BIOLOGY REPORT FOR THE LAS LOMAS GRADING PROJECT

Las Lomas, Vista, California

JUNE 7, 2023

Prepared for:

Mr. James W. Wheeler
1787 King's Road
Vista, CA 92084

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June 7, 2023

Mr. James W. Wheeler
1787 King's Road
Vista, CA 92084

Subject: Biological Resources Report - Las Lomas Grading Project

Dear Mr. Wheeler,

Tierra Data Inc. is pleased to provide you with this Biological Resources Report for the development of the proposed Las Lomas Grading Project (Project) in the City of Vista (City). The report describes the property's current biological conditions, vegetation communities, plant and wildlife species observed or detected during surveys, and identifies extant resources that are sensitive, in addition to sensitive species with potential to occur within the property. It was developed to provide the project applicant, City, resource agencies, and the public with updated biological data and an analysis of effects on biological resources, satisfy the review of the proposed development under the California Environmental Quality Act, and demonstrate compliance with federal and state regulations.

Development effects have been assessed and mitigation measures are proposed to offset the proposed development's unavoidable significant impacts to sensitive biological resources.

If you have questions, please contact Elizabeth Kellogg or Ben Van Allen by phone at (760) 749-2247, or by email at liz@tierradata.net or ben@tierradata.net.

Sincerely,

PhD, Certified Senior Ecologist

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ABBREVIATIONS

AMSL	above mean sea level
APN	Assessor's Parcel Number
BMP	Best Management Practice
CAGN	coastal California gnatcatcher
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Acts
CEQA	California Environmental Quality Act
CFG	California Fish and Game
City	City of Vista
CRPR	California Rare Plant Rank
CSS	Coastal Sage Scrub
CSS-D	Coastal Sage Scrub-Disturbed
CWA	Clean Water Act
DEV	Developed Habitat
DH	Disturbed Habitat
ESA	Endangered Species Act
FPA	Focused Planning Area
ft	foot/feet
GPS	global positioning system
HCP	Habitat Conservation Plan
LSAA	Lake and Streambed Alteration Agreement
MHCP	Multiple Habitat Conservation Program
MBTA	Migratory Bird Treaty Act
MMRP	Mitigation, Monitoring, and Reporting Program
NPPA	Native Plant Protection Act
NCCP	Natural Community Conservation Planning
Project	Las Lomas Grading Project
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SMC	Southern Mixed chaparral
SSC	Species of Special Concern
SWPPP	Storm Water Pollution Prevention Plan
TDI	Tierra Data Inc.
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service

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1.0 INTRODUCTION

Tierra Data Inc. (TDI) is pleased to provide you with this Biological Resources Report for the proposed Las Lomas Grading Project in the northeastern portion of the City of Vista (City). This report was prepared to provide the project applicant, City, resource agencies, and the public with biological data and analysis of the effects on biological resources. The report is intended to satisfy review of the proposed project under the California Environmental Quality Act (CEQA) and to demonstrate compliance with federal and state regulations. This report describes the project site's current biological conditions, vegetation communities, plant and wildlife species observed or detected during the surveys, identifies extant resources that are sensitive, and sensitive species with potential to occur within the project site. In addition, project effects are assessed, and mitigation measures are proposed to offset the proposed project's unavoidable significant impacts to sensitive biological resources. The Las Lomas Grading Project consists of grading a site for a single-family residence on a single parcel, and improving a road that provides fire access to the wider area. These actions are considered as a single project in this report, but are discussed separately, in part, as the project components differ in nature and precise location. The grading for the single family residence (Lot 7) is proposed to occur on a property/parcel controlled by the proponent, while the fire access road passes along this parcel and passes between several other, privately-owned parcels south of the Lot 7 parcel.

1.1 Property Location

The 2.93-acre Lot 7 property is mostly vacant and lies east of Tierra Del Cielo and south of Las Lomas on the western slopes of the San Marcos Mountains in the northeast portion of the City, in northern San Diego County, California (Figure 1). The Lot 7 property is comprised of a single parcel, Assessor's Parcel Number (APN) 174-260-15. This parcel is currently undeveloped and supports native vegetation (Figure 2). The road which services this property will be widened to allow fire department access and constitutes the Fire Access Road portion of the project. The portion of road that will be widened starts to the north on Las Lomas, to the northeast of the property, heads west to and turns south along Tierra Del Cielo and ends at a gate about 100 feet (ft) north of the intersection with Camino Culebra. The site is shown on the U.S. Geological Survey 7.5-minute San Marcos Quadrangle in Township 11 South, Range 3 West in Section 16, San Bernardino Meridian.

The Lot 7 property is adjacent to the City's Warmland Highlands Specific Plan, within an Open Space Residential General Plan designation (City 2015a) allowing 0.4 dwelling units per acre, in an Open Space zone as identified in the City's Zoning Map (City 2015b).

1.2 Proposed Project

The proposed Las Lomas Grading Project on the Lot 7 parcel is a 2.93 gross acre property that will yield a 2.56 usable acre site upon completion of grading. A single-family residence, two garages, and an accessory dwelling unit will ultimately be constructed on the site. The average elevation of the site is 890 ft above mean sea level (AMSL) with a high point of 906 ft AMSL and a low point of 864 ft AMSL. The site will be largely surrounded by native habitat but overlooks the surrounding properties to the west and south and north and sits slightly lower than the adjoining properties to the east (Figure 3). Utility and Vista Irrigation District easements run along the north, west and south side of the parcel.

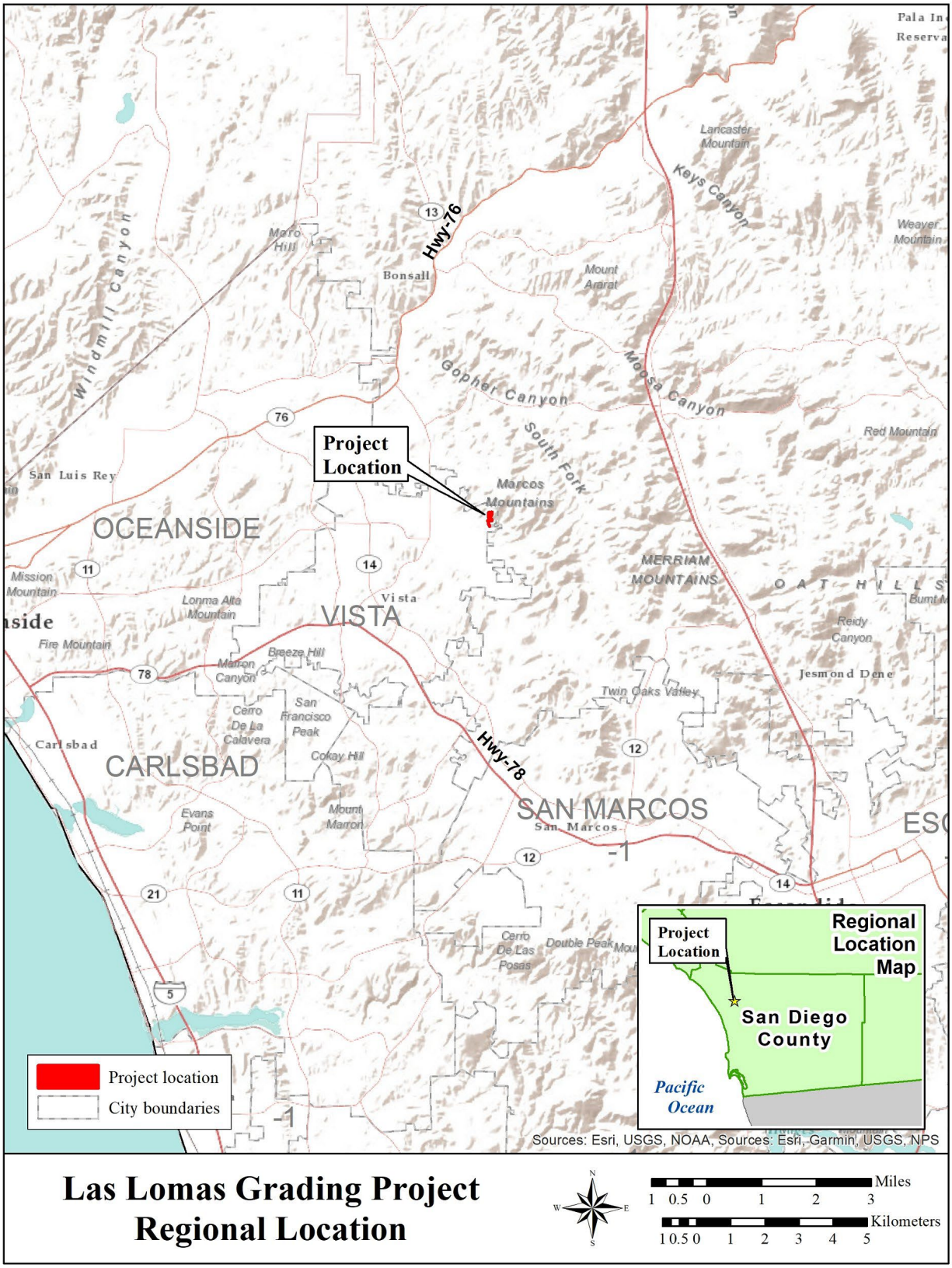

Figure 1: Las Lomas Grading Project – Regional Location

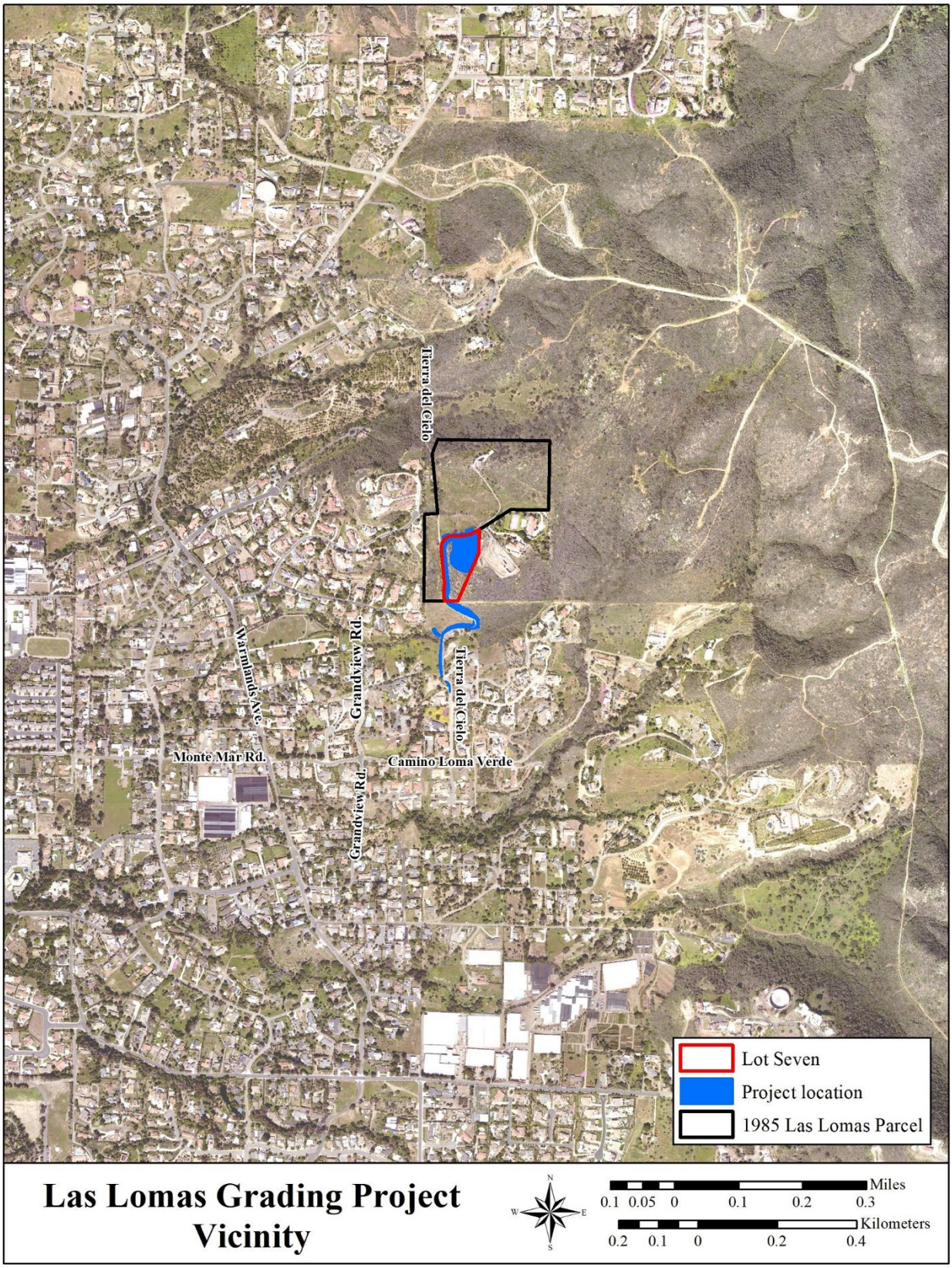

Figure 2: Las Lomas Grading Project – Vicinity

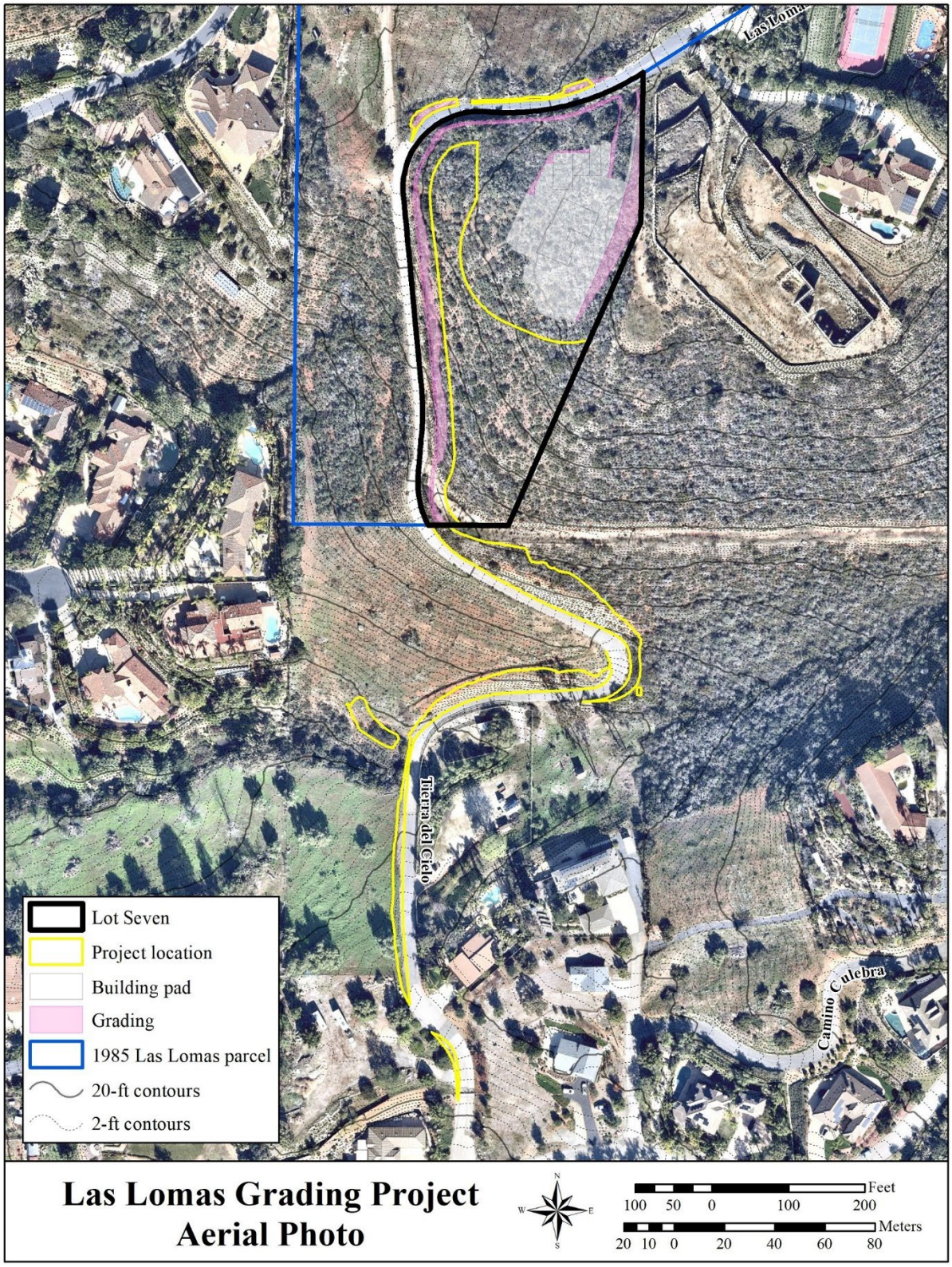

Figure 3: Las Lomas Grading Project – Aerial Image of Site

Access will be from Las Lomas, which will be widened to 24 ft in width to provide fire and traffic access i.e., the Fire Access Road portion of the project, to service the Lot 7 portion of the project, the other residences off Las Lomas, and because further development is planned to the north of this parcel across Las Lomas. The northeast end of the section of road which will be widened is at an elevation of 870 ft AMSL and is north of the Lot 7 parcel. From this point the road heads downhill to the west and turns into Tierra Del Cielo, where shortly after running along the west side of the Lot 7 parcel it has a "hairpin" turn which will be widened to provide better road visibility. It then continues south and crosses a steep gully where the road reaches its lowest elevation of 692 ft AMSL and will narrow to 20 ft in width to prevent any input of fill into the gully. The road then will widen back to 24 ft width and ends about 100 ft north of the intersection with Camino Culebra at an elevation of 709 ft AMSL. The road widening fits entirely within the existing easement for the road. Both the single-family residence pad and the road widening will make use of the local crystalline bedrock as a retaining wall to significantly reduce cut slope area.

2.0 METHODS

2.1 Surveys and Limitations

Before performing field surveys, existing biological information for the site was reviewed including a California Natural Diversity Database search conducted to identify sensitive plant and wildlife species historically noted in the vicinity of the property (1-mile radius).

Surveys were performed at various times during 2021 and 2022 (Table 1).

Table 1: Biological Surveys.

Survey	Date(s)	Personnel
Vegetation mapping, general zoological/botanical and mapping of Parry's tetracoccus (*Tetracoccus dioicus)* and wart-stemmed ceanothus (*Ceanothus verrucosus*)	8/26/21 8/31/21 1/21/22	BV, DH, MD
Decumbent goldenbush (*Isocoma menziesii* var. *decumbens*) mapping	9/15/21	DH

BV = Ben Van Allen, DH = Danielle Hankins (8/31 surveys), MD = Madison Delgado (1/21/22 survey)

The surveys were performed at appropriate times to maximize detectability of sensitive species. Although rainfall patterns in the Fall 2021 season were not optimal for native annual plants, many were visible and identifiable during the survey. Complete inventories of the biological resources present on a site often require many hours of survey at different times of day, during different seasons of the year, over more than one year. Some animal species are active only at night, around sunrise, or around sundown. Bird activity is highest just after sunrise. Other species could be on site in such low numbers that they could have been missed; however, through literature review, study of existing databases of species distribution, and knowledge of habitat requirements and distribution, the probability of a particular species being present on a site can often be predicted with a high level of confidence. This report, combined with the result of all surveys performed by TDI represents TDI's best effort to identify potential biological constraints to development.

2.1.1 Vegetation Mapping and General Zoological/Botanical Survey

TDI Biologists Ben Van Allen and Danielle Hankins visited the proposed project site on August 26 and 31, 2021, to conduct vegetation mapping pursuant to Holland (1986) and a general botanical and zoological survey of the proposed project site, and to map two rare species already documented at the site, Parry's tetracoccus and wart-stemmed ceanothus (TDI 2014). The TDI biologists recorded all plant and wildlife observations, while creating a map of the existing vegetation communities, and taking photographs. TDI biologists Ben Van Allen and Madison Delgado visited the road alignment on January 21, 2022, and conducted vegetation mapping and a general botanical and zoological survey of the alignment and map any rare species that occur along the road improvement area of the proposed project.

2.1.2 Wetland Delineation

During the initial vegetation mapping and surveys, the property was assessed for areas that could be jurisdictional to the U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), or San Diego Regional Water Quality Control Board (RWQCB). There were no obvious USACE or CDFW jurisdictional streams or creeks on site and as a result, no wetland delineation was performed.

2.1.3 Coastal California Gnatcatcher Survey

While there is a very low likelihood of occurrence for the coastal California gnatcatcher (*Polioptila californica*; CAGN) on the project area, surveys for the species were conducted on the adjacent 1985 Las Lomas parcel in 2022 under the U.S. Fish and Wildlife Service (USFWS) protocol by USFWS-permitted Biologist Alicia Hill (TE #06145B-2), in accordance with the February 28, 1997 protocol for breeding season surveys in areas not actively participating in the Natural Community Conservation Planning (NCCP) Act interim Section 4(d) process (USFWS 1997). These surveys were conducted in Spring 2022 (March 24 to May 12). Full surveys details are provided in the report submitted to USFWS July 15, 2022 (TDI 2022). While this parcel (Lot 7) was not as intensively surveyed, the survey results from the adjacent parcel and any observations made on this parcel will be noted in this report.

2.1.4 Rare Plant Mapping

Site surveys performed by TDI in 2014 discovered Parry's tetracoccus and wart-stemmed ceanothus adjacent to this parcel. As these are long-lived shrub species TDI biologists performed a census and detailed mapping of these species on site during the initial surveys on August 26 and 31, 2021 using sub-meter global positioning system (GPS) device. During the general botanical surveys performed by TDI in 2021 the special status species decumbent goldenbush (*Isocoma menziesii* var. *decumbens*; California Rare Plant Rank [CRPR] 1B.2) was also discovered growing adjacent to the parcel. On September 15, 2021, decumbent goldenbush was mapped and censused on the site using sub-meter GPS.

3.0 RESULTS

3.1 Existing Conditions and Surrounding Land Uses

The Lot 7 parcel is on the west facing slope of a ridge extending from the taller San Marcos Mountains, bordered by a valley to the north and another to the southeast, the Warmlands Road area of the City is to the west below it (Figure 3). The high point of the parcel is near the northeast corner at 908 ft. AMSL, and the low point is the southwest corner at 785 ft AMSL. The current condition of the site is undeveloped, with native vegetation covering the parcel other than an area in the north of the parcel that was cleared in 2021.

The soil on the majority of the site is Las Posas stony fine sandy loam, while the last 100 ft of the southern end of the road widening alignment is in Las Posas fine sandy loam, eroded (San Diego Association of Governments [SANDAG] 2014). Las Posas soils are Gabbro soils known to support sensitive plant species. The bedrock at the site is the undivided Cretaceous Gabbro characteristic across most of the San Marcos Mountains (California Geologic Survey 1977).

The Lot 7 parcel is at the northeast uphill limit of the Carlsbad Hydrologic Unit and the Buena Vista Creek watershed (RWQCB 1995). It is adjacent to the City's Warmland Highlands Specific Plan, within an Open Space Residential General Plan designation (City 2015a) allowing 0.4 dwelling units per acre, in an Open Space zone as identified in the City's Zoning Map (City 2015b). It is also within a Very High Fire Hazard Severity Zone (CalFire 2022). All properties along the road except for the southernmost on the east side of the road near Camino Culebra are within the Very High Fire Hazard Severity Zone.

Historically, the Lot 7 property remained in a natural state as agriculture and development expanded in Vista in the first half of the twentieth century (Historic Aerials 2022). As areas in all directions from the parcel were cleared for agriculture or development over the years, this parcel was left untouched. In the third quarter of the twentieth century a small amount of disturbance occurred in the parcel along Las Lomas, but vegetation regrew. Much of the parcel burned in 2007, but the vegetation was left to regrow naturally, leading to fire sprouting shrubs dominating much of the slope. The northern quarter of the parcel, which has a slight north-facing slope, supports Diegan coastal sage scrub (CSS), while the area to the south, which slopes west or south, supports southern mixed chaparral (SMC). A significant amount of the CSS south of Las Lomas Road was cleared in early 2021.

Tierra Del Cielo did not exist in its current alignment until the 1970s, though by the 1960s, dirt roads allowed travel through the southern portion of the area that the road now serves. Orchard agriculture occurred on both sides of the road south of the gully and the hairpin turn from the 1930s or earlier until houses started to be built in the early 1980s. North of the gully the area of the road remained in a natural state, though the Kings Road gated community was constructed a short distance to the west of the north half of the existing road in the mid-1980s. Currently, Tierra Del Cielo south of the Lot 7 parcel is bounded to the east by SMC in a natural state south to the hairpin curve. To the west of Tierra Del Cielo along the Lot 7 parcel is a continuation of the slope of the Lot 7 parcel, with the same fire-adapted shrubs and SMC vegetation. South of the Lot 7 parcel the west side of Tierra Del Cielo is entirely cleared disturbed or developed properties, other than a strip of SMC following the gully that crosses under Tiera Del Cielo just south of the hairpin curve. The east side of Tierra Del Cielo south of the hairpin curve is bordered by developed properties (Figure 3 and Figure 4).

3.2 Biological Resources

3.2.1 Vegetation Communities

Two distinct vegetation communities, as described by Holland (1986) and Oberbauer et al (2008), were identified on the Lot 7 parcel (Figure 4; Table 2); CSS—some of which was recently cleared (disturbed coastal sage scrub [CSS-D])—and SMC. Along the fire access road these two communities were identified, as well as a significant amount of disturbed (DH) and developed (DEV) habitats as it passes by more developed areas south of the Lot 7 property. A detailed description of the vegetation communities is provided below. Table 2 (on the Lot 7 parcel) and Table 3 (off site of the Lot 7 parcel but within the survey area) lists the vegetation communities with Holland Codes. The Multiple Habitat Conservation Program (MHCP) categorizes vegetation communities by Groups A through F, with Group A being the most sensitive and Group F the least (SANDAG 2003). Appendix A lists the plant species observed on site.

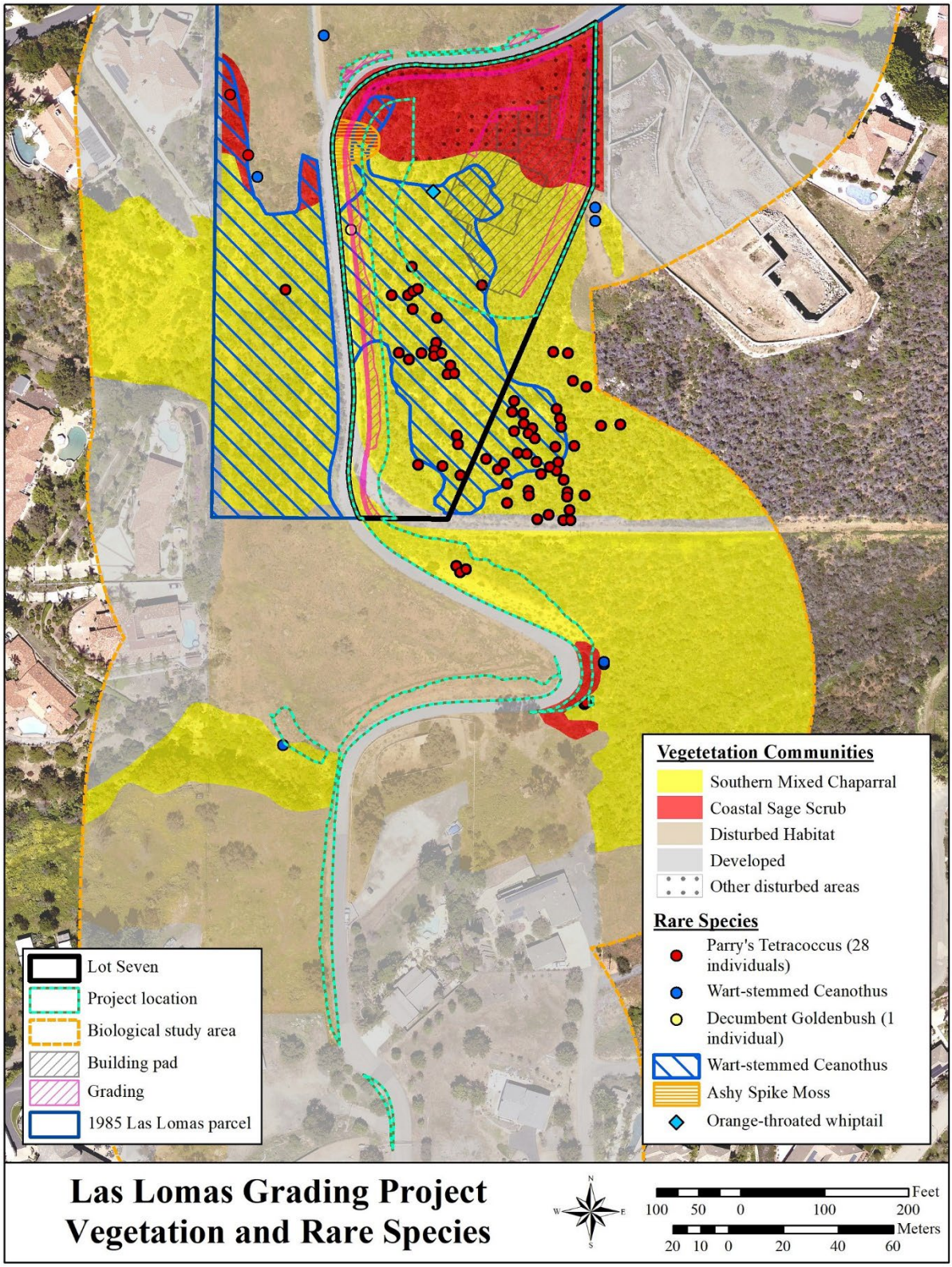

Figure 4: Las Lomas Grading Project Vegetation Communities and Sensitive Species.

Table 2: Vegetation Communities On Site on Lot 7 Parcel.

Vegetation Community (Holland Code)	On Site (acres)
Group C – Coastal Sage Scrub	
Coastal sage scrub (32500)	0.42
Coastal sage scrub – disturbed (32500)	0.42
Group D – Chaparral	
Southern mixed chaparral (32720)	2.00
Group F – Other	
Developed (12000)	0.09
Total	**2.93**

Table 3: Vegetation Communities Within Study Area Outside Lot 7 Parcel.

Vegetation Community (Holland Code)	In Biological Study Area Off Lot 7 Parcel (acres)
Group C – Coastal Sage Scrub	
Coastal sage scrub (32500)	0.14
Coastal sage scrub – disturbed (32500)	0.09
Group D – Chaparral	
Southern mixed chaparral (32720)	5.19
Group F – Other	
Disturbed habitat (11000)	5.49
Developed (12000)	12.33
Total	**23.24**

3.2.1.1 Diegan Coastal Sage Scrub (Including Disturbed)

Although it has been greatly reduced from its historical distribution, CSS is one of the major shrub types in southern California, occupying xeric sites with shallow soils. Dominated by drought-deciduous shrub species with relatively shallow root systems and open canopies, CSS communities often contain a substantial herbaceous component. CSS occurs along the coast from Los Angeles to Baja California, Mexico (Baja; Holland 1986), where it supports several endangered, threatened, and rare vascular plants, as well as several bird and reptile species that have been listed or are candidates for federal listing. CSS is a target habitat for conservation under the state's NCCP Program.

The CSS on the Lot 7 parcel occupies the north-facing slope of the mount that the parcel is on adjacent to Las Lomas. In the past, CSS likely filled and ringed the entire valley which passes across Las Lomas and runs immediately to the north of the parcel. With the parcels to the east developed and the valley floor cleared, the CSS here is a remnant patch, less than an acre with an even smaller remnant patch across Tierra Del Cielo and heading into residential Vista. This patch is dominated by typical sage scrub species such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel

sumac (*Malosma laurina*), black sage (*Salvia mellifera*), spicebush (*Cneoridium dumosum*), and scattered lemonadeberry (*Rhus integrifolia*) shrubs, but also some more typical SMC- or inland-occurring shrubs including sugarbush (*Rhus ovata*) and wart-stemmed ceanothus (*Ceanothus verrucosus*; CRPR 2B.2). A substantial amount of the CSS on this parcel was cleared over the last year. Stands of lemonade berry and sugarbush with vegetation surrounding them remain. The openings this created support native and non-native grasses and herbaceous species.

On the outside of the hairpin curve, the fire access road passes a very small patch of CSS. This approximately 1/7th of an acre patch is small enough that it could have grown in response to disturbance in an area previously dominated by SMC, however, it contains two of the rare shrub Parry's tetracoccus (*Tetracoccus dioicus*; CRPR 1B.2).

3.2.1.2 Southern Mixed Chaparral

SMC is composed of tall (typically between 10 and 20 ft), broad-leaved sclerophyllous shrubs that often form nearly impenetrable stands on mesic, rocky north-facing slopes. It generally has a poorly developed understory, but instead may contain a large component of dead plant matter. It is common within San Diego County and provides important habitat for wide-ranging species such as mule deer (*Odocoileus hemionus*), mountain lion (*Felis concolor*), and golden eagle (*Aquila chrysaetos*).

SMC occurs across the southern three quarters of the Lot 7 parcel, on west and south facing slopes. The large swath of the SMC is dominated by a near monoculture of wart-stemmed ceanothus, most which germinated after the 2007 fire. This rare shrub species lives for decades. Peppered within the ceanothus and surrounding it the SMC is characterized by chamise (*Adenostoma fasciculatum*), mission manzanita (*Xylococcus bicolor*), laurel sumac, spicebush, and black sage. Twenty-two Parry's tetracoccus occur within the SMC and among wart-stemmed ceanothus on the southern half of the Lot 7 parcel.

South of the Lot 7 parcel, the fire access road passes a substantial amount of SMC before entering a more developed section of the City. East of the road, the SMC of the Lot 7 parcel continues along the road for the next 370 ft, though the road is cut into a steep slope and the habitat is well above it. Three Parry's tetracoccus grow at the edge of the SMC in this section, with one even growing out of the bare mineral soil on the steep slope of the road cut. South of the hairpin turn, SMC on the west side of the road fills the steep gully that heads west. Wart-stemmed ceanothus occurs in the SMC on both sides of the road and was not exhaustively mapped distant from the road, but only a few are close to the road.

3.2.1.3 Disturbed Habitat

DH occurs where habitat has been repeatedly cleared and where the natural topography has been altered without a natural community, agriculture or maintained landscaping covering it. Much of this area south of the hairpin turn was once orchard agriculture, though the large area on the inside of the hairpin turn is repeatedly cleared (since 2002/3) natural habitat and disturbed soil.

3.2.1.4 Developed

DEV occurs where permanent structures and/or pavement have been placed, or where landscaping is clearly tended and maintained, preventing the growth of native vegetation. The Tierra Del Cielo and Las Lomas Roads define the western and northern boundaries of the parcel.

3.2.2 Jurisdictional Wetlands

The site was assessed for signs of areas that could be jurisdictional to the USACE, CDFW, or San Diego RWQCB.

There are no obvious drainage features on the Lot 7 parcel. To the immediate south of the hairpin turn, the road crosses over a concrete pipe which drains a swale east of the road into a steep gully on its west side. This drainage is clearly non-jurisdictional to the east of the road but is hard to judge due to dense vegetation and a drop of roughly 14 ft from the road to the bottom of the gully on the western side of the road. Further to the west this drainage never increases in size or becomes more clearly defined and may not be jurisdictional. Notwithstanding the status of the drainage, the proposed project design ensures that it will not receive any fill or other impacts and that all work will stay above and behind the outfall of the concrete pipe.

3.2.3 Plants

The habitats on site support plants representative of CSS, SMC, DH, and landscaped areas. Notably the SMC on the Lot 7 parcel is largely composed of the rare shrub wart-stemmed ceanothus with the rarer shrub Parry's tetracoccus growing among the other shrubs. The site is relatively weed free, though non-native plants are colonizing the area recently cleared. Approximately 81 species of plants were detected (Appendix A).

3.2.4 Animals

Similarly, the site supports typical southern California species of CSS and SMC though not the most sensitive species that are often associated with these habitats. A total of 24 species of animals were recorded during surveys (Appendix B).

3.2.5 Rare, Endangered, or Sensitive Species and Habitats

3.2.5.1 Sensitive Habitats

All habitats on site apart from DEV are considered sensitive by the USFWS, CDFW, and City. CSS is also a target for conservation under the NCCP for which the City meets requirements through its General Plan, as it is not currently enrolled in the MHCP that covers some other north San Diego County cities.

3.2.5.2 Listed and Sensitive Species

3.2.5.2.1 Sensitive Animals Detected

Orange-Throated Whiptail (*Aspidoscelis* (*Cnemidophorus*) *hyperythrus beldingi*)
Status: California Species of Special Concern (SSC).
Distribution: The species occurs in southern Orange County, western Riverside County, and western San Diego County, south into central Baja California.
Habitat: Open CSS, chaparral and often in brushy patches on stream terraces and other sandy areas.
Status On Site: one individual was observed at the edge of the open area generated by the clearing in 2021 but the species likely occurs across the site.

3.2.5.2.2 Sensitive Plants Detected

Parry's Tetracoccus (*Tetracoccus dioicus*)
Status: CRPR 1B.2.[1]
Distribution: San Diego County, Orange County, Riverside County; Baja California, Mexico.
Habitat: Chaparral and coastal scrub, brushy hillsides and dry stony slopes. 450-3000 ft.

[1] CRPR Ranks: 1B = Plants rare, threatened, or endangered in California and elsewhere; 2B = Plants rare, threatened, or endangered in California but more common elsewhere; 4 = Watch List: Plants of limited distribution. 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).

Status On Site: Parry's tetracoccus was identified on the southern half of the project parcel, additional Parry's tetracoccus were identified along the east side of Tierra Del Cielo where native shrub habitat is adjacent to the road. A larger population with hundreds of individuals occurs on the north slope of the open valley just north of the site.

Decumbent Goldenbush (*Isocoma menziesii* var. *decumbens*)
Status: CRPR List 1B.2.
Distribution: Coastal San Diego County, primarily west of I-15, but also in hilly and mountain clearings, few coastal records north of San Diego County and into Baja Mexico.
Habitat: Moist areas, usually with sandy soil, associated with CSS.
Status On Site: One individual was identified along Tierra Del Cielo road at the western edge of the parcel. A larger population with hundreds of individuals occurs in the open valley just north of the site.

Wart-Stemmed Ceanothus (*Ceanothus verrucosus*)
Status: CRPR List 2B.2.
Distribution: Coastal San Diego County, west of I-15, into northern Baja California, Mexico.
Habitat: Typically occurs in southern maritime or southern mixed chaparral.
Status On Site: Approximately 400 individuals with a canopy area of approximately 18,000 square ft. covering approximately 1.14-acre of the SMC on this parcel and to the southeast were detected on the slope. Most likely the majority of these long-lived shrubs are roughly 16 years old, having germinated after the 2007 fire on this parcel, though some individuals look to be older.

Ashy Spike Moss (*Selaginella cinerascens*)
Status: CRPR List: 4.1.
Distribution: spike moss is found in coastal San Diego County, and as far north as Orange County and as far south as Punta Banda in Baja California in coastal canyons below 1,000 ft elevation.
Habitat: It occurs in chaparral, CSS, maritime succulent scrub, and closed-cone pine forests in coastal hills, mesic slopes, canyons and coastal bluffs.
Status On Site: This species was identified in the undisturbed CSS near the northwest corner of the Lot 7 parcel close to the intersection of Tierra Del Cielo and Las Lomas.

3.3 Sensitive Species with Potential to Occur

Sensitive species that occur in the immediate vicinity according to database records but were not observed and which may have some potential to occur on site are assessed below (Table 4, Table 5). Species with highly specific habitat needs (e.g., marshes, coastal dunes etc.) were not considered, nor were species for which the site is far from the known range of the species.

3.4 Wildlife Corridors

Wildlife movement corridors are areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetative cover provide corridors for wildlife movement. Wildlife movement corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations.

The proposed project site is in a corner of habitat on the western edge of the San Marcos Mountains. It is on the western side of three parcels extending up a ridge that are surrounded by vacant land separated from the developed portion of Vista by a 450-ft wide band of habitat that contains Tierra Del Cielo (Figure 2, Figure 3). Two of the three parcels on the ridge are fully developed, and the third (adjacent to the site) was previously cleared with walls built in the early 1990s. The valley to the north of the parcel is cleared and provides little cover for wildlife moving through the landscape but like the vacant land to the south is connected to the large regionally significant San Marcos Mountains to the east. While the parcel itself has wildlife habitat value and can provide for some local movement north and south for animals that use suburban landscapes (coyote, raccoon, opossum, and skunk), it likely does not contribute to any east-west corridor as little habitat for wildlife occurs to the west. Full development of this parcel would reduce the width of the north-south band of habitat relative to that west of Tierra Del Cielo but this is not likely to completely prevent what wildlife movement that currently occurs from continuing to do so.

Table 4: Sensitive Plants with Potential to Occur.

Species		Status		Characteristics	Potential to Occur On Site
Common Name	Scientific Name	Federal/ State/MHCP	CRPR		
San Diego thornmint	*Acanthomintha ilicifolia*	FT/SE/NE, Covered	1B.1	Annual herb that occurs in chaparral, CSS, valley and foothill grassland, vernal pools, on clay soils blooming April-June. Found from Mexican border to Carlsbad from coast to foothills.	Low: Habitat within chaparral is not appropriate, none observed but has been found nearby. Would have been detected if present.
San Diego ambrosia	*Ambrosia pumila*	FE/--/NE, Covered	1B.1	Rhizomatous perennial herb found in chaparral, CSS, valley and foothill grassland, vernal pools in sandy loam or clay soils, often in disturbed areas.	Low. Nearest known locations in San Luis Rey Valley. Would have been observed if present.
Del Mar manzanita	*Arctostaphylos glandulosa* ssp. *crassifolia*	FE/--/NE, Covered	1B.1	Shrub species found in chaparral, maritime chaparral, can bloom between December-June, found from Torrey Pines State Park north to Carlsbad.	Very Low. Would have been detected on site if present. No sandstone substrate, and site is not coastal.
San Diego sagewort	*Artemisia palmeri*	--/--/--	4.2	Perennial subshrub found in mesic chaparral, coastal scrub, riparian habits.	Low. No mesic areas on the parcel. Would have been observed if present.
Coulter's saltbush	*Atriplex coulteri*	--/--/--	1B.2	Perennial herb found in alkali or clay soils in coastal habitats and scrubs, and grasslands from San Diego through San Luis Obispo Counties.	Very Low. Little suitable habitat on site. Would have been detected if present.
San Diego goldenstar	*Bloomeria clevelandii*	--/--/--	1B.1	Perennial bulbiferous herb found in open chaparral, sage scrub, and grasslands found mostly in southern San Diego County.	Very Low. Range is wholly to south and west. Habitat is not open.
thread-leaved brodiaea	*Brodiaea filifolia*	FT/SE/NE	1B.1	Ephemeral perennial monocot prefers clay lens soils in annual grasslands and vernal pools of the interior valley regions in Riverside and San Diego Counties.	Very Low. No vernal pools or grasslands occur on site.
Orcutt's brodiaea	*Brodiaea orcuttii*	--/--/--	1B.1	Ephemeral perennial monocot found in vernally moist grasslands and along vernal pool periphery.	Very Low. No vernal pools or grasslands occur on site.
wart-stemmed ceanothus	*Ceanothus verrucosus*	--/--/Covered	2B.2	Evergreen shrub found in coastal chaparral of San Diego County and around Lake Hodges.	Present, this is the most common species in much of the SMC on site.
long-spined spineflower	*Chorizanthe polygonoides* var. *longispina*	--/--/--	1B.2	Annual herb found in chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools on clay soils.	Very Low. Site has limited habitat and range is mostly to south and east.
summer holly	*Comarostaphylis diversifolia* ssp. *diversifolia*	--/--/Covered	1B.2	Fire adapted shrub that stump-sprouts from the base of the stem or root-crown after fire or cutting. Individuals are long-lived and occur in chaparral from the coast to Daley Ranch in northern San Diego County.	Very Low. Would have been detected on site if present.
Blochman's dudleya	*Dudleya blochmaniae* ssp. *blochmaniae*	--/--/NE, Covered	1B.1	Perennial herb found mostly in coastal bluff scrub along coast of Southern California.	None. Site too far inland.

Species		Status		Characteristics	Potential to Occur On Site
Common Name	Scientific Name	Federal/ State/MHCP	CRPR		
variegated dudleya	*Dudleya variegata*	--/--/NE	1B.2	Perennial herb found in CSS and chaparral with abundant rocks.	Very Low. Range is to the south of site. Would have been observed if present.
sticky dudleya	*Dudleya viscida*	--/--/Covered	1B.2	Perennial herb found in rocky CSS and chaparral.	Very Low. Range is to very coastal and on Camp Pendleton. Would likely have been observed if present.
San Diego barrel cactus	*Ferocactus viridescens*	--/--/Covered	2B.1	Perennial succulent found in CSS.	None. Range is to the south of site. Would have been observed if present.
Palmer's grapplinghook	*Harpagonella palmeri*	--/--/--	4.2	Annual herb, found in coastal sage shrub and open chaparral often on clay soils.	Low. Within range and limited suitable habitat on site.
Orcutt's hazardia	*Hazardia orcuttii*	--/ST/NE, Covered	1B.1	Perennial evergreen shrub found in coastal areas centered on Encinitas.	Low. Would have been observed if present.
decumbent goldenbush	*Isocoma menziesii* var. *decumbens*	--/--/--	1B.2	Chaparral/CSS/shrub/April-November, occurs on San Diego County coastal areas and more inland in south County.	Present. Occurs in the valley across Las Lomas, and one plants grows along Tierra Del Cielo on this parcel.
San Diego marsh elder	*Iva hayesiana*	--/--/Covered	2B.2	Found adjacent to marshes or along ephemeral drainages.	None. Would have been observed if present. No appropriate habitat on site.
Robinson's peppergrass	*Lepidium virginicum robinsonii*	--/--/--	1B.2	Occurs in dry, exposed openings within CSS and chaparral. Typically found on volcanic soils like those found on site.	Low. Would likely have been observed if present.
Parry's tetracoccus	*Tetracoccus dioicus*	--/--/Covered	1B.2	Perennial deciduous shrub found is CSS and chaparral.	Present, occurs on the project parcel and along Tierra Del Cielo in native shrub habitat.

Status

Federal:

FE = Federal Endangered
FT = Federal Threatened

State:

SE = State Endangered
ST = State Threatened

MHCP:

NE = Narrow Endemic

Covered = Covered by MHCP

California Rare Plant Rank (CRPR)

1A = Plants presumed extirpated in California and either rare or extinct elsewhere
1B = Plants rare, threatened, or endangered in California and elsewhere
2A = Plants presumed extirpated in California but common elsewhere
2B = Plants rare, threatened, or endangered in California but more common elsewhere
3 = Plants about which more information is needed (Review List)
4 = Plants of limited distribution (Watch List)

CRPRs at each level also includes a threat rank and are assigned as follows:

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)

Table 5: Sensitive Animals with Potential to Occur.

Species		Status	Characteristics	Potential to Occur On Site
Common Name	**Scientific Name**	**Federal/ State/MHCP**		
Amphibians				
western spadefoot	*Spea hammondii*	--/SSC/Covered	Found in a variety of habitats from Central Valley through south coast of California but requires rain-filled pools that do not have bullfrogs, fish, or crayfish to breed.	Low. No pools on site for breeding.
Reptiles				
red diamond rattlesnake	*Crotalus ruber*	--/SSC/--	Found in CSS, chaparral, oak and pine woodlands, rocky grassland, even cultivated areas, generally rocky areas with dense vegetation. Occurs in coastal San Diego County to the eastern mountain slopes and north through western Riverside and southern San Bernardino Counties.	High. Suitable habitat on site within species range, adjacent to protected open space. Detected in similar habitat across Las Lomas.
orange-throated whiptail	*Aspidoscelis hyperythra beldingi*	--/SSC/--	Occurs in semi-arid brushy areas typically with loose soil and rocks, including washes, stream sides, rocky hillsides, and CSS and coastal chaparral.	Present. Habitat on site is suitable.
coast horned lizard	*Phrynosoma coronatum ssp. blainvillii*	--/SSC/Covered	Found in CSS and open chaparral, oak woodlands, and coniferous forests with sufficient basking sites, adequate scrub cover, and areas of loose soil. Its occurrence typically tied to presence of harvester ants (*Pogonomyrmex* sp.), but is generally excluded from areas invaded by Argentine ants (*Linepithema humile*).	Low. While suitable habitat exists on site, development and irrigated landscaping within 600 meters on most sides provide resources for Argentine ants which limit the potential use of the site by the species
Coronado skink	*Plestiodon skiltonianus interparietalis*	--/SSC/--	Found generally in dense vegetation within grassland, woodlands, pine forests, chaparral, especially with open sunny areas and rocky areas near streams. Range is west of Peninsular Ranges from central and northern San Diego County, through Coast Ranges to throughout northern California.	Low to Moderate. Some suitable habitat on site.
Coast patch-nosed snake	*Salvadora hexalepis virgultea*	--/SSC/--	Found in coastal shrublands, rocky hillsides and from San Luis Obispo to San Diego Counties, south into Baja.	Low to Moderate. Suitable habitat on site.
two-striped garter snake	*Thamnophis hammondii*	--/SSC/--	Found in a variety of habitats (shrublands, woodlands, forests) with permanent or semi-permanent bodies of water in coastal counties from Monterrey Bay through San Diego into Baja.	Low. No aquatic habitat present on site or adjacent to the site.
south coast garter snake	*Thamnophis sirtalis* ssp.	--/SSC/--	Restricted to habitats near permanent water with riparian vegetation for foraging and refuge, west of mountains from Ventura through San Diego Counties. This is a dubious taxonomic group based upon color patterns that are not correlated with phylogeny.	Low. No riparian habitat on the site.

Species		Status	Characteristics	Potential to Occur On Site
Common Name	**Scientific Name**	**Federal/ State/MHCP**		
Birds				
Cooper's hawk	*Accipiter cooperii*	--/WL/Covered	Prefers oak or riparian forest habitats near permanent water. Found year round though all but upper tier states, in summer into southern Canada, and in winter south into Central America. Has become adapted to suburban areas of southern California.	Low. No trees on site or in immediate vicinity to provide nesting or foraging, site too open.
Southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	--/WL/Covered	Prefers steep, dry, rocky hillsides with plenty of grasses and a scattering of shrubs and small trees from Los Angeles County through San Diego County into northern Baja.	Low. Habitat mostly too dense for species on site, though more suitable habitat does occur immediately to the south.
Bell's sage sparrow	*Artemisiospiza belli*	BCC/WL/Covered	Occurs in chaparral and CSS in Coast Ranges plus western slope of Sierra Nevada.	Low to Moderate. Some suitable habitat occurs on site.
Coastal cactus wren	*Campylorhynchus Brunneicapillus sandiegensis*	BCC/SSC/NE, Covered	Uses extensive patches of cactus in CSS and maritime succulent scrub habitats in canyons of southern California	None. No cactus present on this site.
Northern harrier	*Circus cyaneus*	--/SSC/--	Found in pasture, old fields, dry uplands, grasslands, rangelands, CSS. Ground nests often in grassland near water.	Low. May forage over site but no suitable nesting areas occur on site.
White-tailed kite	*Elanus leucurus*	--/FP/--	Forages over open grasslands, savanna-like habitats, agriculture, wetlands, oak woodlands, riparian, herbaceous and open stages of most habitats in Coastal and valley lowlands of California.	None. No suitable forging or nesting habitat on site.
Southwestern willow flycatcher	*Empidonax traillii extimus*	FE/SE/Covered	Found in riparian woodlands along streams and rivers with mature, dense tree or shrub cover where surface water or soil moisture present. Southwestern subspecies nests in a select few river systems in southern California and Central Valley.	None. No riparian habitat occurs on the entirely upland site.
California horned lark	*Eremophila alpestris actia*	--/WL/--	Found in open habitats, grassland, rangeland, shortgrass prairie, montane meadows.	None. No suitable habitat on site. May occur nearby where more suitable habitat exists.
Yellow-breasted chat	*Icteria virens*	--/SSC/Covered	Found in dense, relatively wide riparian woodlands and thickets of willows, and dense brush in coastal California, foothills of Sierra Nevada.	None. No riparian habitat occurs on the entirely upland site.
Coastal California gnatcatcher	*Polioptila californica californica*	FT/SSC/Covered	Found in typically open CSS with some California sagebrush from Ventura through San Diego counties into northern Baja.	Very Low: some suitable habitat on site but the patch of CSS here is likely too small and has too many woody shrubs to support CAGN in an inland location. CAGN surveys on 1985 Las Lomas in Spring 2022 were negative and no CAGN were noted on this parcel either during the surveys.

Species		Status	Characteristics	Potential to Occur On Site
Common Name	**Scientific Name**	**Federal/ State/MHCP**		
Western bluebird	*Sialia mexicana*	--/--/Covered	Found in open forests of deciduous, coniferous or mixed trees, savanna, edges of riparian woodland but also live in backyards, burned areas, and farmland, from sea level up into the mountains.	Low. Combination of habitats species prefers not present.
Yellow warbler	*Setophaga petechial brewsteri*	BCC/SSC/--	Nests in lowland and foothill riparian woodlands; montane chaparral, open ponderosa pine, mixed conifer habitats. Breeds throughout non-desert areas of California.	Low. No suitable habitat on site.
Least Bell's vireo	*Vireo bellii pusillus*	FE/SE/Covered	Found in willows and low, dense valley foothill riparian habitat and lower portions of canyons from San Diego through Ventura counties and into the southern Central Valley.	Low. No riparian habitat occurs on the entirely upland site.
Mammals				
pallid bat	*Antrozous pallidus*	--/SSC/--	Grasslands, shrublands, woodlands, forests; most common in open dry habitats with rocky outcrops for roosting. Found throughout low elevations of California.	Low to moderate. May forage on site but no large rock outcroppings to provide crevices for roosting.
Dulzura pocket mouse	*Chaetodipus californicus femoralis*	--/SSC/--	Occurs in a variety of habitats including coastal scrub, chaparral typically on edges with grasslands.	Low. Little suitable habitat. Site is within a contiguous shrublands on a boundary with development
northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	--/SSC/Covered	Typically occurs in open scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland in the valleys and foothills of southwestern California with sandy, herbaceous areas in association with rocks or coarse gravel.	Low to Moderate. Suitable habitat occurs on site.
Townsend's big-eared bat	*Corynorhinus townsendii*	--/SSC/--	Prefers mesic habitats, capturing insects from brush or trees, feeding along habitat edges.	Low. No mesic habitat on the site.
Greater western mastiff bat	*Eumops perotis californicus*	--/SSC/--	Found in many open, semi-arid to arid habitats including woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and Tunnels.	Low. No roosting locations on site. May forage over site.
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	--/SSC/Covered	Found in open CSS, also agriculture, disturbed areas in southern California.	Low. Site likely too thickly vegetated or steep to support species.
American badger	*Taxidea taxus*	--/SSC/--	Found in dry, open areas, grasslands, CSS, especially with friable soils.	None. Burrow would have been seen if present. Soil is very shallow on the parcel.

Status

Federal: FE = Federal Endangered; FT = Federal Threatened; BCC = Bird of Conservation Concern

State: SE = State Endangered; ST = State Threatened; FP= Fully Protected; WL = CDFW Watchlist

MHCP: NE = Narrow Endemic; Covered = covered by MHCP

3.5 Regulatory Environment

This section describes the regulatory requirements for the proposed project, and the proposed project site's regional resource planning status. Biological resources are subject to regulation by the federal government, State of California, and local jurisdiction. The proposed project is subject to CEQA analysis under which adjudicates the project against applicable state and federal regulations.

Under federal law, the USFWS and National Oceanic and Atmospheric Administration share responsibility for implementing the federal Endangered Species Act (ESA) of 1973 (Public Law 93-205, 16 United States Code [U.S.C.] § 1531) as amended. Waters of the U.S. (wetlands and non-wetlands) are regulated by the USACE. California law regarding wetland, water-related, and wildlife issues is administered by the CDFW.

3.5.1 California Environmental Quality Act

The City is the Lead Agency for the proposed project for the CEQA environmental review process in accordance with state law and local ordinances.

3.5.2 Federal and State Regulations

Regulations that apply or potentially apply to future development of the project site include the federal ESA, California Endangered Species Act (CESA), Migratory Bird Treaty Act (MBTA), California Fish and Game (CFG) Code, federal Clean Water Act (CWA), and CEQA. Impacts to any jurisdictional drainage features would require a USACE CWA Section 404 Permit, a RWQCB CWA Section 401 Certification, and CFG Code Section 1602 Lake and Streambed Alteration Agreement.

3.5.2.1 Federal Government

The ESA provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that result in harm or death to endangered or threatened species, including habitat modification that substantially impairs feeding, breeding, or sheltering activities constitutes "take" under the ESA. The ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

Sections 7 and 10(a) of the ESA regulate actions that could jeopardize endangered or threatened species. Section 7 describes a process of federal interagency consultation for use when actions with federal agency involvement may adversely affect listed species. A biological assessment is required for any major construction activity if it may affect listed species. A Section 7 consultation (formal or informal) is required when there is a nexus between endangered or threatened species' use of a site and impacts to USACE jurisdictional areas. As wetland impacts are being avoided and no federal listed species were detected on site, the ESA is not applicable to the proposed project.

The USFWS designates areas of critical habitat for endangered or threatened species. Critical habitat is defined as areas of land that are considered necessary for the endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitat so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat, all federal agencies must consult with USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of the critical habitat. While the site is designated as critical habitat, no federal permit is needed for the project, and so no consultation with USFWS by any federal agency is required.

The MBTA is administered by the U.S. Department of the Interior, acting through the USFWS (16 U.S.C. § 703-712). Almost all native bird species found in the U.S. are included in the MBTA, including species that do not migrate at all. The MBTA prohibits taking any bird, part, nest, or eggs and is implemented using 50 Code of Federal Regulation 10.12 of the MBTA regulations, which defines "take" as to: pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities. Take does not include habitat destruction or alteration, as long as there is not a direct taking of birds, active nests, eggs, or parts thereof. The MBTA does not stipulate the type of protection required. In common practice, USFWS places restrictions on disturbances allowed near active bird nests during the bird-breeding season (January 1–September 15).

3.5.2.2 State of California

The CESA is similar to the ESA in that it contains a process for listing species and regulating potential impacts to listed species. Section 2081 of the CESA authorizes CDFW to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes.

Pursuant to Section 3503, 3503.5, 3505, and 3513 of the CFG Code, it is unlawful to take, possess, or needlessly destroy the active nest or eggs of any bird. The CFG Code defines "take" as to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates collection, transport, and commerce in listed plants. The CESA followed the NPPA and covers both plants and animals determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were also designated rare under the CESA.

CEQA and its implementing guidelines (CEQA Guidelines) require discretionary projects with potentially significant effects (or impacts) on the environment to be submitted for environmental review. Mitigation for significant impacts to the environment is determined through the environmental review process, in accordance with existing laws and regulations.

3.5.2.3 City of Vista

The NCCP Act (Section 2835) allows CDFW to authorize take of species covered by plans in agreement with NCCP guidelines. An NCCP initiated by the State of California under Section 4(d) of the federal ESA focuses on conserving CSS to avoid the need for future federal and state listing of CSS-dependent species. The CAGN is presently listed as threatened under the ESA, while several additional species inhabiting CSS are candidates for federal and/or state listing. The MHCP and draft subarea plans are intended to act as plans under the NCCP and Habitat Conservation Plan (HCP) processes.

The MHCP Subregional Plan was adopted and certified by SANDAG Board of Directors on March 28, 2003. Each of the seven jurisdictions within the MHCP planning area is required to implement their respective portion of the MHCP via citywide subarea plans. To date the City's Subarea Plan has not been adopted, and in lieu of the Subarea Plan, is meeting the NCCP requirements through its General Plan.

The City has no specific ordinances that regulate biological resources resulting in reliance on its existing planning regulations, NCCP Guidelines, and CEQA for determining the significance of impacts and mitigation. Mitigation ratios for impacts to habitats reflect the intention to preserve areas within the Focused Planning Area (FPA) identified for the MHCP in each jurisdiction. The proposed project's parcel is not within the FPA.

3.5.3 Wetland Regulation

If any impacts to the wetlands were on site occurred, the following would apply:

3.5.3.1 U.S. Army Corps of Engineers

The regulatory authority of the USACE comes from Section 404 of the CWA (33 U.S.C. §1251 et seq.). The Act requires USACE authorization for work involving intentional or unintentional placement of fill or discharge of dredge materials into any of the Waters of the U.S. USACE jurisdiction extends to the high water mark for non-tidal waters and includes ephemeral drainages that are typical of the Southern California hills and mountains and which show a distinct bed and bank. Authorization for such activity is through a CWA Section 404 Permit (404 Permit) from the USACE.

3.5.3.2 California Department of Fish and Wildlife

CDFW requires a CFG Code 1602 Lake and Streambed Alteration Agreement (LSAA) for projects that will divert or obstruct the natural flow of water, change the bed, channel, or bank of any stream, remove riparian vegetation, or use any material from a streambed. The LSAA is a contract between a project proponent and CDFW stating what activities are permissible and what compensation is required for those activities.

3.5.3.3 Regional Water Quality Control Board

A federal CWA Section 401 Water Quality Certification (401 Certification) is required from the State Water Resources Control Board if a proposed project may result in a discharge into any Waters of the U.S. The program is administered by the RWQCB district in which the project is proposed. If a 404 Permit is required from the USACE, a 401 Certification is required from the RWQCB. The RWQCB also administers the State's Porter-Cologne Act which regulates discharge into Waters of the State.

4.0 IMPACTS

4.1 Impact Definitions

4.1.1 Direct Impacts

A direct impact occurs when the primary effect is loss of a biological resource through direct mortality during clearing and grading and removal of existing habitat, often replacing it with development and landscaping.

4.1.2 Indirect Impacts

An indirect impact consists of secondary effects of a project (such as noise, changes in drainage patterns, water quality, lighting, invasive plant species, and barriers to wildlife movement) that leads to habitat degradation and loss of species or habitat. The magnitude of an indirect impact may be the same as a direct impact; however, the effect usually takes a longer time to become apparent.

4.1.3 Cumulative Impacts

Although impacts to sensitive biological resources may not be significant when considered independently, when multiple impacts such as from several development projects within an area are combined, they may be cumulatively significant.

The significance of impacts to biological resources present or to those with potential to occur was determined based upon the sensitivity of the resource and the extent of the anticipated impacts.

4.2 Thresholds of Significance

Pursuant to Appendix G Section IV of the CEQA Guidelines, a proposed project would result in a significant impact if it would:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the USFWS or CDFW;
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by USFWS or CDFW;
c) Have a substantial adverse effect on federally protected wetlands as defined by CWA Section 404;
d) Interfere substantially with movement of any native resident, migratory fish or wildlife species, or established native resident or migratory wildlife corridors; or impede use of native wildlife nursery sites;
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
f) Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state conservation plan.

4.3 Direct Impacts

Impacts would occur from the Lot 7 portions of the project to a currently vacant site dominated by CSS and SMC from development of a single-family residence, with associated access and improvements (Figure 5). Additional impacts will occur from the Fire Access Road portions of the project, both on the Lot 7 parcel and to the south because of the widening of the roads (Tierra Del Cielo and Las Lomas) that provide access from the neighborhoods to the south. It is assumed that the areas to be graded and developed will be directly and permanently impacted as will the first 50 ft of the fire clearance zone around each structure and the first 30 ft to the east from the improved road. The next 50 ft around each structure (the 50-100-ft zone) will be cleared 50 percent (%) with shrubs limbed up. For this project, CDFW and the City have agreed that this 50% clearance zone will be considered a 50% impact to the habitat it occurs in. We assume that the remaining 50% habitat cannot be set aside as compensatory mitigation for impacts but will act as a buffer for undisturbed areas beyond it. Areas left ungraded and unaffected by the proposed project will function as biological open space if connected to off-site protected habitat and which are otherwise unconstrained and will be protected by the Covenants, Conditions and Restrictions of the Home Owners Association which will govern this property.

CEQA Appendix G Section IV Significance thresholds a) through f) are assessed below as BIO 1 through BIO 6.

BIO 1: Have a substantial adverse effect, either directly or through habitat modifications, on any candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the USFWS or CDFW.

The habitats being removed for development support several sensitive species, but none are listed under the federal or state ESAs.

4.3.1 Special Status Plants

No federal or state ESA-listed plants were detected. The following CRPR species were detected and would be impacted.

Wart-stemmed ceanothus is a CRPR 2B.2 species covered by the MHCP. In San Diego County, wart-stemmed ceanothus occurs along the immediate coastline from Carlsbad to the south, but in the area of San Marcos and Lake Hodges its distribution occurs inland and the species sometimes occurs in nearly monotypic stands (SANDAG 2003):

> The MHCP will adequately conserve this species by conserving 71% of potential habitat, 75% of point locations (130 of 173 locations are within the FPA), and 78% of the major populations. Because no critical locations have been identified for this species, and it is neither a narrow endemic nor a wetland species, conservation outside the FPA is not required.

This site was not identified as one of the 173 point-locations in the MHCP, as all inland point-locations are south of the 78 highway.

Wart-stemmed ceanothus occurs as a nearly monotypic stand in this site, as is characteristic of the species in this part of its range. As a result, we measure the abundance of the species by acres covered instead of individuals, though we estimate approximately 400 individuals occur across 1.22 acres on the parcel. Of the 1.22 acres, 0.32 acre would be impacted by development and the 100% fire clearance zone within 50 ft of structures, and a further 0.19 acre would be partially impacted by the 50% fire clearance zone 50-100 ft from structures. As the species occurs in a near monotypic stand, we assume that full avoidance of it is impossible and that 50% of the individuals in this zone will be impacted for a total of 0.42 acres impacted (34%). This impact is not significant as conservation outside the FPA is not required under the MHCP.

Parry's tetracoccus is a CRPR 1B.2 species that is also covered by the MHCP. Within the MHCP, a single major population of this species is found in the southern San Marcos Mountains (between Vista south of the end of Warmlands Drive and San Marcos), some records of this species are in hills in northeast Escondido, and it is likely the species occurs in Daley Ranch. This species is typically confined to Gabbro soils occuring in chaparral and CSS.

The MHCP's conservation goal for this species (SANDAG 2003) is to

> "Ensure species persistence within the plan area by conserving major populations, critical locations, and required habitat of Parry's tetracoccus. The MHCP will adequately conserve this species by conserving 75% of potential habitat. Although the species is only known from one location in the study area, it may occur within some preserve areas (e.g., Daley Ranch). No major populations or critical populations occur in the study area, but the species has the potential to occur in San Marcos and Escondido."

According to the MHCP, an estimated 75% of potentially suitable habitat for the species will be conserved in the FPA, 100% of any newly detected localities would be conserved in hardline area, while the percent conservation in softline areas would be according to the FPA percentage (or mitigation). There are 23 Parry's tetracoccus in the chaparral on the Lot 7 parcel, one of these is within the 50% fire clearance zone of the planned structures and would be preserved, one occurs where the building pad on Lot 7 will be and will be impacted, and three Parry's tetracoccus that occur along the planned Fire Access Road footprint will be impacted by the road widening. The impact to four plants, one on Lot 7 and three along the Fire Access Road would be significant if not mitigated.

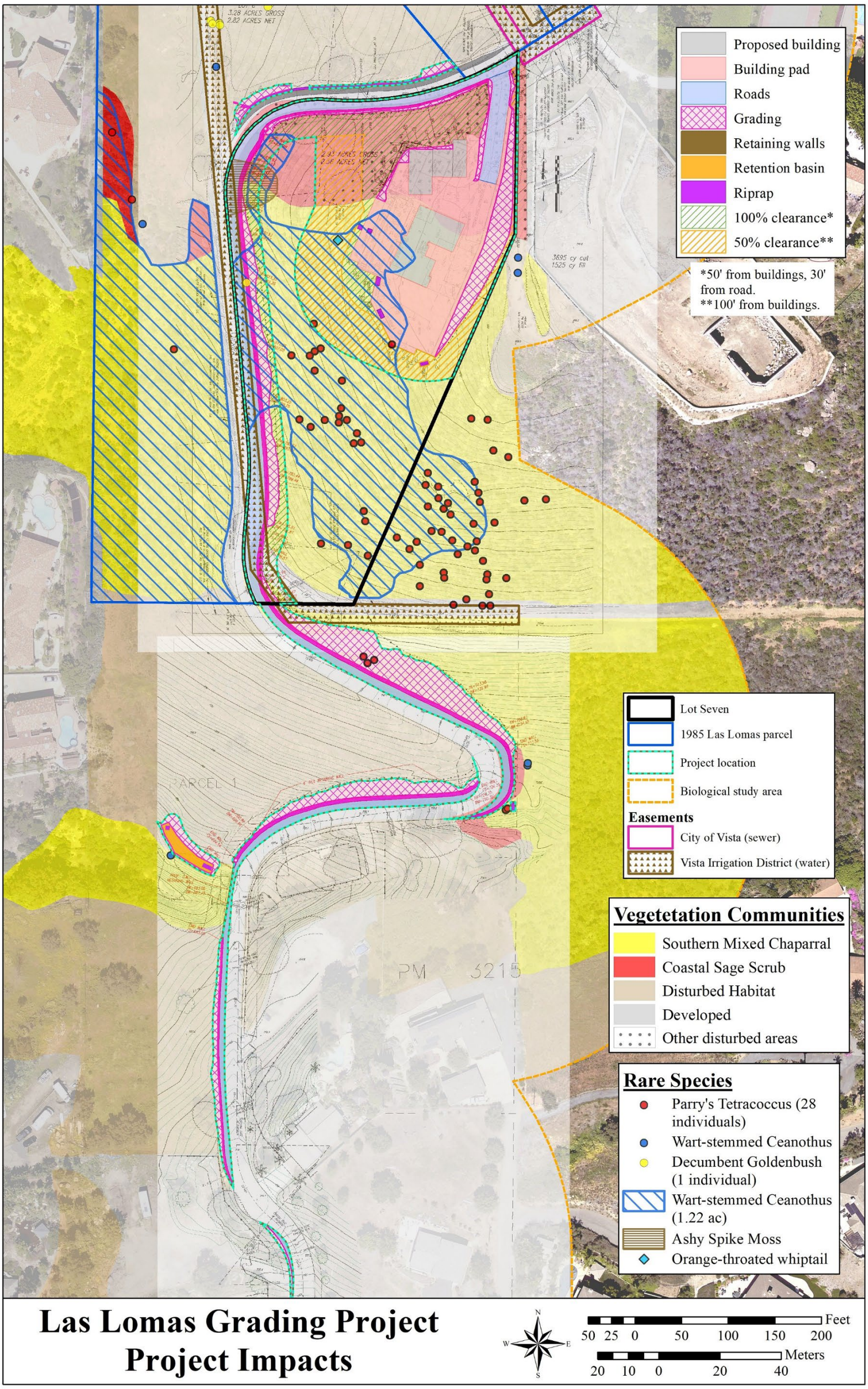

Figure 5: Las Lomas Grading Project Impacts.

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Decumbent goldenbush is a CRPR 1B.2 species that is not covered by the MHCP. CEQA does not specify avoidance and mitigation measures for species but its CRPR 1B.2 rating meets the definition of rare or threatened or endangered under CEQA §15380(b) and (d).

The single individual found on site is a relatively isolated individual growing along the road far to the south of a large population of the plant on the adjacent 1985 Las Lomas Parcel. This individual will be impacted by the widening of the fire access road. This impact would not be significant.

Ashy spikemoss is a CRPR 4B.1 that is not covered by the MHCP. CEQA does not specify avoidance and mitigation measures for species but its CRPR 4B.1 rating meets the definition of limited distribution under CEQA §15380(b) and (d).

The majority of the ashy spikemoss on the Lot 7 parcel will be impacted by widening of the fire access road. This impact is not significant as the impacts to the habitat in which it occurs are being fully mitigated.

No other sensitive plant species are expected as rare plant surveys were performed at optimal times of year and were not detected. No other sensitive plant species has more than a low potential to occur on site (see Table 4). As a result, no impacts are expected to other sensitive plant species and no other mitigation would be required.

4.3.2 Special Status Animals

No ESA-listed animals were detected or are expected to occur because there is too little or no suitable habitat on site to support the species.

Orange-throated whiptail, a California SSC, would be impacted as one was detected in an area to be impacted and much of the site is expected to support the species. Impacts would be significant if not mitigated. San Diego desert woodrat is another SSC-species that might be on site as evidenced by the rock outcroppings and woodrat nests scattered around the site. This species is not definitively differentiable from the more common desert woodrat without trapping and so, its presence on site was not confirmed. If any of the woodrat nests were the sensitive species, impacts would be significant unless mitigated with habitat.

A sensitive animal species that may be impacted because it has a moderate to high potential to occur is the red diamond rattlesnake (SSC but not MHCP-covered). The species is likely to occur on site though not in high numbers as the site was visited three times during 2021-2022 and was not detected, though it was detected on the adjacent parcel to the north. Red diamond rattlesnakes are found in San Diego, southern Orange and San Bernardino, and western Riverside Counties, and most of Baja. While restricted in range in southern California, their presence in many habitats across the region protects them from regional extirpation. The loss of habitat for this species would not be significant.

BIO 2: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by USFWS or CDFW.

Impacts would occur to the following acreages of vegetation communities/land cover types (Table 6; see Figure 4):

Table 6: Vegetation Communities – Impacts.

Habitat	Acres On Project Site	Impacts (acres)		
		Lot 7[1]	Fire Road Access[2]	Total
Group C – Coastal Sage Scrub				
Coastal sage scrub (CSS)	0.42	0.31	0.03	0.34
Disturbed coastal sage scrub (CSS-D)	0.42	0.39	0.00	0.39
Group C Subtotal	*0.84*	*0.70*	*0.03*	*0.73*
Group D – Chaparral				
Southern Mixed Chaparral (SMC)	2.00	0.94	0.25	1.19
Group F – Other				
Developed (DEV)	0.09	0.05	0.06	0.11
Disturbed Habitat (DH)	0	0.00	0.24	0.24
Total	**2.93**	**1.69**	**0.58**	**2.27**

[1] Impacts on Lot 7 include those from widening of the access road on the Lot 7 parcel.

[2] Impacts from the Fire Access Road exclude those to Lot 7.

Impacts would occur to CSS, CSS-D, and SMC which would be significant unless mitigated. DEV and DH are not considered sensitive.

BIO 3: Have a substantial adverse effect on federally protected wetlands as defined by CWA Section 404.

No impact would occur to the potentially federal jurisdictional water conveyance on the west side of where the fire access road crosses it, as the proposed project plan stays well behind the outfall of the concrete pipe which carries the water and stays above the pipe. As no impacts will occur, no mitigation is required.

BIO 4: Interfere substantially with movement of any native resident, migratory fish or wildlife species, or established native resident or migratory wildlife corridors; or impede use of native wildlife nursery sites.

The proposed project site is on the western edge of the San Marcos Mountains. The three parcels east of the site are developed or mostly disturbed and form an island of development in a corner of the much larger San Marcos Mountain range. The "island" is surrounded by narrow bands of habitat with developed areas of the City occurring to the west and south. The valley to the north of the parcel is partially cleared. While the less than three acres of the parcel itself have wildlife habitat value, they are not part of a corridor to the significant areas of habitat to the east in the San Marcos Mountains. There is roughly one acre of mostly SMC to the west from the Lot 7 parcel across Tierra Del Cielo, adjacent to developed areas in Vista. Less than half of the Lot 7 parcel will be developed, so local movement into this smaller patch of habitat will not be much constrained by the planned development. Widening of the proposed fire access road will not substantially increase the effect of the road as a block to animal movement, and south of the Lot 7 parcel the road passes through developed areas with very little wildlife habitat value.

The proposed project would be an extension from existing development to the east and would not prevent movement towards linkages of the San Marcos Mountains to other area. The proposed project would not impinge on movement from the San Marcos Mountains north towards the San Luis Rey River, south

towards the Santa Fe Hills or east towards the Merriam Mountains. The site is mostly a slope of upland habitat and while it may support local movement of resident species, it is on the side of and not a connector between regional movement features. There was no evidence the site or any portion of it acts as a nursery for native species.

As a result, it is not expected for the proposed project to interfere with wildlife movement corridors or access to nursery sites; therefore, impacts are not significant.

BIO 5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The City has no specific policies that protect biological resources other than compliance with CEQA and the MHCP. As a result, no impacts would occur because of a conflict with local policies or ordinances.

BIO 6: Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state conservation plan.

The City participates in the MHCP, a regional conservation plan under the state's NCCP Program that will also act as an HCP under the ESA (SANDAG 2003). While the City's Subarea Plan has not been adopted, the City enforces the provisions of the MHCP through its General Plan. With mitigation for impacts to habitats and covered sensitive species to MHCP standards, the proposed project would be in compliance with the MHCP and as a result would not be in conflict with the Program.

All actively nesting birds and their nests, with a few exceptions, are protected under the MBTA and CFG Code. Direct impacts may occur to birds nesting in the vegetation on site if clearing occurs during the bird-breeding season (January 1 through September 15). No raptors have potential to nest on site because of the lack of suitable nesting locations but other birds probably nest in the CSS, coastal sage-chaparral scrub, and SMC.

Impacts to nesting birds would be a violation of the MBTA and CFG Code and be significant unless avoided.

4.4 Indirect Impacts

Indirect impacts to sensitive habitats or species can occur from errant grading impacts, construction or operation noise, changes in drainage patterns after grading that modify habitats, degraded surface water quality from runoff during construction, lighting onto habitat areas, introduction of invasive plant species, and brush management that leads to habitat degradation.

Sensitive species on site but outside the proposed project footprint include Parry's tetracoccus, wart-stemmed ceanothus and likely the orange-throated whiptail. These species also occur off site. If CAGN had been within 300-ft. of the site, they would have been detected during the CAGN surveys. Off-site habitats to the east beyond the developed parcels are protected with preserve designations and impacts to the habitats and the species they support must be avoided.

4.4.1 Errant Grading

Impacts beyond the limits of work can occur for numerous reasons and could potentially impact sensitive habitat outside the proposed project footprint. Any impacts to sensitive habitat beyond the approved limits of work would be significant and require mitigation.

4.4.2 Noise

Noise from machinery during grubbing, earthwork, and construction would be a temporary impact to local wildlife. Noise-related impacts, when construction noise exceeds 60 dBA_{Leq}, would be considered significant if listed species or raptors were displaced and failed to breed.

Impacts would not be significant because no raptors or listed species are expected to breed on site, in the CSS and SMC habitat around the site, or in trees proximal to the site. Impacts to the orange-throated whiptail would not be significant because the species is not considered sensitive to noise.

4.4.3 Drainage

Storm water drainage requirements ensure the amount of water leaving a site is not changed by installation of a project. Most newly graded areas and hardscaping will drain into bioretention basins that will prevent direct drainage into undeveloped new areas or modify the drainage patterns off site. Compliance with storm water regulations will ensure no impacts from drainage occur.

4.4.4 Surface Water Quality

Surface water can be contaminated by sediment during grubbing, grading, and construction, from fuels, oils, and lubricants from construction vehicles, and post-construction by run off from rooftops, hardscaping and landscaping. Decreased water quality may adversely affect native vegetation, aquatic animals, and terrestrial wildlife that depend upon these resources.

Best Management Practices (BMPs) as stipulated in the project Storm Water Pollution Prevention Plan (SWPPP) would be used to control erosion, sedimentation, and pollution that could impact surface water quality during construction. Post-construction, detention or treatment of runoff from landscaping and hardscaping into on-site bioretention basins or through filters, cleans surface water and prevents run off of pollutants into surrounding areas. Based on compliance with a SWPPP and all storm water regulations and applications, effects would not be significant.

4.4.5 Lighting

Exterior night lighting has the potential to illuminate native habitats off site, which could interfere with wildlife movement and could unbalance predator/prey relationships and provide nocturnal predators with an added advantage over their prey. This could adversely affect native wildlife, especially if listed species would be affected.

No listed species are expected in the surrounding habitats. Any outdoor lighting around the buildings and in the parking lots shall be shielded to prevent light from illuminating habitat around the proposed project using fixtures that physically direct light away from the outer edges of the property or fences, or other barriers on the edge of development to prevent light overspill. Final building plans for the development shall identify the shielded light fixtures and/or fencing/barriers. These measures, if implemented, would reduce potential nigh-lighting effects to below a level of a significance; otherwise, effects could be significant.

4.4.6 Invasive Plant Species

Invasive weed species could colonize areas disturbed by grading, construction, development, and thinning of vegetation if invasive species seeds are already in the soil at the site or if invasive species are used in

landscaping. Weeds from these sources could spread into adjacent native habitats and degrade habitat quality for native wildlife.

Unless invasive weeds are controlled, introduction of weed species into the open space and adjacent open space preserves could be significant.

To avoid impacts, any weeds need to be regularly monitored and removed during development and landscaping shall include only appropriate native or non-invasive ornamental plant species.

4.4.7 Brush Management

The site is within a High Fire Hazard Zone and brush management, if extended into open space or off site could impact native habitats including CSS and SMC.

The project proponent has been unable to contact the owner of the open parcel immediately to the southeast of the Lot 7 parcel, and so will mitigate for fire risk through the installation of fi

re protective walls where the fire clearing zone would pass into this parcel.

4.5 Cumulative Impacts

The MHCP was designed to compensate for the loss of regional biological functionality that would otherwise occur on a project-by-project basis under CEQA. Compliance with the requirements of the MHCP would not result in cumulatively considerable impacts for those resources covered by the plan. As impacts to sensitive resources on site will be mitigated at MHCP–required ratios or requirements, implementation of the mitigation measures will ensure that no significant cumulative impacts occur.

5.0 MITIGATION MEASURES

Pursuant to CEQA requirements and the MHCP the following mitigation measures are proposed to reduce potentially significant impacts to below a level of significance or to avoid them altogether. These mitigation measures constitute the Mitigation, Monitoring, and Reporting Program (MMRP) for the project.

5.1 Direct Impacts

Potential significant impacts were identified in BIO 1, 2 and 6 above, unless mitigated to below a level of significance.

Impact BIO 1: The proposed Project would impact 0.42 acre and preserve 0.80 acre of CRPR 2B.2 wart-stemmed ceanothus, it would impact four and preserve 22 CRPR 1B.2 Parry's tetracoccus, it would impact one CRPR 1B.2 decumbent goldenbush, and it would impact CRPR 4.1 ashy spikemoss. In addition, the proposed project would impact orange-throated whiptail lizards and potentially impact San Diego desert woodrats and red diamond rattlesnakes.

Mitigation Measure BIO 1: Impacts to Parry's tetracoccus need species-specific mitigation while impacts to ashy spikemoss, orange-throated whiptail, San Diego desert woodrat and red diamond rattlesnake can be mitigated with preservation of habitat. While impacts are not significant to wart-stemmed ceanothus and decumbent goldenbush, habitat suitable for decumbent goldenbush and habitat containing wart-stemmed ceanothus will be preserved.

The impacts to all species shall be mitigated through the protection of existing native habitat on the undeveloped portion of the Lot 7 parcel and through the purchase of 0.64 acres of CSS mitigation credit from the Red Mountain Conservation Bank.

Impacts to three individuals of Parry's tetracoccus shall be mitigated at a 3:1 ratio with the preservation of 12 of the 22 Parry's tetracoccus on the undeveloped portion of the Lot 7 parcel to be preserved. The additional ten Parry's tetracoccus on the Lot 7 parcel will also be preserved.

Impacts to 1.92 acres of ashy spikemoss, orange-throated whiptail, San Diego desert woodrat and red diamond rattlesnake habitat on the Lot 7 parcel and along the fire access road shall be mitigated with preservation of 0.69 acre of habitat on the Lot 7 parcel for this project, that additional 0.29 acre of SMC habitat on the Lot 7 parcel, and the preservation of 0.64 acre of CSS habitat at the Red Mountain Conservation Bank (see ***Mitigation Measure BIO 2*** below). While impacts to wart-stemmed ceanothus are not significant and do not require mitigation, 0.80 acre of SMC habitat occupied by wart-stemmed ceanothus will be preserved on the Lot 7 parcel.

These mitigation measures would reduce impacts to special status species to below a level of significance.

Impact BIO 2: The proposed Project would impact would occur to 0.34 acres of CSS, 0.39 acre of CSS-D (0.73 acre of all CSS total, a total of 0.73 acre of Group C habitats), and 1.19 acres of SMC (Group D habitats: Table 6 and Table 7) which would be significant unless mitigated. DEV and DH are not considered sensitive.

Mitigation Measure BIO 2: The applicant proposes to mitigate impacts with a combination of on-site preservation of habitat that would be avoided and through the purchase of 0.64 acres of CSS mitigation credit from the Red Mountain Conservation Bank (Table 7).

As the proposed project site is not within the FPA the ratios in Table 7 reflect the MHCP ratios for projects outside the FPA (SANDAG 2003). Per Table 7, the proposed project would require 1.33 acres of mitigation.

The applicant proposes to preserve 0.09 acre of Group C habitats on site in the Lot 7 parcel and preserve an additional 0.64 acre of CSS at the Red Mountain Conservation Bank to satisfy the 0.73-acre requirement for Group C habitat mitigation (Table 7).

In addition, the proposed project's impacts to Group D habitats, namely 1.19 acres of SMC, are proposed to be mitigated at the required 0.5:1 mitigation ratio by on-site preservation of 0.60 acre of SMC in the Lot 7 parcel for a total of 0.60 acre identified as the required mitigation, a further 0.29 acre of SMC on site will be preserved on the Lot 7 parcel to ensure habitat connectivity and that all remaining rare plants on the parcel are protected, for a total of 0.89 acre preserved (Table 7).

While the MHCP calls for mitigation in the FPA, on-site mitigation is justified because the proposed mitigation is adjacent to and contiguous with the extensive preserved habitat of the San Marcos Mountains to the east (Figure 6).

Implementation of this mitigation measure would offset the proposed project's impacts to habitats to a level less than significant.

Table 7: Vegetation Communities – Impacts and Mitigation.

Habitat	Acres On Site (Lot 7 Parcel)	Impacts of entire Project	Preserved Area Within 50% Thinning Zone[1]	MHCP Ratio[2]	Mitigation (acres)				
					Required	On-Site Mitigation on Lot 7 for entire Project[3]	Red Mountain Conservation Bank	Additional Preservation on Lot 7	Total for this Project
Group C – Coastal Sage Scrub									
Coastal Sage Scrub (CSS)	0.42	0.34	0.03	1:1	0.34	0.08	0.64	0	0.72
Disturbed Coastal Sage Scrub (CSS-D)	0.42	0.39	0.02	1:1	0.49	0.01	0	0	0.01
Group C Subtotal	*0.84*	*0.73*	*0.05*	*1:1*	*0.73*	*0.09*	*0.64*	*0*	*0.73*
Group D – Chaparral									
Southern Mixed Chaparral (SMC)	2.00	1.19	0.15	0.5:1	0.60	0.60	0	0.29	0.89
Group F – Other									
Developed (DEV)	0.09	0.11	N/A	N/A	-	-	-		-
Disturbed Habitat (DH)	0	0.24	N/A	N/A	-	-	-		-
Total	**2.93**	**2.27**	**0.20**		**1.33**	**0.69**	**0.64**	**0.29**	**1.62**

[1] Areas within the 50% impact zone cannot be used as mitigation for this project.

[2] Ratios are for area outside of the FPA

[3] On-site habitat qualifies for mitigation as connected directly to preserved habitat.

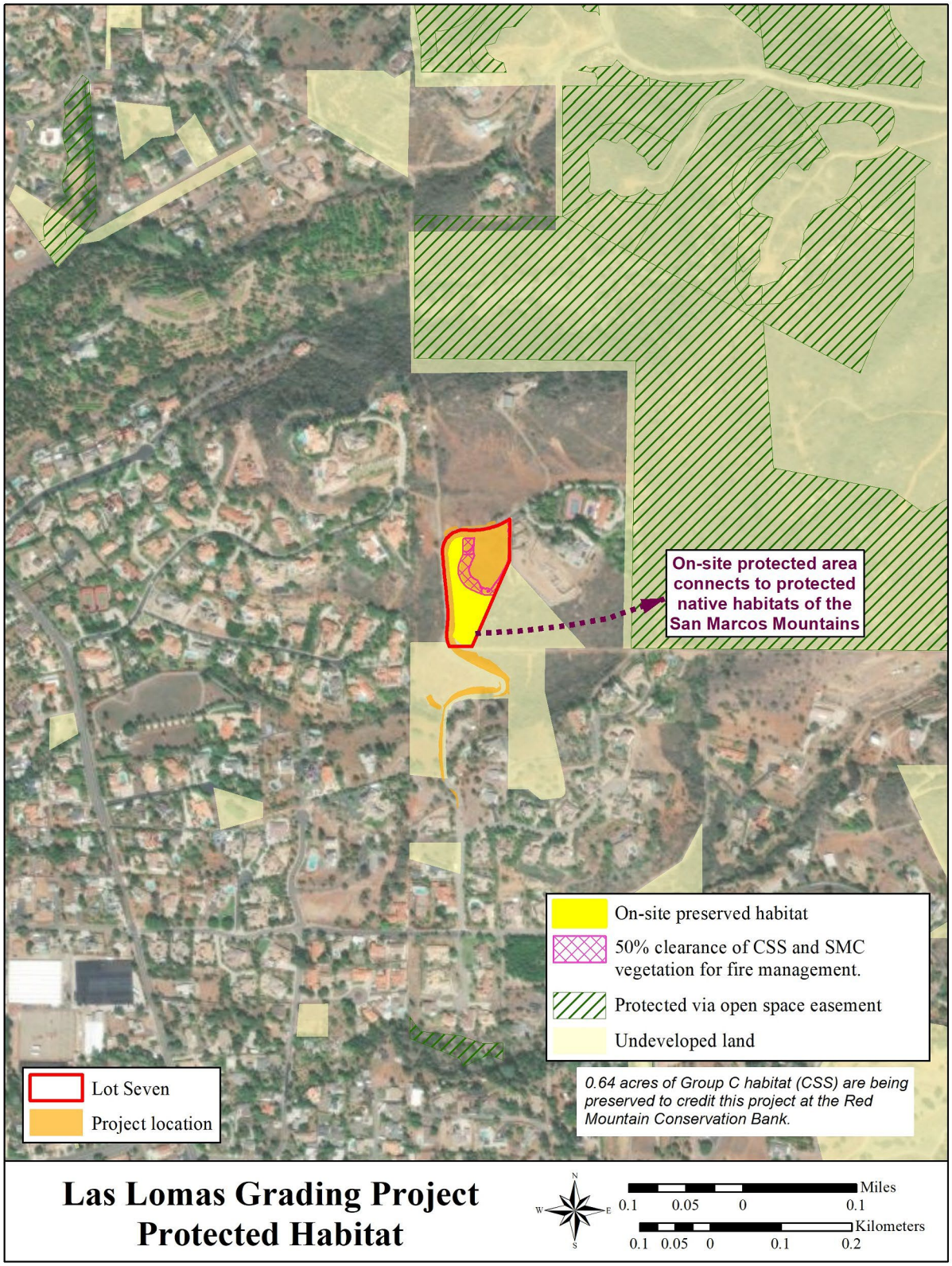

Figure 6: Las Lomas Grading Project Vicinity and Connection to Off-Site Protected Habitat.

Impact BIO 6: Direct impacts may occur to native birds nesting in the vegetation on site which are protected under the MBTA and CFG Code, if clearing occurs during the bird-breeding season (January 1 through September 15).

Mitigation Measure BIO 6: All shrub trimming, thinning, or removal will be performed prior to or after the bird-breeding season, January 1 through September 15 (i.e., only between September 16 and December 31). If clearing is planned to occur during the bird-breeding season, pre-construction nest surveys shall be conducted prior to any clearing. Work may proceed if no active bird nests are detected. By avoiding clearing during the bird-breeding season, or performing surveys to ensure no active nests are present prior to clearing, the proposed Project will ensure compliance with the MBTA and pertinent sections of the CFG Code.

Implementation of these restrictions would ensure the proposed project's compliance with the MBTA and CFG Code and reduce impacts to a level less than significant.

5.2 Indirect Impacts

To ensure all indirect effects are avoided or remain below a level of significance, the MHCP includes a list of Standard BMPs that are required to limit indirect impacts (SANDAG 2003: Volume II, Appendix B). Specifically, for the proposed project, Measures 1-3, 6, 8, 10-18, and 21 would apply:

1. A qualified biologist shall conduct a training session for all project personnel prior to proposed activities. At a minimum, the training shall include a description of the target species of concern and its habitats, the general provisions of the ESA and the MHCP, the need to adhere to the provisions of the Act and the MHCP, the penalties associated with violating the provisions of the Act, the general measures that are being implemented to conserve the target species of concern as they relate to the project, and the access routes to and project site boundaries within which the project activities must be accomplished.

2. A water pollution and erosion control plan shall be developed that describes sediment and hazardous materials control, dewatering or diversion structures, fueling and equipment management practices, and other factors deemed necessary by reviewing agencies. Erosion control measures shall be monitored on a regularly scheduled basis, particularly during times of heavy rainfall. Corrective measures will be implemented in the event erosion control strategies are inadequate. Sediment/ erosion control measures will be continued at the project site until such time as the revegetation efforts are successful at soil stabilization.

3. The footprint of disturbance shall be minimized to the maximum extent feasible. Access to sites shall be via pre-existing access routes to the greatest extent possible.

6. Projects that cannot be conducted without placing equipment or personnel in sensitive habitats should be timed to avoid the breeding season of the target species of concern.

8. Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. All necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. All project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional City, USFWS, CDFW, and RWQCB, and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.

10. The qualified project biologist shall monitor construction activities throughout the duration of the project to ensure that all practicable measures are being employed to avoid incidental disturbance of habitat and any target species of concern outside the project footprint. Construction monitoring reports shall be completed and provided to the jurisdictional City, USFWS, and the CDFW summarizing how the project is in compliance with applicable conditions. The project biologist should be empowered to halt work activity if necessary and to confer with staff from the applicable City, USFWS, and CDFW to ensure the proper implementation of species and habitat protection measures.

11. The removal of native vegetation shall be avoided and minimized to the maximum extent practicable. Temporary impacts shall be returned to pre-existing contours and revegetated with appropriate native species. All revegetation plans shall be prepared and implemented consistent with MHCP Revegetation Guidelines (MHCP Appendix C) and shall require written concurrence of the USFWS and CDFW.

12. Exotic species that prey upon or displace target species of concern should be permanently removed from the site.

13. To avoid attracting predators of the target species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s). Pets of project personnel shall not be allowed on site where they may come into contact with any listed species.

14. Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. All employees shall be instructed that their activities are restricted to the construction areas.

15. Any habitat destroyed that is not in the identified project footprint shall be disclosed immediately to the jurisdictional City, USFWS, and CDFW and shall be compensated at a minimum ratio of 5:1.

16. If dead or injured listed species are located, initial notification must be made within three working days, in writing, to the Service's Division of Law Enforcement in Torrance, California and by telephone and in writing to the applicable jurisdiction, Carlsbad Field Office of the USFWS, and CDFW.

17. The jurisdictional City shall have the right to access and inspect any sites of approved projects including any restoration/enhancement area for compliance with project approval conditions including these BMP. The USFWS and CDFW may accompany City representatives on this inspection.

18. Any planting stock to be brought onto the site for landscaping or ecological restoration shall first be inspected by a qualified pest inspector to ensure it is free of pest species that could invade natural areas, including but not limited to Argentine ants, fire ants, and other insect pests. Any planting stock found to be infested with such pests shall not be allowed on the project site or within 300 ft. of natural habitats. The stock shall be quarantined, treated, or disposed of according to best management principles by qualified experts in a manner that precludes invasions into natural habitats.

21. All mitigation sites shall be conserved through fee title acquisition, conservation easement or through the Covenants, Conditions and Restrictions of the Home Owners Association which will govern this property and some adjacent properties. Proof of recordation shall be provided to the jurisdictional City prior to land disturbance.

In addition, to ensure all potential indirect effects are avoided:

- Any project landscaping shall not include species identified as an invasive non-native plant species as identified by the California Invasive Plant Council at http://www.cal-ipc.org/paf/.
- A Qualified Biologist shall be retained by the project proponent to ensure all protective measures are applied. Per the mitigation measures prior to construction, the Qualified Biologist shall:
    - attend a pre-construction meeting
    - provide any required biological documents to the City
    - enforce bird nest avoidance and protection requirements
    - supervise resource delineation including placement of orange fencing
    - educate the construction crew.
- During construction the Qualified Biologist shall:
    - monitor clearing, grading, and construction to ensure protection of sensitive biological resources
    - prevent any new disturbances to resources that were not identified previously
- Post-construction the Qualified Biologist shall submit a final report to the City demonstrating all biological avoidance and mitigation measures were applied.

Lastly, final building plans for the development adjacent to protected biological open space shall identify the shielded light fixtures and/or fencing/barriers to direct light away from the preserved habitat on site as well as off site.

6.0 CONCLUSION

Direct impacts to 0.73 acre of Group C habitats (CSS), unoccupied by CAGN, and 1.19 acres of Group D habitats (chaparral) would be mitigated at 1:1 and 0.5:1 ratios respectively, per the MHCP for projects outside the FPA, with preservation of 0.09 acre of Group C habitats and 0.60 acres of Group D habitat on site and preservation of 0.64 acre of Group C habitat through the purchase of CSS at the Red Mountain Conservation Bank. An additional 0.29 acre of SMC is being preserved on Lot 7. The on-site habitats would remain connected to the protected habitat of the San Marcos Mountains. Impacts to 0.42 acre of a near monoculture of CRPR 2B.2 wart-stemmed ceanothus are not significant and do not need mitigation, but preservation of 0.80 acre of near monoculture wart-stemmed ceanothus will occur on site. Impacts to four individuals of CRPR 1B.1 Perry's tetracoccus shall be mitigated at a 3:1 ratio (12 individuals) with the preservation of 22 Perry's tetracoccus on site. Impacts to one individual CRPR 1B.1 decumbent goldenbush is not significant as a large population occurs on the adjacent 1985 Las Lomas parcel to the north. Impacts to nesting birds will be avoided though clearing outside the bird-breeding season (January 1 through September 15) unless a pre-construction survey demonstrates no active nests would be affected. Application of MHCP Standard BMPs plus the additional measures for invasive species and lighting would ensure the proposed project would be in compliance with CEQA, MHCP, MBTA, and CFG Code. After application of the MMRP, no

significant direct or indirect impacts to sensitive or special status, riparian or sensitive vegetation communities, species, wetlands, wildlife corridors or nursery sites, local policies or ordinances, would occur and the proposed project would be in compliance with the MHCP, all state or federal laws, codes, and treaties. As a result of the proposed project design and MMRP, the proposed project would have a less than significant effect on biological resources.

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APPENDIX A: PLANT SPECIES OBSERVED ON SITE

FAMILY	SCIENTIFIC NAME	COMMON NAME	HABITAT(S)‡
FERNS AND MOSSES			
Pteridaceae	*Pellaea mucronata*	bird's foot fern	SMC
Selaginellaceae	*Selaginella cinerascens* †	ashy spikemoss	CSS
ANGIOSPERMS – MONOCOTS			
Araceae	*Zantadeschia sp.*	calla lily	CSS-D
Arecaceae	*Phoenix canariensis*	Canary island date palm	DEV
Agavaceae	*Chlorogalum pomeridianum*	wavyleaf soap plant	CSS-D
Amaryllidaceaea	*Allium vineale*	field garlic	DH
Poaceae	*Avena* sp.	wild oat	DH
	Bromus diandrus	ripgut grass	CSS, DH
	Bromus madritensis ssp. *rubens*	foxtail chess	CSS, DH
	Pennisetum setaceum	fountain grass	CSS, DEV
	Melinis repens	rose Natal grass	DH
	Stipa sp.	needle grass	CSS, DH
	Schismus barbatus	kelch grass	DH
Melanthiaceae	*Toxicoscordion fremontii*	Fremont's deathcamas	DH, CSS
ANGIOSPERMS – DICOTS			
Anacardiaceae	*Malosma laurina*	laurel sumac	CSS, CSS-D, CSC, SMC
	Rhus integrifolia	lemonadeberry	CSS, CSS-D
	Rhus ovata	sugar bush	CSS, SMC
	Schinus molle	Peruvian pepper tree	DH
Apiaceae	*Daucus pusillus*	rattlesnake weed	CSS-D
	Foeniculum vulgare	sweet fennel	NNG-D, CSS-D, DH
Arecaceae	*Washingtonia robusta*	Mexican fan palm	DEV, DH
Asteraceae	*Artemisia californica*	California sagebrush	CSS, CSS-D, CSC
	Baccharis pilularis	coyote brush	CSS, CSS-D
	Baccharis sarothroides	desert broom	CSS, CSS-D, DH
	Centaurea melitensis	star thistle	DH, CSS-D
	Deinandra fasciculata	common tarweed	DH
	Dittrichia graveolens	stinkwort	DH, CSS-D
	Eriophyllum confertiflorum	golden yarrow	CSS, CSS-D, DH
	Erigeron canadensis	Canada horseweed	CSS-D, DH
	Hazardia squarrosa	saw toothed goldenbush	CSS-D, DH
	Helichrysum luteoalbum	Jersey cudweed	CSS-D
	Helminthotheca echiodes	bristly ox-tongue	CSS-D, DH
	Heterotheca grandiflora	telegraph weed	CSS-D, DH
	Hypochaeris glabra	smooth cat's ear	DH
	Isocoma menziesii var. *decumbens*†	decumbent goldenbush	SMC
	Psuedognaphalium bioletti	two-color rabbit tobacco	CSS-D, DH
	Psuedognaphalium californica	ladies' tobacco	CSS-D, DH
	Sonchus asper	spiny sowthistle	DH
Boraginaceae	*Eucrypta chrysanthemifolia*	spotted hideseed	CSS, CSS-D
	Cryptantha sp.	cryptantha	DH
Brassicaceae	*Brassica nigra*	black mustard	DH
	Brassica rapa	field mustard	DH
	Hirschfeldia incana	shortpod mustard	CSS-D. DH
	Lobularia maritima	sweet alyssum	DH
	Raphanus sativus	radish	DH
Caprifoliaceae	*Lonicera subspicata var. denudata*	honeysuckle	CSS

FAMILY	SCIENTIFIC NAME	COMMON NAME	HABITAT(S)‡
	Salsola tragus	Russian thistle	DH
Cucurbitaceae	*Marah macrocarpus*	wild cucumber	CSS
Ericaceae	*Xylococcus bicolor*	mission manzanita	SMC
Euphorbiaceae	*Euphorbia maculatum*	spotted spurge	DH
Fabaceae	*Acmispon glaber*	deerweed	DH
	Lupinus succulentus	arroyo lupine	DH
	Medicago polymorpha	bur-clover	DH, DEV
	Melilotus officinalis	yellow sweet clover	DH
Fagaceae	*Quercus agrifolia*	coast live oak	DEV
Geraniaceae	*Erodium* sp.	filaree	DH
	Geranium carolinianum	Carolina geranium	DH
Hydrophyllaceae	*Phacelia* sp.	phacelia	CSS, DH
Lamiaceae	*Marrubium vulgare*	white horehound	DH
	Salvia mellifera	black sage	CSS, SMC
Malvaceae	*Malacothamnus fasciculatus var. fasciculatus*	chaparral bush mallow	SMC
	Malva parviflora	Cheese weed	DH
Opuntioideae	*Opuntia ficus-indica*	Indian fig opuntia	DEV
Oxalidaceae	*Oxalis pes-caprae*	Bermuda buttercup	DH
Picrodenraceae	*Tetracoccus dioicus†*	Parry's tetracoccus	CSS, SMC
Plumbaginaceae	*Limonium sinuatum*	Mediterranean limonium	DEV
Polygonaceae	*Eriogonum fasciculatum*	California buckwheat	CSS, CSS-D
	Rumex crispus	curly doc	DH
	Rumex spinosis	Devil's thorn	DH
Polemoniaceae	*Cobea scandens*	saucer plant	DEV
Rhamnaceae	*Ceanothus verrucosus* †	wart-stemmed ceanothus	SMC
Rosaceae	*Adenostoma fasciculatum*	chamise	SMC
	Heteromeles arbutifolia	toyon	CSS
Rubiaceae	*Galium angustifolium*	narrowleaf bedstraw	CSS
Rutaceae	*Cneoridium dumosum*	spice bush	CSS, SMC
Scrophulariaceae	*Diplacus aurantiacus*	sticky monkeyflower	CSS
Solanaceae	*Datura wrightii*	jimsonweed	DH
	Nicotiana glauca	tree tobacco	DH
	Solanum sp.	nightshade	DH
Verbenaceae	*Lantanas* sp.	lantana	DH

‡Habitat acronyms: CSCS=coastal sage-chaparral scrub, CSS= coastal sage scrub, CSS-D = Disturbed coastal sage scrub DH=disturbed habitat

†Sensitive species

APPENDIX B: ANIMAL SPECIES OBSERVED OR DETECTED

FAMILY	SCIENTIFIC NAME	COMMON NAME	Notes
INVERTEBRATES			
Apidea	*Apis mellifera*	western honeybee	
Pieridae	*Pieris rapae*	cabbage white butterfly	
Coccinelidae	*Coccinella septempunctata*	seven-spot ladybird beetle	
VERTEBRATES			
Reptiles			
Phrynosomatidae	*Sceloporus occidentalis longipes*	Great Basin fence lizard	
Teiidae	*Aspidoscelis hyperythra beldingi*	orange-throated Whiptail	WL
Birds			
Accipitiridae	*Buteo jamacensis*	red-tailed hawk	Flyover
Trochilidae	*Calypte anna*	Anna's hummingbird	
	Selasphorus sasin	Allen's hummingbird	
Picidae	*Colaptes auratus*	northern flicker	
Falconidae	*Falco sparverius*	American kestrel	
Tyrannidae	*Sayornis saya*	Say's phoebe	
	Tyrannus vociferans	Cassin's kingbird	
Corvidae	*Aphelecoma californicus*	California scrub jay	
	Corvus brachyrhynchos	American crow	
Aegathalidae	*Psaltriparus minimus*	bushtit	
Sylviidae	*Chaemaea fasciata*	wrentit	
Polioptilidae	*Polioptila caerulea*	blue-gray gnatcatcher	
Parulidae	*Setophaga coronata*	yellow-rumped warbler	
Mimidae	*Toxostoma redivivum*	California thrasher	
Emberizidae	*Pipilo crissalis*	California towhee	
Icteridae	*Icterus cucullatus*	Hooded oriole	
Fringillidae	*Haemorhous mexicanus*	house finch	
	Spinus psaltria	lesser goldfinch	
Mammals			
Cricetidae	*Neotoma lepida*	woodrat	nests
Canidae	*Canis latrans*	coyote	scat
Leporidae	*Sylvilagus auduboni*	desert cottontail	

WL = CDFW watchlist
BCC = USFWS Bird of Conservation Concern
Flyover = seen overhead and did not land on site

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APPENDIX C: SITE PHOTOS

Photo 1: Looking SW across the NE corner of the Lot 7 parcel. CSS-D with laurel sumac resprouting in the foreground and CSS in the background with SMC just behind on the right. The "great wall of Vista" is visible in the top left.

Photo 2: Looking downslope and WSW from the NW corner of the Lot Seven parcel across Tierra Del Cielo and towards the Kings Road community of Vista. CSS in the foreground soon grades into SMC.

Photo 3: Looking E into the middle of the Lot 7 parcel from Tierra Del Cielo. Chamise, spicebush, mission manzanita, and laurel sumac are visible, but the dominant species on the slope is CRPR 2.2B wart-stemmed ceanothus.

Photo 4: Within much of the southern two thirds of the Lot 7 parcel the habitat is a near impenetrable thicket of wart-stemmed ceanothus.

Photo 5: SMC in the SW corner of the Lot 7 parcel with spicebush blooming. Looking NW from Tierra Del Cielo during the January 2022 survey.

Photo 6: CRPR 1.2B Parry's tetracoccus blooming in the southern part of the Lot 7 parcel in January 2022.

Photo 7: Looking up Las Lomas from the intersection with Tierra Del Cielo. This road will be widened into a fire access capable road up to the Canary Island pam tree at the end of the visible road in this photo. The Lot 7 parcel is on the right side of the road here and the 1985 Las Lomas parcel is on the left.

Photo 8: Looking south down Tierra Del Cielo from near the interaction with Las Lomas. The Lot 7 parcel is on the left and the southern panhandle of the 1985 Las Lomas parcel drops off on the right.

Photo 8: Parry's tetracoccus growing in the small patch of CSS along the tight "hairpin" turn of Tierra Del Cielo south of the Lot 7 parcel.

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