Revised Draft PEIR

Section 2.2 Biological Resources

(includes *Biological Technical Report Addendum for the McClellan-Palomar Airport Master Plan: Impacts and Mitigation Summary of Eastern Parcel*. Helix Environmental Planning, dated May 31, 2018)

Note that Section 2.2 is revised in ~~strikeout~~ and underline format to identify the changes that occurred since the Draft PEIR was initially circulated for public review.

[NOTE: The original Biological Technical Report is available on the Master Plan website (www.PalomarAirportMP.com) for informational purposes but is not the subject of this recirculation.]

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2.2 Biological Resources

This section addresses potential impacts of the Proposed Project on biological resources. A Biological Resources Technical Report (BTR) was prepared for the Proposed Project to inventory the extent and location of resources (Appendix B). An addendum was added to the BTR in May 2018 to evaluate impacts associated with potential shifts in the FAA-owned Medium-intensity Approach Lighting System (MALSR) navigational lighting structures on the Eastern Parcel (HELIX 2018).

Biological resources data presented in this section include information obtained through a search of sensitive species and habitats databases for sensitive species known to occur within two miles of the project site, including the USFWS species records (USFWS 2016), CDFW California Natural Diversity Database (CDFW 2016), and California Native Plant Society Electronic Inventory (2016). Previous biological studies also were reviewed (AMEC Earth & Environmental, Inc. 2009 and 2005). Recent aerial imagery, topographic maps, soils maps (Natural Resource Conservation Service [NRCS] 2016 and Bowman 1973), and other maps of the project site and vicinity were acquired and reviewed to obtain updated information on the natural environmental setting.

General biological surveys of the project site were conducted according to County requirements (County of San Diego 2010a) by HELIX on March 22, March 29, and October 13, 2016. In addition to the general biological surveys, HELIX conducted rare plant surveys, vernal pool mapping, wet season surveys for San Diego fairy shrimp (*Branchinecta sandiegoensis*) and Riverside fairy shrimp (*Streptocephalus woottoni*), and protocol-level surveys for coastal California gnatcatcher (*Polioptila californica californica*). Table 2.2-1 provides a summary of biological surveys conducted for the Proposed Project.

In accordance with FAA regulatory guidance in 14 Code of Federal Regulations (CFR) 139.337(e), the Airport also is subject to a Wildlife Hazard Management Plan (WHMP; C&S 2015) as approved by the FAA in 2016. The WHMP outlines the recommended actions and responsibilities of Airport personnel to manage and reduce the risks that wildlife pose to aircraft operations at the airport. Components of the WHMP include wildlife control actions such as habitat management, hazing, and harassment. The FAA requires a zero-tolerance for hazardous wildlife on the airfield within the framework of federal and state regulations.

Although most of the Airport is developed, the Proposed Project consists of near-, intermediate-, and long-term project elements that would have potential impacts on biological resources by converting natural areas into active aviation use. This includes clearing, grading, installation of pavement, creating stormwater detention basins and drainage improvements, modifying biological resource habitat, and disturbing the ground. Areas of impact in this section are estimated for the project elements, as they have not been developed sufficiently to quantify exact impacts in most cases, and therefore, are analyzed at a programmatic level. Once funding is identified for the design engineering and construction of individual Master Plan projects, the exact impact area will be compared against the inventory of biological resources in the BTR. Additional analysis under CEQA will be required for projects at the time that they are designed and proposed.

2.2.1 Existing Conditions

The Proposed Project site has been under active ongoing aviation operations since opening in 1959. The vast majority of the project site consists of developed lands and disturbed habitat, and unpaved areas surrounding aircraft movement areas are regularly mowed and maintained to maximize visibility and minimize fire and flooding risks. The only native habitat at the Airport occurs in the northwestern corner where small areas of Diegan coastal sage scrub and chamise chaparral are present. The aircraft movement areas and fixed-base operators (FBOs) are located on a mesa, and just north and west of the end of the runway, the topography drops considerably towards the property line. Portions of the Airport are underlain by three cells of an inactive landfill and associated infrastructure.

County-owned lands east of El Camino Real and north of Palomar Airport Road are known as the Eastern Parcel, and consist of industrial uses, vacant land, and existing preserve land. The FAA owns and operates existing MALSR navigational lighting structures both on the active airfield and on the Eastern Parcel. The FAA is the sole responsible agency for all aspects of the navigational aid lighting systems at the Airport (i.e., layout and placement of structures according to FAA design standards, property ownership, maintenance, etc.). If the runway is shifted and/or extended, relocation of the existing structures is a potentially foreseeable federal action. The FAA has an existing lease with the County for the current MALSR system at the Eastern Parcel, and has the ability to manage the structures as they deem necessary for airport safety. Although this project element was shown and described in the Draft PEIR initially released for public review, the conceptual placement and alignment of the light relocation was not designed or calculated for potential impacts. This component on the Eastern Parcel is being analyzed now to describe the potential impacts to biological resources on the County-owned property if or when the FAA funds relocation of the existing structures and access road.

The project site is located within the boundaries of the County's Draft North County Multiple Species Conservation Program (NC MSCP) Plan, which has not yet been approved or adopted. As shown in Figure 2.2-1, the project site has draft designations as Pre-negotiated Take Authorized Areas, Pre-approved Mitigation Area (PAMA), and areas outside of the PAMA. Take Authorized areas identify pre-negotiated development projects that have been coordinated with County and Wildlife Agencies (CDFW and USFWS) to develop designs that are compatible with preservation. The Airport's Take Authorized Area was identified for infrastructure improvements including the northerly shift of the vehicle service road and runway, as well as a phased runway extension. Lands designated as a PAMA are "areas identified with high biological value in which conservation will be encouraged." Impacts are allowed within the PAMA designation, but require a higher mitigation ratio than areas pre-negotiated for development.

Only a small corner of the Airport in the northwest corner and portions of the Eastern Parcel are ~~is~~ within ~~a~~ proposed PAMA areas. The majority of the Airport and studied portions of the Eastern Parcel occur~~s~~ outside of lands identified as PAMA under the Draft NC MSCP Plan (Figure 2.2-1).

2.2.1.1 Regulatory Setting

Federal

Federal Endangered Species Act

Administered by the USFWS, the Federal Endangered Species Act (FESA) provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a "take" under the FESA. Section 9(a) of the FESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

The USFWS designates critical habitat for endangered and threatened species. Critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitats so they can be removed from the list of threatened or endangered species. A total of 11.7 acres of designated critical habitat for coastal California gnatcatcher is present in the northwest portion of the Airport (Figure 2.2-2).

Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the federal Migratory Bird Treaty Act (MBTA), as amended under the Migratory Bird Treaty Reform Act of 2004 (Federal Register [FR] Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is now used to place restrictions on disturbance of active bird nests during the nesting season (generally February 15 to September 15). In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

State

California Endangered Species Act

The California Endangered Species Act (CESA) established that it is state policy to conserve, protect, restore, and enhance state endangered species and their habitats. Under state law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the California Fish and Game Commission. The CESA authorizes that private entities may "take" plant or wildlife species listed as endangered or threatened under the FESA and CESA, pursuant to a federal Incidental Take Permit if the CDFW certifies that the incidental take is consistent with CESA (California Fish and Game [CFG] Code Section 2080.1[a]). If consultation with USFWS is conducted under FESA and a determination is issued, CDFW can issue a Consistency Determination stating a project would also comply with CESA.

California Fish and Game Code

The CFG Code provides specific protection and listing for several types of biological resources. Section 1600 of CFG 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.

Pursuant to CFG 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 nests are also protected by CFG Code Section 3503.5, which similarly states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA.

Natural Communities Conservation Planning Act

The Natural Communities Conservation Plan (NCCP) program is a cooperative effort to protect habitats and species. It began under the State's NCCP Act of 1991. This law is designed to identify and protect individual species that have already declined significantly in number.

The primary objective of the NCCP program is to conserve natural communities at the ecosystem level while accommodating compatible land use. The program seeks to anticipate and prevent the controversies and gridlock caused by species' listings by focusing on the long-term stability of wildlife and plant communities and including key interests in the process.

The Proposed Project is predominately designated as a Take Authorized development project under the Draft NC MSCP. This designation is for projects that have planned development footprints that have been factored into the Draft NC MSCP's conservation analysis. The USFWS, CDFW, and County met several times from November 2005 through August 2010 to discuss hardline requirements for the Proposed Project, including footprint, preserve design, and mitigation criteria. An agreement was reached on the proposed hardline development footprint and mitigation strategy on October 28, 2010, and is memorialized in a letter dated March 1, 2011, hereafter referred to as the 2011 Hardline letter (USFWS and CDFW 2011), and included in Appendix B to this PEIR. Mitigation for impacts to sensitive vegetation communities described herein is consistent with the mitigation strategy outlined in the 2011 letter. The agreed-upon designations are illustrated in Figure 2.2-1. However, if the draft NC MSCP is not adopted prior to implementation of specific projects under the Master Plan Update, issuance of a Habitat Loss Permit (HLP) would be required for any impacts to coastal sage scrub. The HLP process is discussed further below.

Porter-Cologne Water Quality Control Act

The SWRCB and the RWQCB regulate the discharge of waste to waters of the State via the 1969 Porter-Cologne Water Quality Control Act (Porter-Cologne) as described in the California Water Code. The California Water Code is the State's version of the Federal CWA.

State waters that are not federal waters (i.e., areas not regulated by the CWA) may be regulated under Porter-Cologne. A Report of Waste Discharge must be filed with the RWQCB for projects that result in discharge of waste into waters of the State. The RWQCB will issue Waste Discharge Requirements or a waiver, which are the Porter-Cologne version of a CWA 401 Water Quality Certification.

Local

City of Carlsbad – Habitat Management Plan

The City's Habitat Management Plan (HMP) was initially adopted in December 1999 and most recently updated in November 2004. The purpose of the HMP is to guide the design, management, monitoring, and public use of the natural open space preserve system within the City of Carlsbad. The HMP is part of a regional planning effort to create an interconnected system of open space lands that will function at the ecosystem level. The HMP constitutes the city's subarea (city-specific) plan within the Multiple Habitat Conservation Program (MSCP) Subregional Plan for north coastal San Diego County (City of Carlsbad 2017a). Figure 2.2-1 depicts HMP designations in proximity to the Airport.

San Diego County Biological Mitigation Ordinance

The San Diego County Biological Mitigation Ordinance (BMO) is the mechanism by which the County implements the MSCP. Compliance with the BMO allows the County to issue Incidental Take Permits for projects that involve impacts to sensitive habitats. The BMO outlines the criteria for avoidance of impacts to sensitive biological resources and the mitigation requirements for projects requiring a discretionary permit.

Habitat Loss Permit Ordinance

The HLP Ordinance was adopted by the County in March of 1994 (County of San Diego 1994) in response to both the listing of the coastal California gnatcatcher as a federal threatened species and the adoption of the NCCP Act by the State. Pursuant to the Special 4(d) Rule under the FESA, the County is authorized to issue "take permits" for the coastal California gnatcatcher (in the form of HLPs) in lieu of Section 7 or 10(a) permits typically required from the USFWS. In the event a specific project has no impacts to coastal California gnatcatcher, an HLP may still be required to demonstrate that the loss of coastal sage scrub would not jeopardize the coastal California gnatcatcher population. Although issued by the County, the USFWS and CDFW must concur with the issuance of an HLP for it to become valid as take authorization under the FESA. An HLP is not required for projects within the boundaries of the MSCP that have an adopted subarea plan since take authorization of coastal California gnatcatcher (*Polioptila californica californica*) is conveyed to those projects through compliance with the MSCP. The HLPs are

also not required for projects that have separately obtained Section 7 or 10(a) permits for take of the coastal California gnatcatcher.

2.2.1.2 Habitat Types/Vegetation Communities

Eight ~~Six~~ vegetation communities/habitat types occur in the Proposed Project site and Eastern Parcel (Figure 2.2-3). This section describes vegetation communities located within the site.

Disturbed Habitat (11300)

Disturbed habitat includes areas in which the vegetative cover comprises less than 10 percent of the surface area (disregarding natural rock outcrops) and where there is evidence of soil surface disturbance. Disturbed habitat supports a predominance of non-native and/or weedy species that are indicators of such surface disturbance (County of San Diego 2010a).

Disturbed habitat at the Airport and the Eastern Parcel consist~~s~~ of previously disturbed soils that are made up of bare ground or dominated by non-native vegetation such as Russian thistle (*Salsola tragus*), milk thistle (*Silybum marianum*), filaree (*Erodium* spp.), garland daisy (*Glebionis coronaria*), and black mustard (*Brassica nigra*). Portions of the disturbed habitat on the Airport contain a non-native, annual grass component in combination with the non-native forbs listed above. These areas are subject to existing allowed maintenance activities that constantly change the vegetation cover and composition through mowing, scraping, and other uses, and were considered disturbed habitat as a result of such ongoing surface disturbance. A total of 66.6 ~~62.2~~ acres of disturbed habitat occurs on-site within the Airport and Eastern Parcel.

Southern Maritime Chaparral (37C30)

Southern maritime chaparral is restricted to the weathered sands within the coastal fog belt in San Diego County from La Jolla to Carlsbad with some scattered patches to the south: Point Loma, Spooner's Mesa, and Peñasquitos Canyon. Typical species found within this low, fairly open chaparral include wart-stemmed ceanothus (*Ceanothus verrucosus*), chamise (*Adenostoma fasciculatum*), mission manzanita (*Xylococcus bicolor*), Nuttall's scrub oak (*Quercus dumosa*), summer-holly (*Comarostaphylis diversifolia* ssp. *diversifolia*), and Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*). Characteristic species within southern maritime chaparral on the Eastern Parcel include Nuttall's scrub oak and chamise. This is the dominant habitat type on the Eastern Parcel occupying 9.8 acres within the study area.

Non-Native Grassland (42200)

Non-native grassland is a mixture of annual grasses and broad-leaved, herbaceous species. Annual species comprise from 50 percent to more than 90 percent of the vegetative cover, and most annuals are non-native species. Non-native grasses typically comprise at least 30 percent of the vegetative cover, although this percentage can be much higher in some years and lower in others, depending on land use and climatic conditions. Usually, the grasses are less than three feet in height and form a continuous or open cover. Emergent shrubs and trees may be present but do not comprise more than 15 percent of the total cover (County 2010a). Most of the

non-native grasses originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California.

Non-native grassland occurs on fallow agricultural lands within the Eastern Parcel totaling 4.3 acres. Characteristic species observed include Mediterranean barley (*Hordeum murinum*), ripgut grass (*Bromus diandrus*), oats (*Avena* sp.), red brome (*Bromus madritensis*), and star-thistle (*Centaurea melitensis*).

Vernal Pool (44000)

Vernal pools are ephemeral wetlands that form in small pools and swales as a result of a subsurface hardpan or claypan that inhibits the percolation of water. A total of 18 vernal pools of varying sizes were identified and mapped in the northwestern portion of the Airport. Characteristic species present include dwarf woolly-marbles (*Psilocarphus brevissimus*), prairie plantain (*Plantago elongata*), water pygmyweed (*Crassula aquatica*), and grass poly (*Lythrum hyssopifolium*). Vernal pools total 0.36 acre on-site (Figure 2.2-4; Table 2.2-2). This vernal pool complex lies alongside the airport service road and an operations staging area. The pools receive runoff water from these paved surfaces during storm events, and some may be created by maintenance truck tire ruts.

Diegan Coastal Sage Scrub (including Disturbed) (32500)

Coastal sage scrub is one of the two major scrub types that occur in southern California, occupying xeric sites characterized by shallow soils (the other is chaparral). Diegan coastal sage scrub may be dominated by a variety of species depending upon soil type, slope, and aspect. Typical species found within Diegan coastal sage scrub include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), lemonadeberry (*Rhus integrifolia*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*; Holland 1986). Disturbed Diegan coastal sage scrub contains many of the same shrub species as undisturbed Diegan coastal sage scrub, but is sparser and has a higher proportion of non-native, annual species. Characteristic species within Diegan coastal sage scrub on site include California sagebrush, California buckwheat, and black sage. This habitat is restricted to the northwestern portion of the Airport and totals 10.1 acres.

Granitic Chamise Chaparral (37210)

Chamise chaparral is the most widely distributed chaparral subtype and is dominated by the species chamise. This vegetation community is found from Baja California, Mexico, to northern California in pure or mixed stands.

Characteristic species within this habitat on site include chamise, bush monkeyflower (*Mimulus aurantiacus*), and toyon (*Heteromeles arbutifolia*). This habitat occurs as a single 0.4-acre stand within the northwestern portion of the Airport.

Non-native Vegetation (11000)

Non-native vegetation is a category describing stands of naturalized trees and shrubs (e.g., acacia [*Acacia* sp.], peppertree [*Schinus* sp.]), many of which are also used in landscaping.

Onsite, this habitat consists of a small stand of acacia in the northwestern portion of the Airport, totaling 1.8 acres.

Urban/Developed (12000)

Urban/developed land includes areas that have been constructed upon or otherwise covered with a permanent, unnatural surface and may include, for example, structures, pavement, irrigated landscaping, or hardscape to the extent that no natural land is evident. These areas no longer support native or naturalized vegetation (County 2010a). Developed portions of the site consist of the airport administration building and other airport-related buildings and structures, parking lots, and runway. A total of 156.5 ~~156.2~~ acres of urban/developed land occur onsite.

2.2.1.3 Special Status Plant Species

Four special status plant species were observed on the Airport ~~project site~~: ashy spike-moss (*Selaginella cinerascens*), Palmer's grapplinghook (*Harpagonella palmeri*), vernal barley (*Hordeum intercedens*), and western dichondra (*Dichondra occidentalis*). In addition, the Eastern Parcel contains Nuttall's scrub oak (*Quercus dumosa*) and critical habitat for San Diego thorn-mint (*Acanthomintha ilicifolia*) as designated by the USFWS.

2.2.1.4 Special Status Wildlife Species

Two special status animal species were observed on the project site during biological surveys conducted for the project: California horned lark (*Eremophila alpestris actia*) and coastal California gnatcatcher.

Raptor Foraging

The County defines raptors as birds of prey such as eagles, hawks, falcons, and owls. Their foraging habitat consists of, "Land that is a minimum of five acres (not limited to project boundaries) of fallow or open areas with any evidence of foraging potential (i.e., burrows, raptor nests, etc.)" (County 2010a). After conducting biological surveys of the Airport, no raptors nests and no burrows were observed onsite.

Red-tailed hawk (*Buteo jamaicensis*) was the only raptor species observed on-site passing overhead during biological surveys conducted for the Proposed Project. This species was observed flying over the western portion of the Airport. The red-tailed hawk is the most widespread bird of prey in San Diego County and in the U.S. This species uses any open area for foraging, despite disturbance, and will take advantage of small patches of undeveloped land, although they favor grasslands with scattered trees. This species is known to tolerate considerable urbanization. Although red-tailed hawk was observed flying over the Airport, this area is not considered valuable foraging habitat due to constant physical and noise disturbances from standard airport operations and maintenance, combined with the airport's implementation of the WHMP, which minimizes populations of animals that pose a potential threat to aviation safety. Management actions taken under the WHMP include, but are not limited to, reducing wildlife attractants through habitat modifications, maintaining a perimeter fence to deter wildlife from entering the airfield, hazing and harassment, and implementing

wildlife control measures such as trapping. These actions greatly diminish the value of the Airport as potential raptor foraging habitat.

Non-native grassland within the Eastern Parcel supports potential foraging habitat for raptors known to the local area, including common species such as red-tailed hawk (*Buteo jamaicensis*), and potentially for sensitive species such as white-tailed kite (*Elanus leucurus*) and barn owl (*Tyto alba*).

2.2.1.5 Jurisdictional Waters and Wetlands

The Proposed Project site supports areas that could potentially be considered jurisdictional waters or wetlands by the USACE, RWQCB, and CDFW. These include vernal pools occurring in the northwest portion of the Airport (Figure 2.2-4), which are the only wetland habitat observed at the Airport during the general biological surveys. No potentially jurisdictional non-wetland waters of the U.S./ephemeral streambed were observed on the Airport. A jurisdictional delineation would be required to map the extent of potential USACE, RWQCB, and CFDW jurisdiction once individual projects are proposed under the Airport Master Plan Update.

A total of 18 vernal pools were mapped on the project site, all of which occur within a narrow rectangular area in the northwest portion of the Airport (see Table 2.2-2; Figure 2.2-4). Six of these pools are located parallel to the north edge of the existing runway. The other 12 pools are located in the central and northern portions of this area. Survey results for fairy shrimp were negative; no fairy shrimp were observed onsite during USFWS protocol surveys for the species.

U.S. Army Corps of Engineers

Potential waters of the U.S. located at the Airport under the potential jurisdiction of the USACE pursuant to Section 404 of the CWA include vernal pools. Coordination with the USACE regarding whether the onsite vernal pools would be regulated under the CWA would occur at the time that individual projects are designed and proposed for construction. If onsite vernal pools are determined to be isolated, they would not be regulated under Section 404 of the CWA.

Regional Water Quality Control Board

Potential waters of the U.S. located at the Airport subject to RWQCB jurisdiction pursuant to CWA Section 401 include ephemeral stream channel (potential non-wetland waters of the U.S.) and vernal pools (potential wetland waters of the U.S.). If onsite vernal pools are considered isolated by the USACE, then they would not be regulated as waters of the U.S. by the USACE or RWQCB. In this situation, the 18 vernal pools comprising approximately 0.36 acre may be regulated as waters of the State subject to RWQCB jurisdiction pursuant to the Porter-Cologne Water Quality Control Act, rather than as waters of the U.S. pursuant to Section 401 of the CWA. Coordination with the RWQCB would occur at the time that individual projects are funded and proposed for construction.

California Department of Fish and Wildlife

There are no potential waters of the State under the jurisdiction of the CDFW pursuant to Section 1600 et seq. of CFG Code located at the Airport. Vernal pools are not regulated by CDFW under Sections 1600 of the CFG Code; therefore, any impacts to vernal pools would not require a Streambed Alteration Agreement.

2.2.1.6 Habitat Connectivity and Wildlife Corridors

Wildlife corridors connect isolated pieces of habitat and allow movement or dispersal of plants and animals. Local wildlife corridors allow access to resources such as food, water, and shelter within the framework of their daily routine. Regional corridors provide these functions over a larger scale and link two or more large habitat areas, allowing the dispersal of organisms and the consequent mixing of genes between populations.

The draft PAMA designation in the region is based on the core and linkage concept of landscape-level conservation. The configuration of preserve lands includes large, contiguous areas of habitat supporting important species populations or habitat areas and important functional linkages and movement corridors between them. The Airport occurs mostly outside of lands identified as PAMA under the Draft NC MSCP Plan (Figure 2.2-1). As stated in Section 2.2-1, only a small corner of the Airport is within proposed PAMA.

With respect to wildlife movement, the northwestern corner of the Airport is not part of a wildlife corridor as it does not provide connectivity between habitats due to its location on the perimeter of the existing airport and adjacent development. Rather, this small area functions as an extension of the fingers of habitat preserved on the adjacent Crossings at Carlsbad golf course to the north and west, which are part of a larger mosaic of habitat areas identified as existing hardline preserve under the City of Carlsbad HMP. These off-site areas are part of Linkage F under the City's HMP, which is a stepping-stone linkage of fragmented sage scrub, chaparral, and grassland habitats that is probably most effective as a dispersal corridor for birds (City of Carlsbad 1999). Its utility as a linkage for reptiles and mammals is limited due to fragmentation by numerous roads and other existing development. Coastal sage scrub within City's HMP Linkage F is known to support several nesting gnatcatcher pairs.

2.2.1.7 Indirect Impacts

Lighting

Night lighting that extends from a developed area onto adjacent wildlife habitat can discourage nocturnal wildlife from moving through habitat, resulting in alteration of natural behavior, and can provide nocturnal predators with an unnatural advantage over their prey, resulting in a potentially significant impact. The entirety of the active airfield is surrounded by 8-to-10-foot chain-link fence that is regularly inspected for security and wildlife exclusion purposes. Project implementation would not substantially increase the existing ongoing night lighting levels at the Airport, which is required by the FAA for safety and as navigational aids. The area is also subject to existing light pollution from adjacent streets and development. The Airport is required by its WHMP to preclude wildlife movement onto the airfield for safety of both the aircraft

operators and the wildlife. There are no changes proposed to the exclusionary fencing or policies, and accordingly it is anticipated that continuation of the lighting would not have a significant indirect impact on wildlife. Shift of the Airport lighting system, including the existing MALSR on the Eastern Parcel, is not anticipated to cause new indirect impacts to wildlife, as it a continuation of an existing use, the Airport perimeter continues to be secured to preclude ground movement by wildlife, and the site is not a wildlife movement corridor.

Noise

Construction-related noise from sources such as clearing, grubbing, and grading can be a temporary impact to wildlife, as breeding birds and mammals may temporarily or permanently leave their territories to avoid noise disturbances from construction activities, which could lead to reduced reproductive success and increased mortality. A threshold of 60.0 A-weighted decibels (dBA) has been established as a guideline by the USFWS and CDFW for determining potential noise effects on nesting birds, particularly special-status species such as the coastal California gnatcatcher. Noise exceeding 60.0 dBA has the potential to result in nest abandonment and nest failure. The site is already subject to high levels of ambient noise from nearby heavily trafficked roadways and existing aviation uses, including approaching and departing aircraft, thus, coastal California gnatcatcher nesting on the project site would be expected to have a high tolerance to noise given the existing levels in the area. However, potential significant impacts could still result from the project if construction noise levels exceed a level of 60 dBA or ambient (whichever is greater) adjacent to nesting sensitive bird species, including coastal California gnatcatcher.

2.2.2 Analysis of Project Effects and Determination of Significance

The significance thresholds for biological resources are based specifically on criteria provided in the County's Guidelines for Determining Significance for Biological Resources (County of San Diego 2007a), which were adapted from Appendix G of the CEQA Guidelines.

A significant impact to biological resources would occur if the Proposed Project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the USFWS or CDFW?
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the USFWS or CDFW?
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? Would the project conflict with the provisions of an

adopted Habitat Conservation Plan (HCP), NCCP, or other approved local, regional, or state HCP?

2.2.2.1 Special Status Species

Guidelines for the Determination of Significance

A significant impact would occur if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the USFWS or CDFW?

Analysis

Special Status Plant Species

The project would result in impacts to five ~~four~~ special status plant species; three are County List D species (ashy spikemoss, Palmer's grapplinghook, and western dichondra) ~~and~~, one is County List C species (vernal barley), and one is a County List A species (Nuttall's scrub oak). None of these species are federal or state listed. In addition, the Proposed Project would result in impacts to unoccupied critical habitat for San Diego thorn-mint, a federal threatened, state endangered, County List A, and California Rare Plant rank (CRPR) 1B.1 species. Impacts are further discussed below.

Ashy Spikemoss

Construction of the vehicle service road and shift of the runway in the northwestern portion of the Airport would impact scattered patches of ashy spikemoss. The local long-term survival of this species would not be impacted, as this species is relatively widespread in the region, and occurs in other on-site locations outside of the Proposed Project footprint. Thus, impacts to ashy spikemoss would be less than significant.

Nuttall's Scrub Oak

While relocation of the MALSR lighting and related navigational aids would be undertaken by the FAA, it is a potentially foreseeable action associated with the Master Plan Update. As such, this component on the Eastern Parcel would impact 0.3 acre of southern maritime chaparral dominated by Nuttall's scrub oak. The County's Guidelines for Determining Significance for Biological Resources state that impacts to a County List A species (such as Nuttall's scrub oak) would be considered less than significant if impacts constitute "less than five percent of the individual plants or of the sensitive species' habitat" (County of San Diego 2007a).

The Eastern Parcel study area contains 9.8 acres of scrub oak-dominated southern maritime chaparral. Because the Proposed Project would impact 0.3 acre, which represents three percent of the total Nuttall's scrub oak habitat onsite, the Proposed Project would result in a less than significant impact. Thus, the Proposed Project would not have a substantial adverse effect on the local long-term survival of Nuttall's scrub oak as impacts would be less than five percent.

Approximately 9.5 acres of habitat supporting this species would remain unaffected within the study area, as well as extensive areas off site to the east and north.

Palmer's Grapplinghook

Construction of the vehicle service road and shift of the runway in the northwestern portion of the Airport would impact scattered patches of Palmer's grapplinghook. The local long-term survival of this species would not be impacted, as the Proposed Project would impact only a portion of the on-site population. Furthermore, this species is relatively widespread in the region and is likely present on nearby preserved lands. Therefore, impacts to Palmer's grapplinghook would be less than significant.

San Diego Thorn-mint

Based on results of rare plant surveys conducted in 2016 and a review of database records in the project vicinity (USFWS 2016 and CDFW 2016), San Diego thorn-mint is absent from the Proposed Project impact area (including the Eastern Parcel), and the nearest location is approximately 85 feet north of the proposed relocated MALSR lighting system. Thus, implementation of the Proposed Project would not directly impact known locations of San Diego thorn-mint, a federal threatened, state endangered, County List A, and CRPR 1B.1 species.

A total of 10.2 acres of critical habitat for this species occurs within the 18.8-acre study area on Eastern Parcel, with an additional 49.3 acres of critical habitat occurring adjacent to the Eastern Parcel study area. The Proposed Project would impact 0.33 acre of critical habitat for San Diego thorn-mint. A total of 0.25 acre of this impact is within scrub oak-dominated mature chaparral, most of which does not have suitable soil types (i.e., heavy clay soil) or a sufficiently open canopy to support thorn-mint. Impacts also would occur within 0.08 acre of disturbed habitat supporting clay soils, which could be potentially suitable for the species, but within which surveys have been negative.

In addition, potential northward shifts of existing FAA-owned navigational aid lighting on the Eastern Parcel would not result in indirect impacts to San Diego thorn-mint, as the relocated road and lighting would be set back approximately 85 feet from the nearest known occurrence of San Diego thorn-mint, earthwork associated with the relocation of the road and lighting would not alter existing drainage patterns for the known population, and there is no public access to the site, thus no increase in potential human-related disturbance.

Therefore, although the Proposed Project would impact 0.33 acre of critical habitat for San Diego thorn-mint, it is considered less than significant because individuals of the species would not be impacted nor would it represent an adverse modification to the critical habitat. As part of the regulatory requirements for the project, the FAA would be required to consult with the USFWS for any proposed impact to critical habitat and would be responsible for implementing all terms and conditions resulting from the consultation.

Western Dichondra

Construction of the vehicle service road and shift of the runway in the northwestern portion of the Airport would impact one patch of western dichondra. The local long-term survival of this species would not be impacted, as this species is relatively widespread in the region, and is

likely present on nearby preserved lands. Thus, impacts to western dichondra would be less than significant.

Vernal Barley

Construction of the vehicle service road and shift of the runway in the northwestern portion of the Airport would impact one isolated patch of vernal barley. The local long-term survival of this species would not be impacted, as this species is relatively widespread in the region, and is likely present on nearby preserved lands. Thus, impacts to vernal barley would be less than significant.

Special Status Animal Species

Coastal California Gnatcatcher

Coastal California gnatcatcher is a federally listed threatened, state Species of Special Concern, and County Group 1 species. One nesting pair was observed in Diegan coastal sage scrub within the northwestern portion of the Airport during 2016 protocol surveys, and a second pair was observed just off site to the north. Construction of the vehicle service road and future shift of the runway in the northwestern portion of the Airport would impact 3.1 acres of occupied Diegan coastal sage scrub. Additionally, construction noise would have the potential to displace Coastal California gnatcatcher from nests within suitable habitat adjacent to construction activities. Therefore, impacts to Coastal California gnatcatcher would be considered significant (BI-1).

California Horned Lark

California horned lark is a County Group 2 and CDFW Watch List species. This species was observed foraging along roads within Diegan coastal sage scrub and disturbed habitat in the northwestern portion of the Airport, which would be impacted by the future shift of the runway in the northwestern portion of the Airport. However, the Proposed Project site does not contain a regionally significant population of horned lark and impacts would not affect the local long-term survival of this species. Therefore, impacts to California horned lark would be *less than significant.*

Raptors

As discussed above, the only raptor observed flying over the Airport was red-tailed hawk, and this area is not considered valuable foraging habitat due to constant physical and noise disturbances from standard airport operations and maintenance, combined with the airport's implementation of the WHMP, which minimizes populations of animals that pose a potential threat to aviation safety. Management actions taken under the WHMP include, but are not limited to, reducing wildlife attractants through habitat modifications, maintaining a perimeter fence to deter wildlife from entering the airfield, hazing and harassment, and implementing wildlife control measures such as trapping. Therefore, impacts to open lands would be limited to areas adjacent to the active airfield that are subject to the Airport's WHMP program and are unlikely to support a prey base for foraging raptors. Although the Proposed Project would impact 0.3 acre of non-native grassland in the Eastern Parcel, the impact to potential foraging habitat

for raptors would be negligible. As such, impacts to foraging habitat for raptors would be *less than significant*.

2.2.2.2 Riparian Habitat or Sensitive Natural Communities

Guidelines for the Determination of Significance

A significant impact would occur if the project would:

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the USFWS or CDFW?

Analysis

Implementation of the Proposed Project would result in direct impacts to approximately 4.26 ~~3.66~~ acres of sensitive natural communities, including 0.36 acre of vernal pool, 3.1 acres of Diegan coastal sage scrub (including disturbed), ~~and~~ 0.2 acre of granitic chamise chaparral, 0.3 acre of southern maritime chaparral, and 0.3 acre of non-native grassland. Table 2.2-3 provides a summary of project impacts to vegetation communities/habitat types, including sensitive habitat. The impacts are separated into pre-approved mitigation area (PAMA)/preserve, take authorized, and outside PAMA pursuant to the Draft NC MSCP. The 18.8-acre study area on the Eastern Parcel consists of County-owned open space that is designated as a combination of Preserve and PAMA under the Draft NC MSCP Plan. Descriptions of these impacts are provided below.

The Proposed Project would impact 3.1 acres of Diegan coastal sage scrub. These impacts would occur in association with construction of the vehicle service road, shift of the runway in the northwestern portion of the Airport, and future EMAS. A total of 2.5 acres of impact would occur within lands identified as Take Authorized in the Draft NC MSCP Plan. The remaining 0.6 acre of impact would occur within lands identified as PAMA in the Draft NC MSCP Plan, and 0.01 acre in lands outside of PAMA. As a result, impacts to Diegan coastal sage scrub would be considered *significant* (BI-2).

The Proposed Project would impact approximately 0.36-acre of areas mapped as vernal pool habitat. Impacts to vernal pools would occur in association with construction of the vehicle service road and shift of the runway in the northwestern portion of the Airport. Vernal pool impacts would occur within lands identified as Take Authorized in the Draft NC MSCP Plan and would be considered *significant* (BI-3).

The Proposed Project would impact 0.2 acre of granitic chamise chaparral. These impacts would occur in association with construction of the Precision Approach Path Indicator for future runway relocation in the northwestern portion of the Airport. All impacts would occur within lands identified as Take Authorized in the Draft NC MSCP Plan. Impacts to this native plant community would be considered *significant* (BI-4). However, the County is not responsible for these improvements. The FAA is the owner and responsible agency for this lighting system, and relocation of the lights would be considered a federal action.

The Proposed Project would impact 0.3 acre of southern maritime chaparral. These impacts would occur in association with relocation of the existing MALSR navigational lighting system, on the Eastern Parcel. Impacts would occur within lands identified as PAMA in the Draft NC MSCP Plan. This impact would be *significant* according to County Guideline 4.1.A (BI-7).

The Proposed Project would impact 0.3 acre of non-native grassland. These impacts would occur in association with relocation of the existing MALSR navigational lighting system on the Eastern Parcel. Impacts would occur within lands identified as PAMA in the Draft NC MSCP Plan. This impact would be *significant* according to County Guideline 4.1.A (BI-8).

Approximately 1.4 ~~0.8~~ acre of impact would occur within areas identified as PAMA in the Draft NC MSCP Plan, of which 0.3 ~~0.2~~ acre is disturbed habitat or developed land, ~~and~~ 0.6 acre is Diegan coastal sage scrub, 0.3 acre is southern maritime chaparral, and 0.2 acre of non-native grassland whose impacts are analyzed above. Impacts proposed within PAMA are in the Eastern Parcel and the far northwest corner of the Airport, where a small area of PAMA is mapped adjacent to Take Authorized lands and areas outside PAMA (Figure 2.2-1). All other proposed impacts would occur within Take Authorized lands or areas identified as outside PAMA under the Draft NC MSCP and would be considered *less than significant*.

2.2.2.3 Jurisdictional Wetlands

Guidelines for the Determination of Significance

A significant impact would occur if the project would:

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Analysis

No impacts to non-wetland waters of the U.S./ephemeral stream channel are anticipated, as there are no areas located within the proposed project footprint. As described in Section 2.2.2.2, the Proposed Project would impact 0.36 acre of areas mapped as vernal pool habitat (Table 2.2-2), located entirely within the northwestern portion of the Airport. While direct impacts are not anticipated to occur to all 0.36 acre of existing vernal pool habitat, degradation of remaining pools that are adjacent to construction is anticipated to occur, thus, all vernal pool habitat on site is considered impacted under this analysis.

Impacts to this 0.36 acre of vernal pool habitat may be considered federal wetland by the USACE. Individual future projects that could impact vernal pools would require coordination with the USACE regarding whether the on-site vernal pools would be regulated under the CWA at the time they are funded and proposed for construction. If on-site vernal pools impacted by future individual projects are determined to be wetlands regulated pursuant the CWA, these impacts would be considered *significant* (BI-5).

2.2.2.4 Wildlife Movement and Nursery Sites

Guidelines for the Determination of Significance

A significant impact would occur if the project would:

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Analysis

The Proposed Project site ~~is~~ includes an active airfield and does not serve as a nursery site, thus, no impact to nursery sites would occur.

Outside of the active airfield, relocation of the MALSR lighting on the Eastern Parcel would not impede the movement of any native, resident, or migratory fish or wildlife species or with established native, resident, or migratory wildlife corridors, or interfere with native wildlife nursery sites. This is a narrow, restricted-use, very low-volume access road that would not have tall exclusionary fencing or other potential impediments to wildlife movement or interrupt visual continuity. No impact would occur.

MALSR lighting currently exists in the Eastern Parcel and the shifting of the lighting approximately 123 feet north of the current location would not substantially increase nighttime lighting in this area. Impacts would be less than significant.

The Airport is subject to a WHMP that requires the County to maximize safety to airport users and wildlife by precluding use of the site for wildlife movement, particularly adjacent to aircraft movement areas. The Proposed Project would not substantially change the current use of the project site; the perimeter would remain fully fenced, and is not currently considered a wildlife movement corridor.

Habitat in the northwestern corner of the Airport functions as a small extension of Linkage F, identified in the HMP as an area that is used primarily for avian dispersal. This area is already subject to noise and nighttime lighting from the existing airport as well as from adjacent development. Project implementation would not substantially increase noise or nighttime lighting in this area. Similarly, the project site does not provide core wildlife habitat and does not support wildlife corridors. The project would not substantially interfere with the adjoining linkage for avian dispersal due to the relatively small area of impact to this area and its location along the outer edge of the linkage. Additionally, the Airport is fully fenced and the Proposed Project is a continuation of existing uses, which would not further constrain existing connections to off-site lands. The Proposed Project would not impede wildlife access to on-site areas necessary for reproduction, as sufficient habitat would be avoided on site, and would not further constrain existing connections to off-site lands. Implementation of the Proposed Project would impact small portions of stepping-stone gnatcatcher habitat in the northwestern portion of the Airport, but would not preclude birds from continuing to use the local area for nesting and dispersal. This area has limited function for terrestrial wildlife as it is relatively small and chain link fencing

separates it from an already constricted connection to other native habitat to the north, with active airfield abutting its other sides. Therefore, impacts on wildlife movement would be *less than significant*.

2.2.2.5 Local Policies, Ordinances, and Adopted Plans

Guidelines for the Determination of Significance

A significant impact would occur if the project would:

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? Would the project conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional or state HCP?

Analysis

No adopted HCP, Resource Management Plan, Special Area Management Plan, Watershed Plan, or other regional planning efforts are applicable to the Proposed Project. Although the project is located within the boundaries of the Draft NC MSCP, there is no adopted NCCP; therefore, the County's BMO does not currently apply. Although 1.4 acres ~~two acres~~ occur within lands identified as PAMA or preserve under the Draft North County Plan, the majority of the Airport ~~Proposed Project area~~ is identified as Take Authorized or lands otherwise outside of PAMA. A small area in the northwestern corner is not critical for assemblage of regional habitat preserves, particularly considering the existing preserve lands northwest of the Airport and the large areas of PAMA that would remain unaffected on County-owned lands within and adjacent to the Eastern Parcel. As identified by the City HMP, the Airport is located adjacent to lands designated as "Future Preserve Proposed Hardline" and "Established Private and City-owned Preserve." However, implementation of the Proposed Project is confined to the existing Airport boundary, including the Eastern Parcel, and would not encroach or impact these lands. Furthermore, the Proposed Project would not preclude additional preservation of adjacent or nearby habitat under the HMP. Therefore, the Proposed Project would not conflict with local policies or ordinances protecting biological resources of an adopted HCP or NCCP.

Implementation of the project could require construction during the avian breeding season, which could potentially result in impacts to migratory birds, active migratory bird nests, and/or eggs protected under the MBTA. Project construction could directly impact individuals or cause breeding birds to temporarily or permanently leave their territories, which could lead to reduced reproductive success and increased mortality. Therefore, the project could conflict with the MBTA and result in impacts that would be considered *significant* (BI-6).

2.2.3 Cumulative Impact Analysis

The Proposed Project has the potential to contribute to the cumulative impact on coastal California gnatcatcher and raptors (i.e., loss of foraging habitat). However, the project site is within County-owned lands that are surrounded by the City of Carlsbad, which has an approved subarea plan (City's HMP). Cumulative losses in the project vicinity have been addressed by the implementation of the City's HMP. Although the project could contribute to a significant impact

on special status wildlife species, these impacts would be fully mitigated in accordance with mitigation measures M-BI-1a trough M-BI-1c below. Additionally, any impacts to coastal California gnatcatcher in a non-NCCP area would require FESA and CESA compliance. Direct and cumulative impacts would be fully mitigated under the jurisdiction and within the regional perspective of the wildlife agencies. Therefore, the Proposed Project's contribution to cumulative impacts on coastal California gnatcatcher would be less than significant.

The Proposed Project would contribute to the cumulative impact on wetland (vernal pool) habitat and other sensitive natural communities. The Proposed Project's impacts to wetland habitat and sensitive upland communities, while significant at the project level, are considered cumulatively significant but mitigable as the project would provide mitigation for these impacts in accordance with County and regulatory agency guidelines, as applicable. As such, the Proposed Project's contribution to cumulative impacts to sensitive vegetation communities is not considerable and would be less than significant.

The Proposed Project would not impact wildlife movement or nursery sites. Consequently, no cumulative impact related to wildlife movement or nursery sites would occur. Similarly, the project would implement project design features and mitigation measures to reduce project-level impacts related to conflicts with MBTA to a level less than significant. Conformance or mitigation, as appropriate, would be required for the proposed project and for other projects in the vicinity in order to obtain a recommendation for approval. Therefore, no cumulative impacts related to conflicts with local policies or ordinances protecting biological resources would occur.

2.2.4 Significance of Impacts Prior to Mitigation

BI-1: The Proposed Project would impact coastal California gnatcatcher-occupied habitat resulting in the potential to impact California gnatcatcher nests. This would be considered a significant direct and indirect impact.

BI-2: The Proposed Project would impact 3.1 acres of Diegan coastal sage scrub (including disturbed). This would be considered a significant impact to the sensitive vegetation community.

BI-3: The Proposed Project would impact approximately 0.36 acre of areas mapped as vernal pool habitat. This would be considered a significant impact to the sensitive vegetation community.

BI-4: The Proposed Project would impact 0.2 acre of granitic chamise chaparral. This would be considered a significant impact to the sensitive vegetation community.

BI-5: The Proposed Project would impact approximately 0.36 acre mapped as vernal pool habitat that could be determined to be wetlands regulated pursuant the CWA during future coordination with USACE and applicable jurisdictional agencies. If these vernal pools are determined to be wetlands, this would be considered a significant impact.

BI-6: Construction activities may result in impacts to migratory birds or active migratory bird nests and/or eggs protected under the MBTA. This would conflict with the policies of the MBTA and be considered a significant impact.

BI-7: The Proposed Project would impact 0.3 acre of southern maritime chaparral. This would be considered a significant impact to the sensitive vegetation community.

BI-8: The Proposed Project would impact 0.3 acre of non-native grassland. This would be considered a significant impact to the sensitive vegetation community.

2.2.5 Mitigation Measures

The following mitigation measures would be incorporated into implementation of the Proposed Project (and as outlined in Tables 2.2-4 and 2.2-5). All biological resources under the jurisdiction of federal, state, and local regulations will be mitigated in consultation and oversight of the applicable regulatory agency.

Impact BI-1: Special Status Species: coastal California gnatcatcher

M-BI-1a: If the NC MSCP is adopted at the time project impacts would occur, ~~In accordance with the mitigation strategy described in a joint letter from USFWS and CDFW (2011 Hardline letter),~~ mitigation for impacts to coastal California gnatcatcher habitat (Diegan coastal sage scrub) shall occur at a 2:1 ratio in accordance with the adopted NC MSCP and mitigation strategy described in a joint letter from USFWS and CDFW (2011 Hardline letter). Mitigation will be provided through the preservation of southern maritime chaparral on County-owned lands on or contiguous with the eastern parcel (Assessor's Parcel Number [APN] 209-050-25), or at another location deemed acceptable by the County and Wildlife Agencies. This would result in the preservation of 6.2 acres of southern maritime chaparral. The 2011 Hardline letter confirmed this mitigation strategy is adequate assuming adoption of the NC MSCP.

If the NC MSCP is not adopted at the time ~~of~~ project~~-specific~~ impacts would occur~~implementation~~, take authorization for impacts to coastal California gnatcatcher would require approval of either an HLP from the County or Section 7 (or 10) permit from USFWS.

If grubbing or clearing of occupied Diegan coastal sage scrub must occur during the breeding season of the coastal California gnatcatcher (February 15–August 31), a pre-construction survey shall be conducted to determine whether gnatcatchers occur within the impact area(s). The pre-construction survey shall consist of three site visits with each site visit occurring seven days apart. If there are no gnatcatchers nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If, however, any gnatcatchers are observed, but no nesting or breeding behaviors are noted, additional surveys for breeding/nesting behaviors shall be conducted weekly. If any gnatcatchers are observed nesting or displaying breeding/nesting

behavior during the pre-construction survey or additional weekly surveys within the area, construction within 300 feet of any location at which birds have been observed shall be postponed until all nesting (or breeding/nesting behavior) has ceased or until after August 31 (see M-BI-1b for mitigation for indirect noise effects).

M-BI-1b: If operation of construction equipment occurs during the breeding season for the coastal California gnatcatcher (February 15–August 31), pre-construction survey(s) shall be conducted by a qualified biologist as appropriate to determine whether gnatcatcher occur within the areas potentially impacted by noise. If it is determined at the completion of pre-construction surveys that active nests belonging to this species are absent from the potential impact area, construction shall be allowed to proceed. If pre-construction surveys determine the presence of active nests belonging to this species, then construction shall: (1) be postponed until a qualified biologist determines the nest(s) is no longer active or until after the respective breeding season; or (2) not occur until a temporary noise barrier or berm is constructed at the edge of the development footprint and/or around the piece of equipment to ensure that noise levels are reduced to below 60 dBA or ambient, whichever is greater. Decibel (dB) output will be confirmed by a County-approved noise specialist and intermittent monitoring by a qualified biologist to ensure that conditions have not changed will be required. All grading permits, improvement plans, and the final map shall state the same.

Impact BI-2: Sensitive Natural Communities: Diegan coastal sage scrub

M-BI-2: If the NC MSCP is adopted at the time project impacts would occur, mitigation for impacts to 3.1 acres of Diegan coastal sage scrub shall occur at a 2:1 ratio (if not otherwise mitigated as part of M-BI-1a) ~~In~~ in accordance with adopted NC MSCP and the mitigation strategy described in a joint letter from USFWS and CDFW (2011 Hardline letter). ~~and if not otherwise mitigated as part of M-BI-1a, mitigation for impacts to 3.1 acres of Diegan coastal sage scrub shall occur at a 2:1 ratio~~ Mitigation will be provided through the preservation of 6.2 acres of southern maritime chaparral on County-owned lands on or contiguous with the eastern parcel (APN 209-050-25), or at another location deemed acceptable by the County and Wildlife Agencies.

If the NC MSCP is not adopted at the time ~~of~~ project impacts would occur ~~implementation~~, mitigation for impacts to Diegan coastal sage scrub shall also occur at a 2:1 ratio pursuant to habitat mitigation ratios applied for areas outside of approved MSCP Plans as defined by the County Guidelines for Determining Significance for Biological Resources dated September 15, 2010.

Impact BI-3: Sensitive Natural Communities: vernal pools

M-BI-3: If the NC MSCP is adopted at the time project impacts would occur, ~~In accordance with the mitigation strategy described in a joint letter from USFWS and CDFW (2011 Hardline letter) and assuming adoption of NC MSCP,~~

mitigation for impacts up to 0.36 acre of areas mapped as vernal pool habitat shall occur at a minimum 1:1 ratio in accordance with the adopted NC MSCP and mitigation strategy described in a joint letter from USFWS and CDFW (2011 Hardline letter). Mitigation will be provided through vernal pool creation/restoration on County-owned lands on or adjacent to the eastern parcel, or at another location deemed acceptable by the County and other regulating agencies, as applicable.

If the NC MSCP is not adopted at the time ~~of~~ project impacts would occur ~~implementation~~, then mitigation for impacts to vernal pools shall occur at a 5:1 ratio pursuant to habitat mitigation ratios as defined by the County Guidelines for Determining Significance for Biological Resources dated September 15, 2010. As required by the regulating agencies, including the USACE and RWQCB, impacts to vernal pools may require issuance of a CWA Section 404 permit and either a CWA Section 401 Water Quality Certification or State Porter-Cologne Water Quality Control Act Water Dicharge Requirements (WDRs). Federally listed species have not been detected in onsite vernal pools, thus take authorization under the Endangered Species Act is not anticipated to be required.

Impact BI-4: Sensitive Natural Communities: granitic chamise chaparral

M-BI-4: If the NC MSCP is adopted at the time project impacts would occur, ~~In accordance with the mitigation strategy described in a joint letter from USFWS and CDFW (2011 Hardline letter),~~ mitigation for impacts to 0.2 acre of chamise chaparral shall occur at a 2:1 ratio in accordance with the adopted NC MSCP and mitigation strategy described in a joint letter from USFWS and CDFW (2011 Hardline letter). Mitigation will be provided through the preservation of 0.4 acre of southern maritime chaparral on County-owned lands on or contiguous with the eastern parcel (APN 209-050-25), or at another location deemed acceptable by the County and Wildlife Agencies.

If the NC MSCP is not adopted at the time ~~of~~ project impacts would occur ~~implementation~~, then mitigation for impacts to granitic chamise chaparral shall occur at a 0.5:1 ratio pursuant to habitat mitigation ratios applied for areas outside of approved MSCP Plans as defined by the County Guidelines for Determining Significance for Biological Resources dated September 15, 2010.

Impact BI-5: Wetlands

M-BI-5: On-site vernal pools impacted by future individual projects would be mitigated at a minimum 1:1 ratio per mitigation measure M-BI-3~~2~~. If the NC MSCP is not adopted at the time ~~of~~ project~~-specific~~ impacts would occur~~implementation~~, then mitigation for impacts to vernal pools shall occur at a 5:1 ratio pursuant to habitat mitigation ratios as defined by the County Guidelines for Determining Significance for Biological Resources dated September 15, 2010. As required by the regulating agencies, including the USACE and RWQCB, impacts to vernal pools may require issuance of a CWA Section 404 permit and either a CWA

Section 401 Water Quality Certification or State Porter-Cologne Water Quality Control Act WDRs. Federally listed species have not been detected in onsite vernal pools, thus take authorization under the Endangered Species Act is not anticipated to be required.

Impact BI-6: Policies or Ordinances (MBTA)

M-BI-6: If grubbing, clearing, or grading must occur during the general avian breeding season (February 15–September 15), a pre-construction survey shall be conducted by a qualified biologist no more than three days prior to the commencement of the activities to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, clearing, grubbing, and grading shall be allowed to proceed. Furthermore, if construction activities are to resume in an area where they have not occurred for a period of seven or more days during the breeding season, an updated survey for avian nesting will be conducted. If active nests or nesting birds are observed within the area, the biologist shall flag the active nests and construction activities shall avoid active nests until nesting behavior has ceased, nests have failed, or young have fledged.

Impact BI-7: Sensitive Natural Communities: southern maritime chaparral

M-BI-7: If the NC MSCP is adopted at the time project impacts would occur, mitigation for impacts to 0.3 acres of southern maritime chaparral shall occur at a 3:1 ratio in accordance with the adopted NC MSCP and mitigation strategy described in a joint letter from USFWS and CDFW (2011 Hardline letter). Mitigation will be provided through the preservation of 0.9 acres of southern maritime chaparral on County-owned lands on or contiguous with the eastern parcel (APN 209-050-25), or at another location deemed acceptable by the County and Wildlife Agencies.

If the NC MSCP is not adopted at the time project impacts would occur, mitigation for impacts to southern maritime chaparral shall also occur at a 3:1 ratio pursuant to habitat mitigation ratios applied for areas outside of approved MSCP Plans as defined by the County Guidelines for Determining Significance for Biological Resources dated September 15, 2010.

Impact BI-8: Sensitive Natural Communities: non-native grassland

M-BI-8: If NC MSCP is adopted at the time project impacts would occur, mitigation for impacts to non-native grassland shall occur at the applicable ratio defined in the NC MSCP. The aforementioned joint letter from USFWS and CDFW (2011 Hardline letter) did not identify impacts or mitigation to non-native grassland.

If the NC MSCP is not adopted at the time project impacts would occur, mitigation for impacts to non-native grassland shall occur at a 0.5:1 ratio pursuant to habitat mitigation ratios applied for areas outside of approved MSCP

Plans as defined by the County Guidelines for Determining Significance for Biological Resources dated September 15, 2010. Mitigation for impacts to 0.3 acre of non-native grassland would occur through the preservation of 0.15 acre of non-native grassland on County-owned lands on or contiguous with the eastern parcel (APN 209-050-25), or at another location deemed acceptable by the County and Wildlife Agencies.

2.2.6 Conclusion

Implementation of the Proposed Project would have the potential to result in impacts to Special Status Species, Riparian Habitat or Sensitive Natural Communities, Jurisdictional Wetlands, and Local Policies, Ordinances, and Adopted Plans. However, consultation and permitting with applicable regulatory agencies, including implementation of mitigation measures M-BI-1a through M-BI-6 would reduce all impacts to biological resources to a level *less than significant*.

Table 2.2-1. Biological Surveys

Survey Type	Date		Personnel[1]
Year 2017			
Wet season fairy shrimp survey	March 17		Jason Kurnow
	March 10		
	March 2		Amy Mattson
	February 23		Jason Kurnow
	February 16		
	February 10		
	February 3		
	January 27		
	January 20		
	January 3		
	January 6		
	January 4		
Year 2016			
General biological survey, vegetation community/ habitat type mapping	October 13		Stacy Nigro
	March 29		Erica Harris, Stacy Nigro
	March 22		
Rare plant	June 6		Amy Mattson
	April 15		
	April 6		Stacy Nigro
Coastal California gnatcatcher	April 22	Survey 3	Erica Harris
	April 14	Survey 2	Erica Harris
	March 31	Survey 1	Erica Harris
Wet season fairy shrimp survey	December 23		Jason Kurnow
	December 19		
	November 29		
	November 22		
Year 2013			
Wildlife hazard assessment survey	December 19		Erica Harris
	December 16		
	November 26		
	November 18		
Year 2008			
Dry season fairy shrimp survey	October 1		Cheri Boucher, Brenna Ogg[2]
Year 2006			
Wet season fairy shrimp survey	April 6		Stan Spencer[3]
	March 26		
Year 2005			
Dry season fairy shrimp survey	August 6		Chuck Black[4]

[1] All surveys conducted by HELIX biologists unless otherwise noted.
[2] RECON Environmental, Inc. biologists
[3] LSA biologist
[4] Ecological Restoration Service biologist

Table 2.2-2. Vernal Pools Within Project Site

Vernal Pool Identification Number	Acreage (square feet)
VP-1	0.0232 (1,011)
VP-2	0.0310 (1,350)
VP-3	0.0287 (1,252)
VP-4	0.0789 (3,436)
VP-5	0.0122 (531)
VP-6	0.0475 (2,069)
VP-7	0.0686 (2,988)
VP-8	0.0052 (227)
VP-9	0.0018 (77)
VP-10	0.0028 (122)
VP-11	0.0107 (466)
VP-12	0.0096 (418)
VP-13	0.0019 (83)
VP-14	0.0338 (1,472)
VP-15	0.0004 (18)
VP-16	0.0004 (16)
VP-17	0.0016 (70)
VP-18	0.0027 (118)
TOTAL	**0.3609 (15,724)**

[1] Rounded to the nearest 0.0001 acre.

Table 2.2-3. Vegetation Community Impacts[1]

Vegetation Community[2]	Existing within the Study Area ~~Project Site~~		IMPACTS[3]			
	Active Airport	Eastern Parcel	Inside PAMA/ Preserve	Take Authorized	Outside PAMA	Total Impacts
Vernal Pools (44000)	0.36	0	0	0.36	0	**0.36**
Diegan Coastal Sage Scrub (including disturbed) (32500)	10.1	0	0.6	2.5	<01[4]	**3.1**
Granitic Chamise Chaparral (37210)	0.4	0	0	0.2	0	**0.2**
Non-native Vegetation (11000)	1.8	0	0	0.3	0.3	**0.6**
Southern Maritime Chaparral (37C30)	0	9.8	0.3	0	0	**0.3**
Non-Native Grassland (42200)	0	4.3	0.2	0.1	0	**0.3**
Disturbed Habitat (11300)	62.2	4.4	0.2 ~~0.1~~	28.2	8.8	**37.2** **~~37.1~~**
Developed Land (12000)	156.2	0.3	0.1	15.0	56.3	**71.4**
TOTAL	**231.1**	**18.8**	**1.4** **~~0.8~~**	**46.66** **~~46.56~~**	**65.4**	**112.83** **~~112.76~~**

[1] Upland habitats are rounded to the nearest 0.1 acre, while wetland habitats are rounded to the nearest 0.01.
[2] Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008).
[3] Combined impacts from Active Airport and Eastern Parcel. All impacts are anticipated to be permanent. Impacts are categorized in this table based on Draft NC MSCP designations for reference.
[4] Impacts to coastal sage scrub outside of PAMA total 0.01 acre.

Table 2.2-4. Mitigation of Vegetation Communities (with adoption of Draft NC MSCP)[1]

Vegetation Community[2]	Study Areas[3] ~~Existing within the Project Site~~	Total Impacts	Mitigation Ratio	Mitigation
Vernal Pools (44000)	0.36	0.36	1:1	0.36
Diegan Coastal Sage Scrub (including disturbed) (32500)	10.1	3.1	2:1	6.2
Granitic Chamise Chaparral (37210)	0.4	0.2	2:1	0.4
Non-native Vegetation (11000)	1.8	0.6	n/a	0
Southern Maritime Chaparral (37C30)	9.8	0.3	3:1	0.9
Non-Native Grassland (42200)	4.3	0.3	0.5:1	0.15
Disturbed Habitat (11300)	66.6 ~~62.2~~	37.2 ~~37.1~~	n/a	0
Developed Land (12000)	156.5 ~~156.2~~	71.4	n/a	0
TOTAL	**248.5** **~~231.1~~**	**113.46** **~~112.76~~**		**7.91** **~~6.96~~**

[1] All impacts and mitigation are reflected in acres. Upland habitats are rounded to the nearest 0.1 acre, while wetland habitats are rounded to the nearest 0.01.
[2] Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008).
[3] Includes Active Airport and Eastern Parcel.

Table 2.2-5. Mitigation of Vegetation Communities (without adoption of Draft NC MSCP)[1]

Vegetation Community[2]	Study Areas[3] ~~Existing within the Project Site~~	Total Impacts	Mitigation Ratio	Mitigation
Vernal Pools (44000)	0.36	0.36	5:1	1.8
Diegan Coastal Sage Scrub (including disturbed) (32500)	10.1	3.1	2:1	6.2
Granitic Chamise Chaparral (37210)	0.4	0.2	0.5:1	0.1
Non-native Vegetation (11000)	1.8	0.6	n/a	0
Southern Maritime Chaparral (37C30)	9.8	0.3	3:1	0.9
Non-Native Grassland (42200)	4.3	0.3	0.5:1	0.15
Disturbed Habitat (11300)	66.6 ~~62.2~~	37.2 ~~37.1~~	n/a	0
Developed Land (12000)	156.5 ~~156.2~~	71.4	n/a	0
TOTAL	**248.5** **~~231.1~~**	**113.46** **~~112.76~~**		**9.15** **~~8.1~~**

[1] All impacts and mitigation are reflected in acres. Upland habitats are rounded to the nearest 0.1 acre, while wetland habitats are rounded to the nearest 0.01.
[2] Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008).
[3] Includes Active Airport and Eastern Parcel.

New References Cited within Revised Draft PEIR Chapter 2.2 Biological resources:

HELIX Environmental Planning, Inc.

2018 Biological Technical Report Addendum for the McClellan-Palomar Airport Master Plan: Impacts and Mitigation Summary of Eastern Parcel. May 31.