



June 29, 2012

Larry Cochrun
First Industrial Realty Trust, Inc.

**SUBJECT: 2012 SPECIAL-STATUS PLANT SURVEY RESULTS – SAN MICHELLE
PROPERTY PROJECT, CITY OF MORENO VALLEY, RIVERSIDE COUNTY, CALIFORNIA.**

This report documents the findings of the 2012 special-status plant habitat assessment and survey conducted by URS Corporation (URS) for the proposed San Michelle Property Project (Project). The proposed Project includes the development of an approximate 9-acre property within the City of Moreno Valley, County of Riverside, California. The Project is bound by San Michele Road to the north, Perris Boulevard to the east, and a development to the south and west (Figure 1).

For the purposes of this evaluation, the Biological Study Area (BSA) includes the proposed ground disturbance footprint (Project footprint), plus a 500-foot buffer. The BSA is located within the United States Geological Survey (USGS) 7.5-minute Perris Topographic Map in Section 31, Township 3 South, Range 3 West, at an approximate elevation of 1,470 feet above sea level within flat terrain (Figure 2). The majority of the BSA is currently undeveloped disturbed lands.

The Project is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Criteria Area and Narrow Endemic Plant Species Survey Area 3A. Table 1 lists the species that were included in the California Natural Diversity Database (CNDDDB), California Native Plant Society (CNPS), and MSHCP lists for the Project area.

METHODS

Prior to conducting field surveys, a literature review was conducted to identify special status plants known to occur within the vicinity of the Project. This literature review included a review of the USGS Perris 7.5-minute quadrangle in the California Department of Fish and Game (CDFG) CNDDDB (CDFG 2012), the CNPS's *Electronic Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2012) and the MSHCP Narrow Endemic and Criteria Area list of species (Dudek 2003).

Habitat Assessment

A systematic assessment and pedestrian survey of the BSA was conducted on June 7, 2012 by URS Biologists Jeff Crain and Carol Thompson in accordance with MSHCP requirements prior to initiating focused surveys. The initial habitat assessment survey was performed to determine whether suitable habitat for each of special-status plant species occurred within the BSA. Weather conditions at the time of the survey were sunny, with winds ranging from 1 to 3 miles per hour and ambient air temperatures ranging from approximately 60° to 64° Fahrenheit. The assessment was performed by searching for suitable habitat for each special-status plant species listed in Table 1. Based on the presence of suitable habitat within the BSA only for smooth tarplant (*Centromadia pungens* ssp. *laevis*), a focused survey for was subsequently conducted for this species.



Focused Survey

Focused botanical surveys were floristic in nature and consistent with the protocols created by the CDFG (CDFG 2009). Reference populations were monitored for annual and difficult-to-detect target species to ensure that the surveys were comprehensive. Known reference populations for all special status species with potential to occur on the Project site were visited prior to survey visits to determine appropriate timing of surveys.

Focused special status plant surveys were conducted within the BSA on June 7, 2012 by URS Biologists Jeff Crain and Carol Thompson. The BSA was systematically surveyed and all plant species observed were recorded in field notes. Plant species were identified in the field or collected for subsequent identification using keys in Baldwin et al. (2012).

RESULTS

Most of the BSA is disturbed and does not provide suitable habitat for the special-status plant species listed in Table 2. Frequent disturbance of the BSA precludes the establishment of most of these species. Nonetheless, suitable, albeit marginal, habitat for smooth tarplant does occur within the BSA. Two smooth tarplant individuals were observed along the margins of the Project site in an area that was not disced (Figure 3). Smooth tarplant is a CNPS List 1B.1 species and a MSHCP covered species. Due to surrounding land use on the Project site and vicinity, it is unlikely that this species would establish a larger population and impacts to these two plants is not likely to have a significant impact on the persistence of the species. All plant species that were observed during surveys are provided within in Table 2.

If you have any follow-up questions, please contact Greg Hoisington at (714) 433-7678 or greg.hoisington@urs.com

Sincerely,

A handwritten signature in blue ink that reads 'Greg Hoisington'. The signature is fluid and cursive, with the first name 'Greg' being more prominent.

Greg Hoisington
Natural Resources Division Manager
URS Corporation
2020 East 1st Street, Suite 400
Santa Ana, CA 92705

**Table 1.
Special-status Plant Species and their Potential to Occur within the BSA**

Special-Status Species	Habitat and Distribution	Flowering Season	Status Designation	MSHCP Covered Species	Potential for Occurrence
<i>Abronia villosa</i> var. <i>aurita</i> Chaparral sand-verbena	Annual herb. Occurs in coastal scrub and chaparral in sandy soils. From approximately 260 to 5,250 feet in elevation.	January – September	Fed: None CA: None CNPS: List 1B.1	NO	Not expected, no suitable habitat present
<i>Ambrosia pumila</i> San Diego ambrosia	San Diego ambrosia has a limited geographic distribution, and specialized habitat requirements. Only three populations are known from Riverside County; all are located in the Riverside Lowlands Bioregion. The two largest populations occur in the vicinity of Alberhill. The first occurs both north and south of Nichols Road, west of Interstate 15 and Alberhill Creek. The second is located east of Lake Street, immediately south of Interstate 15. A third and smaller population is found at Skunk Hollow, south of Tualota Creek and east of San Diego Aqueduct 1 (near Murrieta Hot Springs). The Alberhill and Nichols Road populations are found in ruderal habitat and open non-native grassland on Garretson gravelly fine sandy loam soil	June - September	Fed: None CA: None CNPS: List 2	Yes	Not expected, no suitable habitat present
<i>Allium munzii</i> Munz's onion	Perennial bulbiferous herb. Occurs in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland in mesic/clay soil. From approximately 985 to 3,510 feet in elevation.	March - May	Fed: END CA: THR CNPS: List 1B.1	YES	Not expected, no suitable habitat present
<i>Atriplex coronata</i> var. <i>notatior</i> San Jacinto Valley crownscale	Annual herb. Occurs in playas, chenopod scrub, valley and foothill grasslands, and vernal pools. Dry, alkaline flats in the San Jacinto River Valley. From approximately 1,310 to 1,640 feet in elevation.	April - August	Fed: END CA: None CNPS: List 1B.1	YES	Not expected, no suitable habitat present
<i>Atriplex pacifica</i> South Coast saltscale	Annual herb. Occurs in coastal scrub, coastal bluff scrub, playas, and chenopod scrub. Alkali soils. Up to approximately 460 feet in elevation.	March - October	Fed: None CA: None CNPS: List 1B.2	NO	Not expected, no suitable habitat present

Special-Status Species	Habitat and Distribution	Flowering Season	Status Designation	MSHCP Covered Species	Potential for Occurrence
<i>Atriplex parishii</i> Parish's brittle-scale	Annual herb. Occurs in alkali meadows, vernal pools, chenopod scrub, and playas. Usually on drying alkali flats with fine soils. From approximately 15 to 460 feet in elevation.	June - October	Fed: None CA: None CNPS: List 1B.1	YES	Not expected, no suitable habitat present
<i>Atriplex serenana</i> var. <i>davidsonii</i> Davidson's salt-scale	Suitable habitat for Davidson's salt-scale includes floodplains (seasonal wetlands) dominated by alkali scrub, alkali playas, vernal pools, and alkali grasslands.	April - October	Fed: None CA: None CNPS: List 1B.1	YES	Not expected, no suitable habitat present
<i>Brodiaea filifolia</i> Thread-leaved brodiaea	Bulbiferous perennial herb. Occurs in chaparral, cismontane woodlands, coastal scrub, playas, vernal pools, and valley and foothill grasslands, usually in clay soils. From approximately 80 to 5,550 feet in elevation.	March – June	Fed: THR CA: END CNPS: List 1B.1	YES	Not expected, no suitable habitat present
<i>Caulanthus simulans</i> Payson's jewelflower	Chaparral, Coastal Sage Scrub, sandy, granitic, dry habitat in the hills and deserts of Riverside and San Diego Counties. 270 - 6800 feet in elevation.	February – June	None	YES	Not expected, no suitable habitat present
<i>Centromadia pungens</i> ssp. <i>laevis</i> Smooth tarplant	Annual herb occurring in chenopod scrub, meadows, seeps, playas, riparian woodland, valley and foothill grassland. Often in alkaline soils. Sea level to approximately 1,575 feet in elevation.	April – September	Fed: None Ca: None CNPS: List 1B.1	YES	Observed (2)
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spine flower	Annual herb occurring in coastal scrub and chaparral, on dry slopes and flats, and sometimes at interfaces of two vegetation types (i.e., chaparral and oak woodland). Occurs in dray sandy soils from 1,575 to 5,597 feet in elevation.	April - June	Fed: None Ca: None CNPS: List 3.2	NO	Not expected, no suitable habitat present
<i>Chorizanthe polygonoides</i> var. <i>longispina</i> Long-spined spine flower	Annual herb occurring in chaparral, coastal scrub, meadows, and valley and foothill grassland. Often in clay or gabbroic clay soils. Seldom in sandy and rocky soils. From approximately 100 to 4,760 feet in elevation.	April – July	Fed: None CA: None CNPS: List 1B.2	NO	Not expected, no suitable habitat present

Special-Status Species	Habitat and Distribution	Flowering Season	Status Designation	MSHCP Covered Species	Potential for Occurrence
<i>Dodecahema leptoceras</i> Slender-horned spine flower	Annual herb occurring in chaparral and coastal scrub (i.e., alluvial fan sage scrub). Often on flood deposited terraces and washes associated with <i>Encelia</i> , <i>Dalea</i> , <i>Lepidospartum</i> , etc. From approximately 656 to 2,493 feet in elevation.	April – June	Fed: END CA: END CNPS: List 1B.1	NO	Not expected, no suitable habitat present
<i>Dudleya multicaulis</i> Many-stemmed dudleya	Many-stemmed dudleya is associated with openings in chaparral, coastal sage scrub, and grassland areas underlain by clay and cobbly clay soils. The soils are known to occur in the following series: Altamont, Auld, Bosanko, Claypit, and Porterville	May - July	Fed: None CA: None CNPS: List 1B	YES	Not expected, no suitable habitat present
<i>Erodium macrophylla</i> Round-leaved filaree	Annual herb occurring in cismontane woodland and valley and foothill grassland. Often in clay soils, grassy areas within shrubland. From approximately 50 to 3,940 feet in elevation.	March – May	Fed: None CA: None CNPS: List 1B.1	YES	Not expected, no suitable habitat present
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	Annual herb. Occurs in coastal salt marshes and swamps, valley and foothill grasslands, playas, sinks, and vernal pools. Up to approximately 4,595 feet in elevation.	February – June	Fed: None CA: None CNPS: List 1B.1	YES	Not expected, no suitable habitat present
<i>Myosurus minimus ssp. Apus</i> Little mousetail	This species is primarily restricted to vernal pools in association with clay or alkali soils. Little mousetail occurs as three core locations within the Plan Area: the Salt Creek population west of Hemet (the largest population within southern California), and the two populations on the Santa Rosa Plateau. This species also occurs at Harford Springs County Park.	March - June	Fed: None CA: None CNPS: List 3	YES	Not expected, no suitable habitat present
<i>Nama stenocarpum</i> Mud nama	This species occurs within muddy embankments of marshes and swamps, and within lake margins and riverbanks. Only three occurrences of this species are known from the Plan Area: two occurrences along the San Jacinto River near Gilman Springs Road and one occurrence in the USGS 7.5 minute El Casco quadrangle.	January - July	Fed: None CA: None CNPS: List 2	YES	Not expected, no suitable habitat present



Special-Status Species	Habitat and Distribution	Flowering Season	Status Designation	MSHCP Covered Species	Potential for Occurrence
<i>Navarretia fossalis</i> Spreading navarretia	Annual herb. Occurs in vernal pools, chenopod scrub, marshes, swamps and playas, on clay soils. From approximately 100 to 4,265 feet in elevation.	April – June	Fed: THR CA: None CNPS: List 1B.1	YES	Not expected, no suitable habitat present
<i>Orcuttia californica</i> California Orcutt grass	Annual herb. Found in vernal pools from approximately 50 to 2,165 feet in elevation.	April – August	Fed: END CA: END CNPS: 1B.1	YES	Not expected, no suitable habitat present
<i>Trichocoronis wrightii</i> var. <i>wrightii</i> Wright's trichocoronis	Annual herb. Occurs in marshes and swamps, riparian forest, meadows and seeps, and vernal pools. Mud flats of vernal lakes, drying river beds, alkali meadows. From approximately 15 to 1,425 feet in elevation.	May - September	Fed: None CA: None CNPS: List 2.1	YES	Not expected, no suitable habitat present
Federal designations: (Federal Endangered Species Act, USFWS): END: Federal-listed, endangered. THR: Federal-listed, threatened.					
State designations: (California Endangered Species Act, CDFG) END: State-listed, endangered. THR: State-listed, threatened. RARE: State-listed as rare					
California Native Plant Society (CNPS) designations: List 1A: Plants presumed extinct in California. List 1B: Plants rare and endangered in California and throughout their range. List 2: Plants rare, threatened, or endangered in California but more common elsewhere in their range. List 3: Plants about which we need more information; a review list. List 4: Plants of limited distribution; a watch list. Threat Codes: .1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat) .2 Fairly endangered in California (20-80% occurrences threatened) .3 Not very endangered in California (<20% of occurrences threatened or no current threats known)					

**Table 2.
Plant Species Observed within the BSA**

Scientific Name	Common Name
ANGIOSPERMAE - FLOWERING PLANTS	
DICOTYLEDONES	
AMARANTHACEAE	
AMARANTH FAMILY	
<i>Amaranthus albus</i> *	tumbleweed
ASTERACEAE (COMPOSITAE)	
SUNFLOWER FAMILY	
<i>Erigeron canadensis</i> [<i>Conyza canadensis</i>]	common horseweed

Scientific Name	Common Name
<i>Ericameria linearifolia</i>	interior goldenbush
<i>Helianthus annuus</i>	western sunflower
BORAGINACEAE	BORAGE FAMILY
<i>Amsinckia intermedia</i>	common fiddleneck
BRASSICACEAE (CRUCIFERAE)	MUSTARD FAMILY
<i>Hirschfeldia incana*</i>	shortpod mustard
CHENOPODIACEAE	GOOSEFOOT FAMILY
<i>Atriplex suberecta*</i>	sprawling saltbush
<i>Salsola tragus*</i>	Russian thistle
EUPHORBIACEAE	SPURGE FAMILY
<i>Croton setigerus [Eremocarpus setigerus]</i>	doveweed / turkey mullein
GERANIACEAE	GERANIUM FAMILY
<i>Erodium cicutarium*</i>	red-stemmed filaree
LAMIACEAE (LABIATAE)	MINT FAMILY
<i>Trichostema lanceolatum</i>	vinegar weed
MALVACEAE	MALLOW FAMILY
<i>Malva parviflora*</i>	cheeseweed
ONAGRACEAE	EVENING PRIMROSE FAMILY
<i>Epilobium ciliatum</i>	willow-herb
POLYGONACEAE	BUCKWHEAT FAMILY
<i>Polygonum argyrocoleon*</i>	Persian knotweed
MONOCOTYLEDONES - MONOCOTS	
POACEAE [GRAMINEAE]	GRASS FAMILY
<i>Avena fatua*</i>	wild oat
<i>Bromus sp.*</i>	brome
<i>Hordeum murinum var. leporinum*</i>	hare barley

* non-native species

REFERENCES

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CDFG. 2009. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. Sacramento, CA: CDFG. November 24, 2009.

_____. 2012. RareFind California Department of Fish and Game Natural Diversity Database (CNDDDB). Perris USGS 7.5-Minute California Quadrangle. Sacramento, CA: California Department of Fish and Game, Biogeographic Data Branch.

CNPS. 2012. CNPS Inventory of Rare and Endangered Plants: California Native Plant Society (CNPS).

Dudek. 2003. Final Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Riverside, CA: County of Riverside.



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Source: ESRI/Bing Maps
Aerial Flown 2009/2010

- Site Boundary
- Study Area
- Developed Areas*



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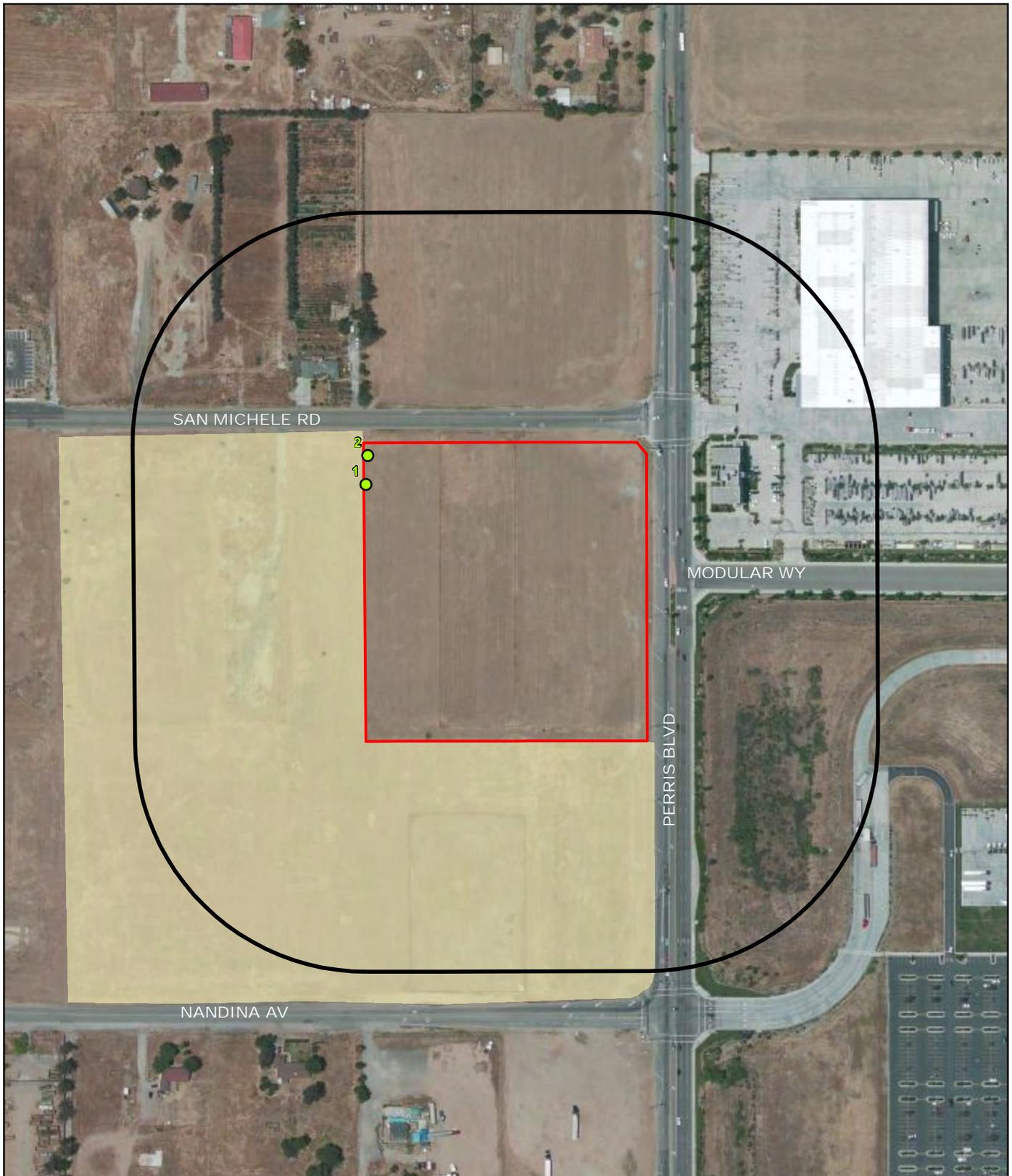
*Area developed after aerial was flown

Figure 2
Project Location

First Industrial Realty Trust, Inc.
San Michele Property

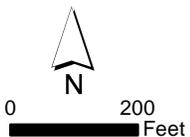
June 2012





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Source: ESRI/Bing Maps
Aerial Flown 2009/2010



- Smooth Tarplant Locations
- Site Boundary
- Study Area
- Developed Areas*

Figure 3
Smooth Tarplant Locations

First Industrial Realty Trust, Inc.
San Michele Property

June 2012



*Area developed after aerial was flown