Biological Technical Report for the Cross Border Xpress OTN Parcel Project PTS No. 615398

September 20, 2021

Prepared for:

Otay-Tijuana Venture, LLC
2745 Otay Pacific Drive
San Diego, CA 92154

Prepared by:

Alden Environmental, Inc.
3245 University Avenue, #1188
San Diego, CA 92104

ALDEN
ENVIRONMENTAL, INC

Biological Technical Report for the Cross Border Xpress OTN Parcel Project

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

TABLE OF CONTENTS (continued)

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

1.0 INTRODUCTION

This report describes existing biological conditions on the Cross Border Xpress Project (project) on the OTN parcel (site) and provides the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (Corps), California Department of Fish and Wildlife (CDFW), City of San Diego (City), and project applicant with information necessary to assess impacts to biological resources under the California Environmental Quality Act (CEQA) and City, State, and federal regulations.

1.1 PROJECT LOCATION

The 28.88-acre project site is located in the City, south of Siempre Viva Road and east of Las Californias Drive (Figures 1 and 2). It is within the Otay Mesa Community Plan boundaries and is in the southwest quarter of Section 3 in Township 19 South, Range 1 West of the U.S. Geological Survey (USGS) Otay Mesa 7.5-minute quadrangle. The project also is within the City's Multiple Species Conservation Program (MSCP) area. The MSCP identifies areas to be preserved, known as the Multi-Habitat Planning Area (MHPA). The project is not within or adjacent to the original mapped MHPA limits; however, the adopted City Vernal Pool Habitat Conservation Plan (VPHCP) boundary expanded and added to the City's existing MHPA. Specifically, the southern portion of the site that is within the 100% conservation area of the VPHCP is now also to be treated as MHPA land.

1.2 PROJECT DESCRIPTION

Otay-Tijuana Venture, LLC proposes the addition of a 1,918-stall surface parking lot on vacant land with access from Siempre Viva Road that will serve as parking for the Cross Border Xpress pedestrian skywalk bridge between the CBX terminal and the Tijuana Airport. Of the 1,918 stalls, 31 will be designated for ADA parking, and six of the ADA parking stalls will be designated for ADA van parking, all of which adhere to the City's requirements. The total project site is 28.88 acres with a proposed impact footprint of approximately 19.16 acres. The 9.72 acres on site that will not be impacted will be preserved, and disturbed land within the 9.72 acres will be enhanced to improve habitat quality. The upland portion of the preserved land will be used as mitigation for the project; the wetland/riparian portion of the preserved land will remain available for use as mitigation for future projects. The project will require a Conditional Use Permit and Site Development Permit.

1.2.1 Project History

In November 2019, the project owner cleared a 9.16-acre area in the northern portion of the site without the approval of the City of Wildlife Agencies. This area supported 8.1 acres of non-native grassland habitat. The clearing activity was entirely within the proposed project footprint and outside of the adjacent VP HCP preserve area. An active burrowing owl (*Athene cunicularia*; BUOW) burrow was destroyed during the clearing activity. Additional discussion is provided in Section 7.1.3 (Direct Impacts to Sensitive Animal Species, Burrowing Owl). Work conducted included removal of trash and debris, installation of a rock lined entrance from Siempre Viva Road, and surface contouring to level out the site. On December 20, 2019, a Civil Penalty Notice and Order (CPNO) was issued by the City for the unauthorized clearing activity. This CPNO called for an immediate stop to the work and installation erosion/sedimentation control measures. In response, the project owner immediately halted the clearing activity, placed a 6-foot-tall chain link fence and silt fencing around the perimeter of the cleared area, and installed hydromulch erosion control material. Since that time the owner has been maintaining the fences and erosion control materials to ensure that the site is stable and erosion/sedimentation does not occur.

2.0 METHODS AND SURVEY LIMITATIONS

2.1 LITERATURE REVIEW

Prior to conducting updated field investigations, Alden Environmental, Inc. (Alden) performed a review of the California Natural Diversity Database (CNDDB) and USFWS database for special status species reported on the project site or within one mile of the site. Previous biological mapping and aerial photographs of the site also were referenced.

2.2 BIOLOGICAL SURVEYS

Biological resources mapping and surveys were conducted on the project site and included vegetation mapping as well as surveys for sensitive plant species and BUOW, and habitat assessments for the Quino checkerspot butterfly (*Euphydryas editha quino*; QCB) and listed fairy shrimp species. Information for the surveys is provide in Table 1. Lists of plant and animal species observed and/or detected on site during site visits were made and compiled in Appendices A and B. Representative photographs of the site were taken and are provided in Appendix C.

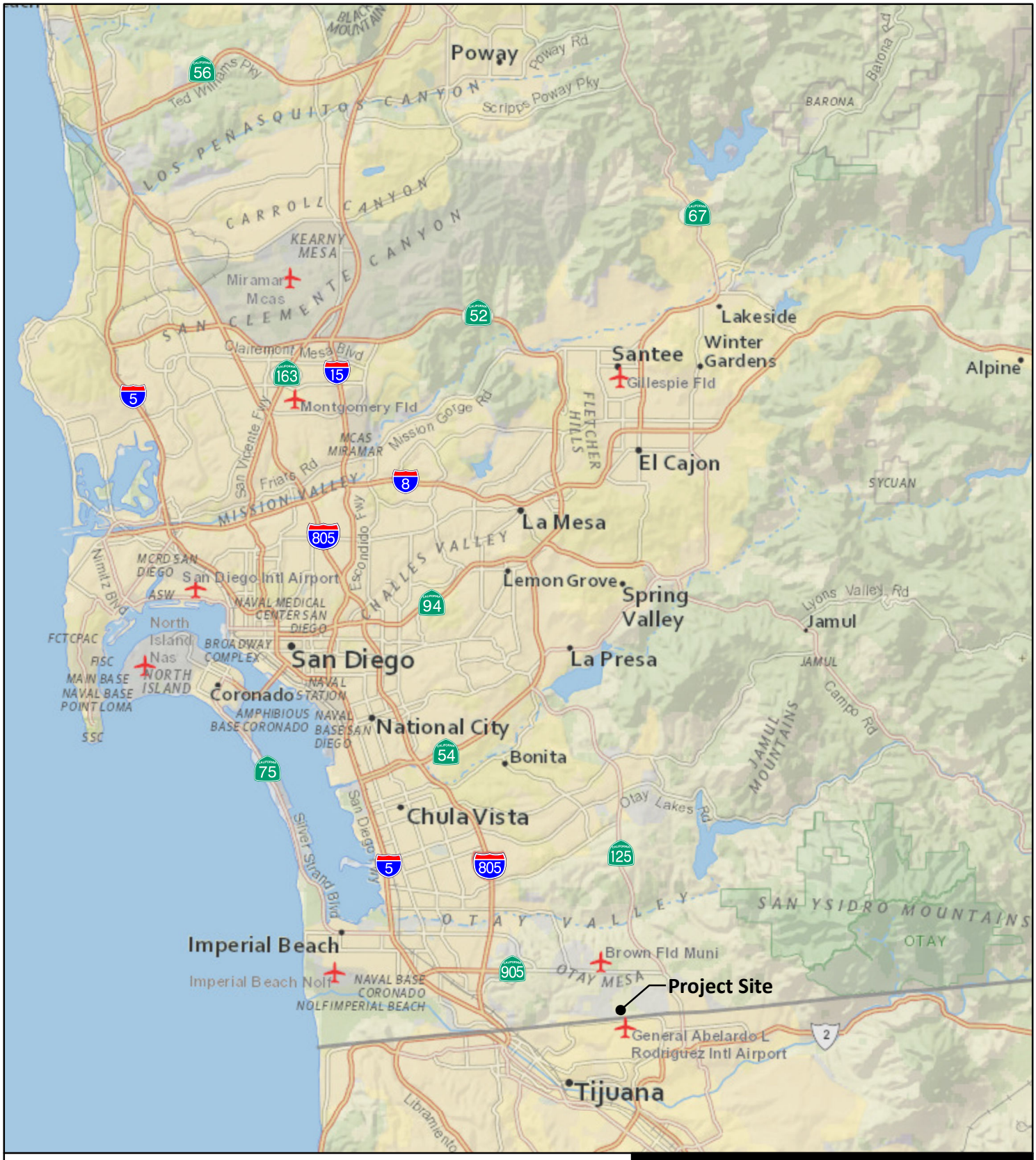


Figure 1

Regional Location

CROSS BORDER XPRESS - OTN PARCEL

N
W E
S

0 2 4 Miles

ALDEN ENVIRONMENTAL, INC

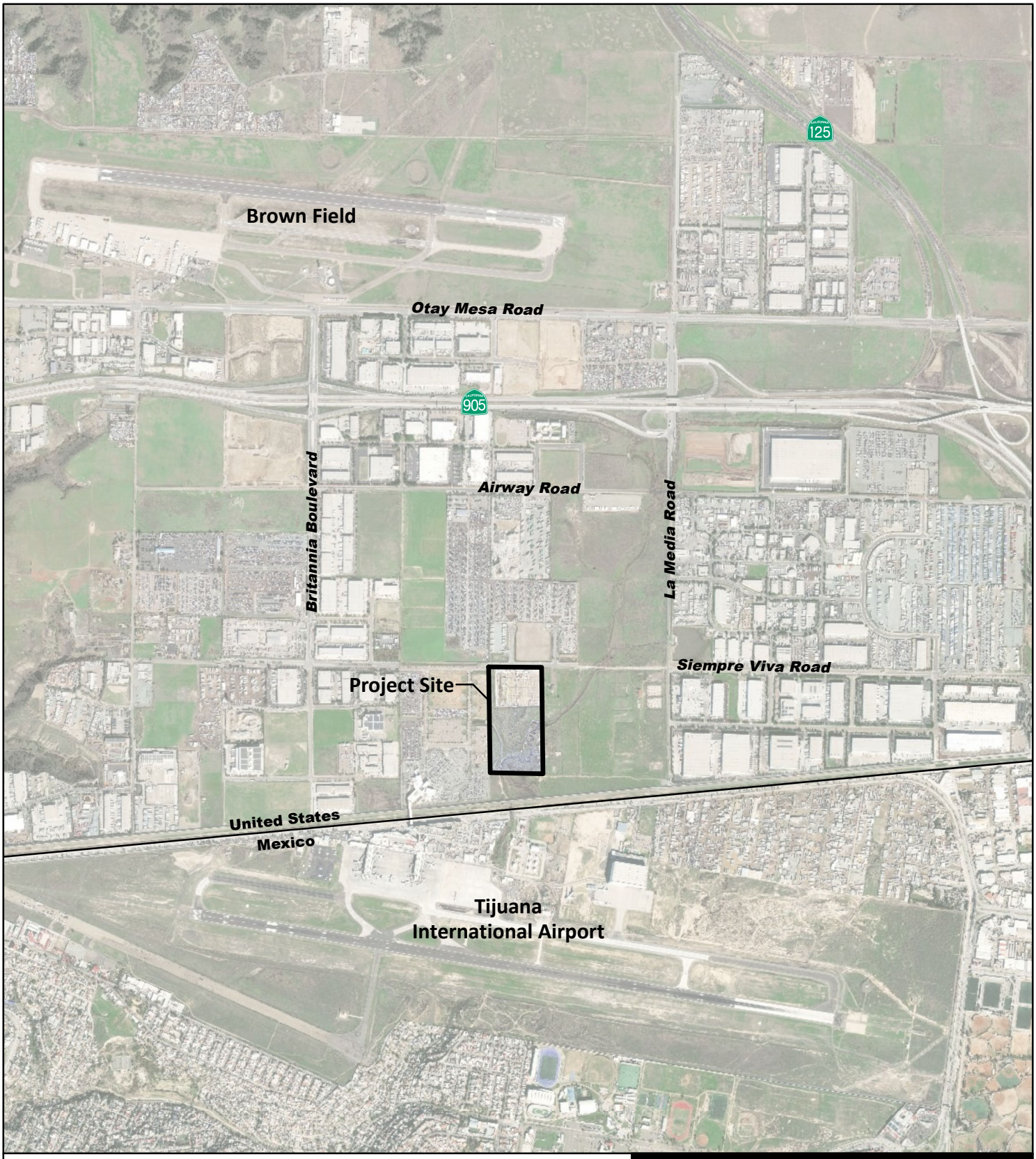


Figure 2

Project Location

CROSS BORDER XPRESS - OTN PARCEL

N
W E
S
0 1,000 2,000
Feet

ALDEN
ENVIRONMENTAL, INC

Table 1 SURVEY INFORMATION			
Survey Date	**Survey Type**	**Personnel**	**Survey Time and Weather Conditions (Start/Stop)**
01/18/10	Vegetation and potential waters and wetlands mapping	Greg Mason	NA
01/18/10	QCB site assessment	Greg Mason (TE-58862A-0)	NA
02/20/18		Tara Baxter (TE87004B-0)	NA
02/28/18			NA
02/28/18	BUOW owl survey	Tara Baxter	0600-0800 0600, 0% cloudy, 43°F, wind 2-4 mph/ 0800, 0% cloudy, 53°F, wind 0-2 mph
04/19/18			0600-0830 0600, 75% cloudy, 55°F, wind 2-4 mph/ 0830, clear, 60°F, wind 1-5 mph
05/23/18			0530-0740 0530, 100% cloudy, 61°F, wind 1-3 mph/ 0740, 100% cloudy, 64°F, wind 1-3 mph
06/21/18			0530-0800 0530, 100% cloudy, 57°F, wind 1-3 mph/ 0800, 100% cloudy, 68°F, wind 1-3 mph
04/25/18	Sensitive plant survey	Lee Ripma	NA
07/26/18			NA
12/19/2019	Assess and map unauthorized clearing area	Greg Mason	NA
1/15/2020	Forensic burrow excavation	Greg Mason, City, & CDFW	NA

2.2.1 Vegetation Mapping

Alden walked the project site in January 2018 to map existing vegetation communities following the descriptions provided by Oberbauer, et al. (2008) and the City's Biology Guidelines (City 2018) for non-native grassland and other disturbed areas as follows.

The vegetation mapping took into account the City's defined differentiation between non-native grassland and other disturbed areas as listed below (City 2018).

According to the City's guidelines:

> Non-native annual grasslands (NNG) contain annual grass species (Poaceae family) including, but not limited to, bromes *(Bromus* spp.), wild oat (*Avena* spp.), ryegrass (*Lolium* spp.) and fescues (*Vulpia* spp.). Typically, NNG includes at least 50% cover of the entire herbaceous layer attributable to annual non-native grass species, although other plant species (native or non-native) may be intermixed. Other common plant species found in NNG include filaree (*Erodium* spp.), California poppy (*Eschscholzia californica*), tecolote (*Centaurea melitensis*), mustards (*Brassica* spp.), artichoke thistle (*Cynara cardunculus*), sweet fennel (*Foeniculum vulgare*), and others.
>
> Other Disturbed Areas include lands commonly defined as Ruderal Habitat or Agricultural/Fallow. Ruderal habitat typically develops on sites with heavily compacted soils following intense levels of disturbance such as grading. Agricultural/fallow lands include areas of active agricultural cultivation (e.g., nurseries, orchards, field crops) and fallow areas which have been disturbed in the recent past by cultivation or agricultural activity. These types of disturbed areas should not be confused with areas that are degraded, yet still retain sufficient vegetation community (e.g., "disturbed" coastal sage scrub does not meet the definition of disturbed under this definition). Disturbed areas are usually associated with prior development (e.g., previous grading) or agricultural use. These areas can consist of bare ground, or when vegetated, are dominated by at least 50 percent cover of invasive broad-leaved non-native plant species including, but are not limited to, horseweed, (*Conyza* spp.), garland chrysanthemum (*Chrysanthemum coronarium*), pineapple weed (*Chamomilla suaveolens*), sow-thistle (*Sonchus* spp.), Russian thistle (*Salsola tragus*), mustards, knotweed (*Polygonum* spp.), bur-clover (*Medicago polymorpha*), fennel and others. Minor amounts of other species including non-native annual grasses can also be present.
>
> To distinguish between NNG and other disturbed areas, the relative percent cover of the herbaceous species should be used as a diagnostic tool. Within the area in question, the percent cover and relative percent cover of all herbaceous species should be assessed. The cumulative total of each species should be determined and ranked in descending order of abundance. The vegetation community should be determined based upon the total cumulative relative percent cover of non-native grasses (*Poaceae* family). If native habitats have been ruled out and if the majority (50 percent or greater) of the observed species are introduced members of the Poaceae family, then the area should be characterized as non-native annual grassland. Otherwise, consideration should be given to identified types of disturbed areas.

Non-native grassland on the project site was mapped where non-native grass species were clearly present and comprised a significant amount of the vegetative cover. The City guidelines note that a relative cover of 50 percent should be used to map an area as non-native grassland. For this site, areas that showed any consistent amount of non-native grassland over an area of approximately 0.1 acre (minimum mapping unit) were mapped as non-native grassland, even if it could have been calculated to be less than 50 percent relative cover.

As discussed in Section 1.2.1, *Project History*, unauthorized clearing of 8.1 acres non-native grassland occurred in the northern portion of the site in November 2019. Additional site visits were conducted on December 19, 2019 and January 15, 2020 to map the extent of the clearing with the use of a GPS unit with submeter accuracy and determine if impacts to occupied burrowing owl burrows occurred. The biological mapping and subsequent impact analyses used in this report, however, are based on the non-native grassland that was present before the clearing.

2.2.2 Potential Waters of the U.S., Waters of the State, and City Wetlands

Mapping of potential jurisdictional areas on the project site was performed by Alden in January 2018. All on-site areas with depressions or drainage channels were evaluated for the presence of federal, State, and City wetlands as well as non-wetland Waters of the U.S. (U.S. Army Corps of Engineers [Corps] jurisdiction) and non-wetland Waters of the State (i.e., streambeds; CDFW jurisdiction) in accordance with current wetland delineation guidelines. The presence of wetland Waters of the U.S. is evaluated using the criteria described in the Wetlands Delineation Manual (Environmental Laboratory 1987) and the Arid West Supplement (Corps 2008). The presence of non-wetland Waters of the U.S. is determined by the presence of bed and bank within unvegetated drainage courses. The presence of wetland Waters of the State is determined by the presence of wetland/riparian vegetation. The presence of non-wetland Waters of the State is determined by the presence of streambeds lacking wetland/riparian vegetation.

City Wetlands, specifically, are defined by the City Municipal Code (Chapter 11, Article 3, Division 1) as areas that are characterized by any of the following summarized conditions.

1. All areas persistently or periodically containing naturally occurring wetland vegetation communities;

2. Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities; and/or

3. Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands.

The definition of City Wetlands, however, is intended to differentiate uplands (terrestrial areas) from wetlands and, furthermore, to differentiate naturally occurring wetland areas from those created by human activities. Except for areas created for the purposes of wetland habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, it is not the intent of the City to regulate artificially created wetlands in historically non-wetland areas unless they have been delineated as wetlands by the Corps and/or CDFW.

2.2.3 Sensitive Species

Sensitive species are those that are considered federal, State, or CNPS rare, threatened, or endangered; MSCP Narrow Endemics; or MSCP Covered Species. For simplicity, "sensitive" may be used throughout this document to refer to any of these categories.

Plant Species

Focused surveys for sensitive plant species were conducted on site on April 25 and July 26, 2018. The surveys were conducted by walking transects across the site while searching for all sensitive species with potential to occur based on the results of the CNDDB and USFWS database queries as well as the vegetation communities and soils that occur on site.

Quino Checkerspot Butterfly

Three site visits were made in January and February 2018 to conduct a site assessment for the QCB (Table 1). Site assessments are used to determine if a project site contains areas where surveying for QCB is recommended (USFWS 2014). If a site does not contain such areas, (i.e., is comprised solely of "excluded" areas), a presence/absence survey for the QCB would not be recommended. Excluded areas include, for example, orchards, active agricultural fields, closed canopy woody vegetation, or areas dominated by non-native vegetation without natural or remnant inclusions of native vegetation.

Burrowing Owl

The BUOW survey was conducted in accordance with the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 2012). Burrowing owl habitat was examined by walking lines across the site. The area was surveyed for burrowing owls and potential burrows or perches that could be used by the owl. Burrowing owls are known to occupy California ground squirrel (*Otospermophilus beecheyi*) burrows; therefore, particular attention was paid to any areas along fence lines, or other locations where squirrel activity has been observed in the past, was observed presently, or was likely to occur. Dirt piles, drainages, and culverts also were carefully examined as these sites can often provide cavities that can support the species. The determination of owl presence was made by direct owl observation or by owl signs such as, but not necessarily limited to, excavated soil, whitewash (excrement), castings (pellets), and/or feathers.

Fairy Shrimp

There are two species of federal listed fairy shrimp species known to occur in the project vicinity; San Diego fairy shrimp (*Branchinecta sandiegonensis*; SDFS), and Riverside fairy shrimp (*Streptocephalus woottoni*; RSFS). During the site vegetation mapping, habitat assessment, and rare plant surveys the site was searched for ponding areas that could support vernal pool species, including fairy shrimp. This included tire ruts, ditches, and other depressions that may show evidence of having held water (cracked soil, mud, drift lines, etc.).

2.2.4 Survey Limitations

The sensitive species surveys were conducted following prescribed protocols and during the appropriate times of year; however, some seasonally restricted species or those that are nocturnal, for example, may not have been observed/detected. For sensitive species not observed or detected, this report addresses the impacts to those species that have moderate or high potential to occur and includes mitigation should those species be determined to be present.

2.2.5 Nomenclature

Nomenclature used in this report is from the following sources: City Biology Guidelines (City 2018) and the City's MSCP Subarea Plan (City 1997a); Holland (1986); Oberbauer et al. (2008); Hickman, ed. (1993); California Native Plant Society (CNPS; 2018); Crother (2008); American Ornithological Society (2017); Jones, et al. (1992); and CDFW (2018).

3.0 REGULATORY CONTEXT

3.1 REGULATORY ISSUES

Biological resources that would be impacted on the project site are subject to regulatory administration by the federal government, State of California, and City as follows.

3.1.1 Federal

Endangered Species Act

The federal Endangered Species Act (FESA) designates threatened and endangered animals and plants and provides measures for their protection and recovery. "Take" of listed animal species and of listed plant species in areas under federal jurisdiction is prohibited without obtaining a federal permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Harm includes any act that actually kills or injures fish or wildlife, including significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife. Activities that damage the habitat of (i.e., harm) listed wildlife species require approval from the USFWS for terrestrial species. The FESA also generally requires determination of Critical Habitat for listed species. If a project would involve a federal action potentially affecting Critical Habitat, the federal agency would be required to consult with USFWS. As noted below in Section 5.5.2 of this report, one federal listed species (Otay tarplant [*Deinandra conjugens*]) has been found on the project site (Figure 3). There is no Critical Habitat on the project site for any listed species.

FESA Section 7 and Section 10 provide two pathways for obtaining authority to take listed species. Under Section 7 of the FESA, a federal agency that authorizes, funds, or carries out a project that "may affect" a listed species or its Critical Habitat must consult with USFWS. Given that the project is not proposing impacts to potential Corps jurisdiction, there is no Section 7 nexus.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA; 16 U.S. Code Sections 703-711) includes provisions for protection of migratory birds, including the non-permitted take of migratory birds. The MBTA regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50 Code of Federal Regulations Section 10.13. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, and many others. Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a "take." The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country, and is enforced in the United States by the USFWS. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors). Avian species protected by the MBTA are present on the project site. As a general/standard condition, the project must comply with the MBTA.

Clean Water Act

Under Section 404 of the Clean Water Act, the Corps is charged with regulating the discharge of dredge and fill materials into jurisdictional Waters of the U.S. The terms "Waters of the U.S." and "jurisdictional waters" have a broad meaning that includes special aquatic sites, such as wetlands. Corps wetland boundaries are determined using three criteria (vegetation, hydrology, and soils) established for wetland delineations, as described within the Wetlands Delineation Manual (Environmental Laboratory 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Corps 2008).

Waters of the U.S., as defined by regulation and refined by case law include: (1) the territorial seas; (2) coastal and inland waters, lakes, rivers, and streams that are navigable Waters of the U.S., including their adjacent wetlands; (3) tributaries to navigable Waters of the U.S., including adjacent wetlands; and (4) interstate waters and their tributaries, including adjacent isolated wetlands and lakes, intermittent and ephemeral streams, prairie potholes, and other waters that are not a part of a tributary system to interstate waters or navigable Waters of the U.S., the degradation or destruction of which could affect interstate commerce.

Section 401 of the Clean Water Act requires that any applicant for a federal license or permit to conduct any activity that may result in a discharge to Waters of the U.S. must obtain a Water Quality Certification, or a waiver thereof, from the state in which the discharge originates. In California, the Regional Water Quality Control Board issues Water Quality Certifications.

3.1.2 State of California

California Environmental Quality Act

Primary environmental legislation in California is found in the CEQA and its implementing guidelines (State CEQA Guidelines), requiring that projects with potential adverse effects or impacts on the environment undergo environmental review. Adverse impacts to the environment are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations. The City is the Lead Agency under the CEQA for the project, and this report is part of that environmental review process.

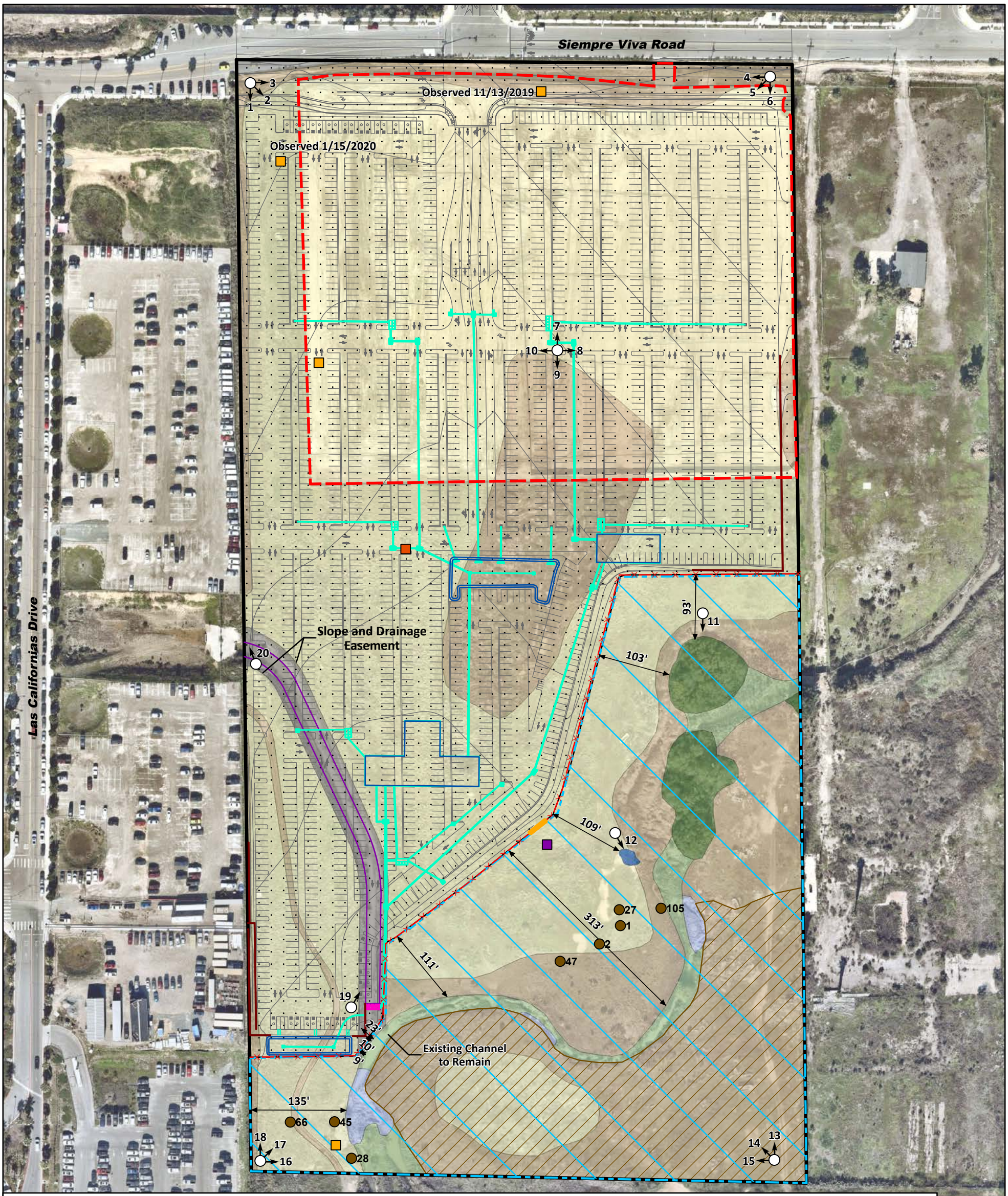


Figure 3

Biological Resources

CROSS BORDER XPRESS - OTN PARCEL

California Fish and Game Code

California Fish and Game Code provides specific protection and listing for several types of biological resources. Section 1600 of California Fish and Game Code requires a Streambed Alteration Agreement for any activity that would alter the flow, change or use any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, and/or lake. Typical activities that require a Streambed Alteration Agreement include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement. Notification is required prior to any such activities, and CDFW will issue a Streambed Alteration Agreement with any necessary mitigation to ensure protection of the State's fish and wildlife resources.

Pursuant to California Fish and Game Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors and owls and their active also nests are protected by this code. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that construction activities be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed. As a general/standard condition, the project must comply with California Fish and Game Code.

Porter-Cologne Water Quality Control Act of 1970

The Porter-Cologne Water Quality Control Act of 1970 grants the State Water Resource Control Board and its regional offices power to protect water quality and is the primary vehicle for implementation of the State's responsibilities under Section 401 of the Clean Water Act. The Porter-Cologne Act grants the State Water Resource Control Board authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. Typically, the State Water Resource Control Board and Regional Water Quality Control Board act in concert with the Corps under Section 401 of the Clean Water Act in relation to permitting fill of Waters of the U.S.

3.1.3 City of San Diego Environmentally Sensitive Lands Regulations

Mitigation requirements for sensitive biological resources follow the requirements of the City's Biology Guidelines (2018) as outlined in the City's Municipal Code Environmentally Sensitive Lands (ESL) Regulations (Chapter 14, Article 3, Division 1). ESL include sensitive biological resources, steep hillsides, coastal beaches, sensitive coastal bluffs and 100-year floodplains (San Diego Municipal Code [SDMC] 143.0110).

The ESL regulations also specify development requirements inside and outside of the MHPA. Inside the MHPA, development must be located in the least sensitive portion of a given site; outside of the MHPA, development must avoid City Wetlands and non-MSCP Covered Species (City 2018). The ESL regulations further require that impacts to sensitive biological resources must be assessed and mitigation provided where necessary, as required by Section III of the City's biology guidelines. The MHPA is further discussed in Section 4.0 of this report.

The project will comply with City ESL regulations, including recordation of a Covenant of Easement against the title to the property that will maintain the 9.72 acres that will not be impacted in their natural state. The easement will be a condition of the Site Development Permit and will be recorded prior to Grading Permit approval.

Biology Guidelines

The City's Biology Guidelines (2018) have been formulated by the Development Services Department to aid in the implementation and interpretation of the ESL Regulations; San Diego Land Development Code, Chapter 14, Division 1, Section 143.0101 et seq; and the Open Space Residential (OR-1-2) Zone, Chapter 13, Division 2, Section 131.0201 et seq. Section III of the Biology Guidelines (Biological Impact Analysis and Mitigation Procedures) also serves as standards for the determination of impact and mitigation under CEQA. The Biology Guidelines are the baseline biological standards for processing permits issued pursuant to ESL Regulations.

4.0 REGIONAL CONTEXT

4.1 MULTIPLE SPECIES CONSERVATION PROGRAM SUBAREA PLAN

The City, USFWS, CDFW, other local jurisdictions, and members of the environmental and building and development communities joined together in the late 1990s to develop the MSCP, a comprehensive program to preserve a network of habitat and open space in the region and ensure the viability of (generally) upland habitat and species that is compatible with growth and development.

The City's MSCP Subarea Plan (1997a) was prepared pursuant to the outline developed by USFWS and CDFW to meet the requirements of the State Natural Communities Conservation Planning (NCCP) Act of 1992. Adopted by the City in March 1997, the City's Subarea Plan forms the basis for the MSCP Implementing Agreement, which is the contract between the City, USFWS, and CDFW (City 1997b). The Implementing Agreement ensures implementation of the City's Subarea Plan and thereby allows the City to issue "take" permits under the FESA and State Endangered Species Act to address impacts at the local level. Under the FESA, an Incidental Take Permit is required when non-federal activities would result in "take" of a threatened or endangered species. A Habitat Conservation Plan, such as the City's Subarea Plan, must accompany an application for a federal Incidental Take Permit. In July 1997, the USFWS, CDFW, and City entered into the 50-year MSCP Implementing Agreement, wherein the City received its FESA Section 10(a) Incidental Take Permit (City 1997b).

Pursuant to its MSCP permit issued under Section 10(a), the City has incidental "take" authority over 85 rare, threatened, and endangered species including regionally sensitive species that it aims to conserve (i.e., "MSCP Covered Species"). "MSCP Covered" refers to species that are covered by the City's federal Incidental Take Permit and considered to be adequately protected within the City's Preserve, the MHPA. Special conditions apply to Covered Species that would be potentially impacted including, for example, designing a project to avoid impacts to Covered Species in the MHPA where feasible. Outside the MHPA, projects must incorporate measures (i.e., Area Specific Management Directives) for the protection of Covered Species as identified in Appendix A of the City's Subarea Plan.

In addition to identifying preserve areas within the City (and guiding implementation of the MSCP within its corporate boundaries), the City's Subarea Plan also regulates effects on natural communities throughout the City. Additional discussion of the MHPA as it relates to the project site is provided in Section 4.1.1 of this report.

4.1.1 Multi-habitat Planning Area

The MHPA was developed by the City in cooperation with the USFWS, CDFW, property owners, developers, and environmental groups using the Preserve Design Criteria contained in the MSCP Plan, and the City Council-adopted criteria for the creation of the MHPA.

MHPA lands are large blocks of native habitat that have the ability to support a diversity of plant and animal life and, therefore, have been included within the City's Subarea Plan for conservation. The MHPA also delineates core biological resource areas and corridors targeted for conservation as these lands have been determined to provide the necessary habitat quality, quantity, and connectivity to sustain the unique biodiversity of the San Diego region. The City's MSCP Subarea Plan calls for 75 percent preservation of private lands within the MHPA, which allows for development on the remaining 25 percent subject to the requirements of the MSCP Plan. Furthermore, the adopted VPHCP boundary expanded and added to the City's existing MHPA. Under the VPHCP, each vernal pool site within a vernal pool complex is assigned a conservation level (75% or 100%) depending on ownership and preservation status. The 100% conservation is applied to existing conserved vernal pool sites (City 2017) and includes the project site.

4.1.2 Land Use Adjacency Guidelines

Development adjacent to the MHPA must ensure that indirect impacts to the MHPA are minimized. Section 1.4.3 of the City's Subarea Plan outlines the requirements to address indirect effects related to drainage and toxics, lighting, noise, public access, invasive plant species, brush management, and grading/land development. In addition to requiring that the indirect effects outlined in Section 1.4.3 of the City's Subarea Plan be addressed, the Section 5.1.2 of the VPHCP also (summarily) requires that project runoff not flow into vernal pools; that projects install temporary fencing (and silt fencing); that fugitive dust from construction be avoided; that a qualified monitoring biologist be on site during construction to ensure compliance, among other avoidance and minimization measures.

Due to the project's proximity to the MHPA/VPHCP boundary, the MHPA Land Use Adjacency Guidelines and avoidance and minimization measures from Section 5.1.2 of the VPHCP are addressed as they relate to the project (see Section 6.1 of this report).

4.2 VERNAL POOL HABITAT CONSERVATION PLAN (VPHCP)

The City's Vernal Pool Habitat Conservation Plan (VPHCP; City 2017) is intended to provide an effective framework to protect, enhance, and restore vernal pool resources in specific areas within the City's jurisdiction, while improving and streamlining the environmental permitting process for impacts to threatened and endangered species associated with vernal pools. The VPHCP conserves additional lands with vernal pools that are occupied with the vernal pool covered species. The adopted VPHCP boundary expanded and added to the City's existing MHPA. The project site is in the Southern Planning Unit of the VPHCP, and the southern portion of the project site is to be 100 percent conserved under the VPHCP (City 2017; Figure 3). On August 3, 2018, the City received authorization from the USFWS for incidental take of the SDFS and RSFS for "otherwise lawful Covered Activities within the Plan Area described and defined in the VPHCP" (USFWS 2018).

Five vernal pool plant species (San Diego button-celery [*Eryngium aristulatum* var. *parishii*], spreading navarretia [*Navarretia fossalis*], California Orcutt grass [*Orcuttia californica*], San Diego mesa mint [*Pogogyne abramsii*], and Otay Mesa mint [*Pogogyne nudiuscula*]) are included in the USFWS permit due to the conservation benefits provided for the plants in the VPHCP.

5.0 SURVEY RESULTS

5.1 PHYSICAL CHARACTERISTICS

The project site is primarily flat and consists of undeveloped land. Elevation on site ranges from approximately 454 feet above mean sea level (amsl) to 480 feet amsl. To the west is the CBX facility (formerly the Las Californias Project); to the north by Siempre Viva Road and truck yards; to the east by undeveloped land with one structure; and to the south by undeveloped land and the U.S.-Mexico border beyond. A natural drainage channel winds through the southern half of the site, and a man-made slope and drainage channel enters the site from the CBX facility to the west and travels south where it flows into the natural drainage channel. The soils on site consist of Stockpen gravelly clay loam (zero to two percent slopes) and Huerhuero loam (two to nine percent slopes; U.S. Department of Agriculture Natural Resources Conservation Service 2018). The Stockpen soil series consists of deep, moderately well-drained clay soils. The Huerhuero soil series consists of moderately well-drained loams that have a clay subsoil.

The project site appears to have been undisturbed up until the 1960s when dirt roads appeared. In the late 1980s, the site appears to begin to be used for storage and/or dumping. By the early 2000s, it appears that the site was not in any active use, which continues to the present day (Nationwide Environmental Title Research, LLC 2018). However, as noted in the Section 1.2.1 (Project History), in November 2019 the project owner cleared approximately 8.1 acres of the northern portion of the site.

5.2 VEGETATION COMMUNITIES/LAND COVER TYPES

Six vegetation communities and one land cover type occur on the project site (Figure 3). As described above, approximately 8.1 acres of non-native grassland on the site was cleared without authorization in November 2019. While this area is now best described as "Disturbed Land," the vegetation map and following discussion retains the previous vegetation community/land cover mapping from before the clearing occurred. In this way the pre-clearing impacts to biological resources can be assessed. Table 2 presents a list of the communities/cover types on site and their respective acreage totals.

Table 2
EXISTING VEGETATION COMMUNITIES/LAND COVER TYPES ON SITE

Vegetation Community/ Land Cover Type	Acres
Wetland/Riparian Vegetation	
Vernal Pool	0.01
Southern willow scrub	0.50
Freshwater marsh	0.14
Disturbed wetland	0.63
Upland Vegetation[1]	
Non-native grassland (Tier IIIB)	18.57
Other Upland Vegetation	
Disturbed land (Tier IV)	8.38
Land Cover	
Developed (NA)	0.65
TOTAL	**28.88**

[1]Tier IIIB = common upland, Tier IV = other upland.

5.2.1 Wetland/Riparian Vegetation

Vernal Pool

Vernal pools are a highly specialized habitat supporting a unique flora and fauna and are associated with two important physical conditions: 1) a subsurface hardpan or claypan that inhibits the downward percolation of water and 2) topography characterized by a series of low hummocks (mima mounds) and depressions (vernal pools). These two physical conditions allow water to collect in the depressions during the rainy season. Water that has collected in these vernal pools gradually evaporates with the passing of the rainy season. As water evaporates, a gradient of low soil water availability to high soil water availability is created from the periphery of the pool margins to the center of the pool. The chemical composition of the remaining pool water becomes more concentrated as the pool water evaporates, creating a gradient of low ion concentration at the pool periphery to high ion concentration at the pool center. A temporal succession of plant species may occur at the receding pool margins, depending upon the physical and chemical micro-environmental characteristics of the pool.

A single, heavily disturbed (tire ruts and debris) vernal pool was mapped on the project site (Figure 3). This pool has been highly disturbed in the past and is located adjacent to the natural channel within the VPHCP 100% conservation area. The pool is situated on a flat area above the edge of the channel and below the elevation of the surrounding upland area to the north and west. As such, the pool receives occasional overflow from the channel during high water conditions. The watershed for this pool encompasses a portion of the adjacent upland area, as well as the channel itself. Plant species observed in this vernal pool include pale spike sedge (*Eleocharis macrostachya*), grass poly (*Lythrum hyssopifolia*), Italian ryegrass (*Festuca perenne*), and rabbit's foot grass (*Polypogon monspeliensis*). Of these, only the pale spike sedge is native.

Southern Willow Scrub

Southern willow scrub consists of dense, broadleaved, winter-deciduous stands of trees dominated by shrubby willows (*Salix* spp.) in association with mule fat (*Baccharis salicifolia*), which can also be associated with scattered emergent cottonwood (*Populus fremontii*) and western sycamores (*Platanus racemosa*). This vegetation community occurs on loose, sandy or fine gravelly alluvium deposited near stream channels during flood flows. Southern willow scrub can be found in two patches along the natural drainage on site. Characteristic plant species in this community on site include red willow (*Salix laevigata*), black willow (*Salix exigua*), and mule fat.

Freshwater Marsh

Freshwater marsh is dominated by perennial, emergent monocots that form incomplete to completely closed canopies. This vegetation community occurs along the coast and in coastal valleys near river mouths and around the margins of lakes and springs and freshwater or brackish marshes. These areas are semi- or permanently flooded and lack a significant current (Holland 1986). Freshwater marsh can be found in two patches along the natural drainage on site. Characteristic plant species in this community on site include tall cyperus (*Cyperus eragrostis*) and bulrush (*Schoenoplectus* sp.).

Disturbed Wetland

Disturbed wetland is dominated by exotic wetland species that invade areas that have been previously disturbed or that have undergone periodic disturbances. These non-natives become established more readily following habitat disturbance than native wetland flora. Disturbed wetland occurs in the natural drainage on site. Characteristic, non-native species of this community on site include cocklebur (*Xanthium strumarium*), castor bean (*Ricinus communis*), Hood canary grass (*Phalaris paradoxa*), and docks (*Rumex* spp.).

5.2.2 Upland Vegetation

Non-Native Grassland

Non-native grassland is a dense to sparse cover of non-native grasses, sometimes associated with species of showy-flowered, native, annual forbs (Holland 1986). This community characteristically occurs on gradual slopes with deep, fine-textured, usually clay soils. Characteristic species on site include slender wild (*Avena barbata*), bromes (*Bromus madritensis* ssp. *rubens, B. diandrus,* and *B. hordeaceus*), and Italian ryegrass (*Festuca perenne*). Most of the annual, introduced species that comprise the majority of species and biomass within non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California. These two factors, in addition to intensive grazing and agricultural practices in conjunction with droughts, contributed to the successful invasion and establishment of these species. These grasslands are common throughout San Diego County and serve as raptor foraging habitat, and this habitat on site is still considered occupied by the BUOW per the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 2012), despite the unauthorized grading activities. Non-native grasslands are recognized as a Tier IIIB upland habitat (common upland) by the City.

As described in Section 1.2.1 (Project History), approximately 8.1 acres of non-native grassland was cleared along the northern portion of the site without authorization in November 2019. Currently, that part of the site is comprised of disturbed land.

5.2.3 Other Upland

Disturbed Land

Disturbed land includes land cleared of vegetation, land containing a preponderance of non-native plant species, or land showing signs of past or present usage that no longer provides viable wildlife habitat. Such areas include dirt roads, graded areas, and dump sites where few to none native or naturalized species remain. Some of the non-native species of disturbed land on site include sweet fennel (*Foeniculum vulgare*), Russian thistle, tocalote (*Centaurea melitensis*), garland daisy (*Glebionis coronaria*), and mustards (*Brassica* spp.). Disturbed land is considered Tier IV (other uplands) by the City. On this site, disturbed land is still considered occupied by the BUOW per the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 2012), despite the unauthorized grading activities described previously.

5.2.4 Land Cover

Developed

Developed land is, for example, where permanent structures and/or pavement have been placed, which prevents the growth of vegetation, or where landscaping is clearly tended and maintained. Developed land on site includes a man-made slope and drainage easement. Urban/developed is not assigned to a Tier by the City.

5.3 PLANT SPECIES OBSERVED

Seventy-six species of plants have been observed on site. A list of these plant species is presented in Appendix A.

5.4 ANIMAL SPECIES OBSERVED OR DETECTED

Forty species of animals have been observed or detected on site. A list these animal species is presented in Appendix B.

5.5 SENSITIVE BIOLOGICAL RESOURCES

According to City Municipal Code (Chapter 11, Article 3, Division 1) and the City's Biology Guidelines (City 2018), sensitive biological resources refers to upland and/or wetland areas that meet any one of the following criteria:

(a) Lands that have been included in the City's MSCP Preserve (i.e., the MHPA);

(b) Wetlands;

(c) Lands outside the MHPA that contain Tier I, Tier II, Tier IIIA, or Tier IIIB habitats;

(d) Lands supporting species or subspecies listed as rare, endangered, or threatened under Section 670.2 or 670.5, Title 14, California Code of Regulations, or the FESA, Title 50, Code of Federal Regulations, Section 17.11 or 17.12, or candidate species under the California Code of Regulations;

(e) Lands containing habitats with MSCP Narrow Endemic species as listed in the Biology Guidelines (City 2018); or

(f) Lands containing habitats of MSCP Covered Species as listed in the Biology Guidelines (City 2018).

5.5.1 Sensitive Vegetation Communities

Additionally, sensitive vegetation communities are those considered rare within the region or sensitive by CDFW (Holland 1986) and/or the City. These communities, in any form (e.g., disturbed), are considered sensitive because they have been historically depleted, are naturally uncommon, or support sensitive species. The project site supports five sensitive vegetation communities: vernal pool, southern willow scrub, freshwater marsh, disturbed wetland, and non-native grassland.

5.5.2 Sensitive Plant Species

Sensitive plant species are those that are considered federal, State, or CNPS rare, threatened, or endangered; MSCP Covered Species; or MSCP Narrow Endemic species. More specifically, if a species is designated with any of the following statuses (a-c below), it is considered sensitive per City Municipal Code (Chapter 11, Article 3, Division 1):

(a) A species or subspecies is listed as rare, endangered, or threatened under Section 670.2 or 670.5, Title 14, California Code of Regulations, or the FESA, Title 50, Code of Federal Regulations, Section 17.11 or 17.12, or candidate species under the California Code of Regulations;

(b) A species is a Narrow Endemic as listed in the Biology Guidelines in the Land Development Manual (City 2018); and/or

(c) A species is a Covered Species as listed in the Biology Guidelines in the Land Development Manual (City 2018).

A species may also be considered sensitive if it is included in the CNPS Inventory of Rare and Endangered Plants (CNPS 2017). California Rare Plant Rank 1 includes plants that are rare, threatened or endangered in California. California Rare Plant Rank 2 includes plants that are rare, threatened or endangered in California but more common elsewhere. California Rare Plant Rank 3 includes plants that are eligible for State listing as rare, threatened or endangered. California Rare Plant Rank 4 plants are locally significant but few, if any, are eligible for State listing.

Sensitive plant status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. A species that exhibits a small or restricted geographic range (such as those endemic to the region) is geographically rare. A species may be more or less abundant but occur only in very specific habitats. Lastly, a species may be widespread but exists naturally in small populations.

One sensitive plant species, Otay tarplant (*Deinandra conjugens*) was observed on site and entirely within the VPHCP 100% Conservation Area (Figure 3).

Otay tarplant (*Deinandra conjugens*)
Sensitivity: Federal Threatened, State Endangered, CNPS Rare Plant Rank 1B.1 (see footnote 2 in Table 3).
Distribution: San Diego County and Baja California, Mexico.
Habitat(s): Clay soils in coastal scrub, valley and foothill grasslands.
Presence off site: Thousands of Otay tarplant were observed throughout the south/southeastern portion of the site in the VPHCP 100% Conservation Area (Figure 3).

Sensitive plant species that were not observed but may have potential to occur on site (based on, for example, nearby CNDDB records, habitat types, and soils present) are listed in Table 3.

Table 3 SENSITIVE PLANT SPECIES NOT OBSERVED AND THEIR POTENTIAL TO OCCUR[1]				
Common Name **(Scientific Name)**	**Listing or Sensitivity[2]** **Federal/State** **CNPS** **City**	**Habitat(s)/ Distribution**	**Bloom Period**	**Presence or Potential to Occur**
Aphanisma (*Aphanisma blitoides*)	--/-- 1B.2 MSCP Covered, NE	Found on coastal bluffs and beach dunes in southern California and Baja California, Mexico.	April to May	Not expected. No habitat on site, and no known populations in MSCP Plan Area.
California adolphia (*Adolphia californica*)	--/-- 2B.1 --	Occurs in chaparral, valley grassland, and coastal sage scrub in Los Angeles and San Diego counties.	December to May	Not expected. A perennial shrub that would have been observed if present.
California Orcutt grass (*Orcuttia californica*)	FT/SE 1B.1 Vernal Pool HCP Covered	Occurs within and adjacent to vernal pools in Riverside, San Diego, Ventura, and Los Angeles counties, as well as Baja California, Mexico.	April to August	Low. Vernal pool on site is highly disturbed and sensitive plant species surveys were negative.
Cliff spurge (*Euphorbia misera*)	--/-- 2B.2 --	Occurs on sea bluffs in maritime sage scrub. Occurs from Corona Del Mar south to Baja California, Mexico.	December to October	Not expected. Habitat not present on site, and it is perennial shrub that would have been observed if present.
Encinitas baccharis (*Baccharis vanessae*)	FT/SE 1B.1 MSCP Covered, NE	Found in chaparral and scrub communities. Is endemic to a narrow band of central-coastal San Diego County, California, from Encinitas eastward to Woodson Mountain, near Poway and southward to Mira Mesa.	August to November	Not expected because it is not known from near the project vicinity.

Table 3 (cont.) **SENSITIVE PLANT SPECIES NOT OBSERVED AND THEIR POTENTIAL TO OCCUR[1]**				
Common Name **(Scientific Name)**	**Listing or Sensitivity[2]** **Federal/State** **CNPS** **City**	**Habitat(s)/ Distribution**	**Bloom Period**	**Presence or Potential to Occur**
Coastal dunes milk-vetch (Astragalus tener var. titi)	FE/SE 1B.1 MSCP Covered, NE	Grows on sand and dune habitats on coastal terraces. Only verified at one area in Monterey County.	March to May	Not expected due to lack of habitat on site and not currently known from project vicinity.
Coastal dunes milk-vetch (Astragalus tener var. titi)	FE/SE 1B.1 MSCP Covered, NE	Grows on sand and dune habitats on coastal terraces. Only verified at one area in Monterey County.	March to May	Not expected due to lack of habitat on site and not currently known from project vicinity.
Decumbent goldenbush (Isocoma menziesii var. decumbens)	--/-- 1B.2 --	Occurs in chaparral and coastal scrub, often in sandy, disturbed areas. Found in Orange and San Diego counties; Baja California, Mexico; and San Clemente and Santa Catalina islands.	April to November	Not expected. Habitat not present on site, and it is a perennial shrub that would have been observed if present.
Golden-spined cereus (*Bergerocactus emoryi*)	--/-- 2B.2 --	Occurs in sandy soils and dry bluffs along the coast in association with maritime succulent scrub in coastal San Diego County; Baja California, Mexico; and San Clemente and Catalina islands.	May to June	Low. Habitat not present on site, and it is a perennial stem succulent that would have been observed if present.
Little mousetail (*Myosurus minimus* ssp. *apus*)	--/-- 3.1 --	Vernal pools and alkaline marshes in Riverside, San Bernardino, San Diego, and additional central California counties; Oregon; and Baja California, Mexico.	March to June	Low. Vernal pool on site is highly disturbed and sensitive plant species surveys were negative.

Table 3 (cont.) **SENSITIVE PLANT SPECIES NOT OBSERVED AND THEIR POTENTIAL TO OCCUR[1]**				
Common Name **(Scientific Name)**	**Listing or Sensitivity[2]** **Federal/State** **CNPS** **City**	**Habitat(s)/ Distribution**	**Bloom Period**	**Presence or Potential to Occur**
Orcutt's bird's-beak (*Dicranostegia orcuttiana* [*Cordylanthus orcuttianus*])	--/-- 2B.1 MSCP Covered	Found in coastal scrub in southwestern San Diego County near Otay, Chula Vista, and Imperial Beach. Also found in Baja California, Mexico.	March to September	Not expected. Habitat not present on site, and sensitive plant species surveys were conducted during the bloom period for this species, and it was not observed.
Orcutt's bird's-beak (*Dicranostegia orcuttiana* [*Cordylanthus orcuttianus*])	--/-- 2B.1 MSCP Covered	Found in coastal scrub in southwestern San Diego County near Otay, Chula Vista, and Imperial Beach. Also found in Baja California, Mexico.	March to September	Not expected. Habitat not present on site, and sensitive plant species surveys were conducted during the bloom period for this species, and it was not observed.
Orcutt's brodiaea (*Brodiaea orcuttii*)	--/-- 1B.1 MSCP Covered	Occurs in vernal pools and ephemeral streams and seeps, usually associated with clay soils. Found in Riverside and San Bernardino counties south to Baja California, Mexico.	May to July	Low. Sensitive plant species surveys were conducted during the bloom period for this species, and it was not observed.
Otay mesa mint (*Pogogyne nudiuscula*)	FE/SE 1B.1 Vernal Pool HCP Covered	Occurs within and adjacent to vernal pools on Otay Mesa.	May to July	Low. Vernal pool on site is highly disturbed and sensitive plant species surveys were negative.

Table 3 (cont.) **SENSITIVE PLANT SPECIES NOT OBSERVED AND THEIR POTENTIAL TO OCCUR[1]**				
Common Name **(Scientific Name)**	**Listing or Sensitivity[2]** **Federal/State** **CNPS** **City**	**Habitat(s)/ Distribution**	**Bloom Period**	**Presence or Potential to Occur**
Parry's tetracoccus (*Tetracoccus dioicus*)	--/-- 1B.2 MSCP Covered	Found in chaparral and coastal scrub; on brushy hillsides; and on dry, stony slopes.	April to May	Not expected. Habitat not present on site. A perennial shrub that would have been observed if present.
San Diego ambrosia (*Ambrosia pumila*)	FE/-- 1B.1 MSCP Covered, NE	Found in disturbed areas within chaparral, coastal sage scrub, and grasslands. Its range includes San Diego and Riverside counties south to Baja California, Mexico.	April to October	Low. Sensitive plant species surveys were conducted during the bloom period for this species, and it was not observed.
San Diego barrel cactus (*Ferocactus viridescens*)	--/-- 2B.1 MSCP Covered	Occurs in grassland, shrubland, and chaparral near the coast from Del Mar south and inland to Otay Mesa in San Diego County, California. Also occurs in northwest Baja California, Mexico.	May to June	Low. A perennial stem succulent that would have been observed if present.
San Diego button-celery (*Eryngium aristulatum* var. *parishii*)	FE/SE 1B.1 Vernal Pool HCP Covered	Occurs in vernal pools or mima mound areas with vernally moist conditions in San Diego and Riverside counties and Baja California, Mexico.	April to June	Low. This species was not observed on site during sensitive plant species surveys conducted during the bloom period for this species despite being observed immediately off site to the south (Figure 3).

Table 3 (cont.) **SENSITIVE PLANT SPECIES NOT OBSERVED AND THEIR POTENTIAL TO OCCUR[1]**				
Common Name **(Scientific Name)**	**Listing or Sensitivity[2]** **Federal/State** **CNPS** **City**	**Habitat(s)/ Distribution**	**Bloom Period**	**Presence or Potential to Occur**
San Diego goldenstar (*Bloomeria* [*Muilla*] *clevelandii*)	--/-- 1B.1 MSCP Covered	Found on clay soils in chaparral, coastal scrub, vernal pools, and valley and foothill grassland in Riverside and San Diego counties.	May	Low. Sensitive plant species surveys were conducted around the bloom period for this species, and it was not observed.
San Diego mesa mint (*Pogogyne abramsii*)	FE/SE 1B.1 Vernal Pool HCP Covered	Endemic to vernal pools on coastal mesas from San Diego to Miramar in San Diego County, California.	April to June	Not expected. Project site is outside the species' range, and it was not observed on site during sensitive plant species surveys conducted during its bloom period.
San Diego thornmint (*Acanthomintha ilicifolia*)	FT/SE 1B.1 MSCP Covered, NE	Occurs on clay lenses in grassy openings in chaparral or sage scrub. Prefers friable or broken, clay soils. Range limited to coastal areas of San Diego County and Baja California, Mexico.	April to June	Low. Sensitive plant species surveys were conducted during the bloom period for this species, and it was not observed.
Shaw's agave (*Agave shawii*)	--/-- 2B.1 MSCP Covered, NE	Occurs in a narrow bank near the coast in succulent scrub and chaparral in southwestern San Diego County and in northern Baja California, Mexico.	February to May	Not expected. Habitat not present on site, and it is a perennial leaf succulent that would have been observed if present.

Table 3 (cont.) **SENSITIVE PLANT SPECIES NOT OBSERVED AND THEIR POTENTIAL TO OCCUR[1]**				
Common Name **(Scientific Name)**	**Listing or Sensitivity[2]** **Federal/State** **CNPS** **City**	**Habitat(s)/ Distribution**	**Bloom Period**	**Presence or Potential to Occur**
Short-leaved dudleya (*Dudleya brevifolia*)	SE 1B.1 MSCP Covered, NE	Found only in northern San Diego County and from Torrey Pines to Del Mar. Occurs on dry, sandstone bluffs in chamise chaparral	April	Not expected. Site is outside the range of the species, and its habitat is not present on site.
Snake cholla (*Cylindropuntia californica* var. *californica*)	--/-- 1B.1 MSCP Covered, NE	Found in open patches in coastal sage scrub, primarily in southern portion of San Diego County and in Florida Canyon.	April to May	Not expected. Habitat not present on site, and it is a perennial stem succulent that would have been observed if present.
Spreading navarretia (*Navarretia fossalis*)	FT/-- 1B.1 Vernal Pool HCP Covered	Occurs in marshes and swamps (assorted freshwater habitats), playas, and vernal pools in western Riverside and southwestern San Diego counties, as well as northwestern Baja California, Mexico.	April to June	Low. Vernal pool on site is highly disturbed and sensitive plant species surveys were negative.

Table 3 (cont.) **SENSITIVE PLANT SPECIES NOT OBSERVED AND THEIR POTENTIAL TO OCCUR**[1]				
Common Name **(Scientific Name)**	**Listing or Sensitivity**[2] **Federal/State** **CNPS** **City**	**Habitat(s)/ Distribution**	**Bloom Period**	**Presence or Potential to Occur**
Variegated dudleya (*Dudleya variegata*)	--/-- 1B.2 MSCP Covered, NE	Occurs on dry hillsides and mesas in chaparral, coastal sage scrub, grasslands, and near vernal pools. Ranges from San Diego County south to Baja California, Mexico.	April to June	Not expected. Sensitive plant species surveys were conducted during the bloom period for this species, and it was not observed.

[1] List includes all MSCP Narrow Endemic (NE) and VPHCP Covered plant species.

[2] **Federal**
FE – Federal listed endangered
FT – Federal listed threatened

State
SE – State listed endangered

CNPS (California Native Plant Society) Rare Plant Rank
1B – Rare, threatened, or endangered in California and elsewhere
2B – Rare, threatened, or endangered in California but more common elsewhere
3 – More information is needed – a review list
4 – Limited distribution – a watch list
.1 – Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
0.2 – Moderately threatened in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat

City
MSCP Covered - Species for which the City has take authorization under its MSCP Subarea Plan (City 1997).

NE - Some native species (primarily plants with restricted geographic distributions, soil affinities, and/or habitats) are referred to as a Narrow Endemic species. The City specifies measures in its MSCP Subarea Plan to ensure that impacts to Narrow Endemics are avoided to the maximum extent practicable.

Vernal Pool HCP Covered - The Vernal Pool Habitat Conservation Plan is a conservation plan for vernal pools and seven threatened and endangered species that do not have federal coverage under the City's MSCP Subarea Plan. This plan was developed using the requirements of a Habitat Conservation Plan under Section 10(a)(1)(B) of the federal Endangered Species Act as the basis for take authorization for the seven covered vernal pools species (i.e., covered species).

5.5.3 Sensitive Animal Species

Sensitive animal species are those that are considered federal or State threatened or endangered; MSCP Covered Species; or MSCP Narrow Endemic species. More specifically, if a species is designated with any of the following statuses (a-c below), it is considered sensitive per City Municipal Code (Chapter 11, Article 3, Division 1):

(a) A species or subspecies is listed as endangered or threatened under Section 670.2 or 670.5, Title 14, California Code of Regulations, or the FESA, Title 50, Code of Federal Regulations, Section 17.11 or 17.12, or candidate species under the California Code of Regulations;

(b) A species is a Narrow Endemic as listed in the Biology Guidelines in the Land Development Manual (City 2018); and/or

(c) A species is a Covered Species as listed in the Biology Guidelines in the Land Development Manual (City 2018).

A species may also be considered sensitive if it is included on the CDFW Special Animals List (CDFW 2017) as a State Species of Special Concern, State Watch List species, State Fully Protected species, or federal Bird of Conservation Concern.

Three sensitive animal species were observed on site as described below (Figure 3).

Burrowing owl (*Athene cunicularia*)
Sensitivity: Federal Bird of Conservation Concern; State Species of Special Concern, MSCP Covered**.**
Distribution: The BUOW ranges from southern Canada into the western half of the U.S. into Baja and central Mexico.
Habitat(s): Open areas such as grasslands, pastures, coastal dunes, desert scrub, and edges of agriculture fields, with underground burrows often excavated by California ground squirrels, for breeding and foraging.
Presence on site: A BUOW pair was observed on site in the Conservation Area during the May 23, 2018 BUOW survey site visit (Figure 3; Appendix D). The burrow appeared to be well-established, and the pair likely was a breeding pair, though no young were observed. A BUOW pair (likely the same pair) was observed during another BUOW survey site visit just south of the project site on June 21, 2018 (Figure 3). Previously, on January 18, 2018, a single owl also was observed in the northwestern corner of the project site during vegetation mapping. On November 13, 2019, during a site visit with City staff, a single BUOW was observed utilizing a burrow along the northern border of the site (Figure 3). This burrow is within the limits of the subsequent unauthorized clearing activity. According to the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 2012), "Occupancy of burrowing owl habitat is confirmed at a site when at least one burrowing owl, or its sign at or near a burrow entrance, is observed within the last three years."

The project site supports heavily disturbed non-native grassland habitat and has been subject to previous dumping of soil and concrete. The piles created by the dumping have provided burrowing and perching locations for the BUOW. There are numerous squirrel burrows in and around these piles that are suitable for BUOW use. The project site (including the cleared area), therefore, is considered to be occupied by the BUOW.

California horned lark (*Eremophila alpestris actia*)
Sensitivity: State Watch List
Distribution: Sonoma County, California to northern Baja California, Mexico.
Habitat(s): Sandy beaches, agricultural fields, grasslands and open areas on coastal slopes and in lowlands.
Presence on site: California horned lark was observed in non-native grassland in the Conservation Area (Figure 3).

San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)
Sensitivity: State Species of Special Concern
Distribution: Southern Santa Barbara County south on coastal slope to vicinity of San Quintín, Baja California, Mexico. Localities on eastern edge of its range include Jacumba and San Felipe Valley in San Diego County.
Habitat(s): Occurs primarily in open habitats including coastal sage scrub, chaparral, grasslands, croplands, and open disturbed areas if there is at least some shrub cover present. Shrubs are used for hiding, nesting, and thermal cover. Shrub-grasslands and grasslands are used for foraging.
Presence on site: The San Diego black-tailed jackrabbit was observed in non-native grassland on site (Figure 3).

Sensitive animal species that were not observed but may have potential to occur on site (based on, for example, nearby CNDDB records and/or habitat types) are listed in Table 4.

Table 4 SENSITIVE ANIMAL SPECIES NOT OBSERVED OR DETECTED AND THEIR POTENTIAL TO OCCUR		
SPECIES	**SENSITIVITY***	**POTENTIAL TO OCCUR**
INVERTEBRATES		
Quino checkerspot butterfly (*Euphydryas editha quino*)	FE	Low. The on-site assessment of QCB habitat determined that habitat on site is unsuitable for the QCB. More specifically, there are no host plants; nectar resources; or clear, open areas suitable for the QCB. The site is overrun with a dense cover of non-natives such as mustards and Russian thistle with grasses underneath, and the site has been subject to dumping and disturbance. Additionally, portions of the site support a drainage with riparian/wetland habitats that also are not suitable for the QCB.
San Diego fairy shrimp	FE VPHCP Covered	Not expected within footprint. No depressions suitable for this species occur within the project impact area. Species is known to occur within pools in the adjacent VPHCP conservation area and neighboring parcels.
Riverside fairy shrimp	FE VPHCP Covered	Not expected within footprint. No depressions suitable for this species occur within the project impact area.
Thorne's hairstreak (*Callophrys thornei*)	MSCP Covered	Not expected. Its habitat is characterized by interior cypress woodland dominated by its exclusive larval host plant, Tecate cypress (*Hesperocyparis* [*Cupressus*] *forbesii*), which is not present on site.
VERTEBRATES		
Reptiles		
Baja California coachwhip (*Coluber fuliginosus*)	SSC	Low. Primarily a species of Baja California, Mexico. Occurs only in a small area of southern San Diego County near the border and is found mainly in open areas such as grassland, shrubland, and coastal sand dunes where it is not threatened by habitat loss, fragmentation, and road mortality. The project site has been subjected to high levels of disturbance, and it is largely surrounded by existing development, including roads, and other disturbed land.

Table 4 (cont.) **SENSITIVE ANIMAL SPECIES NOT OBSERVED OR DETECTED AND THEIR POTENTIAL TO OCCUR**		
SPECIES	**SENSITIVITY***	**POTENTIAL TO OCCUR**
VERTEBRATES (CONT.)		
Birds		
Least Bell's vireo (*Vireo bellii pusillus*)	FE SE MSCP Covered	Low. Potential habitat, southern willow scrub, is very limited on site. This vireo has not been reported to the CNDDB or USFWS within one mile of the project site.
Northern harrier (*Circus cyaneus*)	SSC MSCP Covered	Moderate in non-native grassland on site.
Grasshopper sparrow (*Ammodramus savannarum*)	SSC	Low. Preferred native grassland habitat is not present on site, and while it persists at some sites with non-native grassland, it is localized and generally uncommon. This species was not observed or detected during surveys on site.
Loggerhead shrike (*Lanius ludovicianus*)	BCC SSC	Moderate. Occurs in grassland, open sage scrub, and chaparral. "The best remaining site for the shrike on the coastal slope is Otay Mesa…" (Unitt 2004).
Mammal		
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	SSC	Not expected. Prefers rocky habitat near shrubs, which is not present on site, but can occur in a variety of habitats. Has been extirpated from urbanized habitats and most small fragments (Tremor, et al. 2017).

[1]**Federal**
FE – Federal listed endangered
BCC – Bird of Conservation Concern

State
SSC – State Species of Special Concern
WL – State Watch List

City
MSCP Covered – Species for which the City has take authorization under its MSCP Subarea Plan (City 1997).

Vernal Pool HCP Covered - The Vernal Pool Habitat Conservation Plan is a conservation plan for vernal pools and seven threatened and endangered species that do not have federal coverage under the City's MSCP Subarea Plan. This plan was developed using the requirements of a Habitat Conservation Plan under Section 10(a)(1)(B) of the federal Endangered Species Act as the basis for take authorization for the seven covered vernal pools species (i.e., covered species).

5.5.4 Waters of the U.S., Waters of the State, and City Wetlands

Waters of the U.S. and Waters of the State encompass wetlands but also may include ephemeral and intermittent streams that may or may not be vegetated. Generally, wetlands are lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. Wetlands vary widely because of regional and local differences in soils, topography, climate, hydrology, water chemistry, vegetation, and other factors (Environmental Protection Agency 2013). Waters of the U.S., Waters of the State, and City Wetlands are sensitive as they are regulated by the Corps, CDFW, and City, respectively. See Section 2.2.2 of this report for more detail.

Waters of the U.S.

Potential Waters of the U.S. on site consist of the natural drainage channel on site, outside of the project footprint. The existing drainage channel in the slope and drainage easement in the western portion of the site (Figure 4) is a wholly constructed feature of the adjacent CBX facility. It was constructed as part of the older Las Californias project, upon which the CBX facility was constructed. This constructed slope and drainage channel is not considered a Waters of the U.S. because it is/was:

- Non-historic – There was a determination of no Waters of the U.S. on the Las Californias site when that project was approved and built
- Constructed by the owner of the Las Californias project; currently maintained by CBX
- Within an existing drainage easement

Waters of the State

Waters of the State on site consist of the natural drainage channel on site and the associated southern willow scrub, freshwater marsh, and disturbed wetland vegetation. The man-made channel in the slope and drainage easement (Figure 4) is not considered a Water of the State for the same reasons listed above for Waters of the U.S.

City Wetlands

City Wetlands on site consist of the natural drainage channel on site and the associated southern willow scrub, freshwater marsh, and disturbed wetland vegetation, as well as the vernal pool on site. The man-made channel in the slope and drainage easement does not meet the City's Wetland definition because it is a man-made, artificially created feature in a historically non-wetland area, as described below.

The definition of City Wetlands is intended to differentiate uplands (terrestrial areas) from wetlands and, furthermore, to differentiate naturally occurring wetland areas from those created by human activities. It is not the intent of the City to regulate artificially created wetlands in historically non-wetland areas unless they have been delineated as wetlands by the Corps and/or CDFW.

While the natural drainage channel on site and its associated wetland habitats likely provide some value to wildlife, they are generally not considered to serve significant natural biological functions because most of the habitat is disturbed, patchy, and/or limited in areal extent. Additionally, the vernal pool (0.01 acre in size) is heavily disturbed by tire ruts and debris. It does, however, have potential to support the federal endangered, VPHCP-covered San Diego fairy shrimp.

Wetland Buffer Analysis

City Biology guidelines require that, "A wetland buffer shall be maintained around all wetlands as appropriate to protect the functions and values of the wetland. Section 320.4(b)(2) of the U.S. Army Corps of Engineers General Regulatory Policies list criteria for consideration when evaluating wetlands functions and values."

Presently, there is a minimum 135-foot buffer between the on-site wetlands and development that occurs off site to the west. As part of the proposed project, a minimum 9- to 23-foot buffer (for a linear distance of approximately 35 feet) and a maximum 313-foot buffer between the remainder of the proposed development and the wetlands (an average of approximately 155 feet) would be maintained (Figure 3). This buffer is adequate to protect the functions and values of the wetlands on site as explained below for each of the eight Section 320.4(b)(2) General Regulatory Policies criteria.

(i) Wetlands which serve significant natural biological functions, including food chain production, general habitat and nesting, spawning, rearing and resting sites for aquatic or land species.

The wetlands on site occur as a natural drainage channel comprised of two patches of southern willow scrub (totaling 0.50 acre), two patches of freshwater marsh (totaling 0.14 acre), disturbed wetland (0.63 acre), and as one heavily disturbed (by tire ruts and debris) vernal pool (0.01 acre). The natural drainage channel and the vernal pool have potential to support aquatic species. The vernal pool has potential to support the federal endangered, VPHCP-covered San Diego fairy shrimp.

While some animal species may utilize wetlands as sources of water and may utilize the drainage channel habitats for foraging, or potentially, nesting (e.g., common yellowthroat, yellow-rumped warbler, and red-winged blackbird that were observed on site [Appendix B]), no sensitive species were observed utilizing the drainage channel habitat, and none is likely to (see Tables 3 and 4 for sensitive plant and animal species not observed and their potential to occur). As stated above, the vernal pool has potential to support the federal endangered, VPHCP-covered San Diego fairy shrimp, and the minimum buffer for the vernal pool and its watershed is 103 feet. While the wetlands on site likely provide some value to wildlife, they are generally not considered to serve significant natural biological functions because most of the habitat is disturbed, patchy, and/or limited in areal extent. The proposed buffer would, therefore, be adequate to protect the above-listed, relevant biological functions of the wetlands.

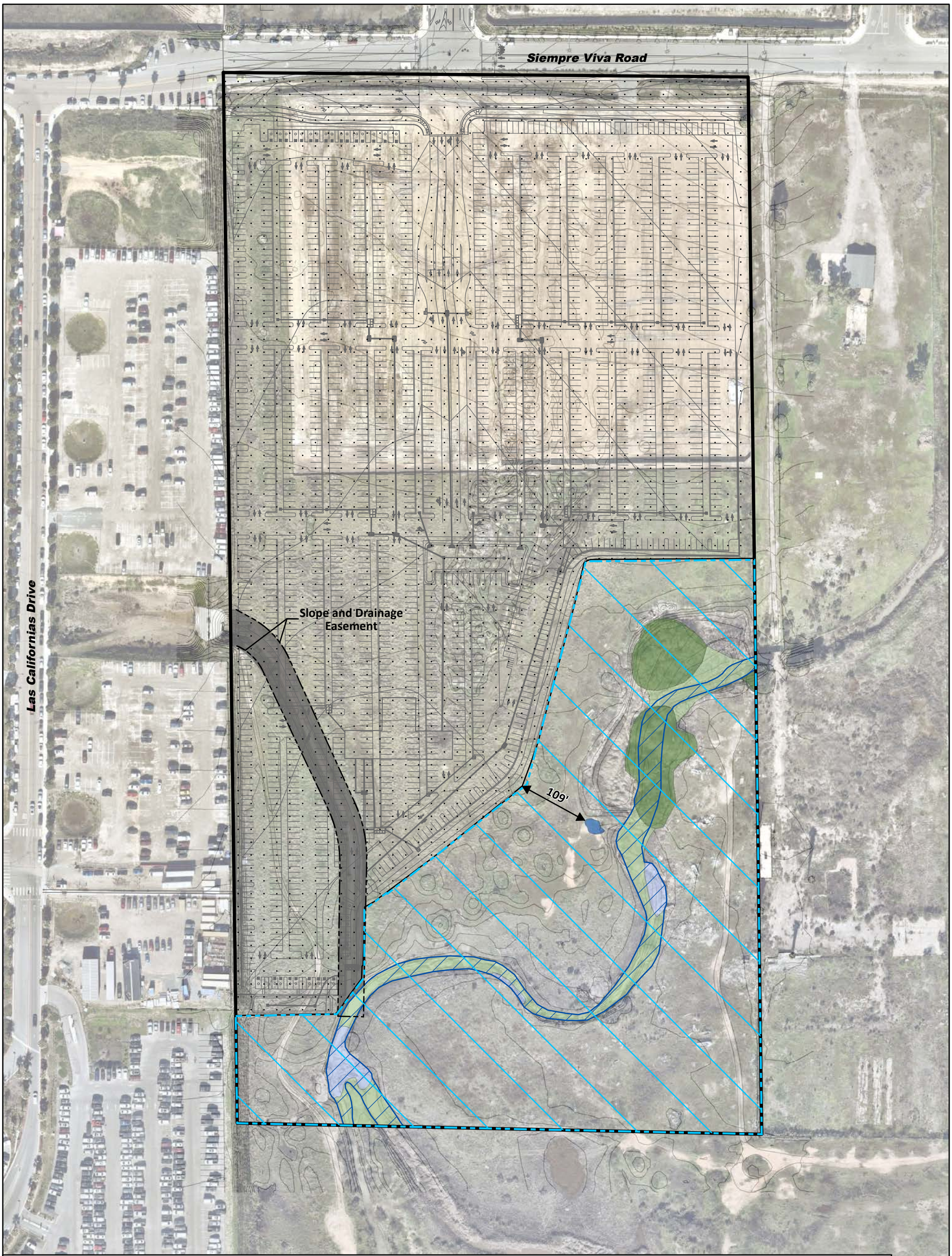


Figure 4

Jurisdictional Delineation

CROSS BORDER XPRESS - OTN PARCEL

(ii) Wetlands set aside for study of the aquatic environment or as sanctuaries or refuges.

The wetlands on site are entirely within the VPHCP 100% Conservation Area (City 2017) and, therefore, in the MHPA. The project would avoid direct impacts to the vernal pool and its watershed, as well as the natural drainage channel on site, and the project would comply with the MHPA Land Use Adjacency Guidelines and avoidance and minimization measures from Section 5.1.2 of the VPHCP as they relate to the wetlands (see attached LUAG and VPHCP Avoidance and Minimization Measures).

There is a 9- to 23-foot proposed buffer for approximately 35 linear feet between the proposed development and the southern portion of the natural drainage channel, and there is a 103-foot buffer between the proposed development and the vernal pool watershed, as well as an average buffer of approximately 155 feet for the rest of the wetlands (see attached figure). The 9- to 23-foot buffer for the channel is the result of a necessary storm drain connection between the culvert on site in the slope and drainage easement and a future storm drain that will enter the site from the west. A retaining wall was designed on site for this location to widen the buffer to the maximum extent feasible while still be able to make the necessary storm drain connection. In this way, the water quality basin and stormwater outfalls can be placed in their appropriate locations while still avoiding the existing wetland features. This design allows for all project stormwater runoff to be captured at the lowest point on the site and then outfall to the existing, stormwater channel, which in turn flows into the existing drainage channel. The adjacent uses are stormwater- and parking lot-related and separated from the drainage channel, first by the retaining wall, and then by project fencing. Therefore, the 9- to 23-foot buffer is considered adequate to avoid potential effects to the drainage from project-associated human activity.

As explained in the LUAG (see Drainage), during construction, the project will employ the use, as applicable, of structural and non-structural Best Management Practices, Best Available Technology, and sediment catchment devices downstream of paving activities to reduce potential drainage impacts associated with construction. Additionally, the project design complies with the Standard Urban Stormwater Management Plan and Municipal Stormwater Permit criteria of the State Water Resources Control Board and City. For example, all of the project's drainage will be subject to biofiltration prior to being discharged into the culvert where it will flow to the natural drainage channel through an energy dissipator to avoid erosion impacts (Figure 3).

(iii) Wetlands the destruction or alteration of which would affect detrimentally natural drainage characteristics, sedimentation patterns, salinity distribution, flushing characteristics, current patterns, or other environmental characteristics.

The project: 1) avoids direct impacts to the wetlands; 2) provides an adequate wetland buffer (see *ii* above); 3) will employ non-structural Best Management Practices, Best Available Technology, and sediment catchment devices during construction; and 4) is designed to comply with Standard Urban Stormwater Management Plan and Municipal Stormwater Permit criteria of the State Water Resources Control Board and City. Therefore, the project would protect the wetlands from adverse effects, such as those listed under this criterion, during project construction and operation.

(iv) Wetlands which are significant in shielding other areas from wave action, erosion, or storm damage. Such wetlands are often associated with barrier beaches, islands, reefs and bars.

The wetlands do not provide shielding from wave action or erosive waves. Therefore, this criterion is not applicable.

(v) Wetlands which serve as valuable storage areas for storm and flood waters.

The wetlands on site may provide storm and flood water storage, but it is limited given their narrowness and/or limited areal extent. The proposed wetland buffer would ensure no net loss of any storm or flood water storage function.

(vi) Wetlands which are ground water discharge areas that maintain minimum baseflows important to aquatic resources and those which are prime natural recharge areas.

The wetlands on site may contribute to groundwater recharge, but it is limited given their narrowness and/or limited areal extent. The proposed wetland buffer would ensure no net loss of any ground water discharge/recharge.

(vii) Wetlands which serve significant water purification function.

The wetlands on site may contribute to water purification, but in a limited manner given their limited areal extent. The proposed wetland buffer would ensure no net loss of any water purification function.

(viii) Wetlands which are unique in nature or scarce in quantity to the region or local area.

The wetlands on site are sensitive because they have been significantly reduced in areal extent in the region. However, the project avoids direct impacts to these wetlands and provides a buffer to protect the functions and values of these wetlands.

5.5.5 Wildlife Corridors

Wildlife corridors can be local or regional in scale; their functions may vary temporally and spatially based on conditions and species presence. Wildlife corridors represent areas where wildlife movement is concentrated due to natural or anthropogenic constraints. Local corridors provide access to resources such as food, water, and shelter. Animals use these corridors, which are often hillsides or tributary drainages, to move between different habitats areas. Regional corridors provide these functions and link two or more large habitat areas. Regional corridors provide avenues for wildlife dispersal, migration, and contact between otherwise distinct populations.

The MHPA includes core biological resource areas and corridors targeted for conservation that preserve local and regional corridor functions. The VPHCP 100% Conservation Area in the southern portion of the site (considered MHPA with adoption of the VPHCP) was designed to be a part of a larger, contiguous habitat area that stretches from the project site eastward and generally follows the existing creek until it connects with other MHPA area along La Media Road (Figure 5). Given that the project would fully avoid the 100% Conservation Area/MHPA, it would contribute to this planned wildlife corridor.

6.0 MSCP AND VPHCP COMPLIANCE

6.1 LAND USE ADJACENCY GUIDELINES

Indirect effects listed in the City's Subarea Plan include those from drainage, toxics, lighting, noise, barriers, invasives, brush management, and grading/land development as addressed by the Land Use Adjacency Guidelines (LUAG) specifically for indirect impacts to the MHPA. The following addresses how the project will comply with the LUAG.

6.1.1 Drainage

All new and proposed parking lots and developed areas in and adjacent to the Conservation Area must not drain directly into the Conservation Area. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the Conservation Area. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. These systems should be maintained approximately once a year, or as often as needed, to ensure proper functioning. Maintenance should include dredging out sediments if needed, removing exotic plant materials, and adding chemical-neutralizing compounds (e.g., clay compounds) when necessary and appropriate.

During construction, the project will employ the use, as applicable, of structural and non-structural Best Management Practices, Best Available Technology, and sediment catchment devices downstream of paving activities to reduce potential drainage impacts associated with construction. Additionally, the project design complies with the Standard Urban Stormwater Management Plan and Municipal Stormwater Permit criteria of the State Water Resources Control Board and City.

Hardscape associated with the built project would result in runoff, which can significantly impact water quality in the Conservation Area. These potential drainage impacts will be minimized through the construction of numerous biofiltration basins throughout the project that will collect and treat all water before it is discharged through an outfall with an energy dissipator into the natural drainage on site in the Conservation Area (Figure 3).

6.1.2 Toxics

Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the Conservation Area. Such measures should include drainage/detention basins, swales, or holding areas with non-invasive grasses or wetland-type native vegetation to filter out the toxic materials. Regular maintenance should be provided. Where applicable, this requirement should be incorporated into leases on publicly owned property as leases come up for renewal.

No trash, oil, parking, or other construction/development related material/activities will be located outside approved project impact limits. No staging/storage areas for equipment and materials will be located within or adjacent to the Conservation Area. All construction related debris will be removed off site to an approved disposal facility. A note will be provided in/on the construction documents that states: *"All construction related activity that may have potential for leakage or intrusion shall be monitored by the Qualified Biologist/Owners Representative or Resident Engineer to ensure there is no impact to the Conservation Area."*

6.1.3 Lighting

LUAG: Lighting of all developed areas adjacent to the Conservation Area should be directed away from the Conservation Area. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the Conservation Area and sensitive species from night lighting.

Lighting adjacent to the Conservation Area will be directed away/shielded and will be consistent with City Outdoor Lighting Regulations per LDC Section 142.0740. In addition, the adjacent preserve area will be shielded from lighting that could enter the preserve from automobile headlights using the parking lot at night. This shielding will be incorporated into the fencing described in Section 6.1.5.

6.1.4 Noise

LUAG: Uses in or adjacent to the Conservation Area should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the Conservation Area. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year.

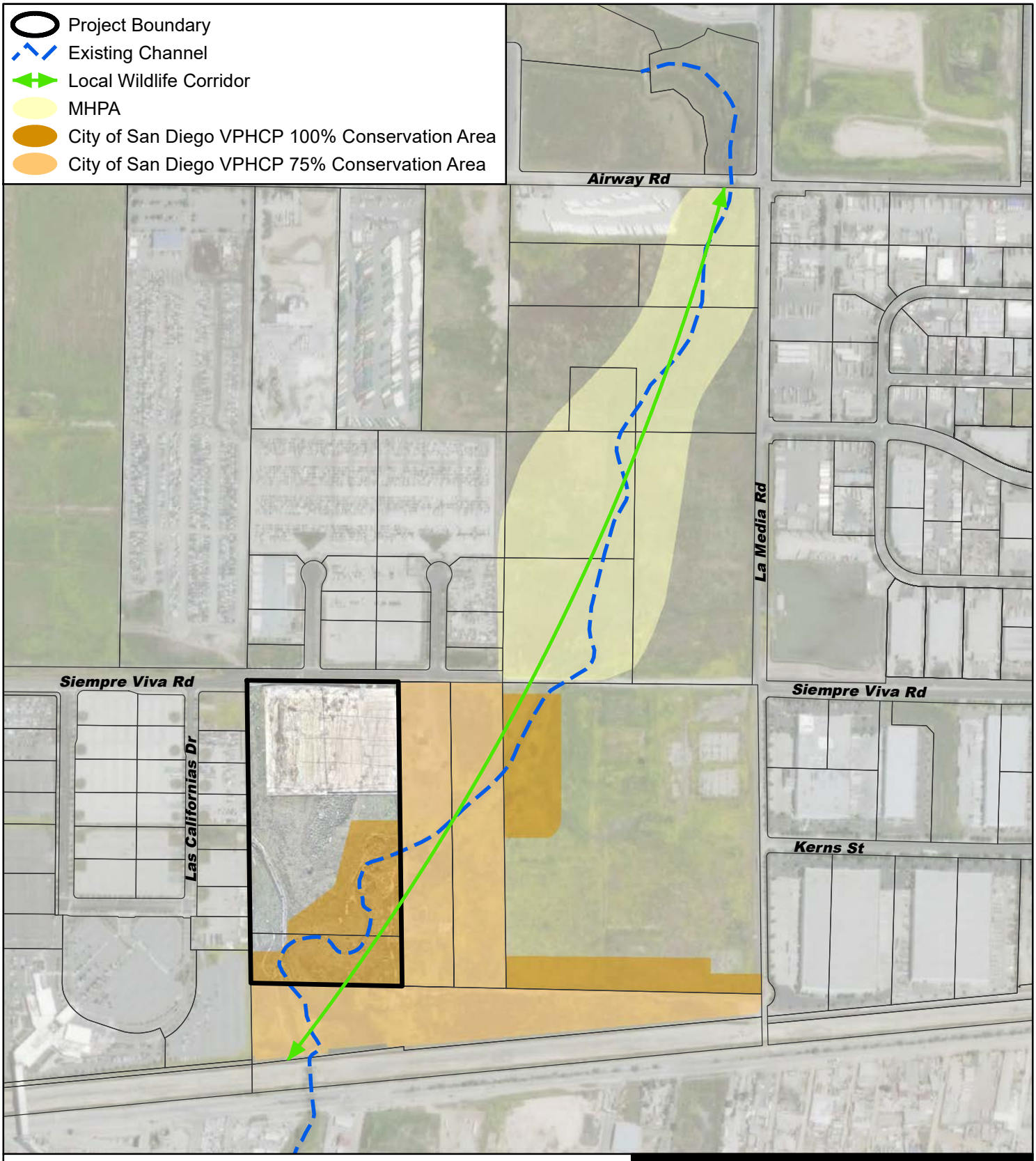


Figure 5

Wildlife Corridors

CROSS BORDER XPRESS - OTN PARCEL

N
W E
S
0 350 700
Feet

ALDEN ENVIRONMENTAL, INC

The BUOW is known to occur to the south of the project, within the larger VP HCP conservation area. The owls in this area are already subject to noise from the adjacent parking facility and the Tijuana International Airport. Given the existing noise, along with the fact that the project is a low-noise producing parking lot, the BUOW is not anticipated to be affected by project noise. Additionally, no other noise-sensitive, sensitive species were observed in the Conservation Area, and one such species, the least Bell's vireo, has low potential to occur there. Therefore, noise impacts are not anticipated to occur, and no noise minimization measures would need to be implemented.

6.1.5 Barriers

LUAG: New development adjacent to the Conservation Area may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the Conservation Area boundaries to direct public access to appropriate locations and reduce domestic animal predation.

The project will install fencing with appropriate signage between the parking lot and the Conservation Area as a condition of project approval. This fencing would consist of 6-foot-tall, heavy gauge steel chain link. In addition, slats (or similar) will be weaved into the fencing to provide a light barrier for the adjacent preserve area.

Permanent three strand barbless fencing also will be installed around the remainder of the preserve area. This fence is intended to allow animals to freely enter and leave the site while creating a clear barrier for people.

6.1.6 Invasives

LUAG: No invasive non-native plant species shall be introduced into areas adjacent to the Conservation Area.

During construction, invasive, non-native plants transported to the site on construction equipment or vehicles (e.g., seeds on undercarriages) could colonize areas disturbed by construction activities, and those species could potentially spread into the Conservation Area. Additionally, invasive plant species already present on site in the project impact area could spread into the Conservation Area during grubbing and grading activities. However, it should be noted that the entire project site is already colonized by a number of non-native, invasive plant species (Appendix A), so this impact is not anticipated.

Vehicles and equipment brought to the site will be washed at an appropriate off-site location/facility prior to entering the site, and no construction activities will be located outside approved construction limits. Furthermore, all construction related debris will be removed off site to an approved disposal facility.

The project will follow SDMC Landscape Standards (Section 1.3) and not use invasive species, which will prevent their introduction to areas adjacent to the Conservation Area. Alden reviewed the proposed landscape constructions documents and found that the proposed plant palette adjacent to the MHPA/VPHCP boundary is appropriate for introduction into the contiguous habitat.

6.1.7 Brush Management

LUAG: New residential development located adjacent to and topographically above the Conservation Area (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the development pad and outside of the Conservation Area. Zones 2 and 3 will be combined into one zone (Zone 2) and may be located in the Conservation Area upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the Conservation Area. Zone 2 will be increased by 30 feet, except in areas with a low fire hazard severity rating where no Zone 2 would be required. Brush management zones will not be greater in size than is currently required by the City's regulations. The amount of woody vegetation clearing shall not exceed 50 percent of the vegetation existing when the initial clearing is done. Vegetation clearing shall be done consistent with City standards and shall avoid/minimize impacts to covered species to the maximum extent possible. For all new development, regardless of the ownership, the brush management in the Zone 2 area will be the responsibility of a homeowners association or other private party.

Brush management is required for structures. Since the project does not propose any structures, no brush management is required.

6.1.8 Grading/Land Development

LUAG: Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the Conservation Area.

The project includes all slopes within the impact footprint. There are no grading activities proposed immediately adjacent to vernal pools, and no vernal pools would be impacted.

The project will employ a City-approved, qualified biological monitor that will be on site during project construction activities to ensure compliance with all of the LUAG.

6.2 VPHCP GENERAL AVOIDANCE AND MINIMIZATION MEASURES

The following addresses how the project complies with the general avoidance and minimization measures for indirect impacts outlined in section 5.1.2 of the VPHCP that apply to the vernal pool on site and the watershed for that vernal pool. The vernal pool and its watershed are entirely encompassed within the VPHCP 100% Conservation Area. The project would avoid impacts to the vernal pool and its watershed and comply with the general avoidance and minimization measures for indirect impacts outlined in section 5.1.2 of the VPHCP as explained below. The vernal pool itself also is more than 100 feet from the proposed project limits (Figure 3), thereby providing a buffer that protects the vernal pool and its watershed from potential, adverse, indirect project impacts as required by the VPHCP.

6.2.1 Drainage

Any development adjacent to the MHPA shall be constructed to slope away from the extant pools to be avoided, to ensure that runoff from the project does not flow into the pools.

Covered projects shall require temporary fencing (with silt barriers) of the limits of project impacts (including construction staging areas and access routes) to prevent additional vernal pool impacts and prevent the spread of silt from the construction zone into adjacent vernal pools. Fencing shall be installed in a manner that does not impact habitats to be avoided. Final construction plans shall include photographs that show the fenced limits of impact and all areas of vernal pools to be impacted or avoided. If work inadvertently occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied to the satisfaction of the City. Temporary construction fencing shall be removed upon project completion.

During construction, the project will employ the use, as applicable, of structural and non-structural Best Management Practices, Best Available Technology, and sediment catchment devices downstream of paving activities to reduce potential drainage impacts associated with construction. Additionally, the project design complies with the Standard Urban Stormwater Management Plan and Municipal Stormwater Permit criteria of the State Water Resources Control Board and City.

Hardscape associated with the built project would result in runoff, which can significantly impact water quality in the Conservation Area. These potential drainage impacts will be minimized through the construction of numerous biofiltration basins throughout the project that will collect and treat all water before it is discharged through an outfall with an energy dissipator into the natural drainage on site in the Conservation Area (Figure 3).

The project will employ a City-approved, qualified biological monitor that will be on site during project construction activities to ensure compliance with this VPHCP Avoidance and Minimization measure.

6.2.2 Toxics

All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities shall occur in designated areas within the fenced project impact limits. These designated areas shall be located in previously compacted and disturbed areas to the maximum extent practicable in such a manner as to prevent any runoff from entering the vernal pools or their watersheds, and shall be shown on the construction plans. Fueling of equipment shall take place within existing paved areas greater than 100 feet from the vernal pools or their watersheds. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. A spill kit for each piece of construction equipment shall be on-site and must be used in the event of a spill. "No-fueling zones" shall be designated on construction plans.

No trash, oil, parking, or other construction/development related material/activities will be located outside approved project impact limits. No staging/storage areas for equipment and materials will be located within or adjacent to the Conservation Area. The project impact footprint is greater than 100 feet from the vernal pool and its watershed. All construction related debris will be removed off site to an approved disposal facility. A note will be provided in/on the construction documents that states: *"All construction related activity that may have potential for leakage or intrusion shall be monitored by the Qualified Biologist/Owners Representative or Resident Engineer to ensure there is no impact to the Conservation Area."*

The project will employ a City-approved, qualified biological monitor that will be on site during project construction activities to ensure compliance with this VPHCP Avoidance and Minimization measure.

6.2.3 Barriers

Permanent protective fencing along any interface with developed areas and/or use other measures approved by the City to deter human and pet entrance into on- or off-site habitat shall be installed. Fencing shall be shown on the development plans and should have no gates (accept to allow access for maintenance and monitoring of the biological conservation easement areas) and be designed to prevent intrusion by pets. Signage for the biological conservation easement area shall be posted and maintained at conspicuous locations. The requirement for fencing and/or other preventative measures shall be included in the project's mitigation program.

The project will install fencing with appropriate signage between the parking lot and the Conservation Area as a condition of project approval. As noted above in Section 6.1.5, this fencing would consist of 6-foot-tall, heavy gauge steel chain link. In addition, slats (or similar) will be woven into the fencing to provide a light barrier for the adjacent preserve area.

6.2.4 Grading

Grading activities immediately adjacent to vernal pools shall be timed to avoid wet weather to minimize potential impacts (e.g., siltation) to the vernal pools unless the area to be graded is at an elevation below the pools.

Prior to project construction, topsoil shall be salvaged from the impacted vernal pools…

There are no grading activities proposed immediately adjacent to the vernal pool, and no vernal pool would be impacted.

6.2.5 Fugitive Dust

Impacts from fugitive dust that may occur during construction grading shall be avoided and minimized through watering and other appropriate measures.

Construction of the project will adhere to applicable construction dust control measures prescribed by the City. These measures include, for example, reduced driving speeds on unpaved roads and regular watering of dirt surfaces.

6.2.6 Additional Conditions

All of the required MHPA LUAG and VPHCP minimization and avoidance measures would become conditions of project approval.

- *Employees shall strictly limit their activities, vehicles, equipment, and construction materials to the fenced project footprint.*

- *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.*

- *Disposal or temporary placement of excess fill, brush, or other debris shall be limited to areas within the fenced project footprint*

Project construction will comply with the preceding additional VPHCP conditions. Activities and construction related materials will be kept within approved construction limits, and no storage areas will be located within or adjacent to the Conservation Area. All construction related debris will be removed off site to an approved disposal facility. Biological monitoring will be implemented (see Section 6.2.7 of this report) to ensure compliance with these and all other VPHCP conditions.

6.2.7 Biological Monitoring

A qualified monitoring biologist that has been approved by the City shall be on site during project construction activities to ensure compliance with all mitigation measures identified in the CEQA environmental document. The biologist shall be knowledgeable of vernal pool species biology and ecology. The biologist shall perform the following duties:

- *Oversee installation of and inspect the fencing and erosion control measures within or upslope of vernal pool restoration and/or preservation areas a minimum of once per week and daily during all rain events to ensure that any breaks in the fence or erosion control measures are repaired immediately.*

- *Periodically monitor the work area to ensure that work activities do not generate excessive amounts of dust.*

- *Train all contractors and construction personnel on the biological resources associated with this project and ensure that training is implemented by construction personnel. At a minimum, training shall include (1) the purpose for resource protection; (2) a description of the vernal pool species and their habitat(s); (3) the conservation measures that must be implemented during project construction to conserve the vernal pool species, including strictly limiting activities, and vehicles, equipment, and construction materials to the fenced project footprint to avoid sensitive resource areas in the field (i.e., avoided areas delineated on maps or on the project site by fencing); (4) environmentally responsible construction practices as outlined in measures 5, 6 and 7; (5) the protocol to resolve conflicts that may arise at any time during the construction process; and (6) the general provisions of the project's mitigation monitoring and reporting program (MMRP), the need to adhere to the provisions of FESA, and the penalties associated with violating FESA.*

- *Halt work, if necessary, and confer with the City to ensure the proper implementation of species and habitat protection measures. The biologist shall report any violation to the City within 24 hours of its occurrence.*

- *Submit regular (e.g., weekly) letter reports to the City during project construction and a final report following completion of construction. The final report shall include as-built construction drawings with an overlay of habitat that was impacted and avoided, photographs of habitat areas that were avoided, and other relevant summary information documenting that authorized impacts were not exceeded and that general compliance with all conservation measures was achieved.*

The project will employ a City-approved, qualified biological monitor that will be on site during project construction activities to ensure compliance with all of the VPHCP Avoidance and Minimization measures.

6.2.8 Implementation of the VPHCP

As part of the development entitlement process for approved covered and future projects, owners of private properties and third parties must submit a site-specific management and monitoring plan that is consistent with the requirements of VPHCP, VPMMP, and the City's LDM Biology Guidelines for approval by the City and Wildlife Agencies.

A Habitat Management Plan has been prepared and is included as Appendix E.

6.3 GENERAL PLANNING POLICIES AND DESIGN GUIDELINES

Section 1.4.2 of the City's Subarea Plan includes General Planning Policies and Design Guidelines that have been applied in the review and approval of development projects within or adjacent to the MHPA. The project is not located within or adjacent to the MHPA; however, it is located adjacent to land designated to be 100 percent conserved under the City's VPHCP (Figure 3; Conservation Area). Therefore, the following addresses these policies and guidelines as they relate to the Conservation Area and how the project complies with them.

Roads and Utilities – Construction and Maintenance Policies

This section of the Subarea Plan includes eight guidelines/policies. Each is summarized below along with an explanation describing how the project complies with the guidelines/policies where it occurs adjacent to the Conservation Area.

1. *All proposed utility lines should be designed to avoid or minimize intrusion into the Conservation Area.*

   The project does not propose any utility lines.

2. *All new development for utilities and facilities within or crossing the Conservation Area shall be planned, designed, located, and constructed to minimize environmental impacts. If avoidance is infeasible, mitigation would be required.*

   The project does not propose any development within or crossing the Conservation Area.

3. *Temporary construction areas and roads, staging areas, or permanent access roads must not disturb existing habitat unless determined to be unavoidable.*

   The project impact footprint is located outside the Conservation Area.

4. *Construction and maintenance activities in wildlife corridors must avoid significant disruption of corridor usage.*

   The project development area is outside the local wildlife corridor that would be created by the VP HCP conservation areas.

5. *Roads in the Conservation Area will be limited to those identified in Community Plan Circulation Elements, essential collector streets, and necessary maintenance/emergency access roads.*

   The project does not propose any roads.

6. *Development of roads in canyon bottoms should be avoided whenever feasible. If an alternative location outside the Conservation Area is not feasible, then the road must be designed to cross the shortest length possible, and if a road crosses the Conservation Area, it should provide for fully-functional wildlife movement capability.*

   The project does not propose any roads.

7. *Where possible, roads within the Conservation Area should be narrowed from existing design standards to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. Roads must be located in lower quality habitat or disturbed areas to the extent possible.*

   The project does not propose any roads.

8. *Existing roads and utility lines are usually considered a compatible use in the Conservation Area.*

   The project does not propose any roads.

Fencing, Lighting, and Signage

This section of the Subarea Plan includes three guidelines/policies. Each is summarized below along with an explanation as to how the project complies where it occurs adjacent to the Conservation Area.

1. *Fencing or other barriers will be used where it is determined to be the best method to achieve conservation goals and adjacent to land uses incompatible with the Conservation Area.*

   The project will install fencing with appropriate signage between the parking lot and the Conservation Area.

2. *Lighting shall be designed to avoid intrusion in the Conservation Area.*

   Lighting adjacent to the Conservation Area will be directed away/shielded and will be consistent with City Outdoor Lighting Regulations per LDC Section 142.0740. In addition, the adjacent preserve area will be shielded from lighting that could enter the preserve from automobile headlights using the parking lot at night. This shielding will be incorporated into the fencing described below.

3. *Signage will be limited to access, litter control, and educational purposes.*

   Signs that meets the requirements of this policy/guideline will be placed on fencing that will be installed between the parking lot and the Conservation Area. Signs also will be installed at regular intervals on the preserve area perimeter fencing.

Materials Storage

Storage of materials (e.g., hazardous or toxic chemicals, equipment, etc.) shall not be located within the Conservation Area, and proper storage of such materials is required per applicable regulations in any areas that may impact the Conservation Area, especially due to potential leakage.

No trash, oil, parking, or other construction/development related material/activities will be located outside approved construction limits. No staging/storage areas for equipment and materials will be located within or adjacent to the Conservation Area. All construction related debris will be removed off site to an approved disposal facility.

6.4 GENERAL MANAGEMENT DIRECTIVES

The following summarized, General Management Directives apply to all areas of the City's MSCP Subarea Plan, as appropriate.

1. *Mitigation shall be performed in accordance with ESL Regulations and the City's Biology Guidelines.*

   The mitigation measures proposed in Section 8.0 of this report have been formulated to be consistent with the City's MSCP Subarea Plan, Biology Guidelines, and ESL Regulations and specifically include preservation of the 100% Conservation Area on site designated in the City's VPHCP.

2. *Restoration or revegetation undertaken in the MHPA* [Conservation Area; Figure 3] *shall be performed in a manner acceptable to the City.*

   No restoration or revegetation in the Conservation Area is proposed.

3. *Public Access, Trails, and Recreation. This directive includes requirements for trail signage, type, location, design, and use.*

   There are no trails associated with the project.

4. *Litter/Trash and Materials Storage. This directive includes requirements for trash removal and permanent materials storage in the MHPA* [Conservation Area; Figure 3].

   Trash and other construction related materials will be kept within approved construction limits, and no storage areas will be located within or adjacent to the Conservation Area. All construction related debris will be removed off site to an approved disposal facility. There would be no permanent storage of any kind in the Conservation Area.

5. *Adjacency Management Issues. This directive includes a requirement to install barriers (fencing, rocks/boulders, vegetation) and/or signage where necessary to direct public access to appropriate locations.*

   The project will install fencing with appropriate signage between the parking lot and the Conservation Area.

6. *Invasive Exotics Control and Removal. This directive generally includes: a prohibition on introducing non-native species into the Conservation Area; providing information on invasive plants/animals harmful to the Conservation Area to the adjacent public; and removing exotic invasive species from the Conservation Area.*

   To avoid the introduction of invasive, non-native plant species to the project site, vehicles and equipment brought to the site will be washed at an appropriate off-site location/facility prior to entering the site, and no construction activities will be located outside approved construction limits. Furthermore, all construction related debris will be removed off site to an approved disposal facility to prevent the spread of invasive species to the Conservation Area (if they are not already present).

   Furthermore, should the built project have any landscaping, it will follow SDMC Landscape Standards (Section 1.3) and not use invasive species, which will prevent their introduction to areas adjacent to the Conservation Area.

   Since the project is not residential in nature, and the adjacent public will be travelers to/from the Tijuana Airport, providing information to the public about invasive plants/animals is not applicable. Also, the project does not propose removal of exotic invasive species from the Conservation Area.

6.5 CONDITIONS FOR MSCP COVERED SPECIES

This section lists the Conditions and Area Specific Management Directives for MSCP Covered Species observed or with moderate potential to occur on site (none has high potential). Explanations as to how the project complies (or will comply through mitigation) with these Conditions and Directives for the Conservation Area is also provided.

Otay Tarplant

MSCP Area Specific Management Directives must include specific measures for monitoring of populations and adaptive management of preserves (taking into consideration the extreme population fluctuations from year to year) and specific measures to protect against detrimental edge effects to this species. All Otay tarplant on the project site is located in the Conservation Area, which will be preserved. Edge effects to the species will be addressed through compliance with the Land Use Adjacency Guidelines addressed in Section 6.1 of this report.

Burrowing Owl

Conditions for Coverage under the MSCP for the BUOW are as follows.

During the environmental analysis of proposed projects, burrowing owl surveys (using appropriate protocols) must be conducted in suitable habitat to determine if this species is present and the location of active burrows. If burrowing owls are detected, the following mitigation measures must be implemented: within the MSHPA, impacts must be avoided; outside of the MHPA, impacts to the species must be avoided to the maximum extent practicable; any impacted individuals must be relocated out of the impact area using passive or active methodologies approved by the wildlife agencies; mitigation for impacts to occupied habitat (at the Subarea Plan specified ratio) must be through the conservation of occupied burrowing owl habitat or conservation of lands appropriate for restoration, management and enhancement of burrowing owl nesting and foraging requirements.

Management plans/directives must include: enhancement of known, historical and potential burrowing owl habitat; and management for ground squirrels (the primary excavator of burrowing owl burrows). Enhancement measures may include creation of artificial burrows and vegetation management to enhance foraging habitat. Management plans must also include: monitoring of burrowing owl nest sites to determine use and nesting success; predator control; establishing a 300 foot wide impact avoidance area (within the preserve) around occupied burrows.

As explained in Section 2.2.3 of this report a BUOW survey was conducted on site in 2018, and the project site is occupied by the BUOW (see Section 5.5.3 of this report). Additional BUOW observations were made on site on November 13, 2019 and January 15, 2020 (see Section 7.1.3 of this report).

The City, however, still requires another, pre-construction survey and impact avoidance in accordance with the Conditions for Coverage for the species. Any exclusion plans for the BUOW must be approved by the Wildlife Agencies.

The unauthorized clearing of BUOW occupied habitat that occurred in November 2019 (discussed in Section 1.2.1 of this report) resulted in the destruction of an active BUOW burrow but did not result in a direct impact (take) of individual BUOW on the site (Appendix F). This report uses the pre-clearing condition (biological resources mapping) of the site to analyze impacts to sensitive biological resources. As such, the impact calculations and corresponding mitigation requirements have been proposed based on occupied BUOW habitat present prior to the unauthorized grading.

The Conditions for Coverage for the BUOW also require mitigation for loss of BUOW-occupied habitat through the conservation of BUOW-occupied habitat, or conservation of lands appropriate for restoration, management, and enhancement of BUOW nesting and foraging.

Northern Harrier

Area Specific Management Directives for the northern harrier must manage agricultural and disturbed lands (which become part of the MHPA) within four miles of nesting habitat to provide foraging habitat; include an impact avoidance area (900 foot or maximum possible within the MHPA [Conservation Area]) around active nests; and include measures of maintaining winter foraging habitat in preserve areas in Proctor Valley, around Sweetwater Reservoir, San Miguel Ranch, Otay Ranch east of Wueste Road, Lake Hodges, and San Pasqual Valley. The City is responsible for managing the preserve (i.e., the MHPA). Mitigation would be required to provide a 900-foot (or maximum possible) impact avoidance area around active northern harrier nests in the Conservation Area, should they be present in the Conservation Area during construction, to avoid a potentially significant impact to northern harrier nesting. See Section 8.3 of this report.

7.0 PROJECT IMPACT ANALYSIS

This section analyzes project effects on sensitive biological resources. The City's CEQA Significance Determination Thresholds (City 2018) are used to establish whether or not there is a significant effect. A significant effect is defined as a "substantial or potentially substantial adverse change in the environment." The CEQA Guidelines (i.e., Appendix G of the CEQA Guidelines) further indicate that there may be a significant effect on biological resources if a project will trigger the following criteria:

A. Substantially affect an endangered, rare, or threatened species of animal or plant or the habitat of the species;

B. Interfere substantially with the movement of any resident or migratory fish or wildlife species; or

C. Substantially diminish habitat for fish, wildlife, or plants.

Impacts to biological resources are evaluated by City staff through the CEQA review process, the ESL Regulations and City's Biology Guidelines, and through the review of a project's consistency with the City's MSCP Subarea Plan. The project would be required to obtain all applicable federal and State permits prior to the issuance of any discretionary permit by the City. Prior to the issuance of any construction permit(s), the project applicant must provide a copy of the permit, authorization letter, or other official mode of communication from the federal and State permitting agencies to the City.

For projects within the City or carried out by the City which may affect sensitive biological resources, potential impacts to such sensitive biological resources must be evaluated using the following significance criteria:

1. Would the project result in substantial adverse impacts, either directly or through habitat modifications, to any species identified as a candidate, sensitive or special status species in the MSCP or other local or regional plans, policies or regulations, or by the CDFW or USFWS?

2. Would the project result in a substantial adverse impacts on any Tier I, Tier II, Tier IIIA or Tier IIIB habitats as identified in the Biology Guidelines or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?

3. Would the project result in a substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pools, riparian areas, etc.) through direct removal, filling, hydrological interruption, or other means?

4. Would the project substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites?

5. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, NCCP, or other approved local, regional or state habitat conservation plan, either within the MSCP plan area or in the surrounding region?

6. Would the project introduce a land use within an area adjacent to the MHPA that would result in adverse edge effects?

7. Would the project conflict with any local policies or ordinances protecting biological resources?

8. Would the project introduce invasive species of plants in to natural open space?

7.1 DIRECT IMPACTS

Direct impacts immediately alter the affected biological resources such that those resources are eliminated temporarily or permanently. The removal of vegetation, for example, would be considered a direct impact. All direct impacts associated with the project would be permanent.

7.1.1 Direct Impacts to Vegetation Communities

As discussed above, unauthorized clearing occurred on 8.1 acres of the site in November 2019; however, the biological mapping and subsequent impact analyses used in this report are based on the pre-clearing mapping. Based on this mapping, approximately 19.2 total acres would be impacted by the project, and all impacts are to upland communities or land cover (Figure 3; Table 5).

Table 5 DIRECT IMPACTS TO VEGETATION COMMUNITIES/LAND COVER TYPES			
Vegetation Community/ Land Cover Type	**Existing Acres**	**Impacted Acres**	**Conserved Acres**
Wetland/Riparian Vegetation			
Vernal Pool	0.01	0.0	0.01
Southern willow scrub	0.50	0.0	0.50
Freshwater marsh	0.14	0.0	0.14
Disturbed wetland	0.63	0.0	0.63
Upland Vegetation			
Non-native grassland (Tier IIIB)	18.57	15.30	3.27
Other Upland Vegetation			
Disturbed land (Tier IV)	8.38	3.23	5.16
Land Cover			
Developed (NA)	0.65	0.63	0.01
TOTAL	28.88	19.16	9.72

Impacts to Tier IIIB non-native grassland would be significant according to the significance criteria described previously in Section 7.0 of this report (as explained below). Mitigation for these impacts would be required. Impacts to Tier IV disturbed land would be less than significant as the impacts would not meet criteria for significance described in Section 7.0 of this report. Thus, no mitigation would be required.

Significance Criterion C: A project would substantially diminish habitat for fish, wildlife, or plants. The project would replace 15.30 acres of non-native grassland, which provides habitat for plants and animals, with a parking lot. Since the City considers any impact to one acre or more of non-native grassland that is not completely surrounded by existing urban development to be significant, this impact would be substantial. Mitigation would be required for this impact.

Significance Criterion 2: A project would result in a substantial adverse impact on any Tier IIIB habitat as identified in the Biology Guidelines or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. As stated above under Significance Criterion C, impacts would occur to Tier IIIB non-native grassland that would be considered substantial and adverse; mitigation would be required.

7.1.2 Direct Impacts to Sensitive Plant Species

There would be no direct impacts to sensitive plant species from development of the project.

7.1.3 Direct Impacts to Sensitive Animal Species

Burrowing Owl

Direct impacts to the BUOW can consist of destruction of burrows/burrow entrances, mortality of individual owls, and foraging habitat loss surrounding occupied burrows. The project would directly impact a location where an individual owl was observed in January 2018 (and several burrows) but would not directly impact the BUOW observed in the Conservation Area (Figure 3).

On November 13, 2019, during a site visit with City staff, a single BUOW was observed utilizing a burrow along the northern border of the site (Figure 3). This burrow is within the limits of the subsequent unauthorized clearing activity; therefore, an active BUOW burrow was destroyed during the clearing activity. In order to determine if this burrow was occupied during the clearing and if a BUOW had been harmed, a follow up site visit was conducted on January 15, 2020 with City and CDFW personnel present. During this visit the burrow was excavated to search for BUOW remains. Prior to digging, the burrow location was identified and flagged with the use of a GPS unit. A small tracked backhoe was then used to dig an approximately 6' x 6' wide and 4' deep hole at the burrow location. Material was inspected by City and CDFW personnel on site as it was removed from the hole. No BUOW remains (feathers, bones, body parts, etc.) were found in the soil excavated material. As such, there was no indication that the unauthorized clearing had taken a BUOW at this known occupied location.

Prior to, and after the soil excavation, the project biologist walked the western portion of the site, outside of the cleared area where there still are extant burrows with a history of BUOW occupation. A single BUOW was observed utilizing the burrows in this area. While it cannot be known for certain, it appears that this BUOW may be the same one as was observed prior to the clearing on November 13, 2019. Based on the lack of BUOW remains in the excavated burrow, and the sighting of a BUOW on the western end of the site, there is no evidence that the unauthorized clearing directly resulted in the death of any BUOW. The results of the excavation were recorded in an email to the City, CDFW, and USFWS on January 16, 2020 (Appendix F).

Construction of the project would, however, impact non-native grassland habitat (15.30 acres) and disturbed land habitat (3.2 acres) used by the BUOW on site. The BUOW is a federal Bird of Conservation Concern, a State Species of Special Concern, and is an MSCP Covered Species**.** Direct impacts to this species would be significant according to Significance Criterion 1 (substantial adverse impacts, either directly or through habitat modifications, to [sensitive] species). Mitigation would be required.

California Horned Lark

The project would impact 15.30 acres of non-native grassland that provide potential habitat for the California horned lark, which is on the State Watch List. It is not an MSCP Covered Species. Due to the amount of habitat loss for this species, the impact would be significant according to Significance Criterion 1 (substantial adverse impacts, either directly or through habitat modifications, to [sensitive] species). Mitigation would be required.

Loggerhead Shrike

The project would impact 15.30 acres of non-native grassland that provide potential habitat for the loggerhead shrike, which has moderate potential to occur on site. The loggerhead shrike is a federal Bird of Conservation Concern and a State Species of Special Concern. It is not an MSCP Covered Species. Due to the amount of habitat loss for this species, the potential impact would be significant according to Significance Criterion 1 (substantial adverse impacts, either directly or through habitat modifications, to [sensitive] species). Mitigation would be required.

San Diego Black-tailed Jackrabbit

The San Diego black-tailed jackrabbit is a State Species of Special Concern; it is not an MSCP Covered Species. Impacts to this species could occur through the removal of habitat and could include injury or mortality to very young jackrabbit litters that may be immobile. It is anticipated that impacts to San Diego black-tailed jackrabbit, should they occur, would be limited, however, and therefore, less than significant (Significance Criteria A and 1).

Raptor Foraging

Loss of 15.30 acres of non-native grassland would result in a loss of BUOW foraging habitat and potentially foraging habitat that could be used by the sensitive northern harrier (State Species of Special Concern and MSCP Covered Species), which has moderate potential to occur on site. The loss of raptor foraging habitat would be significant according to Significance Criterion 1 (substantial adverse impacts, either directly or through habitat modifications, to [sensitive] species). Mitigation would be required.

7.1.4 Direct Impacts to Sensitive Species with Potential to Occur

Table 3 presented a list of the sensitive and MSCP Narrow Endemic plant species and their potential to occur on site. All of these species are either not expected or have low potential to occur based on the location of the site, the habitats present, and/or because they have not been found on site during the surveys conducted. Therefore, impacts to these species are not anticipated, and no mitigation would be required.

Table 4 presented a list of sensitive animal species not observed or detected and their potential to occur on site. Two of these species have moderate potential to occur; none has high potential to occur. For those with low potential to occur, impacts are not expected, and mitigation would not be required.

There is moderate potential for the loggerhead shrike and northern harrier to occur on site. Neither of these species is federal or State listed as threatened or endangered; the northern harrier is an MSCP Covered Species. Direct impacts to individuals or the habitats of the loggerhead shrike and northern harrier, should these species be present, could be significant according to Significance Criterion 1 (substantial adverse impacts to sensitive species). Mitigation would be required.

7.1.5 Direct Impacts to Waters of the U.S./State and City Wetlands

The natural drainage channel on site, which is potential Waters of the U.S., potential Waters of the State, and City Wetlands would not be directly impacted by project development.

The project would directly impact the man-made channel in the slope and drainage easement on site (Figure 4). This channel is not a City Wetland and is not considered Waters of the U.S. or Waters of the State (see Section 5.5.4 of this report). As such, no agency permitting or mitigation would be required.

7.1.6 Direct Impacts to Wildlife Corridors

The project site is not in a wildlife corridor; therefore, development of the project would not directly impact a wildlife corridor.

7.2 INDIRECT IMPACTS

Indirect impacts consist of secondary effects of a project such as from fugitive dust or in the form of avian nesting disturbance.

7.2.1 Indirect Impacts from Fugitive Dust

Fugitive dust produced by construction could disperse onto adjacent outside and inside the Conservation Area. A continual cover of dust may reduce the overall vigor of individual plants by reducing their photosynthetic capabilities and increasing their susceptibility to pests or disease. This, in turn, could affect animals dependent on these plants (e.g., seed-eating rodents). Fugitive dust also may make plants unsuitable as habitat for insects and birds. Furthermore, fugitive dust can settle in vernal pools and alter water temperatures required, for example, by the SDFS adversely affecting its ability to mature and reproduce (USFWS 2012).

As previously explained in Section 6.1.9 of this report, construction of the project will adhere to applicable construction dust control measures prescribed by the City. These measures include, for example, reduced driving speeds on unpaved roads and regular watering of dirt surfaces. Potential impacts from fugitive dust would be less than significant and, therefore, would not require mitigation.

7.2.2 Indirect Impacts to Raptor Nesting

Northern harrier. Indirect impacts to nesting northern harriers could occur if any construction occurs in or near the Conservation Area within the raptor breeding season (generally February 1 to September 15). MSCP Area Specific Management Directives for the northern harrier must include an impact avoidance area (900 foot or maximum possible within the preserve) around active nests. Mitigation would be required to provide a 900-foot (or maximum possible) impact avoidance area around active northern harrier nests in the Conservation Area during construction, should they occur, to avoid a potentially significant impact to northern harrier nesting under Significance Criterion 1 (substantial adverse impacts, either directly or through habitat modifications, to [sensitive] species).

Burrowing Owl. The Biology Guidelines (City 2012) require an impact avoidance area of 300 feet from any occupied BUOW burrow that occurs in the MHPA (Conservation Area). This is the MSCP Area Specific Management Directive for this species. If any construction would occur during the raptor breeding season, there is potential for impacts to the BUOW that would be significant according to Significance Criterion 1 (substantial adverse impacts, either directly or through habitat modifications, to [sensitive] species) and Significance Criterion 7 (conflict with local policies). Mitigation would be required.

7.3 CUMULATIVE IMPACTS

The MSCP was designed to compensate for the cumulative loss of biological resources throughout the San Diego region. Projects that conform to the MSCP as specified by the City's Subarea Plan and implementing ordinances, (i.e., Biology Guidelines and ESL Regulations) are not expected to result in a significant cumulative impact for those biological resources adequately covered by the MSCP. The Project would comply with the City's Subarea Plan by conforming to the MHPA Land Use Adjacency Guidelines and Area Specific Management Directives for Covered Species and by mitigating for significant impacts in accordance with ESL Regulations and the City's Biology Guidelines.

Furthermore, on August 3, 2018, the City received authorization from the USFWS for incidental take of the SDFS and RSFS for "otherwise lawful Covered Activities within the Plan Area described and defined in the VPHCP" (USFWS 2018). Five vernal pool plant species (San Diego button-celery, spreading navarretia, California Orcutt grass, San Diego mesa mint, and Otay Mesa mint) are included in the USFWS permit due to the conservation benefits provided for the plants in the VPHCP. The City's VPHCP is the regulatory process to mitigate impacts and protect these species from cumulative effects.

Other projects in the City would also be required to comply with the City's Subarea Plan and VPHCP (if applicable). Therefore, the project would not contribute considerably to cumulatively significant impacts on sensitive biological resources in the City, and no mitigation for cumulative impacts would be required.

8.0 MITIGATION MEASURES

The project would impact sensitive vegetation and sensitive plant and animal species. The following measures are proposed to mitigate the direct and indirect impacts to these resources that are significant. The mitigation in Section 8.2.1 of this report is based on the impacts to the original extent of non-native grassland vegetation on site rather than the 8.1 acres of disturbed land that exists following unauthorized grading.

Successful implementation of the mitigation measures in this section would reduce each impact to a less-than-significant level. The mitigation measures proposed have been formulated to be consistent with the City's MSCP Subarea Plan, Biology Guidelines, and ESL Regulations and specifically include preservation of the 100% Conservation Area on site designated in the City's VPHCP. The upland portion of the Conservation Area will be used as mitigation for the project as described in Section 8.2.1 of this report. The wetland/riparian portion of the Conservation Area will remain available for use as mitigation for future projects

8.1 BIOLOGICAL RESOURCE PROTECTION DURING CONSTRUCTION

I. Prior to Construction

A. **Biologist Verification:** The owner/permittee shall provide a letter to the City's MMC Section stating that a Project Biologist (Qualified Biologist), as defined in the City of San Diego's Biological Guidelines (2018), has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project.

B. **Pre-construction Meeting:** The Qualified Biologist shall attend a pre-construction meeting, discuss the project's biological monitoring program, and arrange to perform any follow up mitigation measures and reporting including site-specific monitoring, restoration or revegetation, and additional fauna/flora surveys/salvage.

C. **Biological Documents:** The Qualified Biologist shall submit all required documentation to Mitigation Monitoring Coordination verifying that any special mitigation reports including but not limited to, maps, plans, surveys, survey timelines, or buffers are completed or scheduled per City Biology Guidelines, MSCP, ESL Ordinance, project permit conditions; CEQA; endangered species acts; and/or other local, State or federal requirements.

D. **Biological Construction Mitigation/Monitoring Exhibit:** The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit which includes the biological documents in C, above. In addition, include: restoration/revegetation plans, plant salvage/relocation requirements, avian or other wildlife surveys/survey schedules (including general avian nesting and USFWS protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/ barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the City Assistant Deputy Director/MMC. The Biological Construction Mitigation/Monitoring Exhibit shall include a site plan, written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The Biological Construction Mitigation/Monitoring Exhibit shall be approved by MMC and referenced in the construction documents.

E. **Avian Protection Requirements:** To avoid any direct impacts to the California horned lark or northern harrier (see Section 8.3 of this report for the burrowing owl) and any species identified as a listed, candidate, sensitive, or special status species in the MSCP, removal of habitat that supports active nests in the proposed area of disturbance should occur outside of the breeding season for these species (February 1 to September 15). If nesting California horned lark or northern harrier (see Section 8.3 of this report for the burrowing owl), sensitive, or MSCP-covered birds are detected, removal of habitat in the proposed area of disturbance must occur (based on construction timing) during the breeding season, the Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of

construction activities (including removal of vegetation). The applicant shall submit the results of the pre-construction survey to City Development Services Department for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan in conformance with the City's Biology Guidelines and applicable State and federal law (i.e., appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report or mitigation plan shall be submitted to the City Development Services Department for review and approval and implemented to the satisfaction of the City. The City's MMC Section or Resident Engineer, and Qualified Biologist shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction. If nesting birds are not detected during the pre-construction survey, no further mitigation is required.

F. **Resource Delineation:** Prior to construction activities, the Qualified Biologist shall supervise the placement of silt and orange construction fencing or equivalent along the limits of disturbance and verify compliance with any other project conditions as shown on the Biological Construction Mitigation/Monitoring Exhibit. This phase shall include, as applicable, flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora and fauna species, including nesting birds) during construction. Appropriate steps/care should be taken to minimize attraction of nest predators to the site.

G. **Education:** Prior to commencement of construction activities, the Qualified Biologist shall meet with the owner/permittee or designee and the construction crew and conduct an on-site educational session regarding the need to avoid impacts outside of the approved construction area and to protect sensitive flora and fauna (e.g., explain the avian buffers and clarify acceptable access routes/methods and staging areas, etc.).

II. During Construction

A. **Monitoring:** All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on "Exhibit A" and/or the Biological Construction Mitigation/Monitoring Exhibit. The Qualified Biologist shall monitor construction activities as needed to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the pre-construction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record. The Consultant Site Visit Record shall be e-mailed to Mitigation Monitoring Coordination on the 1st day of monitoring, the 1st week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.

The Qualified Biologist shall monitor, as is feasible, for the presence of sensitive animal species and shall, if practicable, direct or move these animals out of harm's way (i.e., to a location of suitable habitat outside the impact footprint).

B. **Subsequent Resource Identification:** The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna on site (e.g., flag plant specimens for avoidance during access, etc.). If active nests or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species specific local, State or federal regulations have been determined and applied by the Qualified Biologist.

III. Post Construction

In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City Biology Guidelines, ESL Ordinance and MSCP, CEQA, and other applicable local, State and federal laws. The Qualified Biologist shall submit a final Biological Construction Mitigation/Monitoring Exhibit /report to the satisfaction of the City Assistant Deputy Director /MMC within 30 days of construction completion.

8.2 MITIGATION ELEMENT

The following mitigation measures have been formulated to be consistent with the City's MSCP Subarea Plan and Biology Guidelines. The mitigation ratios used in this report follow the City's ESL Regulations tier system for impacts to sensitive upland habitats. The ratios are consistent with all impacts occurring outside the MHPA with mitigation occurring in the MHPA (or in this case, the VPHCP 100% Conservation Area). Similar to the impact assessment in Section 7.1.1 (Direct Impacts to Vegetation Communities), the mitigation in Section 8.2.1 below is based on the impacts to the original extent of non-native grassland vegetation on site rather than the 8.1 acres of disturbed land created from the unauthorized clearing.

- **Tier IIIB**: Non-native grassland (0.5:1)
- **Tier IV**: Disturbed land (0:1)

8.2.1 Mitigation for Direct Impacts to Upland Vegetation Communities

In response to the land clearing violation, the project owner immediately halted the clearing activity, placed a 6-foot-tall chain link fence and silt fencing around the perimeter of the cleared area and installed hydromulch erosion control material. Since that time the owner has been maintaining the fences and erosion control materials to ensure that the site is stable and erosion/sedimentation does not occur and adversely affect areas to be preserved on site.

The project will preserve the entire 9.72-acre 100% Conservation Area on site (Figure 3), and the mitigation for significant impacts to 15.30 acres of non-native grassland (occupied by the BUOW) are proposed to occur within the MHPA/VPHCP boundary. That is, impacts to 15.30 acres of BUOW-occupied non-native grassland would be mitigated at a 0.5:1 ratio (7.65 acres of mitigation) through preservation of 3.27 acres of BUOW-occupied non-native grassland and 5.16 acres of BUOW-occupied disturbed land for a combined total of 8.43 acres within the MHPA/VPHCP boundary on site (0.78-acre in excess of the required 7.65 acres). Furthermore, the disturbed land will be enhanced to improve its quality for the ground squirrels and the BUOW. Table 6 provides a breakdown of the project impacts and mitigation. The proposed mitigation would reduce the level of significance to BUOW-occupied non-native grassland to a less-than-significant level because both non-native grassland and disturbed land to be enhanced on site are used by the BUOW. Additionally, the identified location is congruent with the VP HCP conservation area and would contribute to the overall formation of the VP HCP/MHPA preserve system.

Table 6
DIRECT IMPACTS TO VEGETATION COMMUNITIES/LAND COVER TYPES AND REQUIRED MITIGATION1

Vegetation Community/ Land Cover Type	Existing Acres	Impacted Acres	Mitigation Ratio	Mitigation Required	Conserved within the VPHCP On Site
Wetland/Riparian Vegetation					
Vernal Pool	0.01	0.0	2:1 to 4:1	0.0	0.01
Southern willow scrub	0.50	0.0	3:1	0.0	0.50
Freshwater marsh	0.14	0.0	3:1	0.0	0.14
Disturbed wetland	0.63	0.0	3:1	0.0	0.63
Upland Vegetation					
Non-native grassland (Tier IIIB)	18.57	15.30[2]	0.5:1	7.65	3.27[2]
Other Upland Vegetation					
Disturbed land (Tier IV)	8.38	3.23	NA	NA	5.16[2]
Land Cover					
Developed (NA)	0.65	0.63	NA	NA	0.01
TOTAL	**28.88**	**19.16**	**NA**	**NA**	**9.72**

[1]Mitigation through on-site preservation/enhancement within the MHPA/VPHCP boundary.
[2]The land is occupied by the BUOW.

8.2.2 Mitigation for Direct Impacts to Sensitive Animal Species

California Horned Lark, Loggerhead Shrike, Raptor Foraging, and San Diego Black-tailed Jackrabbit

Direct impacts to these species shall be mitigated through implementation of the *Mitigation for Direct Impacts to Upland Vegetation Communities* described in Section 8.2.1 of this report (and also Section 8.1.I.E of this report for the California horned lark).

Burrowing Owl

As explained in Section 7.1.3 (Direct Impacts to Animal Species, Burrowing Owl), an active BUOW burrow was destroyed during the unauthorized clearing activity. Subsequently, it was determined through a forensic excavation of the burrow location that no BUOW remains (feathers, bones, body parts, etc.) were found in the excavated soil material. As such, there was no indication that the unauthorized clearing had taken a BUOW (Appendix F).

When the project owner received the CPNO for the unauthorized clearing, work was stopped, and a 6-foot-tall chain link fence and silt fencing were installed around the perimeter of the cleared area. Since that time, the owner has been maintaining the fences and erosion control materials to ensure that the area is protected and erosion/sedimentation is not occurring. No other activities have taken place on site.

Since there was no take of a BUOW, the Wildlife Agencies did not require additional mitigation to address indirect impacts to BUOW. Therefore, the mitigation listed below is based on the existing site conditions prior to the unauthorized clearing.

A Habitat Management Plan (HMP) has been prepared (Appendix E) to address the management and monitoring of the on-site conserved land that includes mitigation for impacts to BUOW-occupied non-native grassland and disturbed land (see Section 8.2.1 above). The HMP provides measures and conditions to help improve and maintain a self-sustaining colony of California ground squirrels (*Otospermophilus beecheyi*) as a means to provide suitable habitat for year-round occupation by the BUOW. The HMP includes initial tasks as well as long-term management tasks. Prior to issuance of the grading permit and start of construction, the applicant must obtain confirmation from the City, CDFW, and USFWS that the initial HMP tasks (I-1 through I-7) have been successfully completed. These tasks include site preparation, trash/debris removal, fencing, and installation of berms and refugia.

In addition to these initial tasks, the applicant must carry out the passive BUOW relocation task (I-8) identified in the HMP. This task must be completed after the grading permit is issued but prior to initiation of any on-site construction related activities. Construction may not commence until the applicant has obtained confirmation from the City, CDFW, and USFWS that the initial HMP passive owl relocation task has been successfully completed. BUOW passive relocation includes surveying potential BUOW burrows in the impact footprint (including the unauthorized clearing area) for BUOW presence and then destroying the burrows once they are confirmed to be empty.

Additionally, potential direct impacts to the BUOW shall be mitigated as follows.

PRECONSTRUCTION SURVEY ELEMENT

Prior to Permit or Notice to Proceed Issuance:

1. As this project has been determined to be BUOW occupied or to have BUOW occupation potential, the Applicant Department or Permit Holder shall submit evidence to the ADD of Entitlements and Multiple Species Conservation Program (MSCP) staff verifying that a Biologist possessing qualifications pursuant "Staff Report on Burrowing Owl Mitigation, State of California Natural Resources Agency Department of Fish and Game. March 7, 2012 (hereafter referred as CDFG 2012, Staff Report), has been retained to implement a burrowing owl construction impact avoidance program.

2. The qualified BUOW biologist (or their designated biological representative) shall attend the pre-construction meeting to inform construction personnel about the City's BUOW requirements and subsequent survey schedule.

Prior to Start of Construction:

1. The Applicant Department or Permit Holder and Qualified Biologist must ensure that initial pre-construction/take avoidance surveys of the project "site" are completed between 14 and 30 days before initial construction activities, including brushing, clearing, grubbing, or grading of the project site; regardless of the time of the year. "Site" means the project site and the area within a radius of 450 feet of the project site. The report shall be submitted and approved by the Wildlife Agencies and/or City MSCP staff prior to construction or BUOW eviction(s) and shall include maps of the project site and BUOW locations on aerial photos.

2. The pre-construction survey shall follow the methods described in CDFG 2012, Staff Report -Appendix D

3. 24 hours prior to commencement of ground disturbing activities, the Qualified Biologist shall verify results of preconstruction/take avoidance surveys. Verification shall be provided to the City's Mitigation Monitoring and Coordination (MMC) and MSCP Sections. If results of the preconstruction surveys have changed and BUOW are present in areas not previously identified, immediate notification to the City and WA's shall be provided prior to ground disturbing activities.

During Construction:

1. **Best Management Practices shall be employed** as BUOWs are known to use open pipes, culverts, excavated holes, and other burrow-like structures at construction sites. Legally permitted active construction projects which are BUOW occupied and have followed all protocol in this mitigation section, or sites within 450 feet of occupied BUOW areas, should undertake measures to discourage BUOWs from recolonizing previously occupied areas or colonizing new portions of the site. Such measures include, but are not limited to, ensuring that the ends of all pipes and culverts are covered when they are not being worked on, and covering rubble piles, dirt piles, ditches, and berms.

2. **On-going BUOW Detection** - If BUOWs or active burrows are not detected during the pre-construction surveys, Section "A" below shall be followed. If BUOWs or burrows are detected during the pre-construction surveys, Section "B" shall be followed. NEITHER THE MSCP SUBAREA PLAN NOR THIS MITIGATION SECTION ALLOWS FOR ANY BUOWs TO BE INJURED OR KILLED OUTSIDE **OR** WITHIN THE MHPA; in addition, IMPACTS TO BUOWs WITHIN THE MHPA MUST BE AVOIDED.

   A. Post Survey Follow Up if Burrowing Owls and/or Signs of Active Natural or Artificial Burrows Are <u>Not</u> Detected During the Initial Pre-Construction Survey - Monitoring the site for new burrows is required using CDFW Staff Report 2012 Appendix D methods for the period following the initial pre-construction survey, until construction is scheduled to be complete and is complete *(NOTE - Using a projected completion date (that is amended if needed) will allow development of a monitoring schedule).*

   1) If no active burrows are found but BUOWs are observed to occasionally (1-3 sightings) use the site for roosting or foraging, they should be allowed to do so with no changes in the construction or construction schedule.

   2) If no active burrows are found but BUOWs are observed during follow up monitoring to repeatedly (4 or more sightings) use the site for roosting or foraging, the City's MMC and MSCP Sections shall be notified and any portion of the site where owls have been sites and that has not been graded or otherwise disturbed shall be avoided until further notice.

   3) If a BUOW begins using a burrow on the site at any time after the initial pre-construction survey, procedures described in Section B must be followed.

   4) Any actions other than these require the approval of the City and the Wildlife Agencies.

   B. Post Survey Follow Up if Burrowing Owls and/or Active Natural or Artificial Burrows are detected during the Initial Pre-Construction Survey - Monitoring the site for new burrows is required using Appendix D CDFG 2012, Staff Report for the period following the initial pre-construction survey, until construction is scheduled to be complete and is complete *(NOTE - Using a projected completion date (that is amended if needed) will allow development of a monitoring schedule which adheres to the required number of surveys in the detection protocol).*

   1) This section (B) applies only to sites (including biologically defined territory) wholly outside of the MHPA – **all direct and indirect impacts to BUOWs within the MHPA <u>SHALL</u> be avoided.**

2) If one or more BUOWs are using any burrows (including pipes, culverts, debris piles *etc.*) on or within 300 feet of the proposed construction area, the City's MMC and MSCP Sections shall be contacted. The City's MSCP and MMC Section shall contact the Wildlife Agencies regarding eviction/collapsing burrows and enlist appropriate City biologist for on-going coordination with the Wildlife Agencies and the qualified consulting BUOW biologist. No construction shall occur within 300 feet of an active burrow without written concurrence from the Wildlife Agencies. This distance may increase or decrease, depending on the burrow's location in relation to the site's topography, and other physical and biological characteristics.

   a) **Outside the Breeding Season** - If the BUOW is using a burrow on site outside the breeding season (i.e. September 1 – January 31), the BUOW may be evicted after the qualified BUOW biologist has determined via fiber optic camera or other appropriate device, that no eggs, young, or adults are in the burrow. Eviction requires preparation of an Exclusion Plan prepared in accordance with CDFW Staff Report 2012, Appendix E (or most recent guidance available) for review and submittal to Wildlife Agencies. Written concurrence from the Wildlife Agencies is required prior to Exclusion Plan implementation.

   b) **During Breeding Season** - If a BUOW is using a burrow on-site during the breeding season (Feb 1-Aug 31), construction shall not occur within 300 feet of the burrow until the young have fledged and are no longer dependent on the burrow, at which time the BUOWs can be evicted. Eviction requires preparation of an Exclusion Plan prepared in accordance with CDFW Staff Report 2012, Appendix E (or most recent guidance available) for review and submittal to Wildlife Agencies. Written concurrence from the Wildlife Agencies is required prior to Exclusion Plan implementation.

3. **Survey Reporting During Construction -** Details of construction surveys and evictions (if applicable) carried out shall be immediately (within 5 working days or sooner) reported to the City's MMC, and MSCP Sections and the Wildlife Agencies and must be provided in writing (as by e-mail) and acknowledged to have been received by the required Agencies and DSD Staff member(s).

Post Construction:

1. Details of the all surveys and actions undertaken on-site with respect to BUOWs (i.e. occupation, eviction, locations etc.) shall be reported to the City's MMC Section and the Wildlife Agencies within 21 days post-construction and prior to the release of any grading bonds. This report must include summaries off all previous reports for the site; and maps of the project site and BUOW locations on aerial photos.

8.2.3 Mitigation for Indirect Impacts to Raptor Nesting

Due to the potential for the northern harrier and BUOW to nest in the Conservation Area, a 900-foot impact avoidance area shall be maintained for any active northern harrier nest, and a 300-foot impact avoidance area shall be maintained for any active BUOW burrow in the conserved portion of the site. See Section 8.1, *Biological Resources Protection…Avian Protection*, Subsection I.E, *Avian Protection Requirements* and Section 8.2.2, *Mitigation for Direct Impacts to Sensitive Animal Species, Burrowing Owl* of this report.
With implementation of the mitigation measures listed in Section 8.0 of this report, the project's significant, or potentially significant, impacts to sensitive biological resources would be reduced to less-than-significant levels.

8.3 PROTECTION AND NOTICE ELEMENT

The Applicant is required to record a Covenant of Easement (COE) over the MHPA/VPHCP land on site. Identification of permissible activities and other permit conditions for the project will be incorporated into the COE. The COE will be recorded against the title of the property and would run with the land.

8.4 MANAGEMENT ELEMENT

The Applicant will be responsible for ensuring successful implementation of the HMP (Appendix E) that provides direction for the permanent preservation, enhancement, and management of the on-site mitigation in accordance with City requirements for BUOW mitigation and VPHCP implementation. The project applicant will also will be responsible for funding of the HMP.

9.0 REFERENCES

American Ornithological Society. 2017. Checklist of North and Middle American Birds. http://www.americanornithology.org/content/checklist-north-and-middle-american-birds

California Department of Fish and Wildlife. 2018. Special Animals List. April. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline

California Native Plant Society. 2018. Inventory of Rare and Endangered Plants (online edition, v8-03 0.39). California Native Plant Society, Sacramento, CA. http://www.rareplants.cnps.org

City of San Diego. 2018. Land Development Code Biology Guidelines. Adopted September 1999. Last amended February 1, 2018 by Resolution No. R-311507. https://www.sandiego.gov/sites/default/files/amendment_to_the_land_development_manual_biology_guidelines_february_2018_-_clean.pdf

2017. Final City of San Diego Vernal Pool Habitat Conservation Plan. October. https://www.sandiego.gov/sites/default/files/vph-cp.pdf

1997a. Multiple Species Conservation Program. City of San Diego MSCP Subarea Plan. March.

1997b. City of San Diego MSCP Implementing Agreement Documents.

Crother, B.I. 2008. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding. Sixth Edition. Society for the Study of Amphibians and Reptiles. Herpetological Circular # 37. January.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi. 100 pp. with Appendices.

Environmental Protection Agency. 2013. Wetlands Definitions. http://water.epa.gov/lawsregs/guidance/wetlands/definitions.cfm

Hickman, J.C., ed. 1993. The Jepson Manual: Higher Plants of California. University of California Press, Berkeley, 1400 pp.

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency. 156 pp.

Jones, J.K., D.C. Carter, H.H. Genoways, R.S. Hoffman and D.W. Rice. 1992. Revised Checklist of North American Mammals North of Mexico. Occasional Papers of the Museum, Texas Tech University 80: 1-22.

Nationwide Environmental Title Research, LLC. 2018. Historic Aerials. https://www.historicaerials.com/

Oberbauer, T., M. Kelly, and J. Buegge. 2008. Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California," R.F. Holland, 1986. 73 pp.

Tremor, Scott, D. Stokes, W. Spencer, J. Diffendorfer, H. Thomas, S. Chivers, and P. Unitt. 2017. *San Diego County Mammal Atlas*. No. 46. Proceedings of the San Diego Society of Natural History. August 1.

Unitt, Philip. 2004. *San Diego County Bird Atlas*. No. 39. Proceedings of the San Diego Society of Natural History. October 31.

U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). Eds. J.S. Wakely, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Department of Agriculture Natural Resources Conservation Service. 2018. Soils.

U.S. Fish and Wildlife Service. 2018. Native Endangered and Threatened Sp. Habitat Conservation Plan Endangered & Threatened Wildlife Permit Number: TE97791C-0. Effective: 08/03/18 Expires: 07/18/2047

2014. Quino Checkerspot Butterfly Survey Protocol. February 21.

10.0 PREPARER'S QUALIFICATIONS/CERTIFICATIONS

Greg Mason, Principal/Senior Biologist, Alden Environmental, Inc.

Summary of Qualifications

Mr. Mason is the Principal and Senior Biologist at Alden Environmental, Inc. He has over 20 years' experience working in the environmental field and has participated in hundreds of projects in San Diego County. His experience includes oversight of large- and small-scale mitigation compliance programs, including habitat restoration, sensitive species surveys, vegetation mapping, wetland delineations, construction monitoring, impact analysis, report preparation, project permitting, and project management. He has worked extensively with both public and private clients, in coordination with federal, state and local regulatory staff, in the implementation of mitigation and monitoring programs in the field. He assists clients in obtaining aquatic resources permits including U.S. Army Corps Section 404 Permits, RWQCB Section 401 Certifications, and CDFW 1600 Streambed Alteration Agreements. Through his permitting work, Mr. Mason also facilitates the Section 7 consultation process with the USFWS and negotiates conservation measures. Mr. Mason is permitted by the USFWS to conduct presence/absence surveys for Quino checkerspot butterfly; San Diego, Riverside, vernal pool, Conservancy, and longhorn fairy shrimps; and vernal pool tadpole shrimp throughout the range of each species, and is also authorized to conduct dry season fairy shrimp analysis, identification, and culturing.

Professional Experience

Jr. Environmental Planner	HELIX Environmental Planning, Inc., La Mesa, CA	1992 - 1993
Peace Corps Volunteer	U.S. Peace Corps, Paraguay	1993 - 1996
Environmental Planner	Helix Environmental Planning, Inc., La Mesa, CA	1996 - 1998
Biologist	Helix Environmental Planning, Inc., La Mesa, CA	1998 - 2001
Biology Group Manager	Helix Environmental Planning, Inc., La Mesa, CA	2001 - 2004
Division Manager, Biological Services	Helix Environmental Planning, Inc., La Mesa, CA	2004 - 2008
Vice President, Biological Services	Helix Environmental Planning, Inc., La Mesa, CA	2008 - 2011
Principal and Senior Biologist	Alden Environmental, Inc., San Diego, CA	2011 - Present

Education

Bachelor of Science, Natural Resources Planning & Interpretation, Humboldt State University, 1992

Registrations/Certifications/Licenses

- USFWS Threatened/ Endangered Wildlife Species Permit (quino checkerspot butterfly; San Diego, Riverside, vernal pool, Conservancy, and longhorn fairy shrimps; and vernal pool tadpole shrimp)
- USFWS authorized for dry season fairy shrimp analysis, identification, and culturing
- CDFW Scientific Collecting Permit SC-007619
- County of San Diego, Approved Biological Consultant and Approved Revegetation Planner

Professional Affiliations

- California Native Plant Society
- Returned Peace Corps Volunteer Association

Appendix A

Plant Species Observed

Appendix A
PLANT SPECIES OBSERVED

SCIENTIFIC NAME	COMMON NAME	VEGETATION COMMUNITY[1]
Aizoaceae – Ice Plant Family		
Mesembryanthemum crystalinum[2]	crystalline iceplant	DL, NNG
Mesembryanthemum nodiflorum[2]	slender-leaf iceplant	DL
Apiaceae – Carrot Family		
Eryngium aristulatum var. *parishii*[3]	San Diego button-celery	VP (off site)
Foeniculum vulgare[2]	sweet fennel	DL
Asteraceae – Sunflower Family		
Baccharis salicifolia	mule fat	SWS, DW
Baccharis sarothroides	broom baccharis	SWS
Centaurea melitensis[2]	tocalote	DL, NNG
Deinandra conjugens[3]	Otay tarplant	DL, NNG
Dittrichia graveolens[2]	stinkwort	DL, NNG
Encelia californica	California encelia	NNG
Glebionis coronaria[2]	garland daisy	DL, NNG
Hedypnois cretica[2]	Crete hedypnois	DL
Helianthus sp.	sunflower	DL
Helminthotheca echioides[2]	bristly ox-tongue	DL
Lactuca serriola[2]	prickly lettuce	DL, NNG
Matricaria discoidea	pineapple weed	DL
Oncosiphon piluliferum[2]	stinknet	DL
Pseudonaphalium californicum	California everlasting	NNG
Sonchus asper[2]	sow-thistle	DL
Xanthium strumarium[2]	cocklebur	DW
Boraginaceae – Borage Family		
Amsinckia menziesii	rancher's fiddleneck	DL, NNG
Amsinckia eastwoodiae	fiddleneck	NNG
Pectocarya sp.	pectocarya	DL
Plagiobothrys collinus gracilis	San Diego popcornflower	NNG
Brassicaceae – Mustard Family		
Brassica nigra[2]	black mustard	DL, NNG
Brassica tournefortii[2]	Asian mustard	DL
Hirschfeldia incana[2]	short-pod mustard	DL, NNG
Sisymbrium sp.[2]	London rocket	DL
Caryophyllaceae – Pink Family		
Cerastium glomeratum[2]	chickweed	DL, NNG
Silene gallica[2]	windmill pink	DL, NNG
Spergularia boconi[2]	sand-spurrey	DL

Chenopodiaceae – Goosefoot Family		
Atriplex canescens	four-wing saltbush	DL
Atriplex semibaccata[2]	Australian saltbush	DL
Atriplex suberecta[2]	peregrine saltbush	DL
Beta vulgaris[2]	common beet	DL
Chenopodium murale[2]	nettle-leaf goosefoot	DL, NNG
Salsola australis[2]	Russian thistle	DL, NNG
Crassulaceae – Stonecrop Family		
Crassula connata	crassula	DL
Cyperaceae – Sedge Family		
Cyperus eragrostis	tall cyperus	FWM, DW
Eleocharis macrostachya	pale spikesedge	VP
Schoenoplectus sp.	bulrush	FWM, DW
Euphorbiaceae – Spurge Family		
Chamaesyce maculata[2]	spotted spurge	DL
Ricinus communis[2]	castor bean	DL, DW
Fabaceae – Pea Family		
Melilotus albus[2]	white sweetclover	DL
Melilotus indicus[2]	yellow sweetclover	DL
Geraniaceae – Geranium Family		
Erodium botrys[2]	storksbill	DL, NNG
Erodium cicutarium[2]	red-stem filaree	DL
Lamiaceae – Mint Family		
Marrubium vulgare[2]	horehound	DL, NNG
Lythraceae – Loosestrife Family		
Lythrum hyssopifolia[2]	grass poly	VP
Malvaceae – Mallow Family		
Malva parviflora[2]	cheeseweed	DL, NNG
Oxalidceae – Buttercup Family		
Oxalis pes-caprae [2]	Bermuda buttercup	DL, NNG
Poaceae – Grass Family		
Avena barbata[2]	slender wild oat	DL, NNG
Bromus diandrus[2]	ripgut grass	DL, NNG
Bromus hordeaceus[2]	soft chess	DL, NNG
Bromus madritensis ssp. *rubens*[2]	red brome, foxtail chess	DL, NNG
Carduus pycnocephalus[2]	Italian thistle	DL, NNG
Distichlis spicata	saltgrass	DL, NNG
Elymus condensatus	giant wild rye	DW
Elymus triticoides	wild rye	DW

Festuca myuros	annual fescue	NNG
Festuca perenne[2]	Italian ryegrass	DL, NNG, VP
Hordeum murinum ssp. *glaucum*[2]	glaucous barley	DL, NNG
Phalaris minor[2]	canary grass	DL, DW
Phalaris paradoxa[2]	Hood canary grass	DW
Poa annua	annual bluegrass	NNG
Polypogon monspeliensis[2]	rabbit's foot grass	VP, NNG
Schismus molle[2]	schismus	DL, NNG
Stipa pulchra	purple needlegras	NNG
Polygonaceae – Buckwheat Family		
Rumex crispus[2]	curly dock	DL, DW
Rumex dentatus[2]	toothed dock	DW
Primulaceae – Primrose Family		
Anagallis arvensis[2]	scarlet pimpernel	DL
Marsileaceae - Marsilea Family		
Marsilea vestita	hairy waterclover	VP (off site)
Salicaceae – Willow Family		
Salix laevigata	red willow	SWS
Salix exigua	black willow	SWS
Solanaceae – Nightshade Family		
Datura wrightii	Jimson weed	DL
Nicotiana glauca[2]	tree tobacco	DL
Tamaricaceae – Tamarisk Family		
Tamarix ramosissima[2]	tamarisk	DL
Urticaceae – Nettle Family		
Urtica urens[2]	dwarf nettle	DL
Verbenaceae – Verbena Family		
Verbena menthifolia	mint-leaf vervain	NNG

[1] Vegetation community acronyms: DL = disturbed land; NNG = non-native grassland, FWM=freshwater marsh, DW=disturbed wetland, SWS=southern willow scrub, VP=vernal pool (off site only)
[2] Non-native species
[3]Sensitive species

Appendix B

Animal Species Observed or Detected

Appendix B
ANIMAL SPECIES OBSERVED OR DETECTED

SCIENTIFIC NAME	COMMON NAME
INVERTEBRATES	
Butterflies	
Brephidium exilis	western pygmy blue
Coenonympha californica	California ringlet
Pieris rapae	cabbage white
VERTEBRATES	
Birds	
Aeronautes saxatalis	white-throated Swift
Agelaius phoeniceus	red-winged blackbird
Ardea alba	great egret
Athene cunicularia[1]	burrowing owl
Buteo jamaicensis	red-tailed hawk
Calypte anna	Anna's hummingbird
Carduelis psaltria	lesser goldfinch
Charadrius vociferus	killdeer
Corvus brachyrhynchos	American crow
Corvus corax	common raven
Eremophila alpestris actia[1]	California horned lark
Falco mexicanus	American kestrel
Geothlypis trichas	common yellowthroat
Haemorhous mexicanus	house finch
Hirundo pyrrhonota	cliff swallow
Icterus cucullatus	hooded oriole
Melospiza melodia	song sparrow
Melozone crissalis	California towhee
Mimus polyglottos	northern mockingbird
Psaltriparus minimus	bushtit
Sayornis nigricans	black phoebe
Sayornis saya	Say's phoebe
Setophaga coronata	yellow-rumped warbler
Stelgidopteryx serripennis	northern rough-winged swallow
Streptopelia decaocto	Eurasian collared dove
Sturnella neglecta	western meadowlark
Sturnus vulgaris	European starling
Thryomanes bewickii	Bewick's wren
Tyrannus verticalis	western kingbird
Tyrannus vociferans	Cassin's kingbird
Zenaida macroura	mourning dove

Appendix B
ANIMAL SPECIES OBSERVED OR DETECTED

SCIENTIFIC NAME	COMMON NAME
Birds (continued)	
Zonotrichia atricapilla	golden-crowned Sparrow
Zonotrichia leucophrys	white-crowned sparrow
Mammals	
Canis latrans	coyote
Lepus californicus bennetii[1]	San Diego black-tailed jackrabbit
Otopermophilus beecheyi	California ground squirrel
Sylvilagus audubonii	cottontail

[1]Sensitive species

Appendix C

Representative Site Photographs

Representative Photographs

Photo Point 1 – Southward view from NW corner, 11/12/18, GM.

Photo Point 2 – Southeast view from NW corner, 11/12/18, GM.

Photo Point 3 – Eastward view from NW corner, 11/12/18, GM.

Photo Point 4 – Westward view from NE corner, 11/12/18, GM.

Photo Point 5 – Southeast view from NE corner, 11/12/18, GM.

Photo Point 6 – Southward view from NE corner, 11/12/18, GM.

Photo Point 7 – Northward view from north central portion of site, 11/12/18, GM.

Photo Point 8 – Eastward view from north central portion of site, 11/12/18, GM.

Photo Point 9 – Southward view from north central portion of site, 11/12/18, GM.

Photo Point 10 – Westward view from north central portion of site, 11/12/18, GM.

Photo Point 11 – Southward view of SWS Habitat, 11/12/18, GM.

Photo Point 12 – Southeastward view of VP Habitat, 11/12/18, GM.

Photo Point 13 – Northward view from SE corner, 11/12/18, GM.

Photo Point 14 – Northwest view from SE corner, 11/12/18, GM.

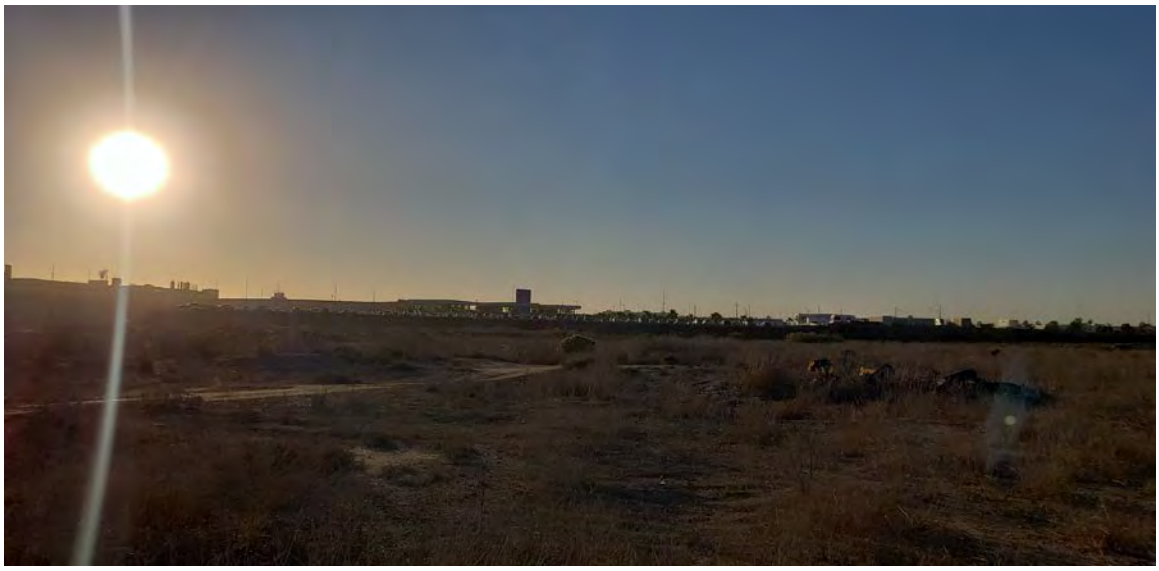


Photo Point 15 – Westward view from SE corner, 11/12/18, GM.

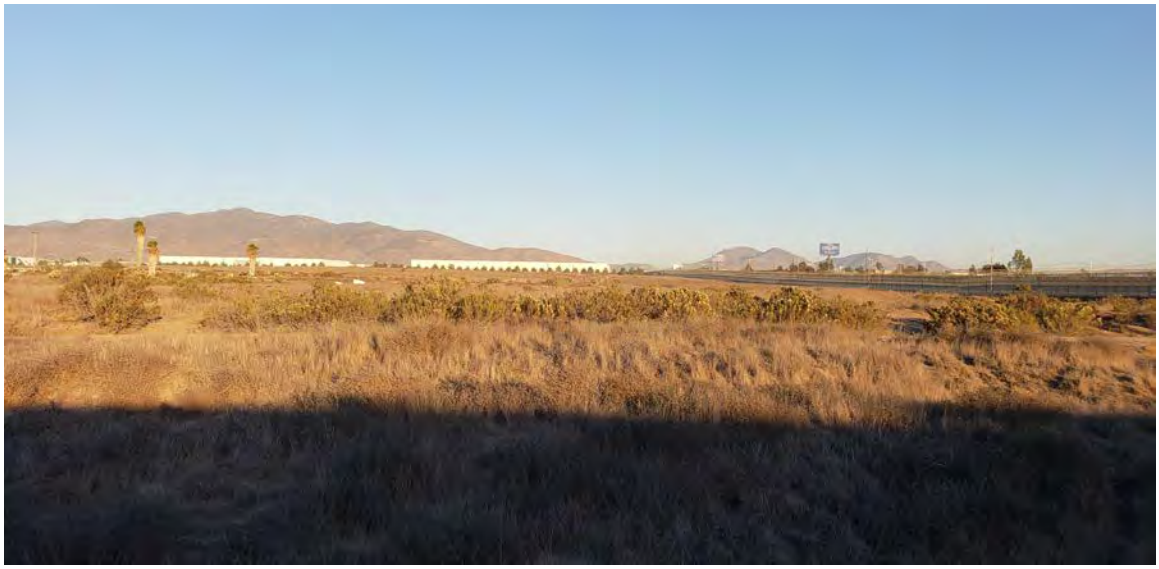


Photo Point 16 – Eastward view from SW corner, 11/12/18, GM.

Photo Point 17 – Northeastward view from SW corner, 11/12/18, GM.

Photo Point 18 – Northward view from SW corner, 11/12/18, GM.

Photo Point 19 – Northward view of constructed drainage easement, 11/12/18, GM.

Photo Point 20– Northwest view of constructed drainage easement inlet, 11/12/18, GM.

Appendix D

Burrowing Owl Survey Report

ALDEN ENVIRONMENTAL, INC
3245 University Ave, #1188 | San Diego, CA 92104 | **Phone/Fax:** 619.284.3815

July 6, 2018

Mr. Andre Sanchez
Cross Border Xpress
2745 Otay Pacific Drive
San Diego, CA 92154

Subject: Burrowing Owl Survey Report for the Otay Tijuana Norte Project Site

Dear Mr. Sanchez:

This letter presents the results of the 2018 nesting season survey for the burrowing owl (*Athene cunicularia*) conducted on the Ace parcel (APN 667-06-011).

LOCATION AND SITE DESCRIPTION

The site consists of an undeveloped parcel located south of State Route (SR) 905, east of Britannia Road, between Airway Road and Siempre Viva Road in the City of San Diego (City) (Figures 1 and 2).

Surrounding land uses include industrial, sand and gravel production, automobile salvage yards, fallow fields, and the Otay Mesa Cross Border facility. Elevation on site ranges from 465 to 500 feet above mean sea level. Soil on site consists of Stockpen gravelly clay loam (0 to 2 percent slopes), Huerhuero loam (2 to 9 percent slopes), and Huerhuero-Urban land complex (2 to 9 percent slopes; Bowman 1973). The site is not located within or adjacent to the City MSCP's Multi-habitat Planning Area (MHPA).

METHODS

Biologist Tara Baxter conducted the BUOW survey visits. The 2018 survey consisted of 4 site visits on separate days (Table 1) according to the survey methods in the Staff Report on Burrowing Owl Mitigation (CDFG 2012), which supersedes the survey, avoidance, minimization and mitigation recommendations in the 1995 Staff Report (CDFG 1995), and takes into account the Burrowing Owl Survey Protocol and Mitigation Guidelines (California Burrowing Owl Consortium 1993).

Burrowing owl habitat was examined by walking lines across the site. The area was surveyed for burrowing owls and potential burrows or perches that could be used by the owl. Burrowing owls are known to occupy California ground squirrel (*Spermophilus beecheyi*) burrows; therefore, particular attention was paid to any areas along fence lines, or other locations where squirrel activity has been observed in the past, was observed presently, or was likely to occur. Dirt piles, drainages, and culverts also were carefully examined as these sites can often provide cavities that can support the species. The determination of owl presence was made by direct owl observation or by owl signs such as, but not necessarily limited to, excavated soil, whitewash (excrement), castings (pellets), and/or feathers.

Table 1 Burrowing Owl Survey Information				
Survey Number	**Date**	**Biologist**	**Time**	**Weather Conditions** (start/stop)
1	2/28/18	Tara Baxter	0600-0800	0% cloud cover, 43°F, wind 0-2 mph/ 0% cloud cover, 53°F, wind 0-2 mph
2	4/19/18	Tara Baxter	0600-0830	75%, 55°F, wind 2-4 mph/ 0%, 60°F, wind 1-5 mph
3	5/23/18	Tara Baxter	0530-0740	100%, 61°F, wind 1-3 mph/ 100%, 64°F, wind 1-3 mph/
4	6/21/18	Tara Baxter	0530-0800	100%, 57°F, wind 1-3 mph/ 100%, 68°F, wind 1-3 mph

SURVEY RESULTS

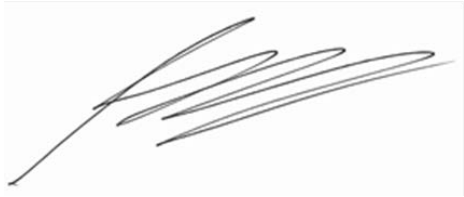
A BUOW pair was observed on the third survey visit (Figure 3). The burrow appeared to be well-established and the pair likely was a breeding pair, though no young were observed. A BUOW pair (likely the same pair) was observed on the fourth visit just south of the project boundary. A single owl also was observed in the northwestern corner of the site during a separate biological site visit conducted on January 18, 2018 to map vegetation on the site. This observation is included on the attached survey results figure.

The northern portion of the study area supports heavily disturbed non-native grassland habitat and has been subject to previous dumping of soil and concrete. The piles created by the dumping have provided burrowing and perching locations for the BUOW. There are numerous squirrel burrows in and around these piles that are also suitable for BUOW use.

Based on the results of this survey, the site is considered to be occupied by the BUOW.

Please contact me if you have any questions.

Sincerely,



Greg Mason
Senior Biologist

Enclosures:

Figure 1	Regional Location Map
Figure 2	Project Location Map
Figure 3	BUOW Survey Map

References:

Bowman, R. 1973. Soil Survey of the San Diego Area. USDA in cooperation with USDI, UC Agricultural Experiment Station, Bureau of Indian Affairs, Department of the Navy, and the U.S. Marine Corps.

California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation. March 17.

1995. Environmental Services Division. Staff Report on Burrowing Owl Mitigation. October 17. 8pp. plus attachments.

California Burrowing Owl Consortium. 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines. April

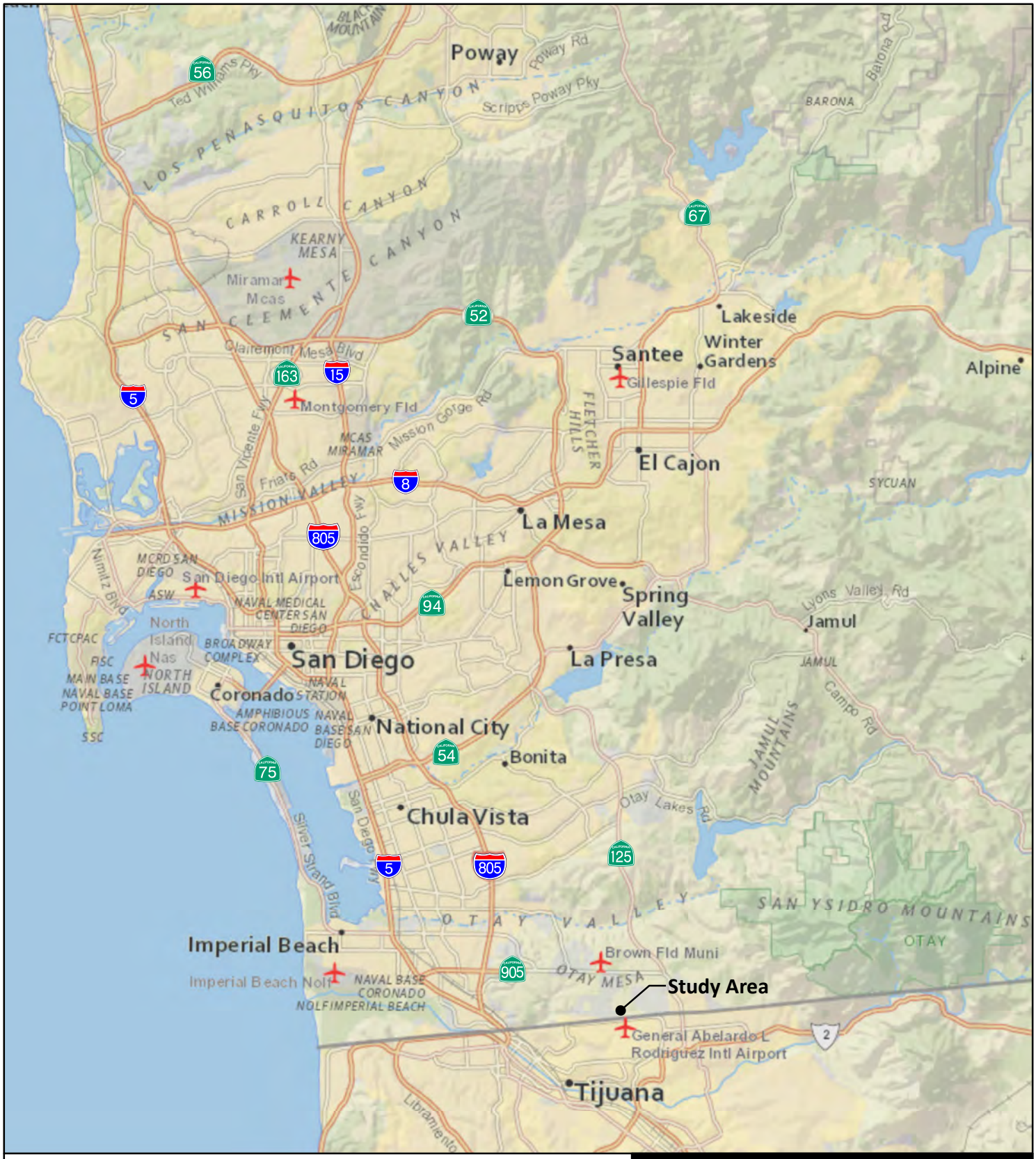


Figure 1

Regional Location

CROSS BORDER XPRESS - OTN PARCEL

ALDEN ENVIRONMENTAL, INC

N
W E
S

0 1,000 2,000 Feet

ALDEN ENVIRONMENTAL, INC

Figure 2

Project Location

CROSS BORDER XPRESS - OTN PARCEL

Figure 3

Burrowing Owl Survey Results

CROSS BORDER XPRESS - OTN PARCEL

Appendix E

Forensic Burrow Excavation Results

From:	gmason@aldenenv.com
To:	"Forburger, Kristen"; "Eng, Anita"; "Gower, Patrick"; "Patrick.Tilley@wildlife.ca.gov"; "Stepek, Melissa@Wildlife"; "dmmonroe@sandiego.gov"; "Zoutendyk, David"
Cc:	"Rafael Arroyo"; "thomas story"
Subject:	CBX OTN Burrowing Owl
Date:	Thursday, January 16, 2020 9:49:00 AM
Attachments:	CBX OTN Photos 011520.pdf

All,

Yesterday we conducted a site visit to excavate a burrowing owl (BUOW) burrow that was graded on the CBX OTN site on Siempre Viva Road in Otay Mesa. This burrow was known to be occupied as recently as November 13, 2019 when a site visit with City staff was conducted. During that visit, a single BUOW was observed using the burrow and the burrow itself showed signs of recent occupation (white wash, feathers, and owl castings).

Prior to digging, the burrow location was identified and flagged with the use of a GPS unit. A small tracked backhoe was used to dig an approximately 6' x 6' wide and 4' deep hole at the burrow location (photos attached). Material was inspected by City and CDFW personnel on site as it was removed from the hole. No BUOW remains (feathers, bones, body parts, etc.) were found in the soil material. As such, there was no indication that the grading had taken a BUOW at this known occupied location.

Prior to, and after the soil excavation, I walked the western portion of the site where there still are extant burrows with a history of BUOW occupation. I observed a single BUOW in this area using the burrows. This bird was very active and flushed readily, making it difficult to take a clear photograph. I did get a photo (attached) and also recorded a short video clip of the bird flying off and can send that out if anyone wants it.

Based on the lack of BUOW remains in the excavated burrow, and the sighting of a BUOW on the western end of the site, I do not believe that the unauthorized site grading resulted in the death of any BUOWs.

Please let us know if you have any questions or if you have anything to add to my assessment above. The applicant also will need direction as to what steps, if any, are to be taken now to resolve this issue. In the meantime, they are continuing to maintain the site perimeter fencing, silt fencing, and other installed erosion control measures (straw wattles, hydro mulch, etc.) to ensure that no erosion/sedimentation occurs within the adjacent, non-graded areas.

Thanks,

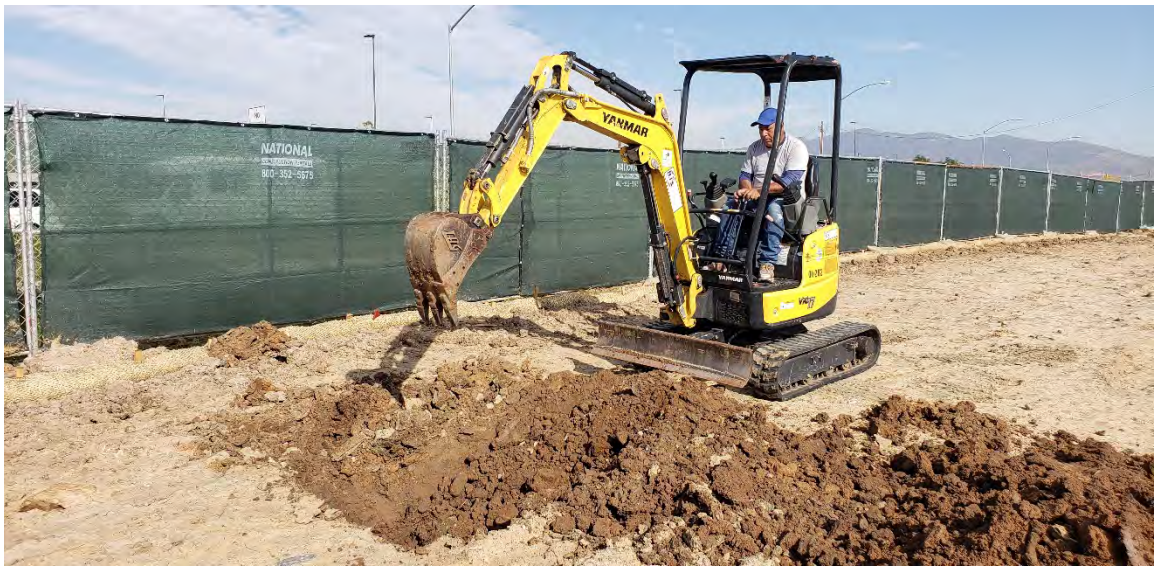
Greg

Greg Mason | **Principal/Senior Biologist**
Alden Environmental, Inc.
3245 University Ave. #1188
San Diego, Ca. 92104

CBX OTN Site Photographs

Occupied BUOW Location Flagging, 12:48 PM, 1/15/20, GM.

Burrow Excavation-1, 1:31 PM, 1/15/20, GM.



Burrow Excavation-2, 1:32 PM, 1/15/20, GM.

Post-excavation, Burrow Filled, 2:43 PM, 1/15/20, GM.

BUOW Observation, West Side of Site, 2:35 PM, 1/15/20, GM.

BUOW Observation-Zoomed In, West Side of Site, 2:35 PM, 1/15/20, GM.

Appendix F

Habitat Management Plan

Habitat Management Plan
for the Cross Border Xpress OTN Parcel Project
PTS No. 615398

March 12, 2020

Prepared for:

Otay-Tijuana Venture, LLC
2745 Otay Pacific Drive
San Diego, CA 92154

Prepared by:

Alden Environmental, Inc.
3245 University Avenue, #1188
San Diego, CA 92104

ALDEN
ENVIRONMENTAL, INC

Habitat Management Plan
for the Cross Border Xpress OTN Parcel Project

TABLE OF CONTENTS

Habitat Management Plan
for the Cross Border Xpress OTN Parcel Project

TABLE OF CONTENTS (cont.)

LIST OF FIGURES

LIST OF TABLES

1.0 INTRODUCTION

This Habitat Management Plan (HMP) has been prepared in accordance with the mitigation requirements identified in the Biological Technical Report for the Cross Border Xpress OTN Parcel Project (Alden Environmental, Inc. [Alden] 2019). This HMP provides direction for the permanent preservation, enhancement, and management of the parcel in accordance with City of San Diego (City) requirements.

1.1 PURPOSE OF HABITAT MANAGEMENT PLAN

The habitat mitigation that would occur on the OTN Parcel (Figures 1 and 2) would occur within the 9.72 acre, 100% Conservation Area that supports wetland and riparian habitat and non-native grassland and that has the potential to support the burrowing owl (BUOW; *Athene cunicularia*). The purpose of this HMP is to provide measures and conditions to help improve and maintain a self-sustaining colony of California ground squirrels (*Otospermophilus beecheyi*) as a means to provide suitable habitat for year-round occupation by the BUOW.

1.1.1 Conditions and/or Mitigation Measures that Require an HMP

The Cross Border Xpress Project would permanently impact 19.16 acres of the 28.88-acre project site. A total of 15.30 acres of non-native grassland, 3.23 acres of disturbed land, and 0.63 acre of developed land would be impacted. The impacts to non-native grassland are considered significant by the City and require mitigation.

The impacted non-native grassland is also occupied BUOW (State Species of Special Concern and City Multiple Species Conservation Program [MSCP] Covered Species) habitat. This impact is considered significant, and mitigation is required.

The project will preserve the entire 9.72-acre 100% Conservation Area on site (Figure 3), and the mitigation for significant impacts to 15.30 acres of non-native grassland (occupied by the BUOW) will occur within the MHPA/VPHCP boundary. That is, impacts to 15.30 acres of BUOW-occupied non-native grassland would be mitigated at a 0.5:1 ratio (7.65 acres of mitigation) through preservation of 3.27 acres of BUOW-occupied non-native grassland and 5.16 acres of BUOW-occupied disturbed land for a combined total of 8.43 acres within the MHPA/VPHCP boundary on site (0.78-acre in excess of the required 7.65 acres). Furthermore, the disturbed land will be enhanced to improve its quality for the ground squirrels and the BUOW.

2.0 IMPLEMENTATION

2.1 HABITAT MANAGER QUALIFICATIONS AND RESPONSIBLE PARTIES

Habitat Manager:

The Habitat Manager shall be one of the following:

- Qualified Biologist
- Conservancy group
- Natural resources land manager
- Natural resources consultant
- Federal or State Wildlife Agency
- Federal Land Manager such as Bureau of Land Management
- City Land Managers, including but not limited to Department of Parks and Recreation, Watershed Management or Department of Public Works.

The Habitat Manager shall be approved by the City. Any change in the designated habitat manager shall also be approved by the City. Appropriate qualifications for habitat managers include, but are not limited to:

- Demonstrated ability to carry out habitat monitoring or mitigation activities including a minimum of 2 years of experience in field biology in southern California (preferably San Diego County).
- Fiscal stability including preparation of an operational budget (using an appropriate analysis technique for the management of the HMP).
- Habitat Manager shall have a minimum of a B.S. or B.A. in biological, ecological, or wildlife management degree.
- Experience with habitat management in southern California (with experience maintaining habitat conditions suitable for BUOW).

The Habitat Manager (1) will be responsible for the implementation of this HMP; and (2) will carry out the HMP's requirements and objectives. The Habitat Manager's primary responsibility will be to maintain the integrity of the mitigation site. In order to fulfill that responsibility, the Habitat Manager shall:

- Be an advocate of the preserved open space and its protection.
- Be familiar with this HMP, its appendices, and supporting documentation.
- Be familiar with requirements and restrictions of any Conservation and/or Open Space Easement(s) that may be recorded over the mitigation area.
- Be responsible for all points noted in this HMP, as discussed in applicable sections of this document.
- Maintain all documents transferred by the project proponent, and be knowledgeable about the resources addressed in these reports.
- Educate the surrounding community about the presence and need for the open space and be responsive to any community concerns or problems regarding the open space.
- Document all field visits, and notify the City in a timely manner of all concerns, problems, and suggested solutions.

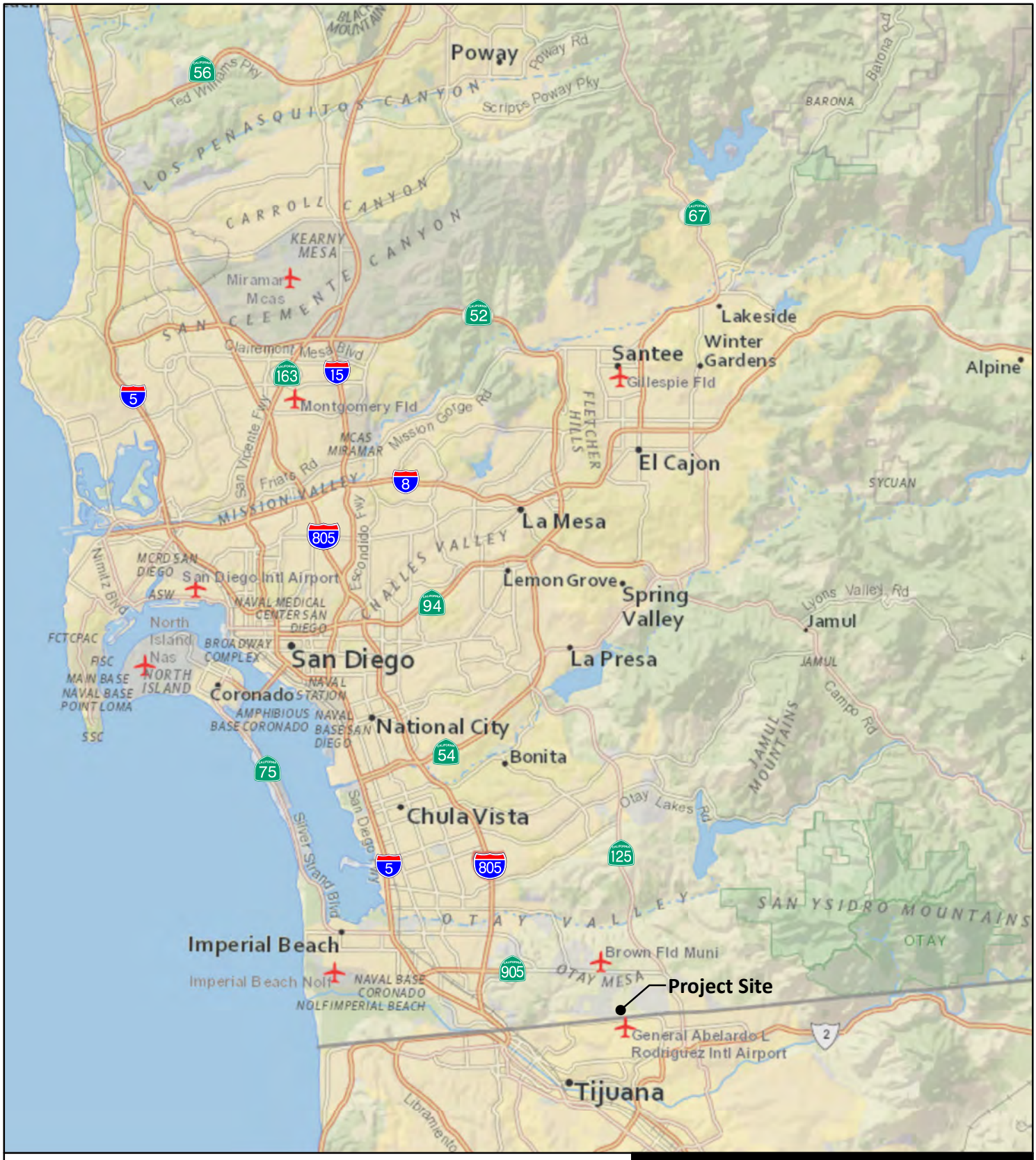


Figure 1

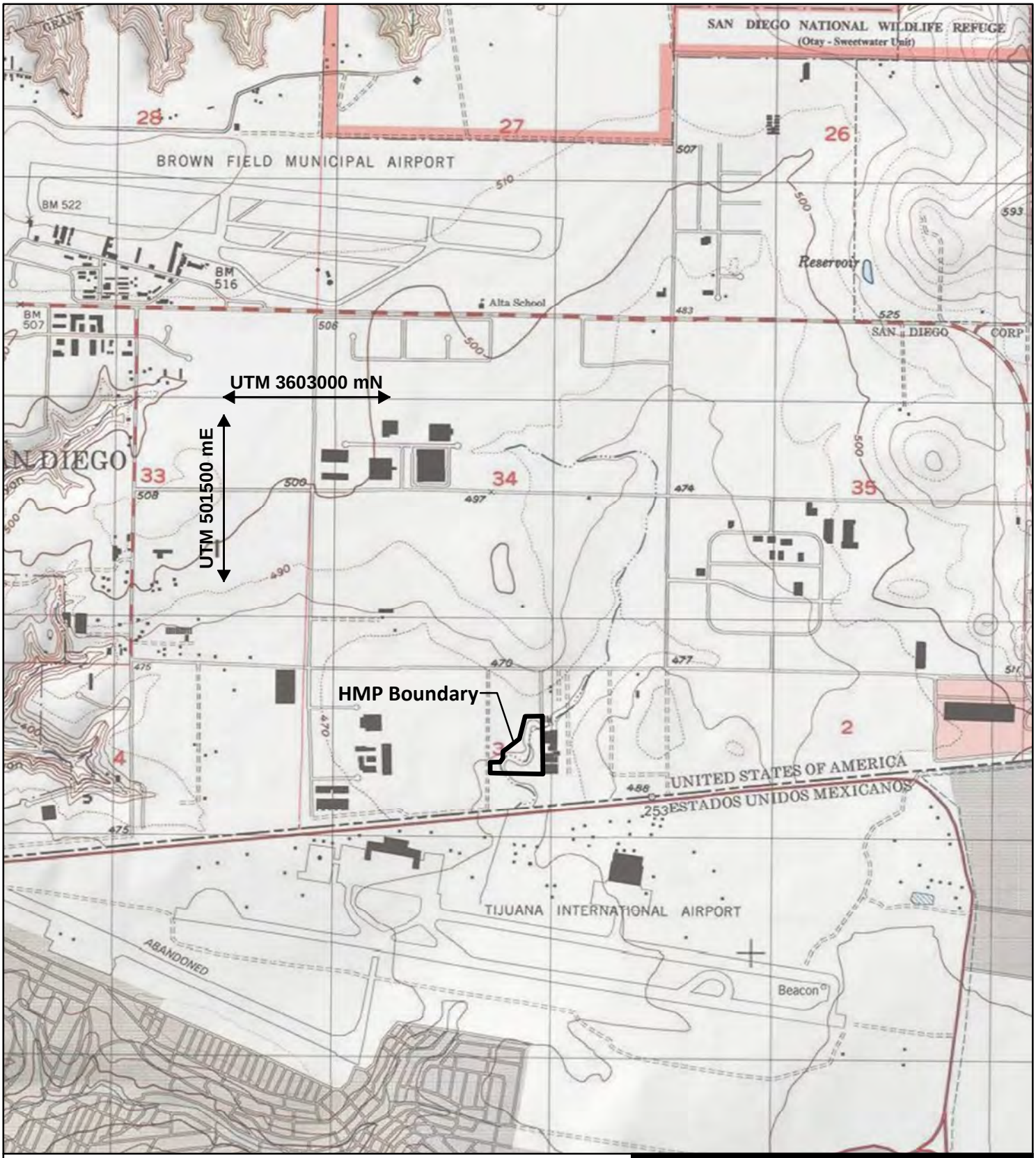
Regional Location

CROSS BORDER XPRESS OTN PARCEL
HABITAT MANAGEMENT PLAN

N
W E
S

0 2 4 Miles

ALDEN ENVIRONMENTAL, INC



Source: USGS 7.5' Quadrangles (Otay Mesa);
Copyright:© 2013 National Geographic Society, i-cubed

ALDEN ENVIRONMENTAL, INC

Figure 2

Project Location

CROSS BORDER XPRESS OTN PARCEL
HABITAT MANAGEMENT PLAN

Figure 3

Biological Resources and Initial Enhancement Activities

CROSS BORDER XPRESS OTN PARCEL
HABITAT MANAGEMENT PLAN

- Forward all applicable monitoring and management data to the City for incorporation into the MSCP database and annual report.
- Coordinate with the manager(s) of adjacent preserves/open space areas on management practices and tasks related to preservation and maintenance of the regional open space system and apply pertinent adaptive management recommendations received from the regional monitoring source.
- Coordinate with and allow for on-site management actions (as identified by regional stakeholders) to foster occupation of the site by the BUOW.

Proposed Land Owner:

Fee title of the parcel may be maintained by the project applicant or transferred to the City, Habitat Manager, or other appropriate landowner (e.g., land trust, conservancy, or public agency).

Proposed Easement Holder:

If the land is transferred in fee title to a non-governmental entity or retained by the current landowner, a Biological Open Space Easement or Conservation Easement must be recorded, prior to certification of occupancy of the Cross Border Xpress Project impacts (grading). This easement should be dedicated to the City but also may include the Wildlife Agencies as grantees or third-party beneficiaries, if required.

If title to the land is transferred in fee title to a public governmental agency (e.g. City of San Diego) then that agency shall determine the need for, and type of protective easement that would be required. Any easement or protective document will include an enforcement mechanism to ensure that the management requirements are being carried out as required in this HMP. It is anticipated that the enforcement mechanism will be through the City.

Habitat Enhancement Entity:

Management responsibility for the initial habitat enhancement shall remain with the Habitat Manager.

2.2 FINANCIAL RESPONSIBILITY/MECHANISM

The project applicant is currently intending to maintain ownership and management responsibility of the preserve. As such, the applicant is responsible for funding of all HMP requirements and tasks identified in this document. Long-term tasks involve the management and maintenance of the parcel in perpetuity including mowing, focused weed removal, fencing maintenance, and general monitoring and reporting.

Should the applicant choose to transfer ownership in the future then a funding mechanism must be identified. The potential funding mechanism identified must be approved by the City and ensure that funds are available for management in perpetuity. No changes in management responsibility or funding mechanisms can be made without City approval.

2.3 CONCEPTUAL COST ESTIMATE

The applicant will directly fund all HMP activities. Should the applicant elect to turn over the land to a land management entity then a cost estimate/budget must be created to identify funding requirements. In this case, a Property Analysis Record (PAR) or similar cost estimate for the resource management activities will be prepared for the preserve when a new Habitat Manager has been identified.

2.4 REPORTING REQUIREMENTS

An HMP Annual Report as well as a Work Plan for the upcoming year shall be submitted to the City. The Annual Report shall provide a summary of management and monitoring activities, identify new issues, and address management successes and failures. An accounting of funds used for management that year, a proposed budget for management in the coming year, and a summary statement of the status of the endowment fund, if an endowment fund exists, shall also be included.

The report shall include a summary of changes from baseline or previous year conditions for species and communities and address any monitoring and management limitations, including weather. The report shall also address any adaptive management resulting from previous monitoring results and provide methods for measuring the success of adaptive management. The report will be prepared near the end of each calendar year and will be submitted to the City by December 1.

The Annual Report shall also include copies of California Natural Diversity Data Base (CNDDB) forms that were submitted to the State for any new sensitive species observations or significant changes to species previously reported. In addition, copies of invasive plant species forms submitted to the State or City must be included in the report.

Consistent with this HMP, The Land Manager shall also prepare and submit an annual workplan that spells out the specific tasks that will be implemented in the coming year to achieve the recommendations outlined in the annual report. The workplan may be included in an appendix to the annual report.

3.0 PROPERTY DESCRIPTION

3.1 LEGAL AND GEOGRAPHICAL DESCRIPTION

The 9.72-acre mitigation area for the Cross Border Xpress Project is situated on the OTN parcel located south of Siempre Viva Road and east of Las Californias Drive in East Otay Mesa in the County (Figure 1). The mitigation section of the parcel is not located within or adjacent to the City's Multiple Species Conservation Plan (MSCP) Multi-habitat Planning Area (MHPA); however, it is located adjacent to land designated to be 100 percent conserved under the City's Vernal Pool Habitat Conservation Plan (VPHCP) and is treated herein as if it were already designated MHPA land. The site is in the Southern Planning Unit of the VPHCP and would be 100 percent conserved. The upland portion of the preserved land will be used as mitigation for the project and the wetland/riparian portion will be available for use as mitigation for future projects. The parcel occupies portions of the southwest quarter of Section 3 in Township 19 South, Range 1 West of the U.S. Geological Survey (USGS) Otay Mesa 7.5 -minute quadrangle. (Figure 2).

3.2 ENVIRONMENTAL SETTING

The project site is primarily flat and consists of undeveloped land. Elevation on site ranges from approximately 454 feet above mean sea level (amsl) to 480 feet amsl. A natural drainage channel winds through the site, and a man-made slope and drainage channel enters the site from the CBX facility to the west and travels south where it flows into the natural drainage channel.

The soils on site consist of Stockpen gravelly clay loam (zero to two percent slopes) and Huerhuero loam (two to nine percent slopes; U.S. Department of Agriculture Natural Resources Conservation Service 2018). The Stockpen soil series consists of deep, moderately well-drained clay soils. The Huerohuero soil series consists of moderately well-drained loams that have a clay subsoil. As noted later in Section 4.1.2 of this HMP, non-native grassland characteristically occurs on gradual slopes with deep, fine-textured, usually clay soils (Oberbauer et al. 2008). Therefore, the existing non-native grassland on site is expected to continue to support non-native grassland vegetation.

The project site appears to have been undisturbed until the 1960s when dirt roads appeared. In the late 1980s, the site appears to begin to be used for storage and/or dumping. By the early 2000s, it appears that the site was not in any active use, which continues to the present day (Nationwide Environmental Title Research, LLC 2018).

The climate in San Diego County is generally mild and arid. Temperatures in Otay Mesa are generally highest in September (mean high temperatures are 79˚F) and lowest in December (mean low temperatures are 45˚F). Average annual precipitation in the Otay Mesa is approximately 9.9 inches, with the highest average rainfall totals occurring in January and February (1.99 inches) and March (2.07 inches). The driest months are June, July, and August with approximately 0.08, 0.03, and 0.08 inch of rainfall per month, respectively (Weather.com 2008). The parcel is located within the Otay Valley Hydrologic Area of the Otay Hydrologic Unit.

3.3 USES OF PLAN AREA

The upland portion of the preserve area would be used as mitigation for the Cross Border Xpress Project OTN project. The wetland habitat areas (vernal pools, wetland vegetation, and stream channel) would remain available for use as mitigation for future projects. No public facilities are proposed on the parcel, and no trails are proposed.

4.0 BIOLOGICAL RESOURCES – FUNCTIONS AND VALUES

4.1 VEGETATION COMMUNITIES

Six vegetation communities and one land cover type occur on the project site, prior to initiation of enhancement activities. Most of the site is comprised of non-native grassland (3.27 acres) and disturbed land (5.16 acres). The remainder supports vernal pools (0.01 acre), southern willow scrub (0.50 acre), freshwater marsh (0.14 acre), disturbed wetland (0.63 acre), and developed land (0.01 acre). The disturbed area is anticipated to become non-native grassland following site fencing and initial enhancement activities. The upland habitat areas will be preserved and enhanced for the BUOW, as mitigation for the CBX OTN project. The wetland communities are being preserved, but are not required for project mitigation.

4.1.1 Wetland Riparian Vegetation

Vernal Pool

A single, heavily disturbed (tire ruts and debris) vernal pool was mapped on the project site (Figure 3). This pool has been highly disturbed in the past and is located adjacent to the natural channel within the VPHCP 100% conservation area. The pool is situated on a flat area above the edge of the channel and below the elevation of the surrounding upland area to the north and west. As such, the pool receives occasional overflow from the channel during high water conditions. The watershed for this pool encompasses a portion of the adjacent upland area, as well as the channel itself. Plant species observed in this vernal pool include pale spike sedge (*Eleocharis macrostachya*), grass poly (*Lythrum hyssopifolia*), Italian ryegrass (*Festuca perenne*), and rabbit's foot grass (*Polypogon monspeliensis*). This pool also supports the federal listed as endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*).

Southern Willow Scrub

Southern willow scrub consists of dense, broadleaved, winter-deciduous stands of trees dominated by shrubby willows (*Salix* spp.) in association with mule fat (*Baccharis salicifolia*), which can also be associated with scattered emergent cottonwood (*Populus fremontii*) and western sycamores (*Platanus racemosa*). This vegetation community occurs on loose, sandy or fine gravelly alluvium deposited near stream channels during flood flows. Southern willow scrub can be found in two patches along the natural drainage on site. Characteristic plant species in this community on site include red willow (*Salix laevigata*), black willow (*Salix exigua*), and mule fat.

Freshwater Marsh

Freshwater marsh is dominated by perennial, emergent monocots that form incomplete to completely closed canopies. This vegetation community occurs along the coast and in coastal valleys near river mouths and around the margins of lakes and springs and freshwater or brackish marshes. These areas are semi- or permanently flooded and lack a significant current (Holland 1986). Freshwater marsh can be found in two patches along the natural drainage on site. Characteristic plant species in this community on site include tall cyperus (*Cyperus eragrostis*) and bulrush (*Schoenoplectus* sp.).

Disturbed Wetland

Disturbed wetland is dominated by exotic wetland species that invade areas that have been previously disturbed or that have undergone periodic disturbances. These non-natives become established more readily following habitat disturbance than native wetland flora. Disturbed wetland occurs in the natural drainage on site. Characteristic, non-native species of this community on site include cocklebur (*Xanthium strumarium*), castor bean (*Ricinus communis*), Hood canary grass (*Phalaris paradoxa*), and docks (*Rumex* spp.).

4.1.2 Non-native Grassland

Non-native grassland occurs as a dense to sparse cover of non-native grasses, sometimes associated with species of showy-flowered, native, annual forbs (Holland 1986). This community characteristically occurs on gradual slopes with deep, fine-textured, usually clay soils. Characteristic species on site include slender wild (*Avena barbata*), bromes (*Bromus madritensis* ssp. *rubens, B. diandrus,* and *B. hordeaceus*), and Italian ryegrass. Most of the annual, introduced species that comprise the majority of species and biomass within non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California. These two factors, in addition to intensive grazing and agricultural practices in conjunction with droughts, contributed to the successful invasion and establishment of these species. These grasslands are common throughout San Diego County and serve as raptor foraging habitat, and this habitat on site is occupied by the BUOW. Non-native grasslands are recognized as a Tier IIIB upland habitat (common upland) by the City.

4.1.3 Disturbed Land

Disturbed land includes land cleared of vegetation, land containing a preponderance of non-native plant species, or land showing signs of past or present usage that reduces its capability of providing viable wildlife habitat. Such areas include dirt roads, graded areas, and dump sites where few to none native or naturalized species remain. Some of the non-native species of disturbed land on site include sweet fennel (*Foeniculum vulgare*), Russian thistle, tocalote (*Centaurea melitensis*), garland daisy (*Glebionis coronaria*), and mustards (*Brassica* spp.). Disturbed land is considered Tier IV (other uplands) by the City. On this project site, disturbed land is occupied by the BUOW.

4.1.4 Developed Land

Developed land is, for example, where permanent structures and/or pavement have been placed, which prevents the growth of vegetation, or where landscaping is clearly tended and maintained. Developed land on site includes a man-made slope and drainage easement. Urban/developed is not assigned to a Tier by the City.

4.2 PLANT SPECIES

One sensitive plant species, Otay tarplant (*Deinandra conjugens*) was observed. Thousands of Otay tarplant was identified throughout the south/southeastern portion of the site, all entirely within the VPHCP 100% Conservation Area (Figure 3).

Twenty-four sensitive plants have been reported to the CNDDB as having potential to occur on the site, but none were observed or expected to occur due to lack of habitat and the highly disturbed nature of the single vernal pool. The overall potential for sensitive plants to occur on site is considered to be low.

4.3 WILDLIFE SPECIES

Four sensitive animal species were observed on or adjacent to the parcel: Burrowing owl (*Athene cunicularia*; BUOW), San Diego fairy shrimp (*Branchinecta sandiegonensis*), California horned lark (*Eremophila alpestris actia*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*).

4.4 OVERALL BIOLOGICAL AND CONSERVATION VALUE

The Otay Mesa area is currently the primary location of BUOWs in San Diego County (County of San Diego 2010). The goals and objectives for BUOWs for the region emphasize long-term habitat conservation, habitat improvement, and creation and maintenance of as much native and naturalized habitat as possible for BUOWs. Preservation, enhancement, and long-term management of squirrel and BUOW habitat on the site would help this species persist on site. Additionally, the preserve area is adjacent to a larger area of planned VP HCP preserve areas that would, ultimately, provide an interconnected preserve system from the site and eastward toward the intersection of Airway Road and La Media. As such, the proposed preservation and management of the land on site would be an integral component of the regional BUOW conservation strategy.

4.5 ENHANCEMENT OPPORTUNITIES

As stated previously, 3.27 acres of non-native grassland habitat and 5.16 acres of disturbed land will be preserved. The site presents an excellent opportunity for enhancement and will contribute toward conservation of the species on Otay Mesa, as described in Section 4.4 of this HMP. The following enhancement efforts would be conducted in the upland area:

- Trash/debris removal
- Focused weed removal of targeted non-grass invasive species
- Soil ripping/decompaction (disturbed areas)
- Hole auguring to create starter burrows
- Soil berming/mounding
- Mowing to reduce vegetation height across the site where needed
- Dethatching
- Establishment of brush piles placed approximately 100 - 200 feet apart to provide initial cover for ground squirrels

Furthermore, the installation of fencing along the project perimeter will prevent vehicles from further impacting the preserve area. With the exclusion of vehicles from this, it is anticipated that non-native grassland would become established in the disturbed areas over time.

5.0 BIOLOGICAL ELEMENT GOALS

The ultimate goal of this HMP is to detail the methods to preserve and manage lands to the benefit of the flora, fauna, and native ecosystem functions reflected in the natural communities occurring within the HMP land. In addition, this HMP establishes the following goals with regard to biological resources:

Goal 1: Preserve and manage lands to the benefit of the flora, fauna, and native ecosystem functions reflected in the natural communities occurring within the open space. More specifically, the vegetative condition desired is to achieve a relatively low growing, moderately open mix of grasses and forbs to support California ground squirrels and BUOW. Occasional scattered shrubs are also compatible with this habitat condition.

Goal 2: To the extent compatible with Goal 1, reduce, control, and where feasible, eradicate non-native, invasive flora and/or fauna known to be detrimental to native species and/or the local ecosystem. This may include the on-going eradication of target non-native invasive species as deemed necessary by the resource manager.

Goal 3: Manage the land for the benefit of sensitive species, MSCP Covered Species, and existing natural communities, without substantive efforts to alter or restrict the natural course of habitat development and dynamics.

Goal 4: Provide program administration through planning and reporting on the HMP implementation in a consistent and efficient manner.

5.1 INITIAL TASKS - PASSIVE RELOCATION AND EXCLUSION

The following tasks would be completed to the satisfaction of the City, CDFW, and USFWS and must be conducted prior to issuance of grading permit and start of construction activities. The applicant would provide funding for these initial tasks as well as for long-term management. A list of all management tasks is presented in Table 2. The purpose of these initial tasks is to provide a suitable relocation area within the on site preserve area such that passive relocation of the BUOW can be successful. Specifically, these tasks will implement the initial improvements (berm installation, refugia placement, etc.) necessary to help ensure that BUOW displaced by the development project grading (loss of potential burrows) will have suitable habitat to move into. Additionally, the final initial task would help successfully exclude BUOW from the existing burrows in the development project footprint.

Results of initial site preparation tasks would be monitored, and the applicant would provide interim management and annual reporting for 3 years - with the goal of establishing and maintaining 75% cover by vegetation dominated by low growing plant species (ranging between 4-6 inches in height) to support ground squirrel and BUOW. At that time, long-term management would begin.

5.1.1 Initial Fencing/Access Control (Task I-1)

To prevent human-induced degradation of the conservation parcel due to illegal occupancy, trespassing (off-highway vehicle activity), removal of resources, or dumping of trash or debris, the Habitat Manager will restrict access to the parcel. Permanent three strand barbless fencing will be installed around the entire parcel. Permanent signage will be installed along the perimeter of the

preserve area (Figure 3). All signs will be corrosion-resistant (e.g., constructed of steel), measure at minimum six by nine inches in size, be posted on a metal post at least three feet above ground level, and provide notice in both English and Spanish that the area is an ecological preserve with trespassing prohibited. The fences and signs will be installed prior to issuance of the grading permit for the development project and initiation of the long-term management.

5.1.2 Initial Trash/Debris Removal (Task I-2)

Trash and debris located on the site will be removed prior to issuance of the grading permit for the development project and initiation of the long-term management. All materials will be removed from the site and disposed of in a legal manner.

5.1.3 Initial Mowing (Task I-3)

Mowing is the primary technique employed to reduce the height and density of non-native grasses on the site. An initial mowing of the site will be conducted prior to issuance of the grading permit for the development project and initiation of long-term management. The target habitat is non-native grassland that is generally less than 1 foot in height and suitable for ground squirrels and the BUOW. The goal of the initial mowing will be to cut and remove vegetation that is above 4-6 inches in height over at least 75% of the site. Line trimmers and mechanical mowers will be used to carry out this effort.

5.1.4 Initial Dethatching (Task I-4)

An initial task will be to dethatch the site prior to issuance of the grading permit for the development project and initiation of the long-term management. Dethatching will involve raking and removal of dead vegetative material from the ground surface. This effort may be conducted with the use of hand tools and machinery (tractor and gannon, rake tynes, etc.), as deemed appropriate by the Habitat Manager. Collected material will be removed from the site and disposed of in a legal manner. Some thatch may be left if it is determined by the Habitat Manager that its removal is unnecessary or would be too damaging to the site.

5.1.5 Initial Weed Removal (Task I-5)

Initial removal of target invasive plant species will be conducted through hand removal, mechanical means, and focused application of herbicides. Since non-native grassland is a naturalized habitat type and is important for owls and raptors, removal of non-native grass species is not included. Several species of weeds are particularly problematic in the vicinity of the site. The initial target weed species are provided in Table 1. This list will be reevaluated by the Habitat Manager and will be adapted as necessary to reflect site conditions. Control of these target, invasive, site specific weed species shall be conducted such that they do not diminish the suitability of the site for ground squirrels and the BUOW. Prior to issuance of the grading permit for the development project and initiation of long-term management, all of the target species on the site will have received at least a single round of treatment (to include the specific methods identified above as well as the overall site mowing). Although the annual goal would be to achieve vegetation height of no more than 4-6 inches over at least 75% of the site, it is not anticipated that any of the target species will be "under control" or eradicated following this initial effort as they are tenacious invasive species and there is an extant seed bank in the soils on site.

Table 1 TARGET INVASIVE SPECIES	
SCIENTIFIC NAME	**COMMON NAME**
Atriplex semibaccata	Australian saltbush
Brassica nigra	black mustard
Cynara cardunculus	artichoke thistle
Foeniculum vulgare	fennel
Hirschfeldia incana	shortpod mustard
Salsola tragus	Russian thistle

5.1.6 Initial Berm Placement (Task I-6)

In order to help improve site conditions for ground squirrels, 3 artificial berms will be installed on the site (Figure 3) prior to issuance of the grading permit for the development project and initiation of the long-term management. The berms will consist of debris free soil material that would be imported to the site. The berms will be approximately 8 – 10 feet in width and 3-4 feet in height. The berm locations have been selected such that they will be in the flatter, disturbed portions of the site away from wetland resources (including vernal pools), extant mima mound topography, and known Otay tarplant areas. The soil will be compacted such that they are stable, yet still can be utilized by ground squirrels.

The berms also will incorporate plastic pipe refugia and pilot burrow holes. The plastic pipe refugia will consist of hard plastic pipe, 6-8 inches in diameter and 3-4 feet in length. These pipes will be installed horizontally in the berms so that they can be accessed by owls if needed to escape predation.

The pilot burrows will consist of holes augured in to the top of the berms at regular intervals. The holes will be 6 – 8 inches in diameter and 1 – 2 feet in depth. The holes are intended to help ground squirrels begin digging burrows into the berms. The holes will be at an angle, rather than vertical, so that they do not become pitfall traps for reptiles and small rodents.

5.1.7 Initial Brush Pile Placement (Task I-7)

Prior to issuance of the grading permit for the development project and initiation of the long-term management, shrub and brush material will be collected and stacked into low brush piles to provide additional cover for ground squirrels and small animals. Each pile will be approximately 4 to 6 feet in diameter and 2 to 3 feet in height, provided sufficient material is available. This can be especially beneficial during the initial stages of the effort when there will be no cover available for small animals to utilize. The brush piles will be distributed at approximately 30 feet on center throughout the higher, flatter areas of the site, within approximately 100 feet of the installed berms. The final number and size of piles will depend upon the amount of material available locally. No fewer than 18 brush piles will be installed on the property to facilitate ground squirrel establishment.

5.1.8 Burrow Exclusion (Task I-8)

The final component of the Passive Relocation and Exclusion effort is to ensure that any burrows that would be impacted by the development project grading are vacant when construction activities begin. To this end, a burrow exclusion task (I-8) will be carried out after the above tasks (I-1 through I-7) are successfully completed, a grading permit has been issued for the development project, and before construction related activities commence. The following BUOW exclusion procedures will be implemented, per recommendations set forth by the CDFW Staff Report. The procedures may be modified, based on site-specific conditions, through consultation with the City and CDFW:

- The Project Biologist will survey the project impact footprint to identify, map, and flag burrows that have the potential to be occupied by the BUOW.
- The presence/absence of BUOW and BUOW sign (scat, casts, feathers, etc.) will be recorded for each burrow location and subsequently removed to help track BUOW usage.
- One-way doors (i.e. dryer vent doors) will be installed on all confirmed and potential access points to the burrows for 48 hours prior to initiating burrow excavation. One-way doors will be installed in such a way that will prevent BUOW and other wildlife species from moving or circumventing the door in order to leave or re-enter the burrows. Doors will be placed to fully seal the burrow access points and will be secured in place using native soils, wire pins, or similar methods. If small gaps occur around the edges of the one-way doors, burlap cloth or similar material may be used to prevent small wildlife from accessing the burrow.
- The Project Biologist will monitor the installed doors twice daily (at dawn and dusk) during the 48-hour exclusion period. Evidence of BUOW activity at the burrows and the condition of the doors will be recorded. Necessary repairs will be conducted to ensure that the doors are functioning as required. The monitoring schedule may be adjusted based on weather conditions or site-specific conditions.
- At the end of the 48-hour exclusion period the Project Biologist will search each burrow for signs of BUOW presence. This may include the use of a fiber optic camera or similar device to view inside the burrow. The doors will remain in place and monitoring will continue for another 24 hours for any burrows that are occupied or suspected of being occupied.
- Once a burrow has been determined to be vacant it will be immediately excavated to ensure that no BUOW may return. The excavation may be conducted with hand tools or construction machinery, as needed. Each excavated burrow must be entirely filled such that no openings remain.
- If, during excavation of a burrow, BUOW are observed to be present within the burrow, excavation will be halted immediately, one-way doors will be immediately re-installed, and the burrow will be monitored for another 24-hour period. This will continue until the burrow is confirmed to be vacant and can be excavated.
- Following completion of burrow excavations within the development project footprint the Project Biologist will prepare a brief letter report summarizing the methods and results of the exclusion effort. This letter report will be submitted to the City, CDFW, and USFWS.
- Ground-disturbing construction activities will take place within one week of the completion of the burrow excavation effort.

5.2 BIOLOGICAL MANAGEMENT ACTIVITIES

As stated previously, long-term management of the site would commence following completion of the Initial Tasks and a 3-year interim monitoring and reporting period.

Prior to the issuance of the Certificate of Occupancy, the following would be required to ensure adequate long-term management:

- Recordation of a covenant of easement or conservation easement over the 9.72-acre mitigation property (OTN Parcel)
- Identification of a qualified resource manager and approval by the City

5.2.1 Adaptive Management

The Habitat Manager is responsible for interpreting the results of site monitoring to determine the ongoing success of the HMP. The parcel will be inspected for changes during regular monthly, annual, and focused survey visits. Substantial changes that become apparent will be documented. Substantial changes are those that may, as determined by the Habitat Manager, have a negative effect on the managed resources and/or cause the effort to not meet its stated HMP goals. Adaptive management also may involve a reduction in maintenance and monitoring requirements. Any reduction in the type and frequency of site visits required will be dependent upon the site being in good, stable condition as determined by the Habitat Manager and approved by the City.

When issues are encountered, the Habitat Manager shall determine the course of action to be taken, using Adaptive management techniques as necessary. Adaptive management is a systematic approach for improving resource management by learning from management outcomes. It is an iterative process driven by data collection and monitoring of management success. If it is necessary to modify the HMP between regularly scheduled updates, changes shall be submitted to the City for approval as required. Adaptive management would involve application of current research and information available on the BUOW to troubleshoot issues that arise during HMP implementation.

5.2.2 Baseline Inventory (Task B-1)

Upon implementation of this HMP, the Habitat Manager will be provided with existing digital files containing the vegetation and sensitive resources data mapped to date. The Habitat Manager will then update this data with biological data collected during the start-up (first year) phase of the HMP. This will include the initial enhancement effort results as well as the standard monitoring tasks described in the following sections.

The data collected over the first year of management (enhancement effort, focused surveys, annual monitoring, etc.) will be compiled into a digital (GIS) database and map of the biological resources on the site. This database will serve as the baseline inventory for future management and allow the Habitat Manager to measure habitat changes caused by natural and human effects and to evaluate efforts during subsequent years. The baseline data also will be incorporated into the first annual report, which will include the results of the enhancement effort.

5.2.3 BUOW Survey (Task B-2)

A focused BUOW breeding season survey will be conducted annually to determine the presence, number, and general status of the BUOW. The survey will follow current CDFW survey protocols, but may be altered as deemed necessary by the Habitat Manager and approved by the City. The survey visits may coincide with other regularly scheduled site visits. During the BUOW surveys the presence of ground squirrels will be noted and the number of active and potentially suitable BUOW burrows will be noted and mapped.

5.2.4 Vegetation Monitoring (Task B-3)

Permanent photo documentation points will be established in the first year and photos taken annually thereafter. A spring site visit will be conducted each year to evaluate the condition of the habitat (non-native grassland) on site. Species cover and richness will be visually evaluated. Plant species observed will be recorded and an estimate of the richness (number) of species present on site can be made. This list will be further broken down into native/non-native species.

Species cover will be evaluated by visually estimating the cover of vegetation in generalized cover classes (e.g. 0-10%, 10-25%, 25-50%, and 75-100%). The goal is to provide an estimate non-native grassland cover across the site and to identify changes over time. The site is generally homogenous and is expected to remain so (non-native grassland habitat). The Habitat Manager will collect vegetation cover data within homogenous areas of the site. For example, if there is an area dominated by Russian thistle the Habitat Manager may evaluate this area separately from other portions of the site with a different species composition. Separate cover values also may be estimated for different height classes (herb, shrub, tree) if warranted.

Vegetation community mapping will be updated, as necessary, based on the results of the vegetation monitoring. Sensitive plant and animal species observed also will be recorded and mapped. Finally, the suitability of the site to support the BUOW will be evaluated and remedial measures will be identified, if deemed necessary by the Habitat Manager.

5.2.5 Monthly Monitoring (Task B-4)

Site visits will be conducted at least monthly each year unless fewer visits are necessary, as determined by the Habitat Manager and approved by the City, to ensure that the preserved habitat is functioning as planned. The type and purpose of each monthly visit may vary depending upon the season and site conditions. At a minimum, each visit will include an inspection of the fences, signs, and general state of the preserved habitat. Necessary repairs will be performed during the monitoring visit, if possible. If not, necessary repairs will be scheduled to be performed as soon as possible/practical. These monthly visits may be conducted in conjunction with other scheduled visits (BUOW survey, vegetation monitoring, etc.). Following each general maintenance visit the Habitat Manager shall be informed of any issues that need to be addressed.

5.2.6 Annual Monitoring Report and Work Plan (Task B-5)

An annual report will be prepared and submitted to the City by December 1 each year. The report will summarize the overall condition of the vegetation and sensitive species on the parcel, with particular attention to ground squirrel or BUOW activity on the site. The report would also document the progress of weed eradication efforts. The annual report would discuss the results of management activities proposed in the previous report, and based on the condition of the site, would propose management tasks for the following year.

A Work Plan also will be prepared and submitted by December 1 of each year. The Work Plan will identify remedial measures and tasks that are recommended to occur in the next year.

5.2.7 Biological Database (Task B-6)

The Habitat Manager will prepare and maintain a biological database for the site. This database will include documentation of all activities conducted, sensitive species presence, and mapping (GIS) of all biological resources. The Habitat Manager also will prepare and submit CNDDB forms annually for new species observations on site.

5.2.8 Management Plan Review (Task B-7)

This HMP will be reviewed every five years (or as needed) to determine the need for revisions or updates. Due to potentially changing conditions on site, it may be necessary to revise the tasks outlined in this plan to ensure continued success of the stated goals.

5.3 OPERATIONS, MAINTENANCE, AND ADMINISTRATION TASKS

A list of tasks such as mowing, collecting a baseline inventory of biological data, and monitoring, etc. is included in Table 2. Ongoing maintenance and administration, which will be the responsibility of the Habitat Manager, will be conducted to ensure no loss of resource quality. The general maintenance and operation tasks to be conducted by the Habitat Manager will include the following.

Table 2 HMP TASK SUMMARY			
Task Number	**Task**	**Description**	**Frequency**
Initial Tasks-Passive Relocation and Exclusion			
I-1	Fencing/Access Control	Permanent three strand barbless fencing and signs will be installed around the entire parcel.	Once prior to development project grading permit issuance and initiation of long-term management
I-2	Trash/debris removal	Remove trash and debris from site.	Once prior to development project grading permit issuance and initiation of long-term management
I-3	Mowing	Mow site vegetation to a height of 4-6".	Once prior to development project grading permit issuance and initiation of long-term management
I-4	Weed Removal	Removal of target invasive plant species through hand removal, mechanical means, and focused application of herbicides.	Once prior to development project grading permit issuance and initiation of long-term management
I-5	Dethatch	Removal of vegetative thatch from soil surface.	Once prior to development project grading permit issuance and initiation of long-term management
I-6	Soil Berms	Install berms to create burrow area.	Once prior to development project grading permit issuance and initiation of long-term management
I-7	Brush Piles	Place brush piles to create refugia for wildlife.	Once prior to development project grading permit issuance and initiation of long-term management
I-8	Burrow Exclusion	Carry out a BUOW exclusion effort to ensure that any burrows within the development project footprint are empty and destroyed prior to grading.	Once prior to initiation of construction activities for the development project
Biological/Reporting Tasks			
B-1	Baseline Inventory	Habitat manager will verify and update existing biological information during spring of the first year of active management.	First season following active management
B-2	BUOW survey	Annually conduct surveys for breeding BUOW.	Annually, spring
B-3	Vegetation Monitoring	Annually assess grassland habitat and modify management activities as necessary to maintain habitat for ground squirrels and BUOW.	Annually, spring
B-4	Monthly Monitoring[1]	Site visits to visually assess the condition of the site and note any problems needing attention (vandalism, trash dumping etc.).	Minimum monthly, may be in conjunction with other scheduled visits
B-5	Annual Report and Work Plan	Prepare and submit an Annual Report and a Work Plan report as discussed in this RMP.	By December 1 each year
B-6	Biological Database	Establish and maintain a biological database.	Update as needed, include with Annual Report by December 1 each year
B-7	HMP Review	Adjust the HMP as necessary based on adaptive management to address issues identified in the annual report.	Every 5 years, or as needed

Table 2 (continued) HMP TASK SUMMARY			
Task Number	**Task**	**Description**	**Frequency**
Maintenance/Operations Tasks			
M-1	Mowing	Mowing of the non-native grassland habitat to a height of 4-6" to help encourage establishment of squirrel and BUOW habitat.	Once per year (late winter/early spring) for the first 5 years, then every other year thereafter (or as needed)
M-2	Fence/Sign Repair	Maintain and repair fences and signs.	As needed
M-3	Weed Removal	Focused removal of target invasives.	As needed, depending on species and techniques applied
M-4	Trash and debris removal	Remove trash and debris left on site.	As needed

[1]Habitat Manager may determine that fewer visits are necessary depending on site conditions. Any reduction in level of effort must be approved by the City in advance.

5.3.1 Mowing/Clearing (Task M-1)

Mowing of the overall grassland area will be conducted once per year for the first five years of management, then every other year thereafter. This effort also will include limited clearing around future occupied burrows. The burrow clearing will be conducted as needed and not be limited to the mowing schedule. Line trimmers and mechanical mowers will be used to carry out this effort. The Habitat Manager will determine the need and timing of mowing to be conducted as the time progresses and may change the mowing schedule. This activity should be conducted in late winter (February/March) before the non-native grasses go to seed and native flowering plants are emerging. Mowing also will be timed to avoid affecting nesting BUOWs during their breeding season. The goal is to reduce the cover of non-native grasses such that native plant seed that may be in the soil will have a better chance of becoming established. This effort also will help ensure that BUOWs are able to forage and nest successfully. Additionally, the Habitat Manager may identify and incorporate alternative measures to help achieve the long-term establishment of a lower statured non-native grassland habitat. The goal is to maintain at least 75% of the site as non-native grassland habitat that is approximately 4-6 inches in height and is suitable for ground squirrels and the BUOW.

5.3.2 Fence/Sign Repair (Task M-2)

The Habitat Manager will be responsible for ensuring that the fence and signs are maintained in good condition. Necessary repair/replacement will be conducted as needed. The Resource Manager also will be responsible for altering the type and location of fencing to ensure site protection and to prohibit trespassing.

5.3.3 Weed Removal (Task M-3)

Removal of target invasive plant species (Table 1) will be conducted through hand removal, mechanical means, and focused application of herbicides. Eradication of established invasives may require several herbicide applications per year for several years, and shall be conducted at the appropriate time of year for the targeted species based on that species' biology. Herbicides may only be applied by workers with the appropriate applicator licenses. The Habitat Manager will determine the timing and techniques to be used, depending upon species presence and site conditions. The annual goal will be that the invasive weed species are maintained such that they do not inhibit or lessen the potential of the site to support ground squirrels and the BUOW, especially adjacent to established burrows.

5.3.4 Trash and Debris Removal (Task M-4)

The Habitat Manager will also conduct general trash/debris removal on the parcel during regular management site visits. Additionally, damage caused by vandalism will be repaired. Trash/debris removal and vandalism repair will occur as needed.

5.3.5 Public Use

There will be no public uses allowed on the parcel.

5.3.6 Fire Management

No specific activities for fire management are proposed on the parcel; however, the planned mowing to control vegetative height (in support of the BUOW), will reduce the wildfire risk.

5.3.7 Illegal Occupancy

Illegal occupancy is common in open space areas, although this is not anticipated to be an issue on this site because of the open nature of the habitat. The Habitat Manager will monitor the parcel for evidence of illegal access concurrently with other management activities and file a report with the Sheriff, City, and regulatory agencies, if necessary.

5.3.8 Removal of Resources

Removal of any plants, animals, rocks, minerals, or other natural resources from the preserve is prohibited. The resource manager will maintain a log of illegal collecting and may report individuals caught removing natural resources from the parcel to the Wildlife Agencies, City, and/or sheriff's office.

5.3.9 Hazardous Materials Monitoring

The release of hazardous materials such as fuels, oil, vegetation clippings, trash, and landscaping related chemicals (e.g., pesticides and herbicides) has potential to affect the parcel habitat negatively. Although no specific survey will be conducted, if such hazardous materials are observed during the annual monitoring visits, remedial measures to remove the material will be taken.

5.4 MANAGEMENT CONSTRAINTS

This HMP follows the permitting requirements of the City. Although it anticipates measures for most foreseeable contingencies, several external constraints remain. For example, illegal trespassing could negatively impact sensitive animal species; and environmental factors, such as prolonged drought, could have detrimental effects on vegetation.

5.5 CHANGES/AMENDMENTS

The Habitat Manager will have discretion in the use of adaptive management actions deemed necessary for management under this HMP. Each annual report will identify actions taken during the previous year and specifically identify any deviations from the HMP. Additionally, each annual workplan will identify proposed management changes that would be employed in the upcoming year. Any proposed changes or amendments to the HMP (allowable uses, reporting schedules, goal revisions, etc.) would require prior approval from the City.

Additionally, the City would be immediately notified in the event of major issues (e.g. management failure, transference of management responsibility, insufficient endowment funds, extreme landform changes, etc.) that would be outside the realm of normal land management and standard adaptive management techniques identified in the HMP.

6.0 LIST OF PREPARERS

The following individuals contributed to the preparation of this report.

Greg Mason	B.S., Natural Resources Planning & Interpretation, Humboldt State University, 1992
Justin Palmer	B.A., Geography, San Diego State University, 2001

7.0 REFERENCES

Bowman, R. 1973. Soil Survey of the San Diego Area. U.S. Department of Agriculture in cooperation with the USDI, UC Agricultural Experiment Station, Bureau of Indian Affairs, Department of the Navy, and the U.S. Marine Corps.

Jackson, L. 1985. Ecological origins of California's Mediterranean grasses. *Journal of Biogeography* 12: 349-361.

Oberbauer, Thomas, Meghan Kelly, and Jeremy Buegge. March 2008. Draft Vegetation Communities of San Diego County. Based on “Preliminary Descriptions of the Terrestrial Natural Communities of California”, Robert F. Holland, Ph.D., October 1986.

Weather.com.2008. http://www.weather.com/outlook/driving/interstate/wxclimatology/monthly/graph/92154?from=month_bottomnav_driving