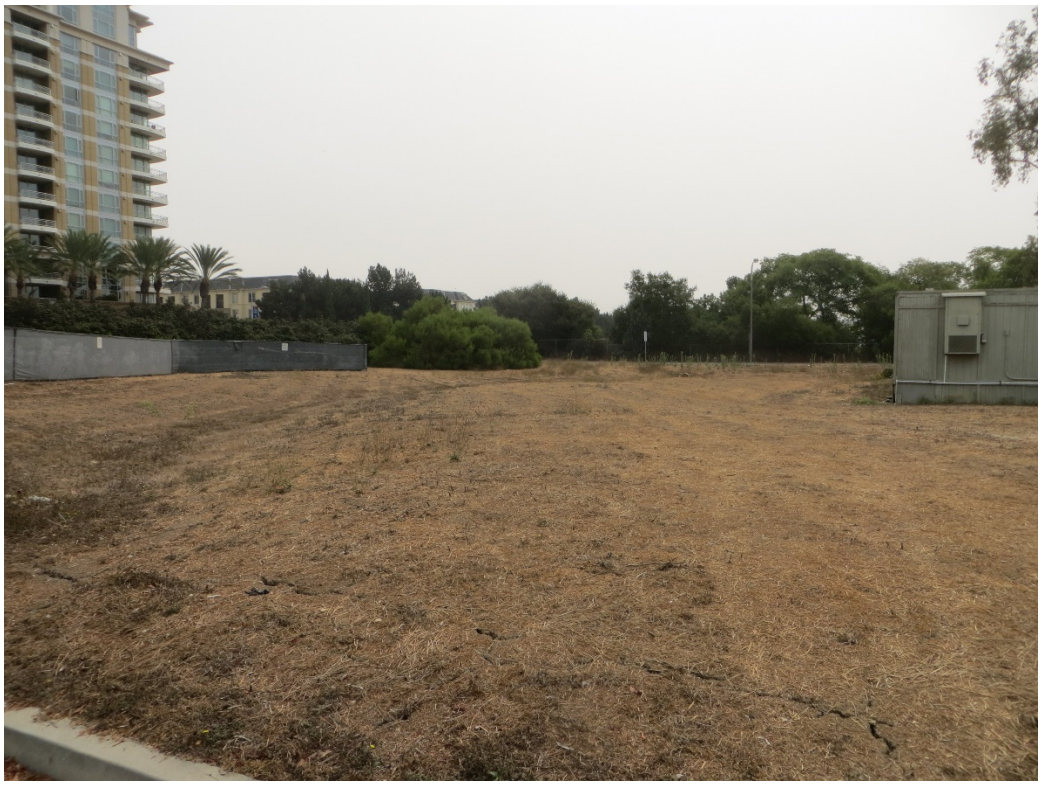
HEALTH CAMPUS HOSPITAL AND AMBULATORY CARE PROJECT
RARE PLANT SURVEY REPORT

Survey Area

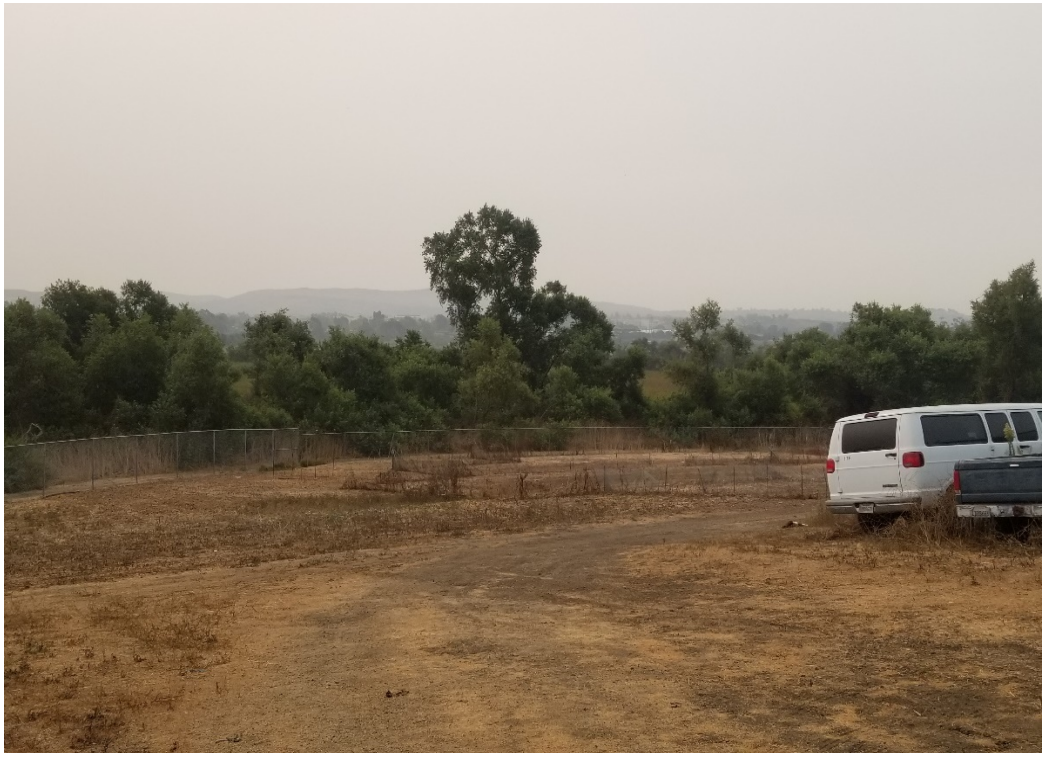
Figure 1

Attachment B

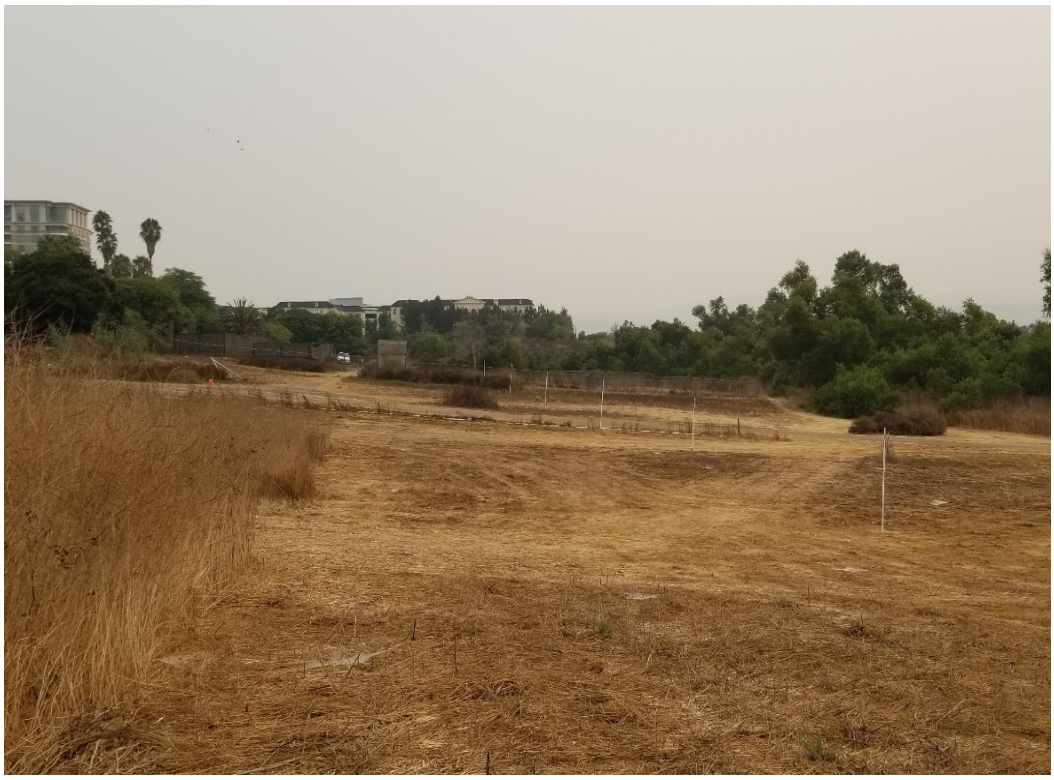
Site Photographs



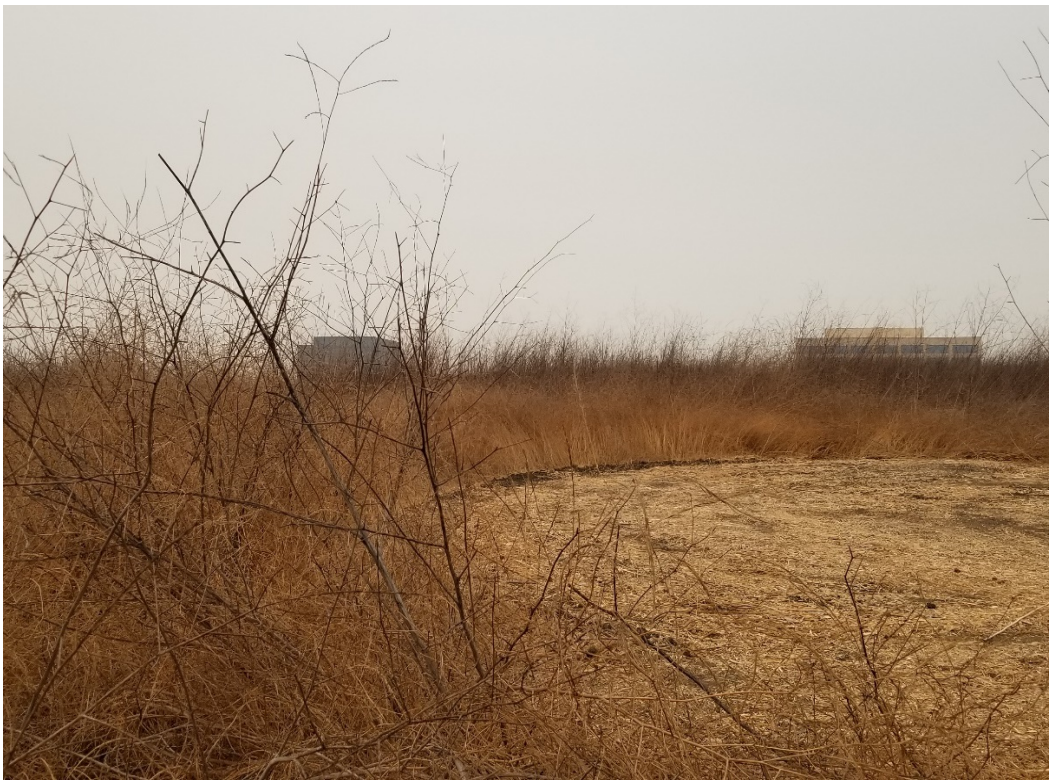
Photograph 1: Standing in the northern portion of the survey area within the temporary parking area, facing southeast.



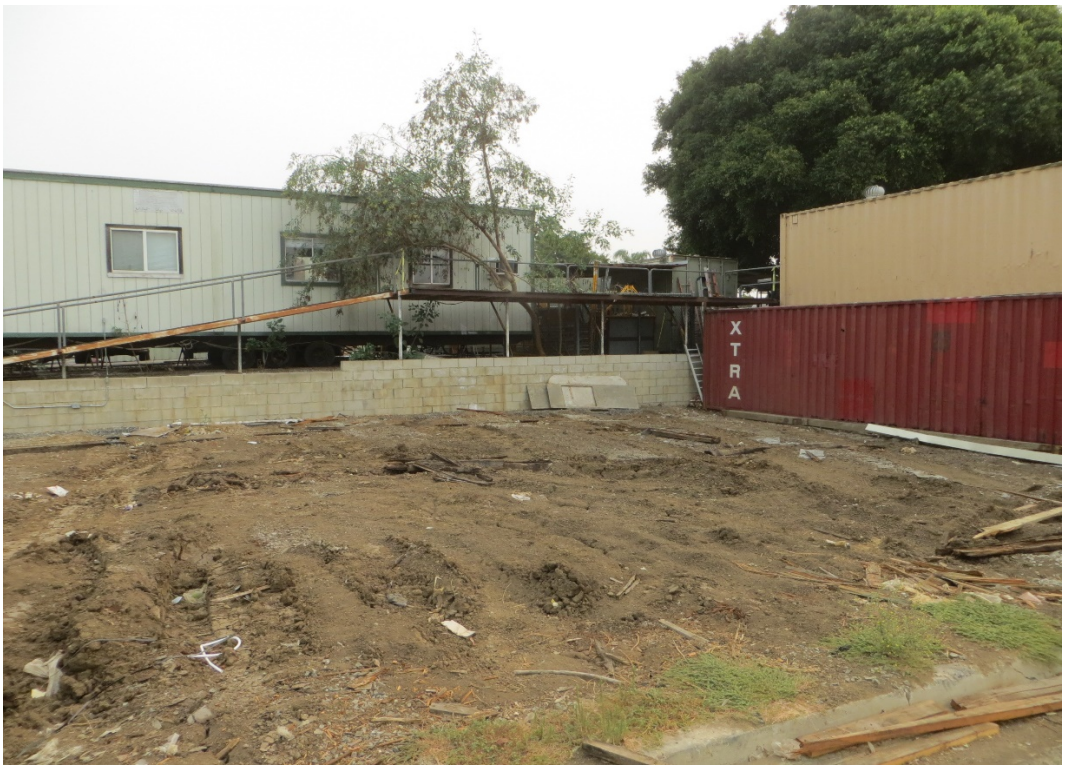
Photograph 2: Standing in the eastern portion of the survey area within the proposed temporary laydown area, facing south.



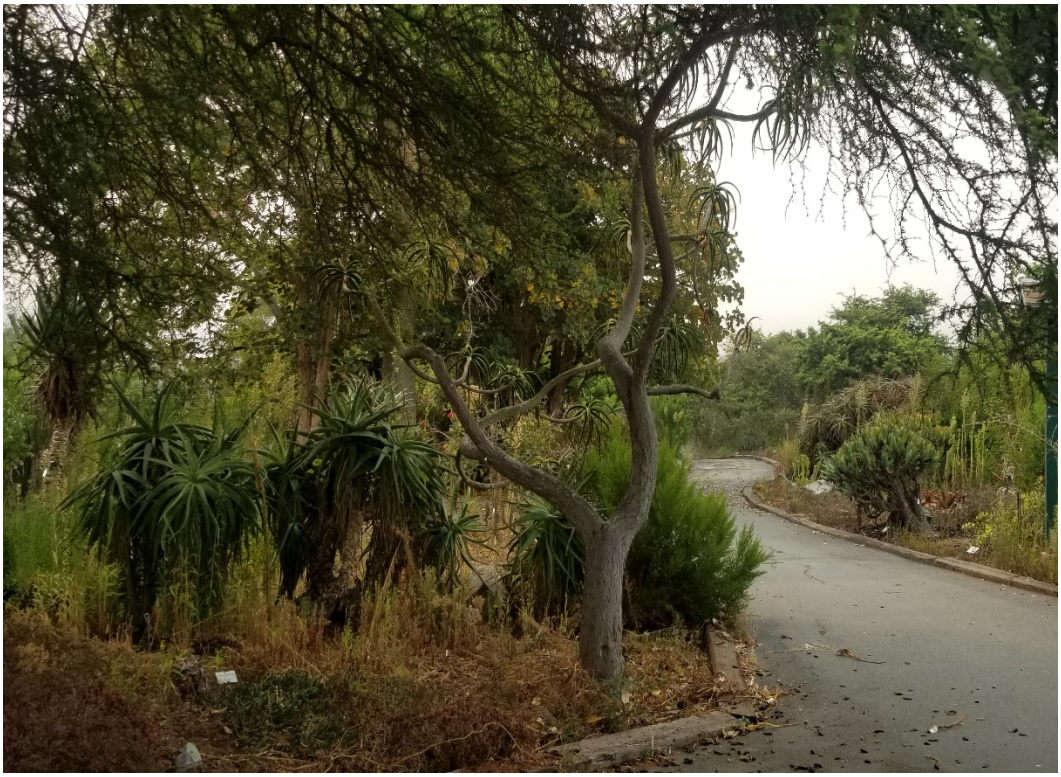
Photograph 3: Standing in the southwestern portion of the survey area, facing northeast. This is representative of the disturbance and vegetation of the permanent footprint.



Photograph 4: Standing in the western portion of the survey area, facing southwest. This is representative of the disturbance and vegetation of the permanent footprint.



Photograph 5: A portion of the permanent footprint contains structures and facilities, increasing the amount of disturbance present.



Photograph 6: A portion of the proposed laydown area is within the vegetated and curated portion of the UCI Arboretum.

Attachment C

Plant Observed Species List

Table C-1: Plant Observed Species List

Scientific Name	Common Name	Cal-IPC Rating**
*Acacia retinodes**	everblooming acacia	
*Acacia sp.**	acacia	
Achillea millefolium	common yarrow	
*Acroptilon repens**	Russian knapweed	Moderate
*Amaranthus albus**	tumbleweed	
Ambrosia psilostachya	western ragweed	
Artemisia californica	California sagebrush	
Asclepias fascicularis	narrow leaf milkweed	
Baccharis pilularis	coyotebrush	
Baccharis salicifolia	mulefat	
*Brassica nigra**	black mustard	Moderate
*Celtis australis**	European hackberry	
*Centaurea melitensis**	tocalote	Moderate
*Conium maculatum**	poison hemlock	Moderate
*Cortaderia jubata**	pampas grass	High
Croton setiger	turkey-mullein	
*Cupaniopsis anacardioides**	carrotwood	
Cylindropuntia bigelovii	teddybear cholla	
Cylindropuntia prolifera	coastal cholla	
*Cynara cardunculus**	artichoke thistle	Moderate
Encelia californica	bush sunflower	
Encelia farinosa	brittlebush	
*Erigeron bonariensis**	flax-leaved horseweed	
Erigeron canadensis	Canada horseweed	
*Erigeron sumatrensis**	tropical horseweed	
Eriogonum fasciculatum	California buckwheat	
*Eucalyptus sp. **	eucalyptus	
*Euphorbia maculata**	spotted spurge	
*Foeniculum vulgare**	sweet fennel	Moderate
Frankenia salina	alkali heath	
Heliotropium curassavicum	salt heliptrope	
*Helminthotheca echioides**	bristly ox-tongue	Limited
Heteromeles arbutifolia	toyon	
Heterotheca grandiflora	telegraph weed	
*Hirschfeldia incana **	short podded mustard	Moderate
Isocoma menziesii	goldenbush	
*Kickxia elatine**	sharp point fluellin	
*Lactuca serriola **	prickly lettuce	
Laennecia coulteri	Coulter's horseweed	
*Lepidium didymum**	lesser swine cress	
*Lysimachia arvensis**	scarlet pimpernel	
Malosma laurina	laurel sumac	
*Malva parviflora**	cheeseweed	
Malvella leprosa	alkali mallow	

Table C-1: Plant Species Observed List

Scientific Name	Common Name	Cal-IPC Rating**
Marrubium vulgare *	white horehound	Limited
*Nicotiana glauca**	tree tobacco	Moderate
*Olea sp.**	olive	
Opuntia littoralis	coastal prickly pear	
*Pinus sp.**	pine	
*Plumbago auriculata**	cape leadwort	
*Pulicaria paludosa**	Spanish false fleabane	
*Ricinus communis**	castor bean	Limited
Rosa californicum	California rose	
*Rumex crispus**	curley dock	Limited
Salix goodinggii	Gooding's willow	
*Schinus molle**	Peruvian peppertree	Limited
*Schinus terebinthifolius**	Brazilian peppertree	Limited
Simmondsia chinensis	jojoba	
*Solanum lycopersicum**	tomato	
*Sonchus asper**	spiny sowthistle	
Stephanomeria diegensis	San Diego wreathplant	
Stipa lepida	foothill needlegrass	
*Urtica urens**	dwarf nettle	
*Vachellia constricta**	whitethorn acacia	
*Washingtonia robusta**	Mexican fan palm	Moderate

* Non-native species

** **California Invasive Plant Council (Cal-IPC) Ratings**

High — These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate — These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited — These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.