

**DETERMINATION OF  
BIOLOGICALLY EQUIVALENT OR SUPERIOR  
PRESERVATION (DBESP) ANALYSIS**

**FOR IMPACTS TO MSHCP RIPARIAN/RIVERINE AREAS  
RIDER STREET AND PATTERSON AVENUE PROJECT**

**LOCATED IN THE CITY OF PERRIS, RIVERSIDE COUNTY,  
CALIFORNIA**

**Permittee:**

County of Riverside

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## 1.0 EXECUTIVE SUMMARY

This document provides an analysis in support of a Determination of Biologically Equivalent or Superior Preservation (DBESP) for the Rider Street and Patterson Avenue Project (the Project) located in the community of Mead Valley, Riverside County, California, in the context of the Multiple Species Habitat Conservation Plan (MSHCP) requirements for *Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (MSHCP Volume I, Section 6.1.2)*.

This document has been prepared following the MSHCP DBESP Report Template created by the Regional Conservation Authority (RCA) to demonstrate that with the appropriate mitigation, the Project will represent a “biologically equivalent or superior” alternative to avoidance. This document summarizes the findings of general biological surveys and habitat assessments, and vegetation mapping, as it relates to riparian and vernal pool resources, and species with MSHCP survey requirements. A more detailed reporting of biological resources, including results of species-specific focused surveys, are contained within the Project’s Biological Technical Report (Glenn Lukos Associates Inc. [GLA] 2022).

The Project proposes the development of a warehouse building with associated improvements that will result in impacts to MSHCP riparian/riverine features. Direct effects to 0.35 acre of MSHCP riparian/riverine areas, including 0.13 acre of riparian vegetation, will be unavoidable under the implementation of the proposed Project. The Project proponent shall compensate for these impacts at a minimum of 2:1 mitigation-to-impact ratio for MSHCP riverine, and 3:1 mitigation-to-impact ratio for MSHCP riparian, with a minimum of 1:1 establishment, through the purchase of rehabilitation, re-establishment, and/or establishment mitigation credits at the Riverpark Mitigation Bank. If mitigation is not available at the Riverpark Mitigation Bank, mitigation credits shall be purchased through the Inland Empire Resource Conservation District (IERCD).

## 2.0 INTRODUCTION

### 2.1 Project Area

The Project site comprises approximately 45.45 acres in the Community of Mead Valley, Riverside County, California [Exhibit 1 – Regional Map] consisting of 12 Assessor’s Parcels (317-210-006, 317-210-008, 317-210-010, 317-210-011, 317-210-018, 317-210-022, 317-210-023, and 317-210-024) and right-of-way associated with Rider Street and Patterson Avenue. The Project site is located within Section 13 of

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Township 4 South, Range 4 West, of the U.S. Geological Survey (USGS) 7.5-minute quadrangle topographic map Steele Peak, CA [Exhibit 2 – Vicinity Map].

The Project site is bordered by Rider Street to the north, Patterson Avenue to the east, Walnut Street to the south, and existing residential development to the west.

## **2.2 Project Description**

For this report, the term “Project site” is defined as that area proposed for direct impact by the proposed Project and totals 45.45 acres [Exhibit 3 – Site Plan Map]. The Project site consists of the 40.88 acres of onsite improvements, which is defined as the limits of the parcels owned by the Project applicant, and the 4.57 acres of offsite improvements, which refers to those areas that will be directly impacted by the proposed Project but are not owned or controlled by the Project applicant. Table 1-1 below provides a summary of the Project Site.

**Table 1-1. Summary of Project Site**

<b>Area</b>	<b>Criteria Cell 2432 (Acres)</b>	<b>Outside Criteria Cells (Acres)</b>	<b>Total (Acres)</b>
Onsite	40.88		40.88
Offsite	2.00	2.58	4.57
<b>Total</b>	<b>42.87</b>	<b>2.58</b>	<b>45.45</b>

The Project site is located at the southwest corner of the intersection of Rider Street and Patterson Avenue within the Mead Valley Area Plan of unincorporated Riverside County.

Approximately 40.88 acres of the Project site consisting of the Onsite Project site are proposed for development of a 591,203 square foot (s.f.) warehouse building, which would include 7,300 s.f. of ground floor office space, 7,300 s.f. of mezzanine office space, and 576,603 s.f. of warehouse space. A total of 84 truck docking doors are proposed, positioned on the northern and southern sides of the building. Approximately 6.0 acres along the western parcel boundary would consist of a landscaped berm between the proposed building and an existing residential community to the west. Frontage improvements would occur along Patterson Avenue, Walnut Street, and Rider Street, with a sidewalk and community trail proposed along Patterson Avenue and Walnut Street and a sidewalk proposed along Rider Street. Various other improvements include storm drain installations, and roadway improvements. All weed abatement/fuel modification would be contained within the Onsite Project site boundary.

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Construction staging will occur within the Onsite Project site footprint and in the paved public right-of-way of Rider Street within the Offsite Project site.

The analysis in this document assumes that all direct impacts would be permanent.

### **2.3 Existing Conditions**

Historic aerial photography shows that the Project site and environs have been mechanically disturbed regularly since the 1960s. The Project site consists of vacant land that supports disturbed buckwheat scrub, ruderal/disturbed lands, developed lands, and a small area of southern willow scrub associated with one of the drainage features. The residential areas within the southern portion of the site were initially installed in the late 1960s. The Project site's central area was previously impacted in the early 1990s as part of a planned housing development that was not built. The perimeter of the Project site is mowed and/or disked on a regular basis for weed abatement and fire protection.

Elevation on site ranges from approximately 1,531 to 1,578 feet above mean sea level (AMSL) with the site sloping downwards from the southwest to the northeast. The Project site contains four ephemeral drainage features formed by urban runoff that drain wholly upland areas and do not support a relatively permanent flow of water.

Soils on site consist of Fallbrook rocky sandy loam, 8-15 percent slopes, eroded; Hanford coarse sandy loam, 2-8 percent slopes; Ramona sandy loam, 2-5 percent slopes, eroded; and Ramona sandy loam, 8-15 percent slopes, severely eroded [Exhibit 4 – Soils Map].

The Project site supports the following four vegetation types/land uses: Developed/Ornamental, Disturbed Buckwheat Scrub, Ruderal/Disturbed, and Southern Willow Scrub. Table 2-1 provides a summary of the vegetation types and their corresponding acreage<sup>1</sup>. A Vegetation Map is attached as Exhibit 5. Photographs depicting the Project site are shown in Exhibit 7.

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<sup>1</sup> The combined acreage for the individual vegetation categories is off by 0.01 acre compared with the 45.45-acre total reported above for overall Project site due to rounding error.

**Table 2-1. Summary of Vegetation/Land Use Types for the Project Site in Criteria Cell 2432**

<b>Vegetation/Land Use Type</b>	<b>Onsite (Acres)</b>	<b>Offsite (Acres)</b>	<b>Project Site Totals (Acres)</b>
Developed/Ornamental	7.67	1.62	9.29
Disturbed Buckwheat Scrub	7.74	--	7.74
Ruderal/Disturbed	25.33	0.38	25.71
Southern Willow Scrub	0.13	--	0.13
<b>Total</b>	<b>40.87</b>	<b>2.00</b>	<b>42.87</b>

**Table 2-2. Summary of Vegetation/Land Use Types for the Project Site Outside of the Criteria Area**

<b>Vegetation/Land Use Type</b>	<b>Onsite (Acres)</b>	<b>Offsite (Acres)</b>	<b>Project Site Totals (Acres)</b>
Developed/Ornamental	--	2.17	2.17
Disturbed Buckwheat Scrub	--	--	--
Ruderal/Disturbed	--	0.41	0.41
Southern Willow Scrub	--	--	--
<b>Total</b>	<b>0</b>	<b>2.58</b>	<b>2.58</b>

### **3.0 RIPARIAN/RIVERINE MITIGATION (SECTION 6.1.2)**

#### **3.1 Methods**

Section 6.1.2 of the MSHCP requires the evaluation of sites for “riparian” and/or “riverine” areas, “vernal pools”, and suitable habitat for listed fairy shrimp and riparian birds (least Bell’s vireo, southwestern willow flycatcher, and western yellow-billed cuckoo).

The MSHCP defines Riparian/Riverine Areas as “lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source, or areas with fresh water flow during all or a portion of the year.” Regarding artificially created features, the MSHCP states “with the exception of wetlands created for the purpose of providing wetlands Habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions.”

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*Vernal pools are defined as “seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season.”*

The determination that an area exhibits vernal pool characteristics, and the definition of the watershed supporting vernal pool hydrology, must be made on a case-by-case basis. Such determinations should consider the length of the time the area exhibits upland and wetland characteristics and the way the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records.

GLA biologists reviewed the Project site to document MSHCP riparian/riverine resources on May 5, September 14, and November 14, 2022. Prior to the beginning of field assessments, a color aerial photograph, a topographic base map of the property, and the previously cited USGS topographic map were examined to determine the locations of potential riparian/riverine areas. Suspected resources were field checked for the presence of definable channels and/or riparian vegetation. While in the field, the limits of riparian/riverine resources were recorded onto a color aerial photograph using visible landmarks and/or sub-meter accuracy global positioning system devices.

To assess the Project site for vernal/seasonal pools (including fairy shrimp habitat), GLA biologists evaluated the topography of the site, including whether the site contained depressional features/topography with the potential to become inundated; whether the site contained soils associated with vernal/seasonal pools; and whether the site supported plants that suggested areas of localized ponding. The site was evaluated for vernal/seasonal pools (including fairy shrimp habitat) by a GLA biologist on February 14 and May 5, 2022. In addition, GLA reviewed historic aerial imagery for the Project site.

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## 3.2 Results/Impacts

### 3.2.1 Riparian/Riverine Areas

#### Direct Impacts

Pursuant to *Volume I, Section 6.1.2* of the MSHCP, projects must consider alternatives providing for 100% avoidance of riparian/riverine areas. If avoidance is infeasible, then the unavoidable impacts must be mitigated and a DBESP is required. The approximately 40-acre onsite portion of the Project contains four drainage features (Drainages A through D) that are distributed throughout the site, with Drainage A extending from the western to the eastern boundaries in the northern portion of the site, and with the other three drainage features extending from the southwestern portion to the middle of the property. As the Project consists of a single warehouse facility on the small site, it is not feasible to avoid the drainage features. The offsite portion of the Project also contains a single roadside ditch along the southern edge of Rider Street. It will not be feasible to avoid the roadside ditch with the proposed improvements to Rider Street. As such, the Project will result in unavoidable permanent impacts to 0.35 acre of MSHCP riparian/riverine areas, of which 0.22 acre is located in Criteria Cell 2432 and 0.13 acre (the roadside ditch) is located outside the Criteria Area.

Table 3-1 below summarizes impacts to MSHCP riparian/riverine, organizing the impacts by vegetation community/land use type for the purpose of relating the impacts to hydrological and biological functions. The locations of riparian/riverine areas are depicted on Exhibit 6 (MSHCP Riparian/Riverine Map).

**Table 3-1. Summary of MSHCP Riparian/Riverine Areas**

<b>Drainage Name</b>	<b>Southern Willow Scrub (Acres)</b>	<b>Disturbed Buckwheat Scrub (Acres)</b>	<b>Ruderal/ Disturbed (Acres)</b>	<b>Total MSHCP Riparian/ Riverine (Acres)</b>
Drainage A	0.13	--	0.04	0.17
Drainage B	--	0.01	0.01	0.02
Drainage C	--	--	0.01	0.01
Drainage D	--	--	0.02	0.02
Roadside Ditch	--	--	0.13	0.13
<b>Total</b>	<b>0.13</b>	<b>0.01</b>	<b>0.21</b>	<b>0.35</b>

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### ***Southern Willow Scrub***

The uppermost portion of Drainage A contains 0.13 acre of riparian vegetation consisting of southern willow scrub dominated by sandbar willow (*Salix exigua*), but also containing some mule fat (*Baccharis salicifolia*) and one black willow (*Salix gooddingii*). The southern willow scrub does not have the potential to support least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), or western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) due to a lack of appropriate vegetation structure and for the flycatcher and cuckoo, a lack of suitable habitat size and hydrology.

### ***Ruderal/Disturbed***

The majority of the drainage features (0.21 acre) are disturbed and are either unvegetated or support non-hydrophytic vegetation associated with ruderal areas. The dominant species include non-native grasses and forbs, with a minor component of native forbs and scattered upland shrubs.

### ***Disturbed Buckwheat Scrub***

The central portion of the Project site has been subject to past disturbance that presently supports buckwheat scrub that is dominated by California buckwheat (*Eriogonum fasciculatum*), but that also supports brittlebush (*Encelia farinosa*) and California sagebrush (*Artemisia californica*). Approximately 0.01 acre of Drainage B intersects with this vegetation community.

### **Indirect Impacts**

The Project is not located adjacent to any riparian/riverine areas to be avoided and so there would be no indirect effects to riparian/riverine resources. Furthermore, the proposed development will not drain towards riparian/riverine resources.

### **3.2.2 Vernal Pools**

No vernal pools or other non-vernal pool seasonally ponded depressions occur at the site. Furthermore, the Project site does not contain depression features that exhibit suitable hydrology to support fairy shrimp.

Historic aerial photography (Google Earth 2023) from March 9, 2011, shows ponded areas in the southern portion of the site. However, such ponding is not seen on other historic aeriels from 2006–2023, including imagery from January 22, 2023. Both the

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2010-2011 and 2022-2023 water years had precipitation totals well above average, with the 2010-2011 water year at 184 percent of average and the 2022-2023 water year at 126 percent of average to date as recorded at the Lake Elsinore, California weather station approximately 16 miles from the Project site.<sup>2</sup> Rainfall totaled 4.26 inches January 2023, and 7.14 inches for October 2022–January 2023. Rainfall in 2010-2011 exceeded rainfall in 2022–2023, starting with a heavy precipitation event in December 2010. Total rainfall at the Lake Elsinore weather station totaled 18.41 inches for December 2010–March 2011.

The Project site is highly disturbed from past grading and stockpiling of debris; the ponded areas seen on the March 2011 aerial consist of construction scrapes from past disturbance. Ponding rarely occurs following very heavy precipitation that saturates the sandy loam soils to the extent that water cannot drain, such as in March 2011, but these areas do not typically exhibit hydrology sufficient to support fairy shrimp and do not constitute vernal pools or other features suitable for fairy shrimp.

### **3.3 Mitigation and Equivalency**

#### **3.3.1 Direct Effects**

##### ***Effects on Conserved Habitats***

The Project site is located in the northeastern corner of Cell Group B. However, the Project site is not described for conservation, as the southern portion of the Cell Group is described for conservation to contribute to the expansion of the Motte-Rimrock Reserve. The Project site generally drains to the northeast away from existing and described Conservation Areas. Overall, the Project will result in minimal impacts to conserved habitats, including the 0.13 acre of riparian vegetation (southern willow scrub) associated with Drainage A in the northern portion of the site. The Project site contains 7.74 acres of disturbed buckwheat scrub, with only 0.01 acre of this habitat type associated with the onsite riverine features (Drainage B). The remainder of the Project site consists of developed or disturbed areas, including rural residential properties in the southern portion of the site. The majority of the onsite area has been heavily disturbed and is dominated by non-native grasses and forbs. Approximately 0.21 acre of the 0.35 total riverine areas to be impacted is within the disturbed or

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<sup>2</sup> The 126 percent of average reported here for 2022-2023 includes precipitation for October 2022–June 2023.

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developed areas, including 0.08 acre onsite (Drainages B, C, and D, and 0.13 acre offsite associated with the roadside ditch along Rider Street).

### ***Effects on Covered Species***

The vegetated portions of the Project overall provides general opportunities for birds, reptiles and small mammals; however, the opportunities are limited for Section 6.1.2 species. The willow riparian area consists of a long (400 linear feet) and narrow area dominated by narrow-leaved willow, with a single black willow and some scattered mule fat. Although the riparian vegetation provides habitat for some bird species, the vegetation is not suitable to support the focused Section 6.1.2 species, including least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. The habitat lacks the appropriate vegetation structure for these species, and for the flycatcher and cuckoo there is also the lack of appropriate hydrology. Other riparian obligate birds and woodland or forest bird species such as woodpeckers, pacific-slope flycatcher (*Empidonax difficilis*), and western wood-pewee (*Contopus sordidulus*) are not expected to occur except infrequently in transit during periods of migration/dispersal.

Beyond Section 6.1.2 goals, the Planning Species for Motte-Rimrock subunit include Bell's sage sparrow (*Amphispiza bellii*), cactus wren (*Campylorhynchus brunneicapillus*), coastal California gnatcatcher (*Polioptila californica californica*), Stephens' kangaroo rat (*Dipodomys stephensi*) and long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*). The disturbed scrub at the Project site offers some foraging opportunity for the sage sparrow and gnatcatcher, although neither species is generally expected to nest onsite due to a lack of suitable vegetation components and structure. The site does not contain habitat for cactus wrens. Stephens' kangaroo rat (SKR) has a low potential for occurrence; however, as the Project site is not described for inclusion in the MSHCP Reserve, impacts to SKR habitat will not affect conservation goals for the species. Lastly, the long-spined spineflower was not detected at the Project site and the species is not expected to occur due to the lack of suitable habitat, specifically the lack of appropriate clay soils.

### ***Effects on Linkages and Functions of the MSHCP Conservation Area that Support Section 6.1.2 Resources***

The Project site is not associated with an existing or proposed Linkage and as noted above, the Project site is not described for inclusion in the MSHCP Conservation Area. As such, although the Project site contains Section 6.1.2 resources, the impacts to those resources do not relate to Linkage or MSHCP Conservation Area functions. The

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Project site does contain MSHCP resources providing habitat, including riparian resources, that might support additional species that receive benefits from the MSHCP Section 6.1.2 policies. However, the biological functions of those resources can be replaced through equivalent or superior mitigation.

### ***Functional Analysis***

The Project site generally drains to the northeast away from immediate existing and described Conservation Areas. Drainage A collects offsite runoff from Norrisgrove Drive and conveys the runoff easterly across the site to the roadside drainage ditch along Rider Street. Drainages B, C, and D collect a small amount of runoff from either onsite generation or offsite sources, conveying the runoff in a northeasterly direction, but without clear connections to Drainage A. Hydrologically, to the extent that the site drains to the offsite roadside ditch along Rider Street, flows that reach the drainage ditch enter a storm drain inlet that is presumed to extend under Interstate 215 and several industrial properties before ultimately connecting to the Perris Valley Storm Drain (PVSD) approximately 2.25 miles to the east. The PVSD then confluences with the San Jacinto River.

As the site conveys minimal runoff from either the adjacent residential development to the west or that which is generated onsite, the drainage features provide limited function in conveying water to downstream areas, and provide limited, if any, function relative to flood storage, sediment trapping and transport, and chemical factors such as nutrient retention and transformation, toxicant trapping and pollutant loading. Since Drainage A originates as runoff from the adjacent residential neighborhood, although the southern willow scrub area does not meet the criteria of a wetland, the upper portion of Drainage A is expected to provide some water quality function as it immediately receives urban runoff, and as such there is expected to be some functions related to toxicant trapping and pollutant loading. However, typical dry weather flows would not travel very far into the Project site and is likely restricted to the immediate area of the willow scrub, which explains the occurrence of riparian vegetation in that specific part of the drainage. Beyond the riparian portion of Drainage A and within Drainages B, C, and D, there are limited hydrologic functions. Drainage A, through connection to the downstream roadside ditch, provides conveyance of flows downstream.

The drainages provide limited biological function as described below. None of the plants identified in *Section 6.1.2* of the MSHCP were detected at the Project site, including any Narrow Endemic Plants or Criteria Area Plants. The habitat represented by these woody species offers general foraging opportunities for bird species, including for birds specific to riparian areas. However, due to a combination of factors, including

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the small overall size, lack of appropriate vegetation structure, and for some species inadequate hydrology, the riparian vegetation does not provide suitable nesting habitat for the least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. The southern willow scrub also does not provide habitat for special-status reptiles or amphibians. Riparian obligate birds and woodland or forest bird species such as woodpeckers, pacific-slope flycatcher, and western wood-pewee are not expected to occur except infrequently in transit. The biological functions of the drainages vegetated with upland communities are nearly indistinguishable from the surrounding uplands. These areas do not support any special-status plants or wildlife, including riparian-associated species.

### ***Mitigation***

Impacts to 0.35 acre of MSHCP riparian/riverine areas will be mitigated through the purchase of 0.83 acre of credits from the Riverpark Mitigation Bank. Impacts to 0.13 acre of southern willow scrub will be mitigated through the purchase of re-establishment credits at a 1:1 replacement ratio and an additional amount of either re-establishment or rehabilitation credits at 2:1 ratio, for a total of 0.39 acre of credits to replace the lost functions associated with the southern willow scrub. Although there is limited potential for the southern willow scrub to support Section 6.1.2 species, the willow scrub vegetation does provide a habitat function that is different than the other drainage features being impacted warranting a slightly higher replacement ratio. In comparison, impacts to 0.01 acre of riverine features supporting buckwheat scrub (Drainage B), and 0.22 acre of disturbed/ruderal vegetation (Drainage A-D and the offsite roadside ditch) will be mitigated through the purchase of re-establishment credits at a 1:1 replacement ratio and an additional amount of either re-establishment or rehabilitation credits at 1:1 ratio, for a total of 0.44 acre of credits to primarily replace lost hydrologic functions since the riverine features are not expected to support Section 6.1.2 species. Table 3-2 below summarizes the proposed mitigation for impacts to riparian/riverine resources.

**Table 3-2. Summary of Mitigation for Impacts to Riparian/Riverine Areas**

<b>Drainage Name</b>	<b>Impact Acreage</b>	<b>Mitigation Ratio</b>	<b>Mitigation Acreage</b>
Southern Willow Scrub	0.13	1:1 establishment, and 2:1 re-establishment or rehabilitation (3:1 total)	0.39
California buckwheat scrub	0.01	1:1 establishment, and 1:1 re-establishment or rehabilitation (2:1 total)	0.02
Disturbed/Ruderal	0.21	2:1 re-establishment	0.42
<b>Total</b>	<b>0.35</b>		<b>0.83</b>

The Riverpark Mitigation Bank consists of a wetland mitigation bank that is restoring floodplain habitat adjacent to the San Jacinto River. Since the mitigation bank lands are part of the immediate floodplain of the river, the mitigation bank has created/restored hydrologic functions that are superior to the hydrologic functions associated with the drainage features at the Project site. Furthermore, the mitigation bank biological functions for Section 6.1.2 species are superior to those functions associated with the drainage features as the Project site. As such the purchase of 0.83 acre of credits as mitigation, of which at least 0.35 acre (1:1 replacement ratio) would be establishment credits, would overall be equivalent or superior to avoidance of the riparian/riverine features at the Project site.

If credits are not available at the Riverpark Mitigation Bank, then the DBESP will be revised to approve alternate mitigation. One possible alternative would be mitigation through the Inland Empire Resource Conservation District (IERCD). However, since CDFW is not signatory to the interagency In-Lieu Fee Program (ILFP) through IERCD, then the mitigation would be developer-responsible. The mitigation would require CDFW review of the proposed mitigation site, a habitat management plan, long-term funding for post-restoration habitat maintenance, conservation easement, and a long-term land manager. The Project proponent would retain legal and financial responsibility for completing the mitigation if performed at an IERCD site.

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#### **4.0 NARROW ENDEMIC PLANT SPECIES MITIGATION (SECTION 6.1.3)**

The Project site is not located within the Narrow Endemic Plant Species Survey Area (NEPSSA). As such, there are no MSHCP requirements pertaining to NEPSSA species applicable to the Project, including focused plant surveys and avoidance/mitigation.

#### **5.0 ADDITIONAL SURVEY NEEDS (SECTION 6.3.2)**

##### **5.1 Criteria Area Species Survey Area - Plants**

The Project site is not located within the Criteria Area Plant Species Survey Area (CAPSSA). As such, there are no MSHCP requirements pertaining to CAPSSA species applicable to the Project, including focused plant surveys and avoidance/mitigation.

##### **5.2 Burrowing Owl**

###### **5.2.1 Methods**

The majority of the Project site is within the MSHCP survey area for the burrowing owl [Exhibit 8 – MSHCP Overlay Map]. GLA biologist David Smith conducted focused surveys for the burrowing owl for all suitable habitat areas within the Project site. Surveys were conducted in accordance with survey guidelines described in the 2006 MSHCP Burrowing Owl Survey Instructions. The guidelines stipulate that four focused survey visits be conducted on separate dates between March 1 and August 31. Within areas of suitable habitat, the MSHCP requires a focused burrow survey to map all potentially suitable burrows. The focused burrow survey was conducted on March 17, 2022, along with the first focused owl survey. The remaining surveys were conducted on April 5, May 5, and June 7, 2022. Per the Survey Instructions, the burrowing owl survey visits are to be conducted either within a period from one hour prior to sunrise to two hours after sunrise or two hours before sunset to one hour after sunset.

Both the focused burrow and focused burrowing owl surveys were conducted during weather that was conducive to observing owls outside their burrows and detecting burrowing owl sign and not during rain, high winds (> 20 mph), dense fog, or temperatures over 90° F. Additionally, the focused burrow survey was performed more than 5 days after a rain event. Refer to Table 2-1 in Section 2.0 for survey condition details.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Exhibit 9 identifies the burrowing owl survey areas at the Project site. Transects were spaced no more than 30 meters apart, adjusting for vegetation height

and density, in order to provide adequate visual coverage of the survey areas. At the start of each transect, and at least every 100 meters along transects, the survey area was scanned for burrowing owls using binoculars. All suitable burrows were inspected for diagnostic owl sign (e.g., pellets, prey remains, whitewash, feathers, bones, and/or decoration) in order to identify potentially occupied burrows. Transect locations are provided on Exhibit 9, along with the 500-foot buffer area. Table 5-1 summarizes the burrowing owl survey visits.

**Table 5-1. Summary of Burrowing Owl Surveys**

Survey Date	Biologist(s)	Start/End Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover
3/17/2022	DS	0700/0900	52/62	0-1	Clear
4/5/2022	DS	0630/0830	54/67	0-1	Clear
5/5/2022	DS	0600/0800	58/66	0-1	Clear
6/7/2022	DS	0530/0730	64/68	0-1	Clear

DS = David Smith

## 5.2.2 Results/Impacts

No burrowing owls were observed within the Project site or adjacent areas. Therefore, no equivalency or mitigation measures are required in regard to burrowing owl for this Project. However, the Project site supports approximately 33.86 acres of potential habitat (ruderal/disturbed, disturbed buckwheat scrub) for burrowing owl. As such, per MSHCP Objective 6 for burrowing owls, a qualified biologist will conduct a pre-construction presence/absence survey for burrowing owls within 30 days prior to site disturbance. If burrowing owls are detected onsite, the owls will be relocated/excluded from the site outside of the breeding season following accepted protocols, and subject to the approval of the RCA and wildlife agencies.

## 5.3 Mammals

The Project site is not located within a MSHCP Mammal Survey Area. As such, there are no MSHCP requirements pertaining to small mammals applicable to the Project, including focused survey and avoidance/mitigation.

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#### **5.4 Amphibians**

The Project site is not located within a MSHCP Amphibian Survey Area. As such, there are no MSHCP requirements pertaining to amphibians applicable to the Project, including focused survey and avoidance/mitigation.

#### **6.0 DELHI SANDS FLOWER-LOVING FLY**

The Project site is not located within a Delhi soils mapped within the MSHCP baseline data [Exhibit 4 – Soils Map], and therefore habitat assessments/focused surveys are not required for the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*).

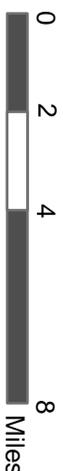
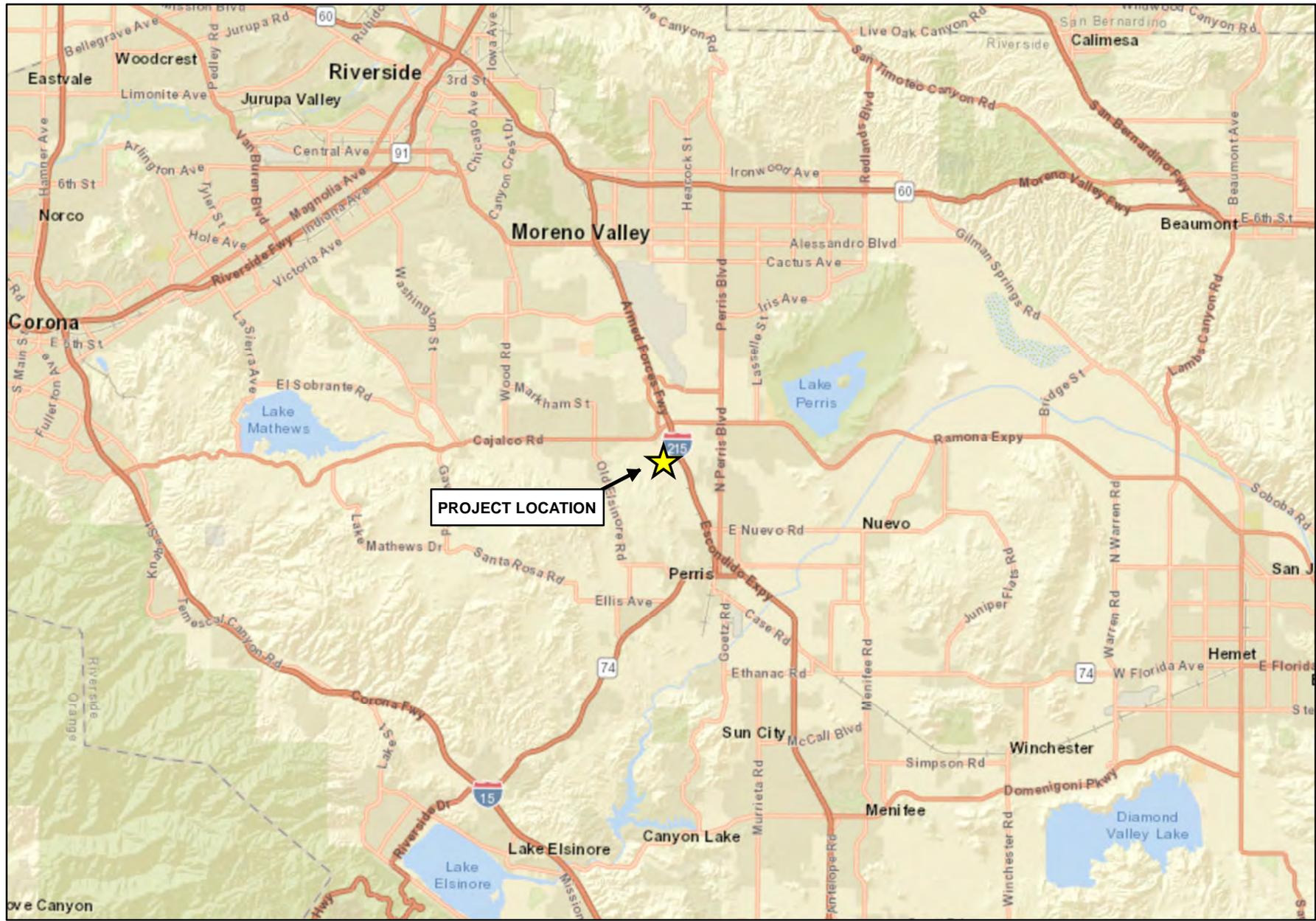
#### **7.0 REFERENCES**

Dudek & Associates. 2003. Western Riverside County Multiple Species Habitat Conservation Plan. Volumes 1 – 5. Prepared for the Transportation and Land Management Agency, County of Riverside, California as part of the Riverside County Integrated Project. Adopted June 2003, currently available at <http://www.rcip.org/conservation.htm>.

Regional Conservation Authority. Multiple Species Habitat Conservation Plan (MSHCP): Information Map. Accessed November 29, 2022.

Regional Conservation Authority Western Riverside County. 2019. Document Library – DBESP Template. Accessed: November 29, 2022.

Source: ESRI World Street Map



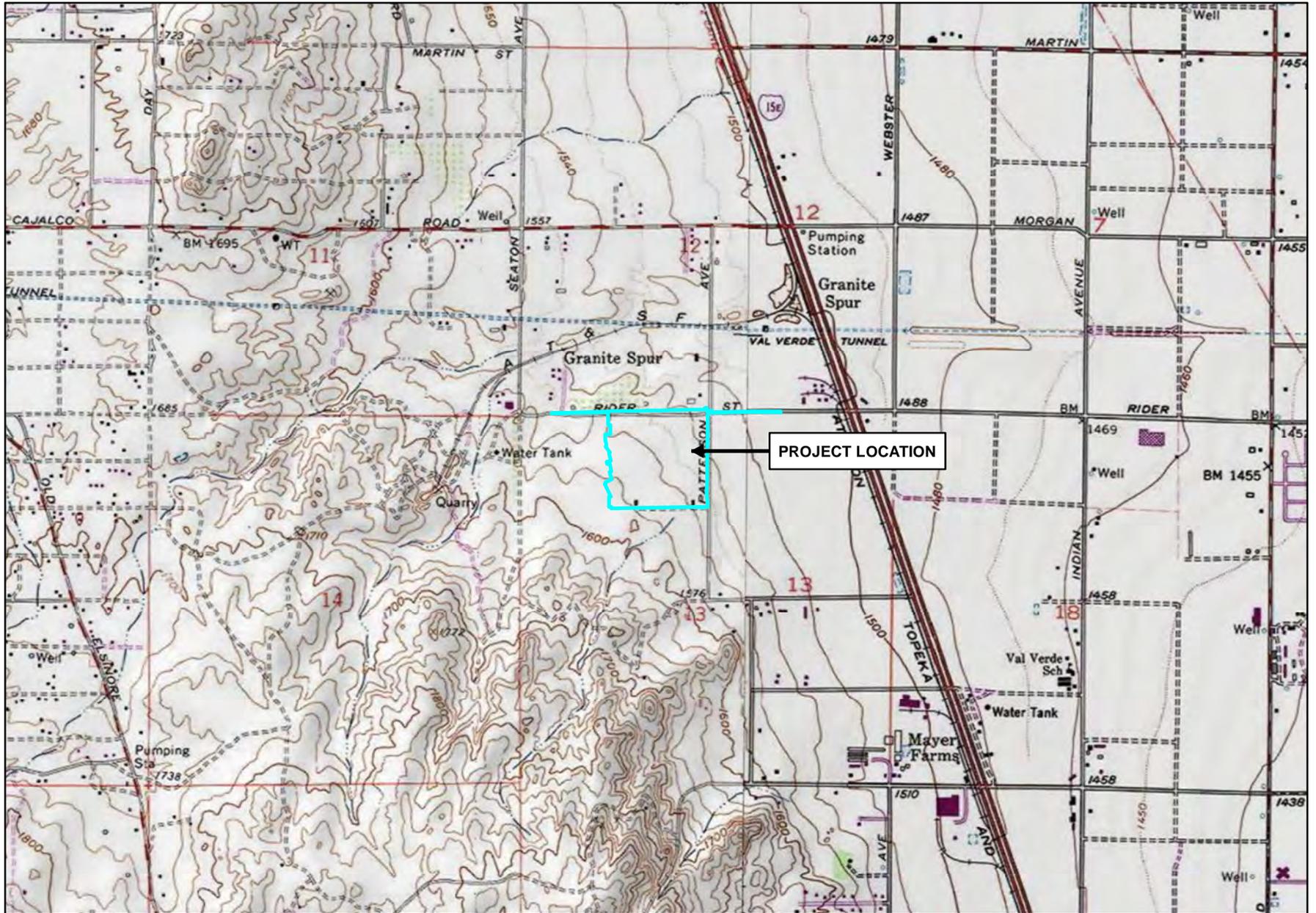
**RIDER STREET & PATTERSON AVENUE PROJECT**  
Regional Map

GLENN LUKOS ASSOCIATES



Exhibit 1

Adapted from USGS Steele Peak, CA quadrangle



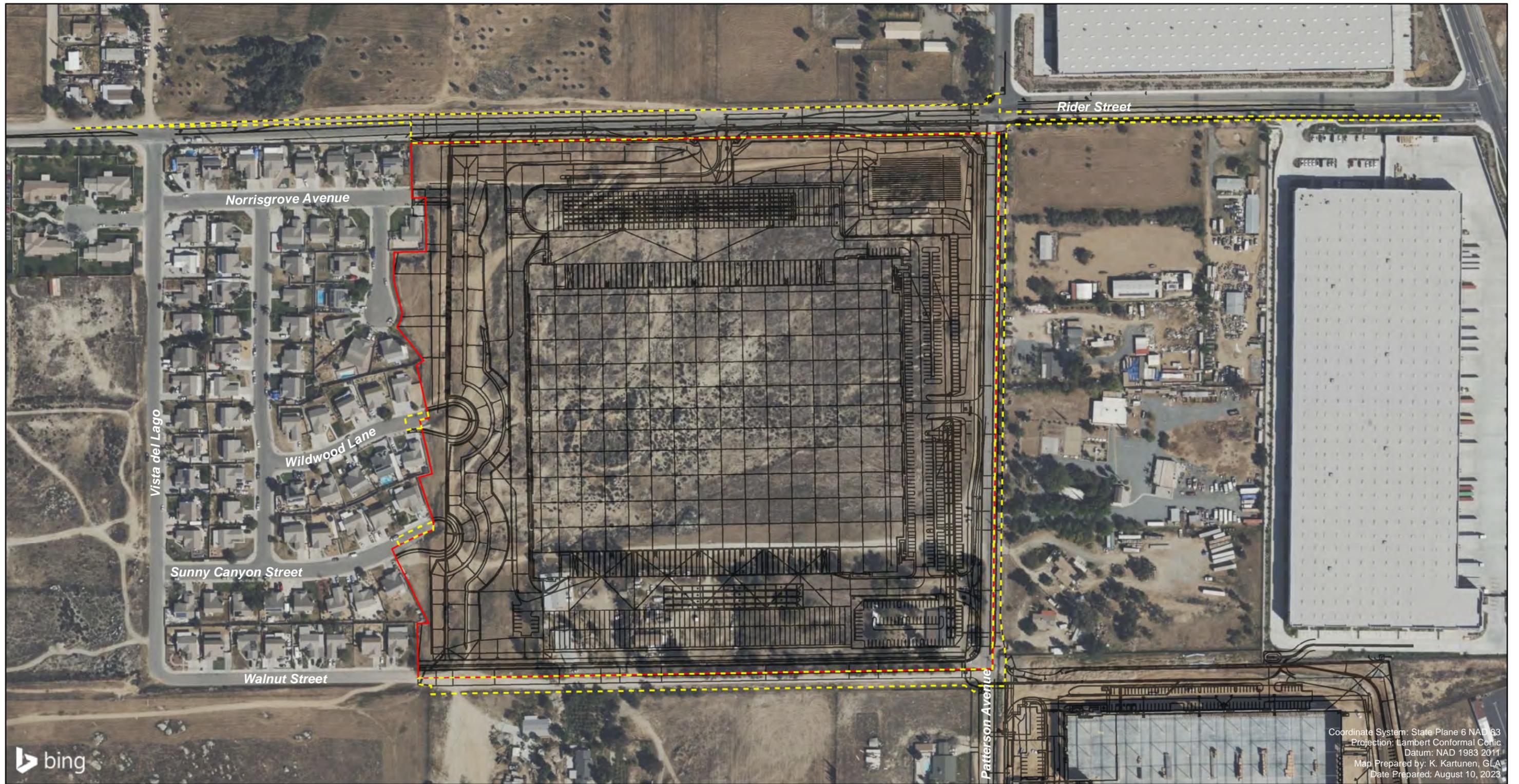
**RIDER STREET & PATTERSON AVENUE PROJECT**

Vicinity Map

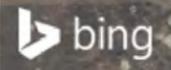
GLENN LUKOS ASSOCIATES



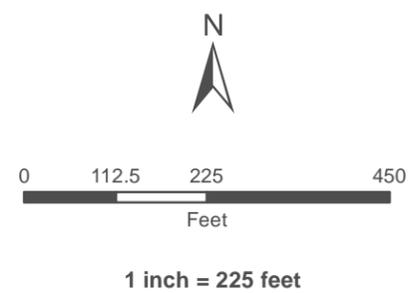
Exhibit 2



Coordinate System: State Plane 6 NAD 83  
 Projection: Lambert Conformal Conic  
 Datum: NAD 1983 2011  
 Map Prepared by: K. Kartunen, GLA  
 Date Prepared: August 10, 2023



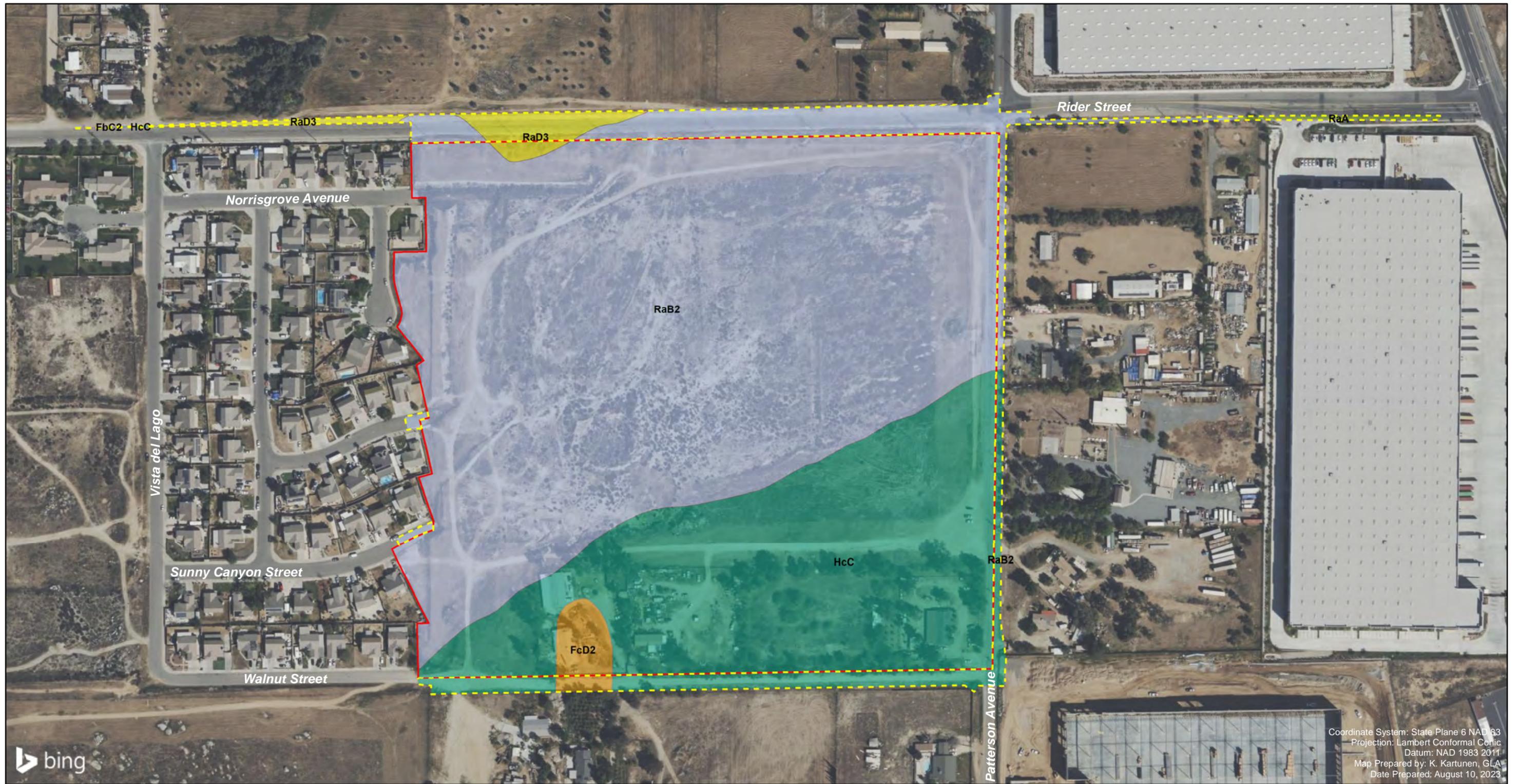
- Project - Onsite
- Project - Offsite
- Project Site Plan



**RIDER STREET & PATTERSON AVENUE PROJECT**  
 Site Plan Map

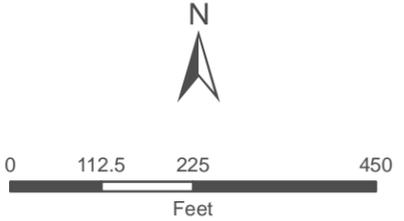
GLENN LUKOS ASSOCIATES

Exhibit 3



Coordinate System: State Plane 6 NAD 83  
 Projection: Lambert Conformal Conic  
 Datum: NAD 1983 2011  
 Map Prepared by: K. Kartunen, GLA  
 Date Prepared: August 10, 2023

- Project - Onsite
- Project - Offsite
- FbC2 - Fallbrook sandy loam, shallow, 5 to 8 percent slopes, eroded
- FcD2 - Fallbrook rocky sandy loam, shallow, 8 to 15 percent slopes, eroded
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- RaA - Ramona sandy loam, 0 to 2 percent slopes
- RaB2 - Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaD3 - Ramona sandy loam, 8 to 15 percent slopes, severely eroded



**RIDER STREET & PATTERSON AVENUE PROJECT**  
 Soils Map

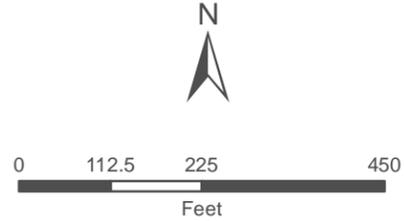
GLENN LUKOS ASSOCIATES

Exhibit 4



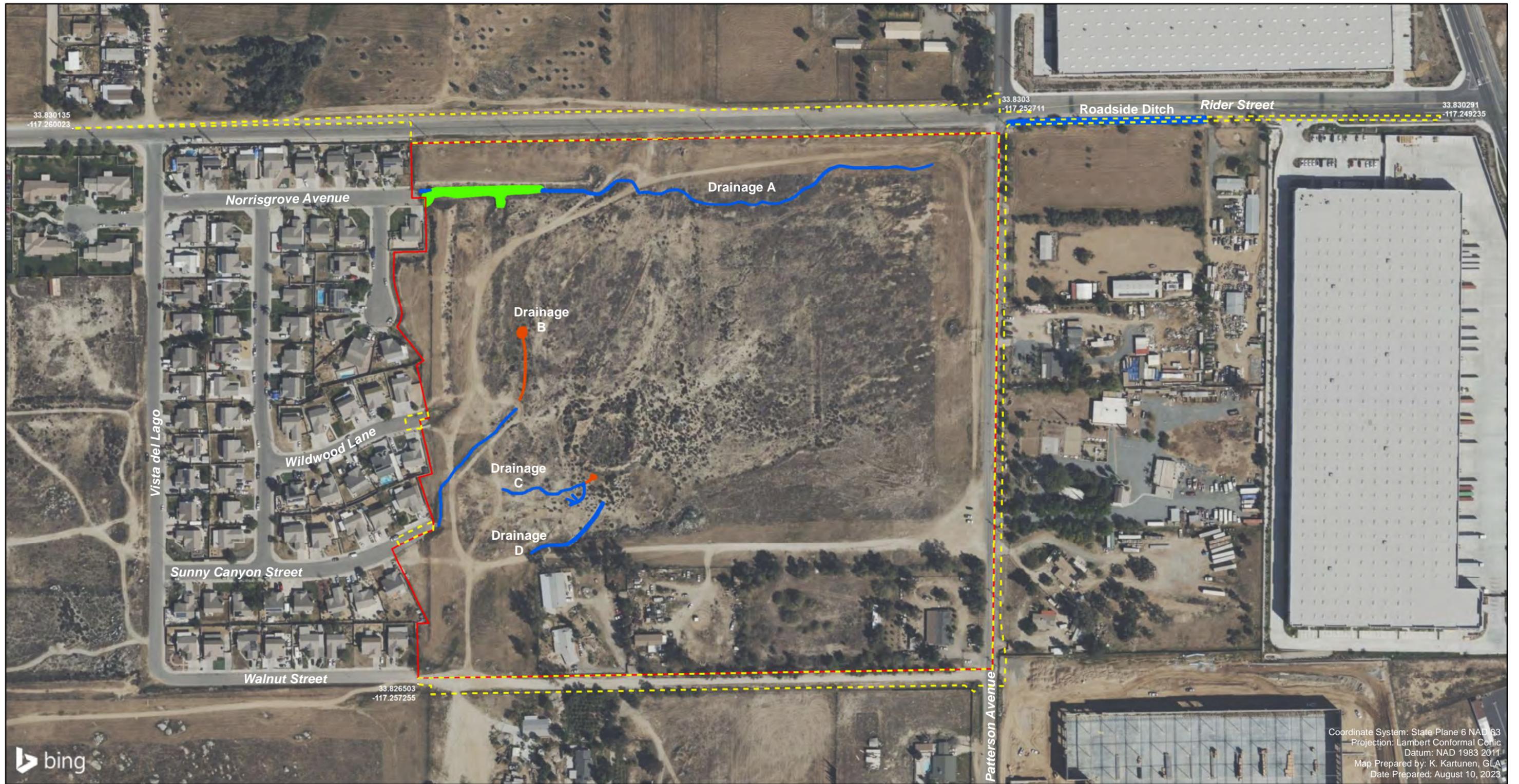
Coordinate System: State Plane 6 NAD 83  
 Projection: Lambert Conformal Conic  
 Datum: NAD 1983 2011  
 Map Prepared by: K. Kartunen, GLA  
 Date Prepared: August 10, 2023

- Project - Onsite
- Project - Offsite
- Developed/Ornamental
- Disturbed Buckwheat Scrub
- Ruderal/Disturbed
- Southern Willow Scrub



**RIDER STREET & PATTERSON AVENUE PROJECT**  
 Vegetation Map

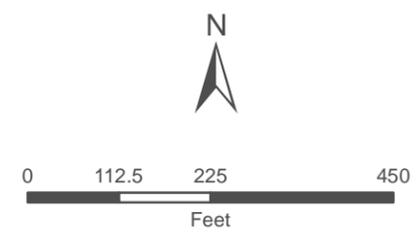
GLENN LUKOS ASSOCIATES   
 Exhibit 5



Coordinate System: State Plane 6 NAD 83  
 Projection: Lambert Conformal Conic  
 Datum: NAD 1983 2011  
 Map Prepared by: K. Kartunen, GLA  
 Date Prepared: August 10, 2023

- Project - Onsite
- Project - Offsite
- MSHCP Riparian**
- Southern Willow Scrub

- MSHCP Riverine**
- Disturbed Buckwheat Scrub
- Ruderal/Disturbed



1 inch = 225 feet

**RIDER STREET & PATTERSON AVENUE PROJECT**  
 MSHCP Riparian/Riverine Map

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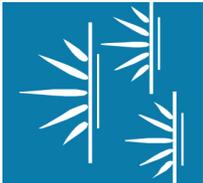
Exhibit 6



Photograph 1: Central view of Drainage A looking southwest.



Photograph 2: View depicting the northern portion of Drainage B, looking southwest.



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Exhibit 7 – Page 1

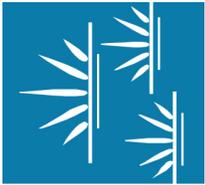
**RIDER STREET &  
PATTERSON AVENUE PROJECT**  
Site Photographs



Photograph 3: View depicting central portion of Drainage C, looking east.



Photograph 4: View depicting southern end of Drainage D, looking northeast.



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Exhibit 7 – Page 2

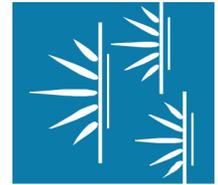
**RIDER STREET &  
PATTERSON AVENUE PROJECT**  
Site Photographs



Photograph 5: View depicting western terminus of roadside ditch, immediately south of Rider Street.



Photograph 6: View depicting eastern terminus of roadside ditch, immediately south of Rider Street.

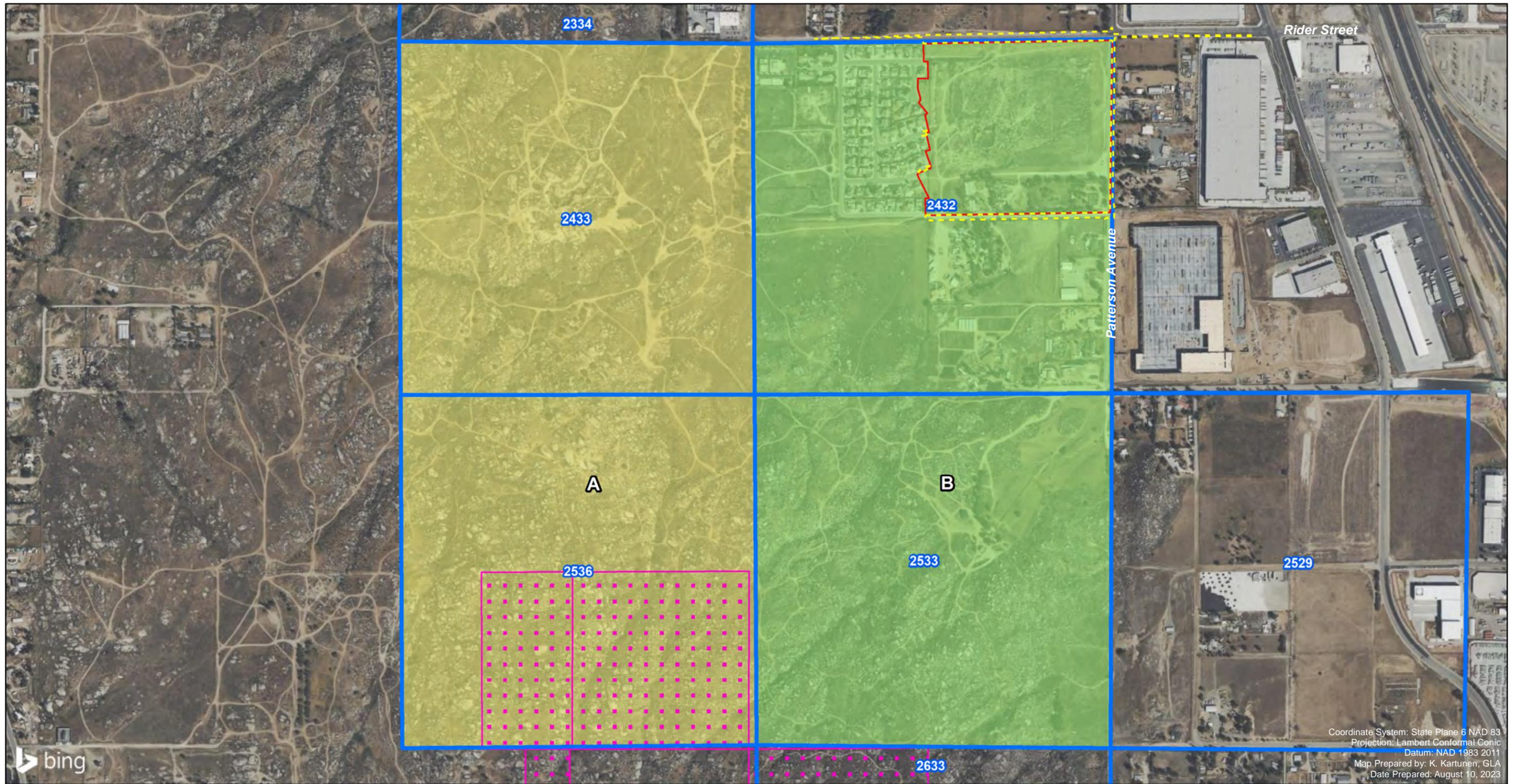


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Exhibit 7 – Page 3

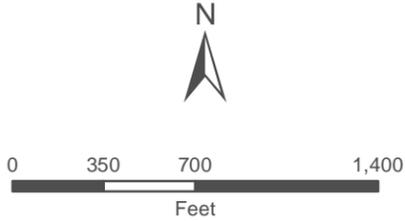
**RIDER STREET &  
PATTERSON AVENUE PROJECT**

Site Photographs



Coordinate System: State Plane 6 NAD 83  
 Projection: Lambert Conformal Conic  
 Datum: NAD 1983 2011  
 Map Prepared by: K. Kartunen, GLA  
 Date Prepared: August 10, 2023

- Project - Onsite
- Project - Offsite
- Criteria Cell
- Public Quasi Public Conserved Lands
- Cell Group A
- Cell Group B



1 inch = 700 feet

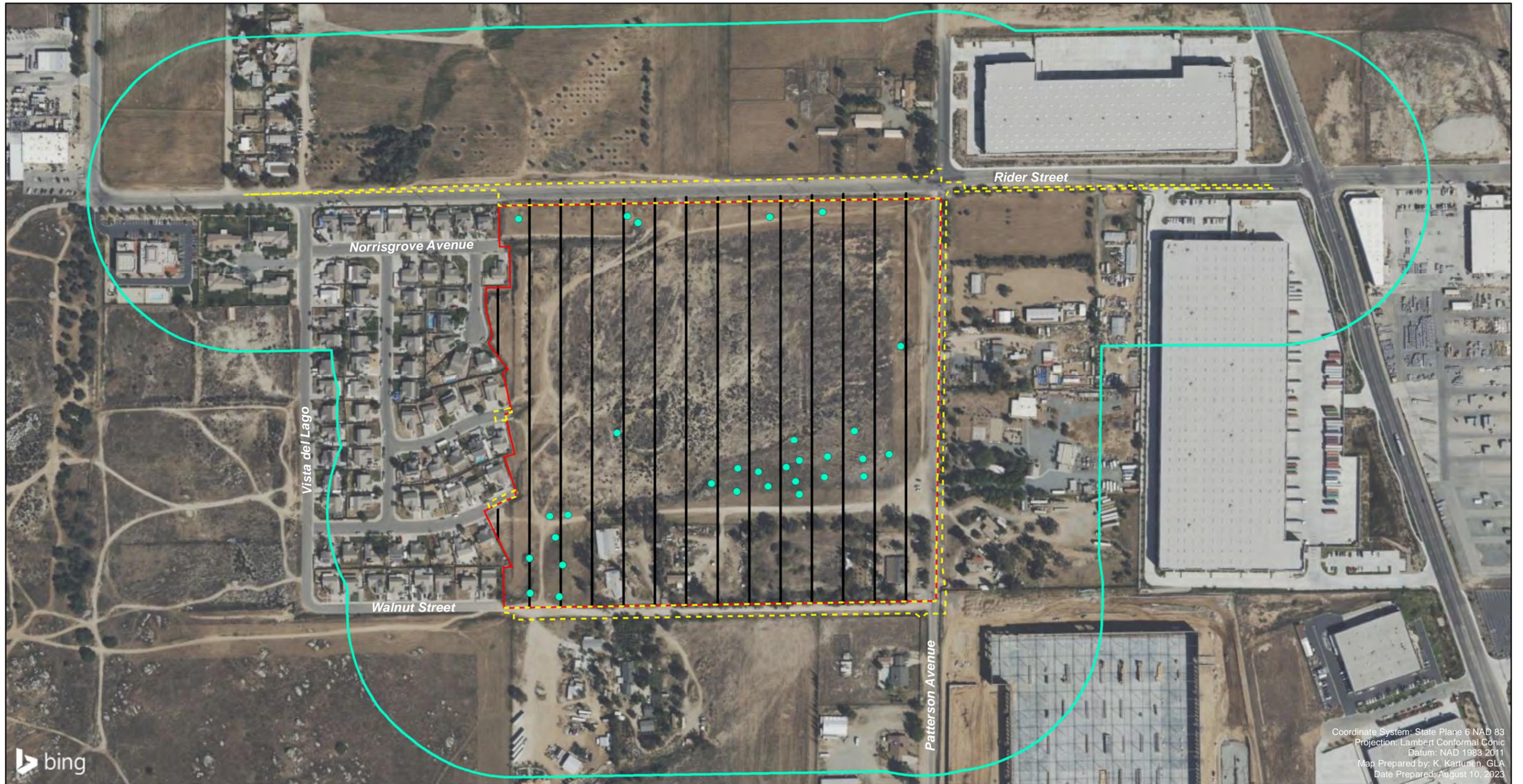
**RIDER AND PATTERSON  
 BUSINESS CENTER**

MSHCP Overlay Map

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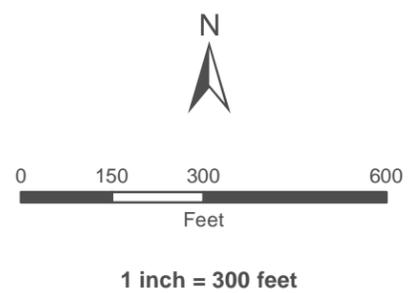


Exhibit 8



Coordinate System: State Plane 6 NAD 83  
 Projection: Lambert Conformal Conic  
 Datum: NAD 1983 2011  
 Map Prepared by: K. Kartunen, GLA  
 Date Prepared: August 10, 2023

- Project - Onsite
- Project - Offsite
- 500' Visual Survey Area
- Transect
- Burrow



## RIDER STREET & PATTERSON AVENUE PROJECT

### Burrowing Owl Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 9