

## 5.6 BIOLOGICAL RESOURCES

This section describes existing biological conditions of the Project site and relevant off-site areas and evaluates the potential for impacts to biological resources due to implementation of the proposed project.

This EIR tiers from the Previous Environmental Review Documents, as described in Chapter 2.0, *Introduction*. The 2013 GPA/GDPA SEIR did not address biological resources but relies on analysis in the 2005 GPU EIR (EIR 05-01) and the 1993 Otay Ranch GDP Program EIR (EIR 90-01). Section 3.3, *Biological Resources*, of the Otay Ranch GDP Program EIR, analyzed biological resources impacts for the entire Otay Ranch site, including the Main Campus Property, and included mitigation that requires a more detailed examination as each SPA Plan is approved. The 1993 EIR also refers to the Resource Management Plan (RMP) that was under development at that time and provides that future projects would be subject to compliance with the RMP. The 2005 and 1993 analyses concluded that impacts to sensitive plant and animal species would be significant and unmitigable at the program level. Section 4.3, *Biological Resources*, of the 2001 SEIR for the Lake Property, evaluated biological resources impacts for the entire EastLake III SPA, including the Lake Property. Mitigation included requiring updated biological surveys and wetland delineations to be prepared prior to approval of detailed development plans for the Lake Property, as well as obtaining take authorization from either the City or state or federal agencies prior to any impacts on endangered species. The 2001 SEIR for the Lake Property concluded that implementation of the EastLake III SPA Plan would result in potentially significant but mitigable impacts regarding sensitive biological resources.

The biological resources discussions in this EIR are based on the Biological Technical Report, prepared by HELIX (July 2016), provided in Appendix E of this EIR. The technical report updates the applicable information contained in the SEIRs and includes updated mitigation measures that are equivalent to or more effective than measures included in the Previous Environmental Review Documents, based on current conditions in the Project site and its vicinity.

### 5.6.1 Existing Conditions

#### A. Regulatory Framework

##### 1. Federal

##### a. Clean Water Act

The Water Pollution Control Act, passed by Congress in 1948, authorized the Surgeon General of the Public Health Service to prepare comprehensive programs for eliminating or reducing the pollution of interstate waters and tributaries and improving the sanitary condition of surface and underground waters. The Act was later amended to become the Federal Water Pollution Control Act Amendments of 1972, commonly known as the CWA. The CWA was designed to restore and maintain the chemical, physical, and biological integrity of the waters of the U.S. (WUS) and gave the USEPA the authority to implement pollution control programs, including setting wastewater standards for industry and water quality standards for contaminants in surface waters. Each of the applicable CWA Sections is described below:

- **Section 303** requires states to identify surface waters that have been impaired. Under Section 303(d), states, territories, and authorized tribes are required to develop a list of water quality segments that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology.
- **Section 401** allows states to certify or deny federal permits or licenses that might result in a discharge to state waters, including wetlands. Pursuant to Section 401 of the federal CWA, the Regional Water Quality Control Board (RWQCB) regulates discharging waste, or proposing to discharge waste, within any region that could affect a “water of the state” (California Water Code, Section 13260(a)), pursuant to provisions of the Porter–Cologne Water Quality Control Act. Waters of the state are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (California Water Code, Section 13050(e)). A CWA Section 404 permit (described below) will only be issued by the U.S. Army Corps of Engineers (ACOE) following receipt of a CWA Section 401 Water Quality Certification from the RWQCB. If a CWA Section 404 permit is not required for the project, the RWQCB may still require a permit (i.e., Waste Discharge Requirement) for impacts to waters of the state under the Porter–Cologne Water Quality Control Act.
- **Section 402** establishes the National Pollutant Discharge Elimination System (NPDES) program to regulate both point source and nonpoint source discharges of pollutants to surface WUS. In California, the SWRCB and its RWQCBs administer the NPDES program and issue permits.
- **Section 404** of the CWA prohibits the discharge of any pollutants from a point source into navigable waters, except as allowed by permits issued under certain sections of the CWA. Pursuant to Section 404, the ACOE regulates the discharge of dredged and/or fill material into “waters of the United States.” The term “waters of the United States” defined as (1) all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) all interstate waters including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce; (4) all impoundments of waters otherwise defined as waters of the United States under the definition; (5) tributaries of waters identified in paragraphs (a) (1) through (4); and (6) wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1) through (6). (33 CFR 328.3(a))

The term “wetlands” (a subset of waters of the United States) is defined in 33 CFR 328.3(b) as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

The discharge of dredge or fill material into waters, including wetlands, requires authorization from ACOE prior to impacts. For impacts to wetlands or waters under

ACOE jurisdiction, either an Individual Permit or a Nationwide Permit (NWP) would be required in accordance with Section 404 of the CWA. If a project fails to comply with the terms and regulations specified in the NWP guidelines, then an Individual Permit to ACOE must be prepared.

**b. Endangered Species Act**

Administered by the USFWS, the federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) identified as 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 ESA. Section 9(a) of the ESA defines take as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” “Harm” and “harass” are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species’ natural behavioral patterns.

Sections 7 and 10(a) of the federal ESA regulate actions that could jeopardize endangered or threatened species. Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect listed species. A biological assessment is required for any major construction activity if it may affect listed species. In this case, take is authorized via a letter of biological opinion, issued by the USFWS for non-marine related listed species issues. A Section 7 consultation (formal or informal) is required when there is a nexus between federally listed species’ use of the site and impacts to USACE jurisdictional areas. Section 10(a) allows issuance of permits for incidental take of endangered or threatened species with preparation of a HCP. The term “incidental” applies if the taking of a listed species is incidental to, and not the purpose of, an otherwise lawful activity. An HCP demonstrating how the taking would be minimized and how steps taken would ensure the species’ survival must be submitted for issuance of Section 10(a) permits.

The USFWS identifies 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 habitat so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the federal ESA, all federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in destruction or adverse modification of the critical habitat.

**c. Migratory Bird Treaty Act**

All migratory bird species native to the United States or its territories are protected under the federal Migratory Bird Treaty Act (MBTA). 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 1 to August 31). In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

## 2. State

### a. Porter Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act provides for statewide coordination of water quality regulations. The Act established the California SWRCB as the statewide authority and nine separate RWQCBs to oversee smaller regional areas within the State. The Act authorizes the SWRCB to adopt, review, and revise policies for all waters of the State (including both surface and ground waters); and directs the RWQCBs to develop regional Basin Plans. Section 13170 of the California Water Code also authorizes the SWRCB to adopt water quality control plans on its own initiative. The Basin Plan for the San Diego Region is designed to preserve and enhance the quality of water resources in the San Diego region for the benefit of present and future generations. The purpose of the plan is to designate beneficial uses of the region's surface and ground waters, designate water quality objectives for the reasonable protection of those uses and establish an implementation plan to achieve the objectives.

### b. California Fish and Game Code

The CFG Code regulates the taking or possession of birds, mammals, fish, amphibians, and reptiles, as well as natural resources such as wetlands and waters of the State. It includes the California Endangered Species Act ([CESA] Sections 2050-2115) and Streambed Alteration Agreement regulations (Sections 1600- 1616), as well as provisions for legal hunting and fishing, and tribal agreements for activities involving take of native wildlife. The CFG Code also includes the Native Plant Protection Act ([NPPA] Sections 1900-1913), which directed CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." 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 the code or any regulation made pursuant thereto. Raptors (birds of prey) and owls and their active nests are protected by CFG Code Section 3503.5, which 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. In common practice, CDFW places timing restrictions on clearing of potential nesting habitat (e.g., vegetation), as well as restrictions on disturbances allowed near active raptor nests.

Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code designate certain species as "fully protected." Fully protected species, or parts thereof, may not be taken or possessed at any time ~~except as part of an approved Natural Community Conservation Plan (NCCP) that treats such species as "covered species," or in connection with statutory specified actions pursuant to the "Quantification Settlement Agreement" involving water transfer from the Imperial Irrigation District to the Metropolitan Water District of Southern California.~~ The California Fish and Game Commission may authorize the collecting of such species for necessary scientific research. Legally imported and fully protected species or parts thereof may be possessed under a permit issued by CDFW.

### c. California Environmental Quality Act

Although threatened and endangered species are protected by specific federal and state statutes, Section 15380(b) of the CEQA Guidelines provides that a species not listed on the federal or

state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after definitions in FESA and the section of the California Fish and Wildlife Code dealing with rare or endangered plants and animals. CEQA Guidelines Section 15380(b) requires public agencies to undertake environmental review to determine if a project would result in significant effects on species that are not listed by either the USFWS or CDFW (i.e., candidate species). Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective natural resource agencies have an opportunity to designate the species as protected, if warranted.

**d. California Endangered Species Act and Native Plant Protection Act**

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

The NPPA enacted a process by which plants are listed as rare or endangered. The NPPA regulates collection, transport, and commerce in plants that are listed. The California ESA follows the NPPA and covers both plants and animals determined to be endangered or threatened with extinction. Plants listed as rare under the NPPA are also designated as rare under the CESA.

**3. Local**

**a. Otay Ranch General Development Plan and Resource Management Plan**

The Main Campus Property of the Project site is part of the Otay Ranch GDP and RMP, which were approved by the City in 1993. The GDP contains conceptual development, circulation, and preservation plans. The RMP consists of two separate documents: the Phase 1 RMP identifies conservation areas within Otay Ranch and contains policies regarding species and habitat conservation and long-term management of the Otay Ranch Preserve (Preserve); and the Phase 2 RMP includes Ranch-wide studies and provides additional detail on conveyance, management, and funding of the Preserve. The Preserve provides CEQA mitigation for development proposed in the GDP, including the Main Campus Property of the Project site. Otay Ranch project designs must demonstrate conformance with the conservation goals and Preserve boundaries in the GDP and RMP. The Lake Property is not inside the boundary of the Otay Ranch planning area, and therefore is not covered by the GDP or RMP (see discussion below under Item C for habitat management for the Lake Property).

**b. City of Chula Vista Multiple Species Conservation Program Subarea Plan**

The Multiple Species Conservation Program (MSCP) is a long-term plan to mitigate for potential losses of covered species and their habitats due to direct, indirect, and cumulative impacts of urban growth in San Diego County. The MSCP is a subregional plan under the California Natural Community Conservation Planning Act of 1991 and is implemented through local subarea plans. The Chula Vista Subarea Plan was adopted in 2003 and implements the MSCP subregional preserve within the City of Chula Vista. Take authorization was granted to the City in January 2005, through the execution of an Implementing Agreement between the City and resource agencies. The MSCP Subarea Plan provides for the conservation of upland habitats and

covered species through Preserve design, regulation of impacts and uses, and management of the Preserve. Any project authorized by the City of Chula Vista must be in conformance with the Chula Vista Subarea Plan. Projects involving land use development for which hard-line preserve boundaries (100 percent Conservation Areas) have already been established, and for which conservation measures consistent with the MSCP Subregional Plan and Chula Vista Subarea Plan have been or will be specified as binding conditions of approval, are considered Covered Projects under the City's MSCP Subarea Plan. Development outside of a Covered Project is subject to the Habitat Loss and Incidental Take (HLIT) permit. Protocols and requirements for activities within and outside of the 100 percent Conservation Areas are described below.

#### MSCP Covered Projects (Main Campus Property)

Development of the Main Campus Property is considered a Covered Project under the MSCP Subarea Plan; however, the Lake Property is not included as a Covered Project. Therefore, the Otay Ranch RMP and its management studies, plans, and policies apply to the Main Campus Property only. In addition, the MSCP Subarea Plan includes the following conditions of coverage for the Project:

1. About 20.6 acres of disturbed area within Salt Creek will be restored/enhanced to Diegan coastal sage scrub. Prior to approval of a grading plan for the UID Project, a restoration/enhancement plan consistent with the guidelines in the Otay Ranch Coastal Sage Scrub Master Plan will be prepared;
2. Disturbance of coastal sage scrub within the development areas on the east side of Salt Creek will be subject to grading restrictions during coastal California gnatcatcher breeding season;
3. Any impacts from grading that encroach into habitat areas will be restored consistent with the guidelines in the Otay Ranch RMP; and,
4. All brush management activities will be conducted within the development areas and consistent with the requirements of the Otay Ranch RMP.

Take of covered species and habitat within development areas of Covered Projects will not require an HLIT permit. Both parcels are outside a 100 percent Conservation Area but proposed off-site impacts south of the Main Campus Property are within a 100 percent Conservation Area. Any portions of Covered Projects that are located within 100 percent Conservation Areas must be consistent with specific land uses within the Preserve, and are subject to the narrow endemic species policy and the Wetland Protection Program. Development outside the boundaries of the Otay Ranch planning area (i.e., the Lake Property and off-site impacts to the east of it) will be subject to the HLIT ordinance, which is described below.

#### Narrow Endemic Species Protection

Covered Projects provide protection for Narrow Endemic Species through consideration of Narrow Endemic Species in the preserve design for those projects. Narrow Endemic Species are protected within Development Areas and 100 percent Conservation Areas.

**Development Areas.** Take of Covered Species, including Narrow Endemic Species, for Development Areas within Covered Projects will be extended at the time of development approval. There are no limitations on impacts to Narrow Endemic Species within Development Areas of Covered Projects, other than those specified in project-specific management requirements or conditions for coverage. Only the Main Campus Property is within the Development Area of a Covered Project and included in the Preserve design of the Otay Ranch RMP. There would be no restrictions on impacts to narrow endemic species on the Main Campus Property; however, development on the Lake Property and all off-site development associated with both the Main Campus Property and the Lake Property would be subject to restrictions on impacts to narrow endemic species.

**100 Percent Conservation Areas.** Projects located within the 100 percent Conservation Areas of Covered Projects are limited to uses described in Sections 6.1 through 6.3 of the MSCP Subarea Plan. Impacts to Narrow Endemic Species from Planned and Future Facilities<sup>1</sup> located within the 100 percent Conservation Areas of Covered Projects must be avoided to the maximum extent practicable. Where impacts are demonstrated to be unavoidable, impacts will be limited to five percent of the total Narrow Endemic Species population in the project area. Unavoidable impacts to Narrow Endemic Species are subject to equivalency findings, limitations, and provisions of Section 5.2.3.6 of the MSCP Subarea Plan. If impacts exceed five percent of the Narrow Endemic Species population in the project area, the City must make a determination of biologically superior preservation consistent with Section 5.2.3.7 of the MSCP Subarea Plan. Regardless of the percent of impact to Narrow Endemic Species population, findings of equivalency and wildlife agency concurrence are required.

#### Special Conditions for MSCP-Covered Species

The MSCP includes species-specific special conditions for the 86 covered species identified as take authorized. Five MSCP-covered species were observed on the project site. Chula Vista MSCP Subarea Plan specific conditions for these four species are as follows:

- **San Diego barrel cactus.** Area-specific management directives must include measures to protect against edge effects and unauthorized collection, as well as fire management policies to protect against a too-frequent fire cycle.
- **Belding's orange-throated whiptail.** Area-specific management directives must address edge effects.
- **Northern harrier.** Area-specific management directives must manage agricultural and disturbed lands that become part of the preserve within 4 miles of nesting habitat to preserve foraging habitat, include an impact avoidance area at least 900 feet around active nests, and maintain winter foraging habitat in preserve areas including those in Otay Ranch east of Wueste Road.

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<sup>1</sup> "Planned Facilities" are roads and major infrastructure that have been planned for development through existing plans, and will be allowed to be constructed, operated, and maintained in the Preserve. "Future Facilities" are necessary to support planned development and had not been or could not be identified and/or located at the time the MSCP Subarea Plan was adopted. See below for additional details regarding Planned and Future Facilities.

- **Coastal California gnatcatcher.** The Otay Ranch RMP calls for restoration of contiguous or interconnected patches of coastal sage scrub. No clearing of occupied habitat in 100 percent Conservation Areas may occur between February 15 and August 15. Adjacency guidelines related to noise also apply.
- **Southern California rufous-crowned sparrow.** The Otay Ranch RMP calls for restoration of contiguous patches of coastal sage scrub and maritime succulent scrub.

#### MSCP Non-Covered Projects (Lake Property)

Development on the Lake Property and off-site drainage areas to the east would occur outside of a covered project and; therefore, actions associated with the Lake Property are subject to the City's HLIT ordinance. The HLIT ordinance establishes mitigation standards for biological resources and implements the City's MSCP Subarea Plan for development projects outside the Covered Projects category, as identified in the City's MSCP Subarea Plan. Provisions for protection of Narrow Endemic Species apply to all areas regulated by the HLIT ordinance. The HLIT ordinance calls for impacts to wetlands to be avoided and minimized to the maximum extent practicable and requires mitigation for all permanent impacts to wetlands and natural vegetation at ratios provided in the MSCP Subarea Plan.

#### **Narrow Endemic Species Protection**

**Development Areas.** Projects located within Development Areas outside of Covered Projects are limited to uses described in Sections 6.1 through 6.3 of the MSCP Subarea Plan. Impacts to Narrow Endemic Species from development outside of Covered Projects will be avoided to the maximum extent practicable. Where impacts are demonstrated to be unavoidable, impacts will be limited to 20 percent of the total Narrow Endemic Species population in the Project Area. Unavoidable impacts to Narrow Endemic Species are subject to equivalency findings, limitations, and provisions of Section 5.2.3.6 of the MSCP Subarea Plan. If impacts exceed 20 percent of the Narrow Endemic Species population in the project area, the City must make a determination of biologically superior preservation consistent with Section 5.2.3.7 of the MSCP Subarea Plan. Regardless of the percent of impact to Narrow Endemic Species population, findings of equivalency and wildlife agency concurrence are required.

On-site impacts proposed on the Lake Property, and east of it, are in a development area outside of a Covered Project. These impacts would be designed to avoid Narrow Endemic Species that might be present in those areas to the maximum extent practicable. Quantification of the precise extent of potential impacts to Narrow Endemic Species in the development area would require focused surveys in those areas.

**100 Percent Conservation Areas.** Projects located within the 100 percent Conservation Areas outside of Covered Projects are limited to uses described in Sections 6.1 through 6.3 of the MSCP Subarea Plan. Impacts to Narrow Endemic Species from Planned and Future Facilities located within the 100 percent Conservation Areas will be avoided to the maximum extent practicable. Where impacts are demonstrated to be unavoidable, impacts will be limited to 5 percent of the total Narrow Endemic Species population in the Project Area. Unavoidable impacts to Narrow Endemic Species are subject to equivalency findings, limitations, and

provisions of Section 5.2.3.6 of the MSCP Subarea Plan. If impacts exceed five percent of the Narrow Endemic Species population in the project area, the City must make a determination of biologically superior preservation consistent with Section 5.2.3.7 of the MSCP Subarea Plan. Regardless of the percent of impact to Narrow Endemic Species population, findings of equivalency and wildlife agency concurrence are required. On-site impacts proposed on the Main Campus Property are in the Development Area of a Covered Project and are not limited with regard to Narrow Endemic Species.

Off-site impacts proposed in the Preserve south of the Main Campus Property are in 100 percent Conservation Areas within a Covered Project. These impacts would be designed to avoid Narrow Endemic Species that might be present in those areas to the maximum extent practicable. Quantification of the precise extent of potential impacts to Narrow Endemic Species in the 100 percent Conservation Area would require focused surveys in those areas.

Off-site impacts proposed in the Preserve north and southwest of the Lake Property are in 100 percent Conservation Areas outside of a Covered Project and these impacts would be designed to avoid Narrow Endemic Species that might be present in those areas to the maximum extent practicable. Quantification of the precise extent of potential impacts to Narrow Endemic Species in the 100 percent Conservation Area would require focused surveys in those areas.

#### Wetland Protection Program

Pursuant to this section of the City's MSCP Subarea Plan, wetlands protection will be provided throughout the Subarea through individual project entitlement reviews and the associated CEQA process. The process will provide an evaluation of wetlands avoidance and minimization and will ensure compensatory mitigation within the City's Subarea or Chula Vista Planning Area for unavoidable impacts to wetlands, thereby achieving no overall net loss of wetlands. As part of the CEQA review, development projects which contain wetlands will be required to demonstrate that impacts to wetlands have been avoided to the greatest extent practicable and, where impacts will nonetheless occur, that such impacts have been minimized. For unavoidable impacts to wetlands, the City will apply the wetlands mitigation ratios identified in Table 5-6 of the City's MSCP Subarea Plan. The wetlands mitigation ratios provide a standard for each habitat type but may be adjusted depending on the functions and values of both the impacted wetlands as well as the wetlands mitigation proposed by the project. The City may also consider the wetland habitat type(s) being impacted and utilized for mitigation in establishing whether these standards have been met.

#### Planned Facilities

Planned Facilities are roads and major infrastructure that have been planned for development through existing plans, and will be allowed to be constructed, operated, and maintained in the Preserve. These Planned Facilities are anticipated to be required to serve development in areas authorized for take. Specific alignments of Planned Facilities will be determined at the time of facility alignment approval and will include appropriate environmental review pursuant to CEQA. Siting of Planned Facilities will be subject to Facilities Siting Criteria in Section 6.3.3.4 of the MSCP Subarea Plan. No mitigation for take of Covered Species resulting from the

implementation of Planned Facilities is required, beyond implementation of the MSCP Subarea Plan.

Figure 6-3 of the MSCP Subarea Plan depicts a planned sewer line connecting the Main Campus Property to the Salt Creek Interceptor in the Preserve and another planned sewer connection to the east toward the Lake Property. Thus, both sewer connections qualify as Planned Facilities in the Preserve and therefore would not require additional avoidance or mitigation for impacts to Covered Species. Implementation criteria for planned sewer lines associated with the Salt Creek Interceptor include conditions in the Otay Ranch RMP Infrastructure Plan. New sewer access roads in Salt Creek are limited to 12 feet wide in a 20-foot disturbance corridor.

### Future Facilities

Future Facilities are necessary to support planned development and had not been or could not be identified and/or located at the time the MSCP Subarea Plan was adopted. Permanent impacts to covered habitats from Future Facilities in the Preserve may not exceed a cumulative total of 50 acres without concurrence from the wildlife agencies. No single Future Facility in the Preserve may permanently impact more than 2 acres of covered habitat without concurrence from the wildlife agencies and mitigation. Temporary impacts from Future Facilities will not be subject to these limits, but all temporary impacts must be revegetated pursuant to Section 6.3.3.5 of the MSCP Subarea Plan. All Future Facilities are subject to the Narrow Endemic Species policy described above including equivalency findings for all Narrow Endemic Species impacts, and to Facilities Siting Criteria in Section 6.3.3.4 of the MSCP Subarea Plan. Figure 6-2 of the MSCP Subarea Plan depicts a “future detention basin” in the Preserve near Salt Creek, south of the Main Campus Property of the UID project site. The proposed off-site detention basin corresponds to this facility, although the precise location of the proposed detention basin is undetermined. Siting of this Future Facility would be in accordance with the Siting Criteria in Section 6.3.3.4 of the MSCP Subarea Plan.

Off-site impacts from drainage facilities and utility lines between the Lake Property and Lower Otay Lake would not be located in the Preserve, and therefore, not subject to Future Facilities area limits or Siting Criteria. A portion of the sewer line for the Lake Property is also located outside of the Preserve. These proposed impacts would require an HLIT permit and findings of consistency.

Off-site impacts from drainage facilities north of the Lake Property are located within the Preserve and would be subject to Future Facilities limits and Siting Criteria.

### Preserve Siting Criteria

The Main Campus Property is located within the area designated for development under the Chula Vista MSCP Subarea Plan, with the exception of the off-site utilities that would traverse through designated Preserve areas. The off-site utilities include the construction of a storm drain pipeline, detention basin, and sewer line within the Preserve. Land use compatibility with the Preserve area is further described in Section 6.0, *Land Use Consideration in the Preserve*, of the Chula Vista MSCP Subarea Plan. Project components located within the Preserve are subject to the Facilities Siting Criteria contained in Section 6.3.3.4 of the MSCP Subarea Plan. Compliance

with the Facilities Siting Criteria ensures that impacts to the Preserve have been minimized to the maximum extent practical. Although not in the Preserve, the Lake Property is in an area designated for development under the Chula Vista MSCP Subarea Plan, as noted above.

### Adjacency Management Issues

The City's MSCP Subarea Plan addresses indirect impacts to the 100 percent Conservation Areas from adjacent development in Section 7.5.2, *Adjacency Management Issues*. This section provides guidelines for land uses adjacent to the Preserve in order to minimize indirect impacts to the sensitive resources contained therein. Because the Main Campus Property borders the Preserve on the east and south, and the Lake Property is surrounded by the Preserve on the north and west, the following guidelines would be applicable to the project, in addition to preparation of an Edge Plan. The following issues must be addressed to comply with the required Adjacency Management Issues of the City's MSCP Subarea Plan for areas within 100 percent Conservation Areas:

#### **Drainage/Toxics**

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 Preserve. Urban runoff and drainage plans must create the least impact practicable for all development adjacent to the Preserve. All development projects will be required to meet NPDES standards and incorporate BMPs, as defined by the City of Chula Vista's Standard Urban Storm Mitigation Plan (SUSMP).

Pursuant to the San Diego RWQCB Municipal Permit, and the City of Chula Vista Storm Water Management Standards Requirements Manual, which includes the SUSMP, all development and redevelopment located within or directly adjacent to or discharging directly to an environmentally sensitive area (as defined in the Municipal Permit and the Local SUSMP), are required to implement site design, source control, and treatment control BMPs.

#### **Lighting**

Lighting of all developed areas adjacent to the Preserve should be directed away from the Preserve, wherever feasible, and consistent with public safety. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the Preserve and sensitive species from night lighting. Consideration should be given to the use of low-pressure sodium lighting.

#### **Noise**

Uses in or adjacent to the Preserve should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas and any other use that may introduce noises that could impact or interfere with wildlife utilization of the Preserve, although none are currently anticipated. Excessively noisy uses or activities adjacent to breeding areas, including grading activities, must incorporate noise reduction measures or be curtailed during the breeding season of sensitive bird species, consistent with Table 3-5 of the MSCP Subarea Plan.

## **Invasives**

No invasive non-native plant species shall be introduced into areas immediately adjacent to the Preserve. All open space slopes immediately adjacent to the Preserve should be planted with native species that reflect the adjacent native habitat. The plant list contained in Appendix L of the City's MSCP Subarea Plan must be reviewed and used to the maximum extent practicable when developing landscaping plans in areas adjacent to the Preserve.

## **Buffers**

There shall be no requirements for buffers outside the Preserve, except as may be required for wetlands pursuant to federal and/or state permits, or by local agency mitigation conditions. All open space requirements for the Preserve shall be incorporated into the Preserve. Fuel modification zones must be consistent with Section 7.4.4 of this Subarea Plan.

### **c. City of San Diego Multi-Habitat Planning Area**

Proposed off-site impacts associated with the Lake Property include very limited areas east of Wueste Road, inside the City of San Diego Multi-Habitat Planning Area (MHPA), that are planned for several storm drain outfalls. Most of the MHPA in the vicinity of the proposed off-site impacts is currently developed as a parking lot and boat launching facility, though some of the off-site impacts are located in areas of Diegan coastal sage scrub adjacent to the developed facilities. Utilities are an approved use inside the MHPA when designed to minimize habitat fragmentation and environmental impacts. The project minimizes habitat fragmentation and environmental impacts within the MHPA consistent with the City of San Diego MSCP Subarea Plan by locating the storm drain outfalls within and adjacent to the paved and landscaped parking lot and driveway. Because this area is within the City of Chula Vista jurisdiction, impacts will be mitigated according to the City of Chula Vista HLIT Ordinance.

## **B. Biological Surveys**

The following sections summarize information regarding methods and results of the biological surveys that were conducted for the UID on the Main Campus Property and Lake Property. Additional information and detail regarding methodology and survey methods and results are provided as Appendix E.

### **1. Methods**

#### **a. On-Site Evaluation**

Biological surveys have been conducted for the proposed project over a three-year period by HELIX between 2013 and 2016. An initial general biological survey was conducted in March 2013, and an updated general biological survey was conducted in March 2014 in order to verify conditions had not changed substantially since the March 2013 survey. A third updated biological survey, including spring rare plants and burrowing owl survey #1, was conducted in April 2016. Focused surveys for burrowing owl and summer-blooming rare plants were completed in summer 2016, and the results of the 2013 and 2014 surveys were field verified. Vegetation communities were mapped and classified according to the Holland Vegetation

Classification (1986), Baldwin et al. (2012) for plants, Crother (2001) for reptiles and amphibians, the American Ornithologists' Union (2013) for birds, and Jones et al. (1997) for mammals. All plant and animal species were identified in the field or later in the laboratory. Animal species were identified by direct observation or indirectly by detection of calls, scat, tracks, or burrows.

## **b. Off-Site Evaluation**

The evaluation of off-site facilities is based on interpretation of aerial imagery, a biological survey by HELIX in 2016, and information provided by others (Dudek 2009, 2014, RECON 2015). This included vegetation mapping, habitat assessment for special-status species, and assessment of potential jurisdictional waters and wetlands. Rare plant surveys and protocol surveys for burrowing owl were also conducted within suitable habitat that occurs within off-site areas. The proposed locations of off-site facilities have been sited in the least environmentally sensitive areas based on the best survey data available and following the City's MSCP Planned and Future Facility siting criteria. Although a full list of focused biological surveys was not completed in support of the off-site evaluation, sufficient information is provided by the general biological survey data and information provided by others to complete the analysis.

## **2. Results**

### **a. Vegetation Communities/Habitats**

As discussed above, vegetation communities were mapped and classified according to the Holland Vegetation Classification (1986), Baldwin et al. (2012). Ten native or naturalized vegetation communities occur in the development area, as shown in Figures 5.6-1a and 5.6-1b (*Vegetation and Sensitive Resources: Main Campus Property* and *Vegetation and Sensitive Resources: Lake Property*, respectively) including: (1) agriculture (fallow), (2) Diegan coastal sage scrub (including disturbed phase), (3) Diegan coastal sage scrub/non-native grassland, (4) Eucalyptus woodland, (5) freshwater marsh, (6) maritime succulent scrub, (7) mule fat scrub, (8) non-native grassland, (9) southern willow scrub, and (10) vernal pool. The quantity of each vegetation community is shown on Table 5.6-1, *Existing Vegetation Communities*, and includes disturbed habitat and developed lands within the project site. A brief description of the observed vegetation communities within the project site is provided below.

**Agriculture.** Extensive agriculture is comprised of areas that are or were recently plowed or disked, with evidence of past or present agricultural practices. The areas are characterized by species typical of dry farming or row crops. The areas often occur in floodplains or upland areas with high soil quality. Approximately 157.1 acres of agriculture is mapped within the Main Campus Property, and 4.0 acres in the off-site impact area.

**Diegan Coastal Sage Scrub.** Diegan coastal sage scrub occurs on xeric sites and steep slopes. It consists mostly of low-growing shrubs, many of which are drought-deciduous. Characteristic species include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), lemonadeberry (*Rhus integrifolia*), and laurel sumac (*Malosma laurina*). Almost the entire Lake Property and the southeast-facing slopes of the Main Campus Property are covered by Diegan coastal sage scrub. Where Diegan coastal sage scrub is

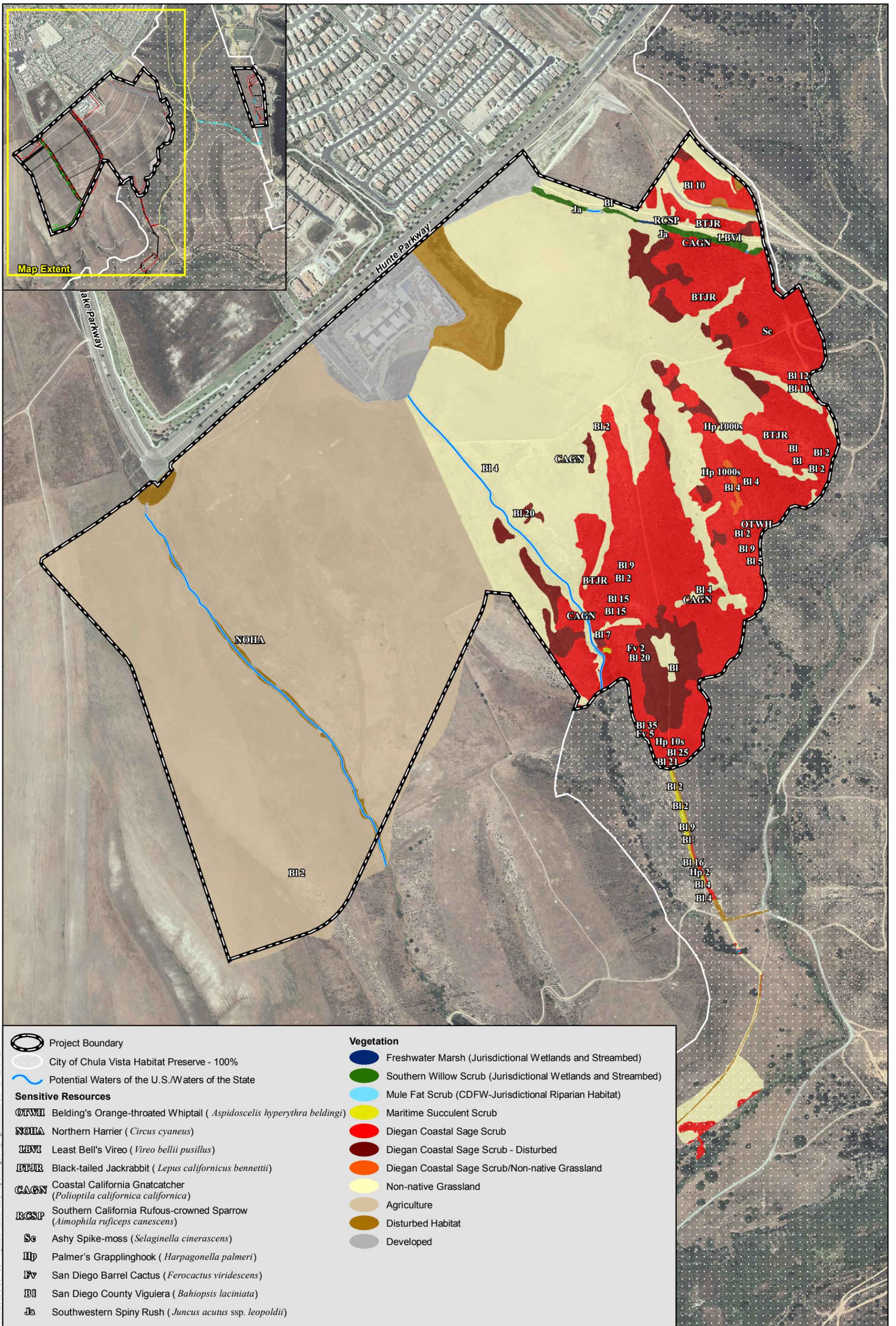
heavily invaded by non-native species, it is considered a disturbed phase that provides habitat value much lower than that typical of Tier II uplands. These areas occur along roads and in places where soil disturbance is more recent, facilitating invasion by non-native grasses and forbs such as black mustard (*Brassica nigra*) and filaree (*Erodium* spp.) found in nearby non-native grassland. A total of 106.06 acres of Diegan coastal sage scrub, including disturbed, occurs on the project site, and an additional 2.02 acres (0.81 acre in the off-site impact area for the Main Campus Property and 1.21 acres in the off-site impact area for the Lake Property).

**Diegan Coastal Sage Scrub/Non-native Grassland.** Diegan coastal sage scrub/non-native grassland includes areas that have a relatively equal cover of Diegan coastal sage scrub – (and non-native grassland) associated species. The habitat is characterized by a sparse arrangement of California sagebrush and California buckwheat shrubs with an expansive understory of non-native grasses and forbs. Diegan coastal sage scrub /nonnative grassland covers 0.37 acre of the project site on the Main Campus Property.

**Eucalyptus Woodland.** Eucalyptus woodland is dominated by gum trees (*Eucalyptus* spp.), introduced species that have often been planted for wind blocking, ornamental, and hardwood production purposes. Most groves are monotypic with the most common species being either blue gum (*Eucalyptus globulus*) or red gum (*E. camaldulensis* ssp. *obtusata*). The understory within well-established groves is usually very sparse due to the closed canopy and allelopathic nature of the abundant leaf and bark litter. The sparse understory offers only limited wildlife habitat; however, these woodlands provide excellent nesting sites for a variety of raptors, including red-shouldered hawks (*Buteo lineatus*). During winter migrations, a large variety of warblers may be found feeding on the insects that are attracted to the eucalyptus flowers. Eucalyptus trees with active raptor nests are considered sensitive. Eucalyptus woodland occupies 0.4 acre in the Lake Property.

**Table 5.6-1 EXISTING VEGETATION COMMUNITIES**

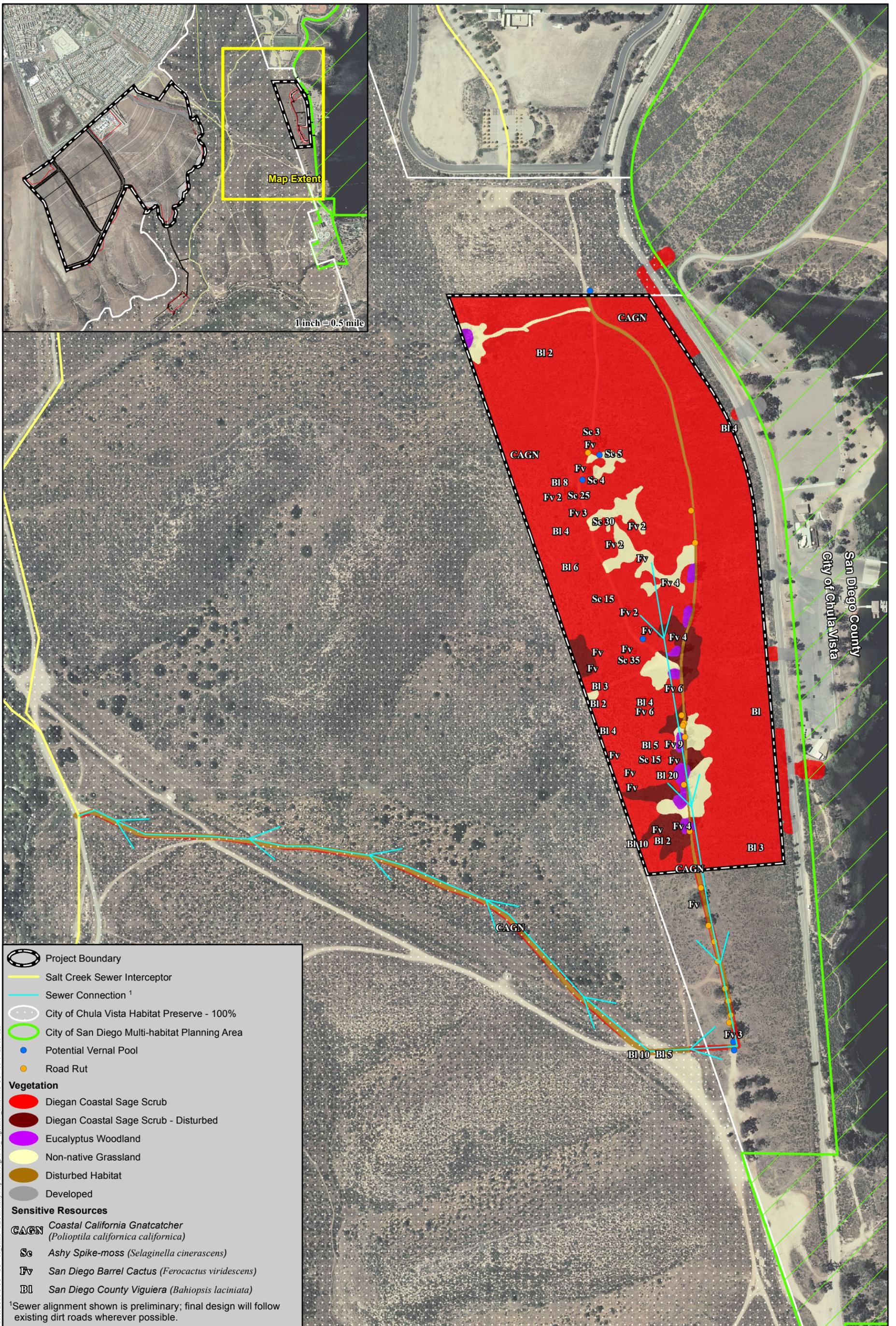
Community	Main Campus Property <sup>3</sup>	Lake Property <sup>4</sup>	Total
<b>On-site<sup>2</sup></b>			
Agriculture (fallow)	157.1	--	157.1
Developed	15.90	--	15.90
Diegan Coastal Sage Scrub/Non-native Grassland	0.37	--	0.37
Diegan Coastal Sage Scrub <sup>‡</sup>	78.29	27.77	106.06
Disturbed Land	9.80	0.40	10.20
Eucalyptus Woodland	--	0.40	0.40
Freshwater Marsh	0.05	--	0.05
Maritime Succulent Scrub	0.04	--	0.04
Mule Fat Scrub	0.08	--	0.08
Non-native Grassland	90.07	1.93	92.00
Southern Willow Scrub	1.12	--	1.12
Vernal Pool	--	<0.01	<0.01
<i>Subtotal On-site</i>	<b>352.76</b>	<b>30.52</b>	<b>383.28</b>



Source: HELIX 2016

## Vegetation and Sensitive Resources: Main Campus Property

UNIVERSITY INNOVATION DISTRICT EIR



Source: HELIX 2016

## Vegetation and Sensitive Resources: Lake Property

UNIVERSITY INNOVATION DISTRICT EIR

Table 5.6-1 (cont.) EXISTING VEGETATION COMMUNITIES

Community	Main Campus Property <sup>3</sup>	Lake Property <sup>4</sup>	Total
<b>Off-site<sup>2</sup></b>			
Agriculture (fallow) <sup>1</sup>	4.00	--	4.00
Developed	<0.1	0.30	0.30
Diegan Coastal Sage Scrub/Non-native Grassland	--	--	--
Diegan Coastal Sage Scrub <sup>‡</sup>	0.81	1.21	2.02
Disturbed Land	0.90	1.10	2.0
Eucalyptus Woodland	--	--	--
Freshwater Marsh	--	--	--
<b>Off-site<sup>2</sup> (cont.)</b>			
Maritime Succulent Scrub	0.34	--	0.34
Mule Fat Scrub	--	--	--
Non-native Grassland	3.71	--	3.71
Southern Willow Scrub	--	--	--
Vernal Pool	--	--	--
<i>Subtotal Off-site</i>	<b>9.70</b>	<b>2.63</b>	<b>12.33</b>
<b>TOTAL</b>	<b>362.46</b>	<b>33.15</b>	<b>395.61</b>

‡ Includes disturbed phase.

<sup>1</sup> Inside the Development Area of the Village 10 SPA.

<sup>2</sup> Non-sensitive acreage is rounded to 0.1; sensitive acreage is rounded to 0.01. Totals may differ due to rounding.

<sup>3</sup> Inclusive of offsite sewer laterals, access roads, trails, drainage and water quality facilities.

<sup>4</sup> Inclusive of offsite sewer laterals, access roads, drainage and water quality facilities.

**Freshwater Marsh.** Coastal and valley freshwater marsh is dominated by perennial, emergent monocots, 5 to 13 feet tall, forming incomplete to completely closed canopies. This vegetation type occurs along the coast and in coastal valleys near river mouths and around the margins of lakes and springs, freshwater or brackish marshes. These areas are semi- or permanently flooded yet lack a significant current. Dominant species include cattails (*Typha* spp.) and bulrushes (*Schoenoplectus* spp.), along with umbrella sedges (*Cyperus* spp.), rushes (*Juncus* spp.), and spike-sedge (*Eleocharis* spp.). Freshwater marsh on the site occurs in small patches along the creek formed by the storm drain outflow east of the High Tech K-12 School, near the northeast corner of the project site. These patches are dominated by cattail and sedge and comprise 0.05 acre on site.

**Maritime Succulent Scrub.** Maritime succulent scrub is a low open scrub community that is dominated by a mixture of stem and leaf succulent species and drought deciduous species that also occur within sage scrub communities. This vegetation community occurs on thin, rocky or sandy soils, on steep slopes of coastal headlands and bluffs. Maritime succulent scrub is restricted to within a few miles of the coast from about Torrey Pines to Baja California and on San Clemente and Santa Catalina islands. The dominant species typically found within this vegetation community include coast barrel cactus (*Ferocactus viridescens*), velvet cactus (*Bergerocactus emoryi*), prickly pear cactus (*Opuntia littoralis*), cliff spurge (*Euphorbia misera*), dudleya (*Dudleya* spp.), desert thorn (*Lycium californicum*), and California encelia (*Encelia californica*). Maritime succulent scrub on the site consists of dense patches of coastal cholla (*Cylindropuntia prolifera*) surrounded by Diegan coastal sage scrub on west-facing slopes of the Main Campus Property and covers 0.04 acre on site and 0.34 in the off-site impact area.

**Mule Fat Scrub.** Mule fat scrub is a depauperate, shrubby riparian scrub community dominated by mule fat and interspersed with small willows. This vegetation community occurs along intermittent stream channels with a fairly coarse substrate and moderate depth to the water table. This early seral (intermediate) community is maintained by frequent flooding, the absence of which would lead to a cottonwood or sycamore dominated riparian woodland or forest. Mule fat scrub on the site occurs as two small patches in the seasonal watercourse that drains the center of the site and the High Tech K-12 School campus. These patches are located in the canyon bottom, surrounded by non-native grassland and Diegan coastal sage scrub, and cover 0.08 acre on the site.

**Non-native Grassland.** Non-native grassland includes areas dominated by a dense to sparse cover of annual grasses and can include native forbs. Common species in San Diego are oats (*Avena* spp.), brome grasses (*Bromus* spp.), black mustard, and filaree. Non-native grassland usually occurs on fine soils that are wet in winter and dry in summer. Non-native grassland covers the majority of the Main Campus Property, especially in the west and north, while it occurs in pockets along roads in the Lake Property. The total area of non-native grassland within the project site is 92.00 acres, and 3.71 acres in the off-site impact area.

**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*), and with scattered emergent cottonwood (*Populus fremontii*) and western sycamore (*Platanus racemosa*) trees. This vegetation community occurs on loose, sandy or fine gravelly alluvium deposited near stream channels during flood flows. Frequent flooding maintains this early seral community, preventing succession to a riparian woodland or forest. Southern willow scrub on the project site occurs along the creek formed by the storm drain east of the High Tech K-12 School and covers 1.12 acres on site.

**Vernal Pool.** Vernal pools are a highly specialized habitat supporting a unique flora and fauna. Natural vernal pools are normally associated with two important physical conditions: a subsurface hardpan or claypan that inhibits the downward percolation of water and 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 depressions gradually evaporates with the passing of the rainy season, creating centripetal gradients of water availability in the soil and solute concentration in the water. A temporal succession of plant species occurs at the receding pool margins, depending upon the physical and chemical microenvironmental characteristics of the pool.

Several ephemeral basins were identified in the Lake Property and off-site sewer alignment for the Lake Property during HELIX's surveys. Six of the basins in the western half of the Lake Property and off-site sewer alignment for the Lake Property contained vernal pool indicator and associated plant species during the 2016 survey, including slender woolly-heads (*Psilocarphus tenellus*), adobe popcornflower (*Plagiobothrys acanthocarpus*), toad rush (*Juncus bufonius*), and grass poly (*Lythrum hyssopifolia*). Given the observation of vernal pool indicators, these six basins are considered to be potential vernal pools. The remaining ephemeral basins are in a dirt road in the eastern half of the Lake Property and off-site sewer alignment for the Lake Property and contained no vegetation at the time of the surveys. These ruts contained mud or standing

water remaining from heavy rains. Given the lack of vernal pool indicators, these basins are better classified as road ruts.

**Disturbed Land.** Disturbed land is highly disturbed land that retains a soil substrate. If it is vegetated, it supports an assemblage of almost exclusively non-native, weedy, upland species that colonize after human disturbance. There is no recognizable native or naturalized vegetation association, and characteristic species vary considerably depending on local colonization potential. Disturbed land on the project site includes severely eroded ground in a creek formed by a storm drain outflow at the end of Eastlake Parkway, and a large area north and east of the High Tech K-12 School. The total area of disturbed land within the project site is 10.2 acres, and 2.0 acres in the off-site impact area.

**Developed.** Developed land is land that has been built upon, or physically altered such that it no longer naturally supports vegetation. Developed land includes buildings, pavement, unpaved roads and hardscape, and irrigated landscaping. Developed land on the project site includes the High Tech K-12 School campus and surrounding landscaped areas, landscaped manufactured slopes near the storm drain outfall east of the High Tech K-12 School, and the concrete and rip rap storm drain outflow at the end of Eastlake Parkway. The total area of developed land within the project site is 15.9 acres, and 0.3 acre in the off-site impact area.

## b. Wildlife

Bird species that were observed within the project area include red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus*), Anna's hummingbird (*Calypte anna*), selasphorus hummingbird (*Selasphorus* sp.), killdeer (*Charadrius vociferus*), mourning dove (*Zenaida macroura*), American kestrel (*Falco sparverius*), California quail (*Callipepla californica*), bushtit (*Psaltriparus minimus*), common raven (*Corvus corax*), rufous-crowned sparrow (*Aimophila ruficeps*) grasshopper sparrow (*Ammodramus savanarrum*), song sparrow (*Melospiza melodia*), savannah sparrow (*Passerculus sandwichensis*), California towhee (*Pipilo crissalis*), white-crowned sparrow (*Zonotrichia leucophrys*), house finch (*Carpodacus mexicanus*), lesser goldfinch (*Spinus psaltria*), cliff swallow (*Petrochelidon pyrrhonota*), red-winged blackbird (*Agelaius phoeniceus*), hooded oriole (*Icterus cucullatus*), western meadowlark (*Sturnella neglecta*), northern mockingbird (*Mimus polyglottos*), California thrasher (*Toxostoma redivivum*), common yellowthroat (*Geothlypis trichas*), house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), wrenit (*Chamaea fasciata*), coastal California gnatcatcher (*Polioptila californica californica*), black phoebe (*Sayornis nigricans*), say's phoebe (*Sayornis saya*), western kingbird (*Tyrannus verticalis*) Cassin's kingbird (*Tyrannus vociferans*), least Bell's vireo (*Vireo bellii pusillus*), acorn woodpecker (*Melanerpes formicivorus*), and barn owl (*Tyto alba*). Protocol burrowing owl surveys conducted in summer 2016 were negative and the project site is considered unoccupied by the burrowing owl.

Mammal species detected in the project area include coyote (*Canis latrans*), California ground squirrel (*Spermophilus beecheyi nudipes*), desert cottontail (*Sylvilagus audubonii*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). Reptiles that were on the project site include gopher snake (*Pituophis catenifer*), western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), Belding's orange-throated whiptail (*Aspidoscelis*

hyperythra beldingi), San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), and western diamondback (*Crotalus atrox*).

### c. Wildlife Movement

Terms such as “wildlife corridors,” “linkages,” “crossings,” and “travel routes” are used to describe physical connections that allow wildlife to move between patches of suitable habitat in undisturbed landscapes as well as environments fragmented by urban development. To facilitate the discussion of wildlife movement in this analysis, these terms are further defined below.

Wildlife corridors link areas of suitable habitat that are otherwise separated by areas of non-suitable habitat such as rugged terrain, changes in vegetation, or human disturbance. Wildlife corridors are essential to the regional ecology of a species because they provide avenues of genetic exchange and allow animals to access alternative territories as dictated by fluctuating population densities. Fragmentation of open space areas by urbanization creates “islands” of wildlife habitat that are more or less isolated from each other. In the absence of habitat linkages that allow movement between habitat islands, studies have concluded that some wildlife species, especially the larger and more mobile mammals, would not persist over time because fragmentation limits infusion of new individuals and erodes genetic diversity. Corridors mitigate the effects of this fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) that could lead to local extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and shelter. Wildlife corridors are typically relatively small, linear habitats that connect two or more habitat patches that would otherwise be fragmented or isolated from one another.

Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitates movement while in the corridor. Larger, landscape-level corridors (often referred to as “habitat or landscape linkages”) can provide both transitory and resident habitat for a variety of species. Although it is commonly used as a synonym for a wildlife corridor, a habitat linkage refers to a more substantial, or wider, land connection between two habitat areas. Habitat linkages allow for the periodic exchange of animals between habitat areas, which is essential to maintain adequate gene pools. This linkage is most notable among populations of medium-sized and larger animals.

A travel route is usually a landscape feature (such as a ridgeline, drainage, canyon, or riparian corridor) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another. It provides adequate food, water, or cover for individuals moving between habitat areas and provides a relatively direct link between target habitat areas. Wildlife crossings are small, narrow areas that are relatively short in length. They allow wildlife to bypass an obstacle or barrier. Crossings typically are manmade and include culverts, underpasses, drainage pipes, bridges, and tunnels to provide access past roads, highways,

pipelines, or other physical obstacles. Wildlife crossings often represent “choke points” along a movement corridor.

Section 3.1.5.4 of the MSCP Subarea Plan analyzed the UID SPA Plan and concluded that the UID as defined in the MSCP Subarea Plan provides important wildlife movement features in the form of a connection between Preserve lands in Salt Creek and Lower Otay Reservoir, and enhanced connection of Preserve lands in Salt Creek to the Otay River Valley. The connection to Lower Otay Reservoir consisted of an open space corridor across the northern edge of the Lake Property, separating it from the Olympic Training Center to the north. This corridor connects to an archipelago of Diegan coastal sage scrub habitat that reaches to Upper Otay Lake and open space to the north and east. Improved connection of Salt Creek to the Otay River Valley comes from the elimination of an originally planned active recreation area in the eastern Otay River Valley and the elimination of an extension of Alta Road across Salt Creek and the Otay River. A subsequent revision analyzed in the 2014 Otay Ranch University Villages EIR further improved open space connectivity by providing a second Preserve connection south of the Lake Property.

### **3. *Jurisdictional Delineation Results***

The location of mapped wetland areas is shown in Figures 5.6-1a and 5.6-1b. As shown, two wetland habitat types associated with one of the three unnamed drainage features occur on the Main Campus Property. Freshwater marsh and southern willow scrub occur along the northernmost drainage feature on the Main Campus Property, which was formed by the storm drain outflow east of the High Tech K-12 School. This outflow occurs across Hunte Parkway from the end of Discovery Falls Drive, and drains Otay Ranch Village 11 development north of Hunte Parkway. The drainage feature flows southeast across the northern end of the project site, eventually joining Salt Creek. The drainage is a man-made engineered channel constructed as part of Village 11 development. Due to the presence of an ordinary high water mark (OHWM), stream bed and bank, and apparent connectivity to Salt Creek, the northernmost drainage feature and associated wetland habitat represent potential jurisdictional waters and wetlands. A drainage feature in the middle of the Main Campus Property runs south from High Tech K-12 School to Salt Creek and exhibits intermittent signs of OHWM. Flow in this channel also results from an engineered storm drain outfall, but the channel is considered jurisdictional streambed because of OHWM and connectivity to Salt Creek. This drainage continues south of the Main Campus Property and crosses the project’s off-site storm water conveyance line. A patch of mule fat scrub adjacent to this channel is considered State-jurisdictional riparian vegetation. Another drainage channel flows across the western portion of the Main Campus Property from the end of Eastlake Parkway to the Otay River and exhibits an OHWM. Flow in this channel is also the result of an engineered storm drain outfall. This channel supports no riparian vegetation but is considered a jurisdictional streambed because of an OHWM and connectivity to the Otay River.

In addition, six potential vernal pools, which contain vernal pool indicator flora, occur in and beside dirt roads in the Lake Property and off-site sewer alignment for the Lake Property. The remaining ephemeral pools are entirely within ruts and areas lacking vernal pool indicators. Road ruts that retain water for a period after rain might provide habitat for sensitive species of fairy shrimp despite not supporting vernal pool indicator plant species. Additional road ruts were observed along the off-site sewer alignment for the Lake Property in 2016. Unvegetated road ruts would not be considered jurisdictional wetlands, even if they did support fairy shrimp.

#### 4. Sensitive Biological Resources

The following discussion summarizes the present, or potentially present, sensitive vegetation communities, plant species, and wildlife species within the on-site and off-site project areas. Table 5.6-2, *Summary of CNPS List, Global, and State Sensitivity Ratings*, provides a summary of California Native Plant Society (CNPS), global and state biological resource sensitivity rankings used to describe the sensitivity of these resources.

##### a. Sensitive Vegetation Communities

Sensitive vegetation communities are those that are considered rare within the region, support sensitive plant and/or wildlife species, or are important in providing connections for wildlife movement. Eight sensitive vegetation communities or habitats were observed on the site, including wetlands and Tier I, Tier II, and Tier II uplands. These eight sensitive vegetation communities include (1) vernal pools, (2) freshwater marsh, (3) southern willow scrub, (4) maritime succulent scrub, (5) Diegan coastal sage scrub, (6) mule fat scrub, (7) non-native grassland, and (8) Diegan coastal sage scrub/non-native grassland.

##### b. Sensitive Plant Species

Special status plants are defined as any species covered by the Chula Vista MSCP Subarea Plan, including sensitive species and MSCP narrow endemics, federal and state threatened or endangered plants and any plant on CNPS List 1-4 (see Table 5.6-2). In total, four sensitive plant species occur within the project area and off-site improvement areas, and there are two sensitive plant species that were not observed but have a potential to occur within the project site. Observed sensitive plant species include San Diego sunflower, San Diego barrel cactus, Palmer's grapplinghook, and ashy spike-moss. Non-observed species with potential to occur include narrow-leaved nightshade and Otay tarplant. Each sensitive plant species is described below and identified in Figures 5.6-1a and 5.6-1b.

**Table 5.6-2 SUMMARY OF CNPS LIST, GLOBAL, AND STATE SENSITIVITY RATINGS**

<b>CNPS List</b>	<b>Description</b>
List 1A – Presumed Extinct in California	Thought to be extinct in California based on a lack of observation or detection for many years.
List 1B – Rare or Endangered in California	Species that are generally rare throughout their range and are also judged to be vulnerable to other threats such as declining habitat.
List 2 – Rare or Endangered in California, More Common Elsewhere	Species that are rare in California, but more common outside of California.
List 3 – Needs More Information	Species that are thought to be rare or in decline but CNPS lacks the information needed to assign to the appropriate list. In most instances, the extent of surveys for these species is not sufficient to allow CNPS to accurately assess whether these species should be assigned to a specific list. In addition, many of the List 3 species have associated taxonomic problems such that the validity of their current taxonomy is unclear.

**Table 5.6-2 (cont.) SUMMARY OF CNPS LIST, GLOBAL, AND STATE SENSITIVITY RATINGS**

<b>CNPS List</b>	<b>Description</b>
List 4 – Plants of Limited Distribution	Species that are currently thought to be limited in distribution or range whose vulnerability or susceptibility to threat is currently low. In some cases, as noted above for List 3 species above, CNPS lacks survey data to accurately determine status in California. CNPS recommends that species currently included on this list should be monitored to ensure that future substantial declines are minimized.
List is followed by threat code (e.g., CNPS List 1B.2)	.1 - Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
	.2 – Fairly endangered in California (20-80% occurrences threatened)
	.3 – Not very endangered in California (<20% of occurrences threatened)
Global and State Rankings	Description
G1/S1	Critically Imperiled — At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
G2/S2	Imperiled — At high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors.
G3/S3	Vulnerable — At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors.
G4/S4	Apparently Secure — Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5/S5	Secure — Common; widespread and abundant.

**San Diego sunflower (*Bahiopsis laciniata*).** San Diego sunflower is a relatively common species in the coastal sage scrub vegetation community within the project site. The San Diego sunflower is on CNPS List 4.2 and is a yellow-flowered, spring-blooming (February-August), xerophytic shrub that occurs in coastal sage scrub. Approximately 376 individuals were recorded within the project site.

**San Diego barrel cactus (*Ferocactus viridescens*).** Approximately 67 individuals of San Diego barrel cactus occur within the project site, with a majority occurring within the Lake Property (60 individuals). San Diego barrel cactus is listed on CNPS List 2.1 and is a MSCP covered species. Optimal habitat includes Diegan coastal sage scrub hillsides, often at the crest of slopes and growing among cobbles.

**Palmer's grapplinghook (*Harpagonella palmeri*).** Two individuals of Palmer's grappling-hook were detected within the proposed off-site sewer alignment to serve the Lake Property. Palmer's grappling-hook is on CNPS List 4.2. It occurs in dry in clay soils in annual grasslands and coastal sage scrub.

**Ashy spike-moss (*Selaginella cinerascens*).** Ashy spike-moss occurs in flat mesas in coastal sage scrub and chaparral and is a good indicator of site degradation, as it rarely inhabits

disturbed soils. Ashy spike-moss is included on CNPS List 4.1 and was detected on the eastern side of the Main Campus Property and on the Lake Property in patches ranging from 3 to 30 square meters, in open areas.

**Narrow-leaved nightshade (*Solanum xanti*).** Narrow-leaved nightshade is a non-listed, MSCP-covered species that has a high potential to occur within portions of the Main Campus Property, Lake Property, and off-site areas east of the Lake Property characterized by Diegan coastal sage scrub underlain with Olivenhain cobbly loam. If present, this species would be expected to occur in low numbers, based on the lack of prime rocky microhabitat.

**Otay tarplant (*Deinandra conjugens*).** Otay tarplant is a listed, MSCP-covered, Narrow Endemic Species that has a high potential to occur within portions of the main campus and Lake Property characterized by non-native grassland and Diegan coastal sage scrub, as well as similar areas off-site. If present, this species could occur in moderate numbers based on the presence of suitable conditions.

### c. Sensitive Wildlife Species

Special status wildlife species are defined as any species covered by the Chula Vista MSCP Subarea Plan, including covered species and MSCP narrow endemics and federal and state threatened or endangered wildlife. Six sensitive animal species were observed on the project site during surveys, including: (1) Belding's orange-throated whiptail, (2) coastal California gnatcatcher, (3) least bell's vireo, (4) northern harrier, (5) southern California rufous-crowned sparrow, and (6) San Diego black-tailed jackrabbit. A brief description of the observed wildlife within the project site is provided below. These wildlife species are described below and shown in Figures 5.6-1a and 5.6-1b.

**Belding's orange throated whiptail (*Aspidoscelis hyperthya beldingi*).** One individual of Belding's orange-throated whiptail was observed in the eastern part of the Main Campus Property in 2016.

**Coastal California gnatcatcher (*Polioptila californica californica*).** Coastal California gnatcatcher was observed in both the Main Campus Property and Lake Property in 2013, 2014, and 2016. Specifically, this species was observed in 2013 at two locations within the Main Campus Property, in 2014 at a single location within the Main Campus Property and at a single location within the Lake Property, and in 2016 at two locations on the Lake Property, one location along the off-site sewer alignment for the Lake Property, and seven locations on the Main Campus Property.

**Least Bell's vireo (*Vireo bellii pusillus*).** One individual of least Bell's vireo was incidentally detected by call within riparian habitat along eastern boundary of Main Campus Property during April 2016 survey.

**Northern harrier (*Circus cyaneus*).** One individual of northern harrier was observed foraging in the Main Campus Property in 2013.

**Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*).** One individual of southern California rufous-crowned sparrow was observed in the northeast corner of the Main Campus Property in 2013.

**San Diego black-tailed jackrabbit (*Lepus californicus bennettii*).** One individual San Diego black-tailed jackrabbit was observed in the east end of the Main Campus Property in 2013 and in 2014. Three individuals observed on the eastern side of the Main Campus Property in 2016.

### **5.6.2 Thresholds of Significance**

According to Appendix G of the CEQA Guidelines and related City criteria, impacts regarding biological resources would be significant if the project would:

- **Threshold 1:** 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 CDFW or USFWS.
- **Threshold 2:** 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 CDFW or USFWS.
- **Threshold 3:** 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.
- **Threshold 4:** 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.
- **Threshold 5:** Conflict with any local policies or ordinances protecting biological resources, including an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

### **5.6.3 Impact Analysis**

**A. Threshold 1: 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 CDFW or USFWS.**

#### **1. *Sensitive Plants***

##### **a. Direct Impacts**

Implementation of the Project has the potential to result in direct impacts to San Diego sunflower, Palmer's grapplinghook, ashy spike-moss, San Diego barrel cactus, narrow-leaved nightshade, and Otay tarplant; however, direct impacts would only be significant for San Diego barrel cactus and Otay tarplant (Impact 5.6-1a).

San Diego barrel cactus impacts would occur through removal or disturbance of habitats from construction activities involving clearing, grading, re-contouring of topography, earth moving activities and the construction of buildings, pipelines, and other facilities. The Project would result in direct impacts to approximately two individuals of San Diego barrel cactus on the Main Campus Property and 29 on the Lake Property. This species is MSCP-covered and is regarded as rare, threatened or endangered in California but more common elsewhere (CNPS-List 2.1), and as “seriously threatened” in California due to more than 80 percent of occurrences threatened. Impacts to this non-listed, MSCP-covered species would be considered a significant impact and mitigation would be required. Compliance with the Otay Ranch RMP and MSCP salvage and relocation measures will be required.

Impacts on Otay tarplant could occur within portions of the Main Campus Property and Lake Property characterized by non-native grassland and Diegan coastal sage scrub, as well as similar areas off site. If present, this species could occur in moderate numbers based on the presence of suitable conditions. Impacts on Otay tarplant would be considered significant as it is a listed, MSCP-covered, Narrow Endemic Species.

Other sensitive plant species that are not covered by the MSCP that would be impacted by construction of the Project include San Diego sunflower, Palmer’s grapplinghook, and ashy spike-moss. Impacts to these species are not considered significant because these species are relatively common in the region and the habitats that support these species are adequately protected under the MSCP.

**b. Indirect Impacts**

Indirect impacts to sensitive plant species communities would result primarily from adverse “edge effects.” Edge effects may include excess dust or construction-related soil erosion and runoff. Excess dust from construction work could disrupt short-term plant vitality by clogging reproductive structures. Long-term indirect impacts on vegetation communities include intrusions by exotic species, continued exposure to agricultural pollutants (fertilizers, pesticides, and herbicides), soil erosion, and fire. As described in Section 3.0, *Project Description*, a Preserve Edge Plan was developed as part of the UID SPA Plan; the purpose of the Preserve Edge Plan is to offset and minimize potential edge effects within 100 feet of the Preserve, consistent with adjacency management requirements in the MSCP.

There are no known populations of high-sensitivity plant species in the Preserve near the project boundary; San Diego barrel cactus is the only sensitive MSCP-covered species known to occur in the vicinity of either the Main Campus Property or Lake Property. Indirect impacts to sensitive plant species during construction could include fugitive dust, erosion, and runoff. Long-term effects on sensitive plant species could include trampling by humans and domestic animals, collecting, lighting, runoff of herbicides or fertilizers, fire, and hydrological changes. Indirect impacts to San Diego barrel cactus are considered potentially significant (Impact 5.6-1b).

## 2. *Sensitive Wildlife*

### a. **Direct Impacts**

Implementation of the project has the potential to result in habitat loss or disturbance from construction and operational activities. Loss of habitat may result in direct impacts to the candidate, sensitive, or special status wildlife species that are dependent on these habitats. Direct impacts to sensitive wildlife species that would occur from implementation of the project are described below and include potential impacts on species known to occur as well as species with potential to occur.

**San Diego fairy shrimp.** San Diego fairy shrimp has potential to occur within the vernal pools and road ruts on the Lake Property. The project has been specifically designed to avoid vernal pools and watershed areas; however, three road ruts that could support San Diego fairy shrimp occur within the impact footprint. Additional road ruts may occur in the off-site impact areas. The potential for the road ruts to support San Diego fairy shrimp is considered low, as these ruts are apparently of recent origin and likely do not hold water long enough to allow fairy shrimp to complete their life-cycle. Moreover, such road ruts are routinely disturbed by passing vehicles. Impacts to this listed, MSCP-covered species would be considered potentially significant (Impact 5.6-2).

**Quino checkerspot butterfly.** Quino checkerspot butterfly has potential to occur within grassland and scrub habitats on both the Main Campus Property and Lake Property. Host plants and owl's clover are known to occur on the northern slopes of Salt Creek valley in Otay Ranch Village 10 and the Salt Creek Preserve area immediately south of the Main Campus Property. Quino checkerspot butterfly was observed on the south slopes of Salt Creek Valley, south of the Main Campus Property, during focused surveys conducted in 2009 (Dudek 2009). Focused surveys in Village 10 conducted in 2011 were negative, although host plants were observed in the same locations reported in 2010 (Dudek 2014). The Biological Technical Report for Village 10 concluded that Quino checkerspot butterfly has a "moderate" potential to occur in Village 10 (Dudek 2014). Dudek has not conducted protocol Quino surveys of Village 10 since 2011. No Quino host plants have been observed in the Project site (either parcel); however, focused surveys have not been performed on either parcel. As such, the presence of host plants or Quino checkerspot butterfly cannot be ruled out entirely.

Potential for Quino checkerspot on the Main Campus Property and Lake Property, and off-site impact areas for the Lake Property, is considered low because of the lack of host plants; however, potential in the off-site impact areas south of the Main Campus Property associated with drainage improvements is considered moderate. Impacts to this listed, MSCP-covered species would be considered significant, including impacts to occupied habitat. The Subarea Plan requires that impacts to Quino checkerspot habitat in the Preserve east of SR-125 be avoided to the maximum extent practicable. Patches of dot-seed plantain at least 50 square meters in area, or groups of patches within 200 meters of each other with a combined area of at least 50 square meters, are considered significant Quino habitat. No significant patches of dot-seed plantain have been mapped in the off-site impact areas south of the Main Campus Property, and none are expected to occur. Off-site impacts would be situated so as to avoid any significant Quino habitat

in the Otay River Valley; however, there is still a potential for impacts to the Quino checkerspot butterfly, and these impacts would be potentially significant (Impact 5.6-3).

**Coastal California gnatcatcher.** The proposed Project would result in impacts to occupied habitat of the federally-listed threatened coastal California gnatcatcher which is known to occur on the Project site. This species is presumed to occupy the Diegan coastal sage scrub on the Main Campus Property and the Lake Property. Surveys conducted for Otay Ranch Village 10 found no coastal California gnatcatcher in the vicinity of the off-site impact areas in Salt Creek south of the Main Campus Property and as such, gnatcatcher individuals are not expected in the off-site impact areas south of the Main Campus Property. Off-site impact areas between the Lake Property and Wueste Road contain Diegan coastal sage scrub habitat equivalent to habitat on the Lake Property, and gnatcatcher is presumed to occupy those areas. Impacts to this listed MSCP-covered species would be considered potentially significant (Impact 5.6-4).

**Least Bell's vireo.** Least Bell's vireo is federally- and State-listed as endangered and is an MSCP-covered species with certain avoidance requirements. Vireo is known to occur and was incidentally observed within the riparian habitat along the northeastern and eastern portion of the Main Campus Property. While direct impacts to vireo and its habitat would not occur, potential indirect construction noise-related and operation impacts could occur and are considered potentially significant (Impact 5.6-5).

**Burrowing owl.** Suitable grassland habitat for burrowing owl exists on the Main Campus Property; therefore, protocol burrowing owl surveys were completed in 2016. Burrowing owl is a non-listed, MSCP-covered species with potential to occur on the Main Campus Property and off-site areas south of it based on habitat affinities and species range. Only a few suitable burrows have been observed during biological surveys of the Main Campus Property, and rodent activity on the parcel is not apparently high. Protocol surveys completed in 2016 were negative; thus, the site is considered unoccupied at this time, and the potential for burrowing owl to occur on the Main Campus Property in the future is considered low. Burrowing owl is not expected on the Lake Property and off-site impact areas east of it due to lack of suitable extensive grassland habitat. Potential for burrowing owl in Village 10, south of the Main Campus Property, is considered "moderate to high" in a previous study (Dudek 2014). Impacts to burrowing owl or occupied burrowing owl habitat as defined by CDFW (2012) would be considered potentially significant (Impact 5.6-6).

**Northern harrier.** Northern harrier is a non-listed, MSCP-covered species that was observed foraging over the Main Campus Property in 2013. Potential for northern harrier to occur on the Main Campus Property as a resident is considered low, due to presence of only marginal nesting habitat. The loss of foraging habitat would be considered less than significant due to the amount of habitat that is adequately protected in the Otay Ranch Preserve and local area. Potential impacts to nesting northern harrier would be considered potentially significant (Impact 5.6-7).

**Southern California rufous-crowned sparrow.** Southern California rufous-crowned sparrow was observed immediately outside of the proposed impact footprint and is presumed to occupy Diegan coastal sage scrub in the proposed development area including off-site impacts. Impacts to this non-listed, MSCP-covered species would be considered potentially significant if

nesting/breeding individuals are present during construction and removal of habitat (Impact 5.6-8a).

**Coastal cactus wren.** Coastal cactus wren has potential to occur within portions of the Main Campus Property that support maritime succulent scrub. This non-listed, MSCP-covered species is known to occur in the local area and has been previously observed within scrub habitat to the immediate south of the Main Campus Property and west of the Lake Property. Impacts to coastal cactus wren would be considered potentially significant (Impact 5.6-8b).

**Other Sensitive Wildlife.** The San Diego black-tailed jackrabbit was observed in the northern portion of the Main Campus Property, outside of the project impact footprint. This species is likely to occupy the scrub and chaparral habitat types on the Main Campus Property, Lake Property, and off-site areas in relatively low numbers. Belding's orange-throated whiptail was observed in the eastern portion of the Main Campus Property in a single location in 2016. San Diego horned-lizard was not observed but has a high potential to occur within Diegan coastal sage scrub on the Main Campus Property and Lake Property. Impacts to these non-listed species would be less than significant, as local populations of San Diego black-tailed jackrabbit, Belding's orange-throated whiptail, and San Diego horned-lizard are considered to be adequately conserved in the local area under the MSCP. No mitigation measures would be required.

#### **b. Indirect Impacts**

**Short-term Impacts.** Short-term indirect impacts to sensitive wildlife species would occur during construction activities and would potentially consist of noise, lighting, presence of toxic substances, degradation of water quality. The Project would result in the removal of trees, shrubs, and other vegetation that provide suitable nesting habitat for common birds, including raptors, protected under the MBTA and CFG Code. Construction of the Project could result in the removal or trimming of trees and other vegetation during the general bird nesting season (January 15 through September 15) and, therefore, could result in impacts to nesting birds. Direct impacts could occur as a result of removal of vegetation supporting an active nest. Indirect impacts could occur as a result of construction noise and vibration in the immediate vicinity of an active nest, such that the disturbance results in a nest failure. These impacts would be considered potentially significant (Impact 5.6-8c).

**Long-term Impacts.** Long-term edge effects could include noise, lighting, domestic animal predation, and attraction of natural predators such as ravens, skunks, and raccoons. Indirect impacts to sensitive wildlife are considered potentially significant (Impact 5.6-9).

#### **B. Threshold 2: 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 CDFW or USFWS.**

Any removal of a sensitive vegetation community is considered a significant impact because these habitats have the potential to support sensitive species, including those discussed under Threshold 1. Implementation of the Project would result in direct impacts to five sensitive vegetation communities, including (1) maritime succulent scrub, (2) Diegan coastal sage scrub, (3) mule fat scrub, (4) non-native grassland, and (5) Diegan coastal sage scrub/non-native

grassland. Impacts to sensitive vegetation communities are identified in Table 5.6-3, *Sensitive Vegetation Community Direct Impacts*, for the Main Campus Property and the Lake Property. Impacts to these vegetation communities would be considered potentially significant (Impacts 5.6-10a through 5.6-10e).

**Table 5.6-3 SENSITIVE VEGETATION COMMUNITY DIRECT IMPACTS**

Community	Existing Acreage <sup>1</sup>	Impacts							Total Impacts
		Development Area Outside the Preserve <sup>2</sup>	Temporary Impacts Outside the Preserve <sup>3</sup>	Future Facilities Outside the Preserve	Planned Facilities Inside the Preserve	Future Facilities Inside the Preserve <sup>4</sup>	Temporary Impacts Inside the Preserve <sup>5</sup>	Planned Facilities Outside the Preserve	
<b>Main Campus Property</b>									
Diegan Coastal Sage Scrub ‡	79.10	64.49	0.02	--	0.01	0.51	0.25	--	65.28
Diegan Coastal Sage Scrub/Non-native Grassland	0.37	0.37	--	--	--	--	--	--	0.37
Freshwater Marsh	0.05	--	--	--	--	--	--	--	--
Maritime Succulent Scrub	0.38	0.04	--	--	0.03	--	0.31	--	0.38
Mule Fat Scrub	0.08	0.08	--	--	--	--	--	--	0.08
Non-native Grassland	93.79	81.62	--	--	--	3.71	0.27	--	85.60
Southern Willow Scrub	1.12	--	--	--	--	--	--	--	--
<b>MAIN CAMPUS PROPERTY TOTALS</b>	<b>174.88</b>	<b>146.6</b>	<b>0.02</b>	<b>--</b>	<b>0.04</b>	<b>3.95</b>	<b>0.83</b>	<b>--</b>	<b>151.44</b>
<b>Lake Property</b>									
Diegan Coastal Sage Scrub ‡	28.98	9.18	0.24	0.45	0.03	0.05	0.41	0.03	10.39
Non-native Grassland	1.93	0.78	--	--	--	--	--	--	0.78
Vernal Pool	<0.01	--	--	--	--	--	--	--	--
<b>LAKE PROPERTY TOTALS</b>	<b>30.91</b>	<b>9.93</b>	<b>0.24</b>	<b>0.45</b>	<b>0.03</b>	<b>0.05</b>	<b>0.41</b>	<b>0.03</b>	<b>11.14</b>

Notes:

1. Total of on-site existing and off-site impacts. Non-sensitive acreage is rounded to 0.1; sensitive acreage is rounded to 0.01. Totals reflect rounding error.
2. Includes off-site impacts outside the Preserve in the Village 10 SPA
3. Off-site only.
4. This includes 0.04 acre of Diegan coastal sage scrub and 0.007 acre of developed land to be impacted east of the Lake Property that is located in the City of Chula Vista but designated as MHPA by the City of San Diego. Although designated as City of San Diego MHPA, that area is subject to Chula Vista HLIT because it is within Chula Vista jurisdiction. The acreages in this column represent off-site areas.
5. This includes temporary impacts for both Future and Planned Facilities. The sewer alignment for the Lake Property is preliminary, and the final design will follow existing dirt roads wherever possible; therefore, a 12-foot wide permanent impact footprint was centered on the existing dirt road with a 4-foot wide temporary impact on each side. This also includes temporary impact buffers for drainage outlets east of the Lake Property that are located in the City of Chula Vista but designated as MHPA by the City of San Diego.

‡ Includes disturbed phase

- C. Threshold 3: 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.**

**1. Direct Impacts**

Impacts on jurisdictional waters and wetlands are summarized in Table 5.6-4, *Impacts to Jurisdictional Waters*, below. A total of 0.44 acre of USACE-, CDFW-, and RWQCB-jurisdictional waters and 0.08 acre of CDFW jurisdictional mule fat scrub in the western portion of the Main Campus Property would be impacted as a result of Project implementation (refer to Figures 5.6-1a and 5.6-1b). Impacts to USACE, CDFW, and RWQCB jurisdictional waters and CDFW jurisdictional mule fat scrub would be considered significant and would require mitigation in accordance with the terms and conditions of a Section 404 permit from the USACE. A Section 401 Water Quality Certification from the RWQCB would be required to be issued prior to the project receiving a Section 404 permit. A Streambed Alteration Agreement would also be required from the CDFW. Additionally, impacts to wetlands and channels would be required to be consistent with the City's wetlands protection program. Impacts to jurisdictional water and wetlands are considered potentially significant (Impact 5.6-11).

**Table 5.6-4 IMPACTS TO JURISDICTIONAL WATERS  
(acres)**

Wetland Vegetation Community	Jurisdiction	Main Campus Property	Lake Property	Total
<b>Development Area Outside of Preserve (On Site)</b>				
Mule Fat Scrub	CDFW	0.08	--	0.08
Streambed	USACE/RWQCB/CDFW	0.36	--	0.36
	<i>Subtotal</i>	<i>0.44</i>	<i>--</i>	<i>0.44</i>
<b>Development Area Outside of Preserve (Off Site)</b>				
Streambed	USACE/RWQCB/CDFW	0.02	--	0.02
	<i>Subtotal</i>	<i>0.02</i>	<i>--</i>	<i>0.02</i>

Wetland impacts are to be avoided or minimized to the greatest extent practicable. All USACE-jurisdictional wetlands on the Main Campus Property and Lake Property would be avoided; however, impacts to 0.08 acre of CDFW-jurisdictional mule fat scrub would be unavoidable. Impacts to natural drainage channels are minimized to the maximum extent practicable. The jurisdictional streambed to be impacted in the western portion of the Main Campus Property is the result of an engineered storm drain outfall, and the steep-sided, eroded, gullied nature of the channel suggests that it is of recent origin and was not a natural drainage channel prior to the construction of the storm drain outfall. In addition, the downstream portion of the westernmost drainage will be permanently impacted as a result of Village 10, so that the on-site drainage section will likely not have downstream connectivity when the UID project is built. The jurisdictional streambed to be impacted in the center of the Main Campus Property is also the result of an engineered storm drain outfall but has an intermittent channel with less evidence of flow, and also likely was not a natural drainage channel prior to the construction of High Tech K-12 School.

The Project includes storm water collection systems and detention basins with energy-dissipating outfalls to prevent discharge of sediment-containing storm flows or water at erosive velocities into Salt Creek, Otay River, or Lower Otay Lake. Because the hydrology of the Otay River is controlled by Savage Dam, storm water and runoff from the proposed development would not significantly alter the hydrology of the Otay River downstream of the Project. Additional information regarding potential hydrological impacts of the Project is provided in Section 5.11, *Hydrology and Water Quality*.

The Project would impact 0.001 acre of USACE-, RWQCB-, and CDFW-jurisdictional waters off-site, in the form of streambed, where the proposed storm water conveyance pipeline crosses an unnamed tributary to Salt Creek. These impacts would be temporary or could be avoided by using jack-and-bore construction methods to go under the streambed without disturbing the ground surface. The project would also impact 0.019 acre of USACE-, RWQCB-, and CDFW-jurisdictional waters off-site, in the form of streambed, in the off-site grading area for the Main Campus Property, within the Village 10 project footprint.

The Project would not impact any known vernal pools; however, development of the Lake Property would impact road ruts that could potentially support fairy shrimp, and road ruts and potential vernal pools occur in off-site impact areas.

## **2. Indirect Impacts**

Indirect adverse effects to USACE and CDFW jurisdictional waters and channels that would potentially occur as a result of the project include increased runoff, sedimentation, erosion, and invasive exotic plant introduction. However, any potential indirect impact to jurisdictional waters would be reduced to below significant levels through compliance with the drainage and hydromodification design features outlined in the water quality and drainage report prepared for the UID (Appendix K), including compliance with the Chula Vista Development Storm Water Manual requirements and a project-specific Storm Water Pollution Prevention Plan (SWPPP). Additional information on these requirements is provided in Section 5.11, *Hydrology and Water Quality*.

The UID Water Quality Technical Report (see Appendix H) outlines the post-construction water quality requirements and related BMPs to be implemented during the operation of the Project. Implementation of the drainage and hydromodification design features identified in these plans and compliance with existing regulations, would reduce potential indirect impacts to areas downstream of the UID to less than significant (refer to Section 5.11, *Hydrology and Water Quality*, for details).

### **D. Threshold 4: 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 of the UID plan in Section 3.1.5.4 of the MSCP Subarea Plan concluded that the UID plan as adopted in the MSCP Subarea Plan provides important wildlife movement features in the form of a connection between Preserve lands in Salt Creek and Lower Otay Reservoir, and enhanced connection of Preserve lands in Salt Creek to the Otay River Valley. The connection to

Lower Otay Reservoir consisted of an open space corridor across the northern edge of the Lake Property, separating it from the Olympic Training Center to the north. This corridor connects to an archipelago of Diegan coastal sage scrub habitat that reaches to Upper Otay Lake and open space to the north and east. Improved connection of Salt Creek to the Otay River Valley comes from the elimination of an originally planned active recreation area in the eastern Otay River Valley and the elimination of an extension of Alta Road across Salt Creek and the Otay River. A subsequent revision analyzed in the University Villages EIR further improved open space connectivity by providing a second Preserve connection south of the Lake Property.

Off-site Planned and Future Facilities in the Preserve would be underground (conveyance pipelines) or below-grade (storm water detention basin) and thus would not affect line of sight in the Preserve. Construction of the basins and associated outfall would not preclude wildlife from using the area. The detention basin and pipelines would be located on an existing dirt road and access roads are not expected to preclude wildlife from using the area because wildlife would be able to traverse the road. In addition, the roads are not expected to receive much traffic as they are used for periodic maintenance and not on a daily basis. Construction of the storm and sewer facilities would not preclude wildlife from using the area in the long-term as these facilities are underground. Temporary ground disturbance (which is addressed under Threshold 2 above; Impact 5.6-10) would require revegetation with native upland herbaceous species to restore any removed upland species. The area would need to be revegetated with native upland herbaceous species so as to not preclude movement of wildlife through the area and also to provide foraging opportunities. Accordingly, impacts to wildlife movement corridor and nursery sites would be less than significant.

**E. Threshold 5: Conflict with any local policies or ordinances protecting biological resources, including an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.**

***1. Chula Vista MSCP Subarea Plan/Otay Ranch RMP***

The Otay Ranch RMP and the Otay Ranch Preserve were the primary basis for CEQA mitigation of biological impacts identified in the 1993 Otay Ranch GDP Program EIR. The RMP includes conveyance procedures for dedicating parcels of land to the Otay Ranch Preserve and for determining the proportionate share for each village. The Otay Ranch GDP identified that the entire Otay Ranch GDP area contained 9,575 developable acres. The estimated conveyance obligation of 11,375 acres to the Otay Ranch Preserve would be met on a village-by-village basis. The conveyance ratio for all development is 1.188 acres for each acre of Project area, less common areas, including schools, parks, and roadways (see Table 5.6-5, *UID Preserve Conveyance Obligation*). The Project would have significant impacts related to biological resources management if it did not comply with the Chula Vista MSCP and Otay Ranch RMP (Impact 5.6-12).

The Project would be consistent with the City's MSCP Subarea Plan through adherence to project-specific conditions in the Otay Ranch RMP for development on the Main Campus Property, conformance with the HLIT for development on the Lake Property and in off-site areas between it and Lower Otay Lake, and through adherence to Facilities Siting Criteria in

Section 6.3.3.4 of the MSCP Subarea Plan inside the Preserve for off-site impacts located in the Preserve south of the Main Campus Property and southwest of the Lake Property. Off-site impacts inside the City of San Diego's MHPA in Chula Vista jurisdiction are an approved use in both the City of San Diego MHPA and City of Chula Vista Preserve and would be mitigated according to the HLIT. Land use compatibility with the Preserve area is further described in Section 6.0 of the Chula Vista MSCP Subarea Plan. Project components located within the Preserve are subject to the Facilities Siting Criteria contained in Section 6.3.3.4 of the MSCP Subarea Plan. Compliance with the Facilities Siting Criteria demonstrates that impacts to the Preserve have been minimized to the maximum extent practical. The following section provides an analysis of the Facilities Siting Criteria relative to the Project's off-site planned and future facilities components.

**Table 5.6-5 UID PRESERVE CONVEYANCE OBLIGATION**

<b>Development</b>	<b>Description</b>	<b>Acreage</b>
Total Land Uses		383.78
Public and Common Uses No Calculated as Part of the Conveyance Obligation	Land affiliated with the University and campus support uses; academic space and supporting uses, physical education/recreation/athletics uses, student support space, campus housing, parking lots/structures, and open space	-252.78
<b>Total Developable Acreage (minus acreage for common uses)</b>		<b>131.00</b>
Per Acre Conveyance		1.188
Estimated Total Conveyance		155.63*

Source: Michael Baker International, June 2017.

\* Final conveyance acreage will be determined at the time of recordation of each final map.

**a. Planned and Future Facilities/Siting Criteria Located within the Preserve**

Some of the Future Facilities associated with the Lake Property would be located between the Lake Property and Lower Otay Reservoir outside of the City of Chula Vista's Preserve. These Future Facilities would include storm water conveyance pipelines and a detention basin located between the Lake Property and Wueste Road in an area currently mapped as Diegan coastal sage scrub and storm water outfalls that would cross Wueste Road into the City of San Diego's MHPA. These areas are currently developed as a parking lot and boat launch facility. The northernmost storm water pipeline crosses the Preserve before crossing Wueste Road and entering the MHPA. In addition, the sewer line for the Lake Property runs south and then northwest through the Preserve to reach the Salt Creek Interceptor. These off-site impacts associated with the Lake Property would be subject to the Facilities Siting Criteria in Section 6.3.3.4 of MSCP Subarea Plan, which are discussed immediately below.

***Criterion 1 – Such facilities will be located in the least environmentally sensitive location feasible, and use existing roads, trails, and other disturbed areas, including use of the active recreation areas in the Otay River Valley, as much as possible (except where such areas are occupied by the Quino checkerspot butterfly). Facilities should be routed through developed or developing areas where possible. If no other routing is feasible, alignments should follow***

*previously existing roads, easements, rights of way, and disturbed areas, minimizing habitat fragmentation.*

Wastewater conveyance pipelines associated with the Salt Creek Interceptor are Planned Facilities in Table 6-1 of the MSCP Subarea Plan. The Project includes a wastewater conveyance pipeline connecting the Main Campus Property to the Salt Creek Interceptor (Figure 3-10a). This Planned Facility would begin at the southern tip of the development area at approximately the east-west midpoint of the Main Campus Property and follow an existing dirt road to within 400 feet of the Salt Creek Interceptor. This existing dirt road is currently unmaintained and the width of a single vehicle. The existing dirt road would be widened to a maximum of 12 feet in accordance with restrictions in the Otay Ranch RMP, though temporary disturbance would be up to 20 feet wide for installation of the co-located underground sewer and storm drain lines. The sewer line would traverse the final 400 feet to the Salt Creek Interceptor along another existing dirt road that runs east-west along the northern edge of the Otay River Valley from the Salt Creek Interceptor. The precise nature of this existing dirt road is unknown, as it lies outside the area of HELIX surveys and no descriptions of it could be found in other documents, but it is at least comparable to the existing road leading from the Main Campus Property and likely is wider. Temporary impact areas would be revegetated following conclusion of construction activities.

No previously existing rights-of-way or easements are available to connect the Main Campus Property to the Salt Creek Interceptor. The area these roads traverse is known to support populations of host plants for Quino checkerspot butterfly (Dudek 2009, 2014; RECON 2015), but no individuals of that species have been recorded in the area. The use of existing roads with only minor improvements would result in no significant increases in habitat fragmentation, and the proposed Planned Facility would be underground and thus have no permanent impact on surface resources beyond the improving of the access road.

The proposed project includes a second wastewater conveyance pipeline connecting the Lake Property to the Salt Creek Interceptor, which is a Planned Facility per Table 6-1 of the MSCP Subarea Plan. This Planned Facility would begin in the middle of the Lake Property and follow an existing dirt road to the south, then turn west into the Preserve and follow another existing dirt road northwest to the Salt Creek Interceptor (Figure 3-10b). There is an approximately 290-foot section between the two dirt roads; this is necessary in order avoid making an acute angle.

Access to the sewer lateral should be provided by an existing utility road used by Chula Vista and the San Diego County Water Authority (SDCWA); if necessary, the existing dirt roads would be widened to a maximum of 12 feet in accordance with restrictions in the Otay Ranch RMP, though temporary disturbance would be up to 20 feet wide for installation of the underground sewer line. Temporary impact areas would be revegetated following conclusion of construction activities.

No previously existing rights-of-way or easements are available to connect the Lake Property to the Salt Creek Interceptor. The area these roads traverse within the Preserve is not known to support populations of host plants for Quino checkerspot butterfly (RECON 2015), and no individuals of that species have been recorded in the area. The use of existing roads with only minor improvements would result in no significant increases in habitat fragmentation, and the

proposed Planned Facility would be underground and thus have no permanent impact on surface resources beyond the improving of the access road.

The proposed storm drain conveyance pipeline and detention basin south of the Main Campus Property are Future Facilities anticipated as necessary to support development of the Project. The storm drain line would be co-located with the wastewater line from the Main Campus Property boundary to the second of the two existing dirt roads described above, where the sewer line would turn east to the Salt Creek Interceptor. This segment of the sewer lateral will be co-located in an Otay Valley River Park (OVRP) trail connector sited in conjunction with Village 10. This co-locating/clustering of facilities serves to minimize impacts/habitat fragmentation as required by this criterion. From that point, the storm drain line would traverse currently undeveloped land mapped as non-native grassland, cross a non-wetland jurisdictional stream channel, and reach another existing dirt road, at which point it would follow the road west to the location of the proposed detention basin. The proposed detention basin is within the Village 10 SPA, located near the Village 10 detention basins, in a former planned active recreation area that was removed from the plan in the University Redesign for the final 2003 MSCP Subarea Plan. This area is currently mapped as supporting Diegan coastal sage scrub, riparian scrub, and non-native grassland (Figure 5.6-1a). The proposed detention basin is located between the toe of a slope to the north, and a jurisdictional channel supporting freshwater marsh to the south. The slope supports Diegan coastal sage scrub vegetation and was occupied by coastal California gnatcatcher during previous surveys (Dudek 2014). The detention basin would be sited to avoid wetland vegetation and jurisdictional resources.

The only Future Facility inside the Preserve proposed for the Lake Property is a storm water conveyance pipeline that would cross a corner of the Preserve north of the parcel (Figure 5.6-1b). This pipeline would be underground, and all impacts associated with it would be temporary. There are no existing roads or easements available in that portion of the preserve for the pipeline to follow; however, it is located in a corner of the Preserve near the Lake Property and Wueste Road and would not constitute a permanent surface disturbance in the Preserve.

***Criterion 2 – Such facilities shall avoid, to the maximum extent practicable, impacts to covered species and wetlands, and will be subject to the provisions, limits, and mitigation requirements for narrow endemic species and wetlands pursuant to Section 5.2.3 and 5.2.4 of the Subarea Plan.***

The conceptual locations for the off-site facilities are within the least environmentally sensitive locations within the Preserve based on available information to minimize impacts to sensitive species and their habitats. Given the presumed presence of coastal sage scrub, maritime succulent scrub, and non-native grassland located on either side of the alignment and basin footprint, alternate siting would not be expected to substantially reduce impacts to these habitat communities and the sensitive species that they may support. Although sensitive habitat communities would not be entirely avoided, the majority of the off-site facilities have been sited through existing access roads and less biologically sensitive areas based on available information. Presence of narrow endemic species and other sensitive species is not known. The boundaries of potential wetlands located within Salt Creek immediately adjacent to the detention basin have not been formally delineated; however, based on mapped vegetation information, it appears as though wetlands would be avoided by the conceptual location for the basin. Further,

trenchless construction methods could be implemented for construction of conveyance facilities in order to avoid impacts to sensitive resources. This criterion will be satisfied once additional studies are completed to verify boundaries of potential wetlands and the presence or absence of narrow endemics and other sensitive species.

***Criterion 3 – Where roads cross the Preserve, they should provide for wildlife movement in areas that are graphically depicted on and listed in the MSCP Subregional Plan generalized core biological resource areas and linkages map as a core biological area or a regional linkage between core biological areas. All roads crossing the Preserve should be designed to result in the least impact feasible to covered species and wetlands. Where possible at wildlife crossings, road bridges for vehicular traffic rather than tunnels for wildlife use will be employed. Culverts will only be used when they can achieve the wildlife crossing/movement goals for a specific location. To the extent feasible, crossings will be designed as follows: the substrate will be left in a natural condition or revegetated if soils engineering requirements force subsurface excavation and vegetated with native vegetation if possible; a line-of-sight to the other end will be provided; and if necessary, low-level illumination will be installed in the tunnel.***

This criterion applies primarily to public circulation elements that span the Preserve. The proposed off-site impacts include two unpaved utility access roads that would not be open to the driving public and would not regularly carry traffic. The Main Campus Property road would provide access to both the co-located sewer and storm drain lines, and serve as a trail, avoiding redundant roads in the Preserve. The Lake Property road would be used for sewer access only. Both roads would follow existing access roads wherever possible. The proposed facilities would not include lighting and would be restricted to the northern edge of the Salt Creek and Otay River Valley regional linkage. Temporary impacts associated with the installation of these conveyance pipelines would be revegetated.

***Criterion 4 – To minimize habitat disruption, habitat fragmentation, impediments to wildlife movement and impact to breeding areas, road and/or right-of-way width shall be narrowed from existing City design and engineering standards, to the maximum extent practicable. In addition, roads shall be located in lower quality habitat or disturbed areas to the maximum extent practicable.***

Existing access roads will be utilized for the off-site storm water pipeline and sewer line. Improvements may be required in some areas to achieve roadway widths of 12 feet. The access roads would be used to access the storm water and sewer facilities, thus avoiding the need to construct redundant access roads through the Preserve and minimizing impacts to wildlife habitats. The proposed roads are located in lower quality habitat or on existing dirt roads. The proposed storm water and wastewater conveyance pipelines have been co-located as far as possible to minimize disturbance. The proposed detention basin would be located in uplands and as much as possible in areas of non-native grassland. Therefore, this criterion has been satisfied.

***Criterion 5 – Impacts to covered species and habitats within the Preserve resulting from construction of future facilities will be evaluated by the city during project review and permitting. The city may authorize “take” for impacts to covered species and habitats resulting***

***from construction of future facilities located outside the Preserve, pursuant to the Chula Vista MSCP Subarea Plan and consistent with the facility siting criteria in this section.***

This siting criteria analysis is preliminary, because the Project facility needs, designs, and locations might change as more detailed Project information becomes available during additional design phases. This preliminary siting criteria analysis has been performed with City oversight, and additional review would be required to affirm these preliminary conclusions once final project designs are available.

***Criterion 6 – The City may authorize "take" for impacts to covered species resulting from construction of future facilities located within the Preserve, subject to a limitation of two acres of impact for individual projects and a cumulative total of 50 acres for all future facilities. Wildlife agency concurrence will be required for authorization of take for any impacts to covered species and habitat within the Preserve that exceed two acres that may result from construction of any individual future facility. Wildlife agency concurrence will be required for authorization of take for impacts to covered species and habitat within the Preserve that exceed 50 acres that may result from all future facilities combined.***

The total permanent impact from proposed Future Facilities within the Preserve would be 4.30 acres (Table 5.6-3). Because the permanent impact from the detention basin exceeds the two-acre per facility limit, wildlife agency concurrence will be required. The 2014 Otay Ranch University Villages EIR identified 6.2 acres of cumulative impacts to covered habitat from Future Facilities within Otay Ranch. After adding the 4.30 acres proposed with this Project, the cumulative total would be 10.5 acres, still well below the 50-acre cumulative limit.

***Criterion 7 – Planned and future facilities must avoid impacts to covered narrow endemic species and the Quino checkerspot butterfly to the maximum extent practicable. When such impacts cannot be avoided, planned and future facilities located within the Preserve are subject to the provisions of Section 5.2.3.6 of the Chula Vista MSCP Subarea Plan. Impacts to Quino checkerspot butterfly that will result from construction of planned and future facilities within the Preserve are subject to the provisions of Section 5.2.8 of the Chula Vista MSCP Subarea Plan.***

The proposed Planned and Future Facilities for the Main Campus Property are located in an area that supports sparse populations of host (dot-seed plantain) and nectar (owl clover) plants for Quino checkerspot butterfly but is not considered significant Quino habitat (Dudek 2014). The proposed sewer connection for the Lake Property is located outside of potential Quino habitat (RECON 2015). ~~Historic sightings of Quino checkerspot butterfly in this part of the Salt Creek Valley are rare and generally considered to be transient individuals (Dudek 2009).~~ No other Narrow Endemic Species have been mapped in the location of the proposed facilities.

#### **b. Additional Measures**

In accordance with Section 5.2.8.1 of the MSCP Subarea Plan, infrastructure projects constructed within the Preserve would be subject to the following sequence of measures to avoid and minimize impacts to Quino checkerspot butterfly and Quino checkerspot butterfly habitat.

- Measure 1 – A habitat assessment will be conducted in potential facility locations as part of the project siting and design process. Habitat assessments conducted for the Village 10 SPA, in which the proposed Future Facilities are partially located, concluded that Quino checkerspot butterfly has “moderate” potential to occur in the Village 10 SPA and that the location of the proposed detention basin is not significant Quino checkerspot butterfly habitat. Habitat assessment conducted for the Otay Ranch Preserve – Salt Creek Parcels concluded that the Lake Property sewer connection alignment is not significant Quino checkerspot butterfly habitat (RECON 2015).
- Measure 2 – Quino checkerspot butterfly surveys will be conducted in appropriate habitat by a qualified biologist in accordance with the most recent survey protocol adopted by the USFWS. The habitat assessment data currently available indicate that the proposed Planned and Future Facilities are located in habitat that is at best low-quality or marginally suitable for Quino checkerspot butterfly, and not expected to warrant protocol surveys. However, a subsequent habitat assessment will be required once project level infrastructure plans are available. Based on the results of the project level habitat assessment, Quino checkerspot butterfly surveys will be conducted in appropriate habitat by a qualified biologist in accordance with the most recent survey protocol adopted by the USFWS.
- Measure 3 – If Quino checkerspot butterfly are observed within the project area, the project will be designed to avoid impacts to Quino checkerspot butterfly habitat to the maximum extent practicable. This measure would be satisfied upon completion of the required Quino checkerspot butterfly surveys, which would be conducted when the final design for the off-site facilities is developed.
- Measure 4 – The following avoidance criteria will be applied specifically to Preserve Habitat-Category A<sup>2</sup> areas located east of SR 125.
  - For Preserve Habitat-Category A areas east of SR 125 that are within the Salt Creek drainage and the Otay River Valley and associated with the property known as the Millenia Property, single patches of plantago equal to or greater than 50 square meters, or if less than 50 square meters any combination of patches within 200 meters of each other which are equal to or greater than 50 square meters, and as mapped in the habitat assessment prepared by Dudek and Associates (Appendix J of the Chula Vista MSCP Subarea Plan) will be considered “significant QCB [Quino checkerspot butterfly] habitat patches.”

The Project is not located on the Millenia property, so this criterion does not apply.

- For Preserve Habitat-Category A areas located east of SR-125 that are within the Salt Creek drainage and the Otay River Valley and outside of the Millenia Property, a detailed habitat assessment will be conducted using the same methodology

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<sup>2</sup> “Category A” includes (1) areas with a positive 2001 Quino checkerspot butterfly survey and (2) areas with no 2001 Quino checkerspot butterfly protocol survey within 0.6 mile of a known Quino checkerspot butterfly location.

employed by Dudek and Associates (1999) to identify patches of QCB habitat, including mapping patches of *Plantago erecta* and other host plants, if applicable. In this area, single patches of plantago equal to or greater than 50 square meters, or if less than 50 square meters any combination of patches within 200 meters of each other which are equal to or greater than 50 square meters, will be considered “significant QCB habitat patches.”

The off-site impact areas and a small portion of the Main Campus Property are apparently within Preserve Habitat-Category A as shown on Chula Vista MSCP Subarea Plan Figure 4-1; therefore, a detailed habitat assessment using this methodology will be conducted when the final design for the off-site facilities is developed, prior to the issuance of any land development permits, including clearing, grubbing, and grading permits within land development permits, including clearing, grubbing, and grading permits within Preserve Habitat-Category A.

- Projects shall be designed to avoid “significant QCB habitat patches” to the maximum extent practicable, regardless of whether QCB are observed. If impacts to these habitat patches cannot be avoided, the City will consult with the Wildlife Agencies and the Wildlife Agencies will cooperatively work with the City to site the proposed facility in a location that will best minimize impacts to QCB habitat. The City will submit a written request for input to the Wildlife Agencies. The Wildlife Agencies will meet and confer with the City and, no later than 60 days after receipt by the Wildlife Agencies of written notice from the City, resolution on the appropriate location of the proposed facility will be completed.

The Project will comply with this criterion when the detailed habitat assessment is completed, prior to the issuance of any land development permits, including clearing, grubbing, and grading permits within Preserve Habitat-Category A.

- During joint review of a project proposing to impact one or more “significant QCB habitat patches,” a cooperative assessment will be made by the City and Wildlife Agencies to determine the overall significance of the proposed impacts to “significant QCB habitat patches.” The assessment will be made within the context of the quality and location of other QCB habitat within the Preserve at the time of the assessment. Evaluation of proposed project impacts to significant habitat patches shall also take into consideration all of the other components of the City’s QCB program. In particular, if the planned QCB habitat restoration/enhancement component has demonstrated success, the City and the Wildlife Agencies shall consider the restoration/enhancement component in their evaluation of the individual project’s impacts.

This measure would be completed if necessary, although the project is not currently expected to impact “significant QCB habitat patches.”

- When the City has successfully completed, as determined by the Wildlife Agencies, at least 10 acres of QCB restoration/enhancement within the Preserve in the Salt Creek/Otay River Valley area, the provisions of Section 5.2.8.1 (4)(a-d) will no longer be applicable.

The City has not received sign-off from the Wildlife Agencies to date; therefore, the provisions of Section 5.2.8.1 (4)(a-d) are still applicable.

- **Measure 5** – For construction in areas adjacent to occupied habitat, dust control measures (i.e., watering) will be applied during grading activities.

Air quality dust control measures required as part of air district regulations and additional measures as part of Mitigation Measure 5.4-1 are described in Section 5.4, *Air Quality*, of this EIR and would be implemented during project construction, which would minimize potential indirect fugitive dust-related impacts to sensitive biological resources.

- **Measure 6** – As part of the overall Preserve management strategy, a weed control program will be established for all water/sewer line access roads built through potential Quino checkerspot butterfly habitat. This will include road construction using a concrete-treated base material with aggregate rock to prevent vegetation growth on the road surface, while allowing sufficient percolation to minimize flows. The zone of influence to be subject to the weed control program will be determined by the City Habitat Manager based on site-specific conditions.

The proposed Planned and Future Facilities are not located in an area that is currently considered significant Quino habitat; however, this will be confirmed by subsequent studies once project level infrastructure plans are available. Proposed access roads would conform to the construction specifications of this Measure. Approval of a weed control program for the proposed Planned and Future Facilities will be a condition of final Project approval.

### c. **Implementation Criteria/Assurances**

Table 6-1 of the MSCP Subarea Plan identifies implementation criteria/assurances for planned facilities. The off-site storm water pipeline, detention basin, and sewer pipeline would serve the University Park and Research Center SPA. These implementation criteria/assurances include the following:

***Assurance 1 – Siting of the facilities is subject to the Otay Ranch RMP Phase 1 Policy 6.6 and the Otay Ranch RMP Infrastructure Plan, Section 6.0; and Otay Ranch RMP Phase 2 Conceptual Infrastructure Plan.***

The development associated with the off-site facilities in the Preserve is consistent with the Otay Ranch RMP Phase 2 Conceptual Infrastructure Plan in that UID has been sited primarily in low quality habitat areas to the extent practicable; temporary impacts to habitat would be mitigated; potential impacts to sensitive species would be mitigated; erosion control would be implemented through the BMPs required by a project-specific SWPPP; and wetland impacts would be avoided and minimized through site design. An MSCP siting criteria analysis in accordance with the

MSCP Subarea Plan Section 6.3.3.4 is provided in Section 6.1.9.1 of this report. Additional information on the SWPPP requirements is provided in Section 5.11, *Hydrology and Water Quality*.

**Assurance 2 – BMPs will be used to design and maintain these facilities.**

Prior to issuance of land development permits, including clearing or grubbing and grading and/or construction permits, the applicant would prepare a SWPPP to the satisfaction of the City Engineer. The BMPs contained in the SWPPP shall include, but are not limited to, silt fences, fiber rolls, gravel bags, and soil stabilization measures such as erosion control mats and hydroseeding. Therefore, this assurance is expected to be met.

**Assurance 3 – Storm water lines will be sited to avoid mitigation sites created as mitigation for other projects.**

No mitigation sites are known to occur within the immediate vicinity of the off-site pipeline alignments; therefore, this assurance is expected to be met.

**Assurance 4 – Maintenance access roads related to the facilities will be sited to avoid to the maximum extent practicable impacts to covered species and habitats, including covered narrow endemic species, pursuant to the facilities siting criteria in Section 6.3.3.4 of the Chula Vista MSCP Subarea Plan.**

The Project has reduced widths, co-located infrastructure, and located facilities within the least environmentally sensitive areas to avoid to the maximum extent practicable impacts to covered species and habitats. Therefore, this assurance is expected to be met.

**Assurance 5 – Through Salt Creek where new maintenance access roads must be developed, road widths will be limited to 12 feet, within a 20-foot disturbance corridor.**

Through the Otay River Valley where existing unpaved roads will be utilized, road widths will be limited to 20 feet. Maintenance access roads will be constructed as follows: access roads will be constructed of concrete-treated base material with aggregate rock to minimize frequency of maintenance; where access roads exceed a 5 percent grade, concrete or asphalt may be permitted to ensure maintenance vehicle traction; where cross-drainage occurs, concrete aprons may be permitted to minimize erosion.

Existing access roads will be utilized for the off-site storm water and sewer pipelines and will not be widened beyond 20 feet. Any new access roads will be limited to 12 feet and will follow the construction specifications above. The western access road would also be used to access the storm water facilities, thus avoiding the need to construct redundant access roads through the Preserve and minimizing impacts to wildlife habitats. Therefore, this assurance is expected to be met.

***Assurance 6 – Temporary impacts related to these sewer facilities will be revegetated pursuant to Section 6.3.3.5 of the Chula Vista MSCP Subarea Plan.***

All temporary impacts resulting from the off-site components would be revegetated per an approved revegetation plan; therefore, this assurance would be met.

***Assurance 7 – Public access to finger canyons associated with the primary canyons involving these facilities will be limited, pursuant to the Otay River Valley Framework Management Plan, Section 7.6.3 of the Chula Vista MSCP Subarea Plan.***

The northern portion of the shared sewer/ storm water access road is also proposed as a rural trail to be built by UID, while the west-east connection to the Salt Creek Interceptor is proposed as a rural trail to be built by Village 10. According to the Village 10 EIR, post and rail fencing and signage would be placed along the connector trail out of the eastern side of Village 10, to alert the user to the sensitive nature of the habitat; this also serves to limit public access. By co-locating trails and sewer access roads, additional access points into finger canyons will be limited. Also, Section 7.6.3 of the MSCP Subarea Plan specifically addresses finger canyons tributary to Wolf Canyon, which is outside of the UID impact area. Therefore, this assurance is expected to be met.

**d. Adjacency Management**

Both the Main Campus Property and the Lake Property border the Preserve within the Otay Ranch Preserve (Preserve). A small extension of the Preserve across the north edge of the Lake Property is in the Central City Preserve Management Area (PMA), but all other Preserve lands bordered by the Lake Property, and all Preserve lands bordered by the Main Campus Property, are in the Otay Ranch PMA. In accordance with Otay Ranch RMP Policy 7.2, an Edge Plan has been prepared as Appendix D to the UID SPA Plan to ensure that proposed land uses will not adversely affect resources within the adjacent Preserve. Adjacency management measures addressed in the UID Edge Plan include: noise, lighting, landscaping, water quality/drainage and brush management.

In order to prevent discharge of toxins and other pollutants into the Preserve, the proposed Project would utilize detention basins to be constructed on Otay Ranch Village 10 for Phases 1 and 2 and an off-site detention basin for storm water conveyance and treatment for Phase 3 of the Project on the Main Campus Property. This detention basin would allow for control, treatment, and filtration of runoff from development on the Main Campus Property so that the Otay River is unaffected by project runoff. Drainage from the Lake Property would be controlled and treated on-site as part of the Project's storm drain system. BMPs would be integrated into the Project design to ensure water quality impacts to downstream drainages would be avoided.

All lighting in the Project would be directed away from the Preserve or shielded from it using appropriate means including lighting fixture design and vegetation where there is potential for overspill into the Preserve. According to the UID SPA Plan Appendix D, the UID Design Plan includes criteria for the design of lighting for the District, including the 100-foot Preserve Edge.

Improvement plans for the areas within the 100-foot Preserve Edge will include shielded lighting designs that avoid spillover light in the Preserve. Lighting Plans and a photometric analysis shall be prepared to illustrate the location of proposed lighting standards and type of shielding measures.

Lighting Plans and accompanying photometric analyses must be prepared in conjunction with improvement plans for any improvements within the 100-foot Preserve Edge to identify the location of proposed lighting fixtures and the type of light shielding measures. The Lighting Plan must demonstrate that light spillage into the Preserve is avoided to the greatest extent possible. City of Chula Vista updated street lighting standards require installation of energy saving LED lamps on all City streets.

The proposed development footprint in the Lake Property would be confined to the eastern half of the parcel, 300 to 400 feet from the nearest boundary with the Preserve. The portions of the Main Campus Property adjacent to the Preserve would be situated at the top of manufactured slopes that place the development substantially above the Preserve topographically. These manufactured slopes, along with areas within the parcel boundary but outside the development footprint, also provide a buffer of 100 to 200 feet between proposed development and the Preserve boundary. These Project features in the form of setbacks would combine with lighting plan design to eliminate the potential for overspill of project lighting into the Preserve.

The same setbacks and manufactured slopes that would reduce the potential for lighting spillover into the Preserve (described above) would also serve to minimize operational noise impacts from campus development. The land uses within the 100-foot Preserve Edge are low noise-generating uses, comprised of native vegetation and trail connections. The land use zone adjacent to the Preserve Edge is T-1: Future Development, which is a low intensity area. Parks with active recreation such as playgrounds and sports courts would be allowed in the T-1 zone and would be expected to generate noise levels of 60 dBA  $L_{EQ}$  up to 60 feet from the source; therefore, given the 100-foot buffer zone, these noise levels would not be expected to be significant in the Preserve (for additional information on noise impacts on the MSCP, see Section 5.5, *Noise*, of this EIR).

Landscape plans for all development associated with the project would avoid use of invasive species in their designs. According to the Preserve Edge Plan, landscape plans adjacent to the Preserve will not contain any invasive species, as determined by the City of Chula Vista and identified in the MSCP Subarea Plan, Appendix N, *List of Invasive Species*. Landscape areas within the 100-foot Preserve Edge including, but not limited to, manufactured slopes, street-adjacent landscaping and Village Trail feature must comply with the Approved Plant List provided as Attachment "A" to the SPA Plan. This list also meets the requirements outlined in the attachment in the UID Fire Protection Plan as these manufactured slopes are also within the 100-foot Brush Management Zone required by the MSCP Subarea Plan. Any changes to the Approved Plant List must be approved by the Development Services Director or the Director's designee. The area may be planted with container stock (liners) or a hydroseed mix.

The Project is consistent with the Otay Ranch RMP, which requires a 100-foot edge buffer between development and the Preserve within the Otay Ranch PMA. Each SPA must prepare an Edge Plan with consultation by a qualified biologist, who will provide a list of species acceptable

for planting in the edge. The edge may not contain any structures except for fences and walls, and those must be designed and landscaped so as to have no adverse visual effect on the Preserve. Fuel modification zones may be included in the edge.

#### **5.6.4 Level of Significance Prior to Mitigation**

##### **A. Sensitive Plant and Wildlife Species**

Impact 5.6-1a: Implementation of the Project would result in significant direct impacts to two sensitive plant species: San Diego barrel cactus and Otay tarplant.

Impact 5.6-1b: Implementation of the Project could potentially result in significant indirect impacts to San Diego barrel cactus.

Impact 5.6-2: Implementation of the Project could potentially result in potential significant direct and indirect impacts to the San Diego fairy shrimp.

Impact 5.6-3: Implementation of the Project could potentially result in potential significant direct impacts to the Quino checkerspot butterfly.

Impact 5.6-4: Implementation of the Project could potentially result in potential significant direct and indirect impacts the coastal California gnatcatcher.

Impact 5.6-5: Implementation of the Project could potentially result in potential significant direct and indirect impacts to the least Bell's vireo.

Impact 5.6-6: Implementation of the Project could potentially result in potential significant direct and indirect impacts to the burrowing owl.

Impact 5.6-7: Implementation of the Project could potentially result in potential significant direct and indirect impacts to the northern harrier.

Impact 5.6-8a through 8c: Implementation of the Project could potentially result in potential significant direct and indirect impacts to the southern California rufous-crowned sparrow and coastal cactus wren, as well as potential impacts to raptors and breeding migratory birds.

Impact 5.6-9: Significant short-term indirect impacts to sensitive wildlife species would occur during construction activities and would potentially consist of noise, lighting, presence of toxic substances, degradation of water quality. In addition, significant long-term edge effects could include noise, lighting, domestic animal predation, and attraction of natural predators.

##### **B. Riparian Habitat and Other Sensitive Natural Communities**

Impact 5.6-10a: Implementation of the Project would result in significant direct impacts to five sensitive habitats, including maritime succulent scrub, Diegan coastal sage scrub, mule fat scrub, non-native grassland, and Diegan coastal sage scrub/non-native grassland, as shown in Table 5.6-3.

Impact 5.6-10b: Implementation of the Project would result in significant direct impacts to maritime succulent scrub.

Impact 5.6-10c: Implementation of the Project would result in significant direct impacts to Diegan coastal sage scrub.

Impact 5.6-10d: Implementation of the Project would result in significant direct impacts to Diegan coastal sage scrub/non-native grassland.

Impact 5.6-10e: Implementation of the Project would result in significant direct impacts to sensitive vegetation communities.

### **C. Federally Protected Wetlands**

Impact 5.6-11: Implementation of the Project would result in significant direct impacts to USACE regulated jurisdictional waters and CDFW jurisdictional channels.

### **D. Wildlife Movement Corridors and Nursery Sites**

Impacts to wildlife movement corridor and nursery sites would be less than significant.

### **E. Consistency with Local Policies, Ordinances, HCP and NCCP**

Impact 5.6-12: Implementation of the Project would result in potentially significant impacts related to consistency with local plans related to biological resources.

## **5.6.5 Mitigation Measures**

Development of the UID site would occur as future applicants apply for various permits. The measures below identify that a future applicant would be responsible for the implementation of the mitigation measures.

### **A. Sensitive Plant and Wildlife Species**

Implementation of the Project would result in significant direct impacts to two sensitive plant species: San Diego barrel cactus and Otay tarplant (Impact 5.6-1a) and potentially significant indirect impacts to San Diego barrel cactus (Impact 5.6-1b). Mitigation Measures 5.6-1a through 5.6-1c would reduce impacts to sensitive plants to less than significant levels:

#### **5.6-1a Pre-Construction Rare Plant Surveys for Impacts Outside of Covered Projects.**

Prior to issuance of any land development permits, including clearing, grubbing, and grading permits for the Lake Property and off-site impact areas, the project applicant shall retain a City-approved biologist to conduct rare plant surveys for sensitive plant species, including, but not limited to, Otay tarplant (*Deinandra conjugens*) and San Diego barrel cactus (*Ferocactus viridescens*), which are species determined to be present or to have a high potential to occur and that require additional measures for unavoidable impacts.

If plant species requiring transplantation – snake cholla (*Opuntia parryi* var. *serpentine*), San Diego barrel cactus, dot-seed plantain (*Plantago erecta*), coast cholla (*Cylindropuntia prolifera*), Otay tarplant – are found within the impact areas, the applicant shall implement Mitigation Measure 5.6-2, which includes measures for plant salvage and relocation, and preparation and implementation of a resource salvage plan.

Should narrow endemic species listed in Table 5-4 of the Chula Vista MSCP Subarea Plan be identified in the proposed off-site impact areas, the project shall be designed so as to avoid them to the maximum extent practicable. If impacts to narrow endemics are unavoidable, they shall be limited as follows: impacts within the Lake Property shall be no more than 20 percent of the total population within the project area; off-site impacts outside of the Preserve shall be no more than 20 percent of the total population within the project area; and off-site impacts within the Preserve shall be no more than 5 percent of the total population within the project area. In addition, impacts shall be mitigated at ratios of 1:1 to 3:1, depending on the sensitivity of the species. The proposed project design, including mitigation, shall result in conservation of the species that is functionally equivalent to its status without the project, including species numbers and area, and must ensure adequate Preserve design to protect the species in the long-term. The proposed Project design, including mitigation, shall result in conservation of the species that is functionally equivalent to its status without the Project, including species numbers and area, and must ensure adequate Preserve design to protect the species in the long-term.

**5.6-1b Plant Resource Salvage Plan.** Prior to issuance of land development permits, including clearing or grubbing and grading permits for the Main Campus Property, Lake Property and all off-site impact areas, the applicant shall prepare a resource salvage plan for areas with salvageable plant resources, including Otay tarplant (*Deinandra conjugens*), San Diego barrel cactus (*Ferocactus viridescens*), dot-seed plantain (*Plantago erecta*, Quino checkerspot butterfly larval host plant), and coast cholla and snake cholla (*Cylindropuntia prolifera* and *Opuntia parryi* var. *serpentine*, habitat for cactus wren). The resource salvage plan shall, at a minimum, evaluate options for plant salvage and relocation, including native plant mulching, selective soil salvaging, application of plant materials on manufactured slopes, and application/relocation of resources within the Preserve. Relocation efforts may include seed collection and/or transplantation to a suitable receptor site and will be based on the most reliable methods of successful relocation. The program shall contain a recommendation for method of salvage and relocation/application based on feasibility of implementation and likelihood of success. The program shall include, at a minimum, an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures. The resource salvage plan shall be prepared by a City-approved biologist. The applicant shall also be required to implement the resource salvage plan subject to the oversight of the Development Services Director (or their designee).

Implementation of the Project could potentially result in significant impacts to San Diego fairy shrimp (Impact 5.6-2). Mitigation Measures 5.6-2a through 5.6-2b would reduce impacts to less than significant levels:

- 5.6-2a Fairy Shrimp Surveys.** Prior to issuance of any land development permits, including clearing, grubbing, and grading permits for the Lake Property and off-site impact areas, the project applicant shall retain a qualified biologist possessing a valid ESA Section 10(a)(1)(A) Recovery Permit to survey potential habitat (i.e., road ruts) inside the proposed impact footprint in the Lake Property and off-site impact areas for presence of listed branchiopod species. The surveys shall be conducted in accordance with the most recent protocol survey guidelines established by the USFWS. If sensitive fairy shrimp species are found within the impact areas, the applicant shall implement Mitigation Measure 5.6-2b, which includes measures for obtaining take authorization and preparation and implementation of a resource salvage plan.
- 5.6-2b Fairy Shrimp Take Authorization and Resource Salvage Plan.** Prior to issuance of land development permits, including clearing or grubbing and grading permits for the Lake Property and off-site impact areas, if fairy shrimp surveys required by Mitigation Measure 5.6-2a show the project would have unavoidable impacts to listed fairy shrimp species, the applicant shall consult with the City and USFWS to obtain take authorization pursuant to ESA and the Chula Vista MSCP Subarea Plan. The applicant shall provide for mitigation as required by the City and USFWS, which may include, but is not limited to, preparation of a resource salvage plan and translocation of cysts by inoculation into existing suitable habitat within approved preserve areas or into created habitat on-site or within the Preserve, or acquisition and preservation of occupied habitat off-site.

Implementation of the Project could potentially result in significant impacts to Quino checkerspot butterfly (Impact 5.6-3). Mitigation Measure 5.6-3 would reduce impacts to less than significant levels:

- 5.6-3 Quino Checkerspot Butterfly and Host Plant Surveys.** Prior to issuance of any land development permits, including clearing, grubbing, and grading permits for the Lake Property, areas of the Main Campus Property mapped as Non-Preserve Habitat-Category A as shown on Chula Vista MSCP Subarea Plan Figure 4-1, and off-site impact areas in the Otay River Valley, the project applicant shall retain a qualified biologist possessing a valid ESA Section 10(a)(1)(A) Recovery Permit to perform a site assessment and presence/absence survey for the Quino checkerspot butterfly. The surveys shall be conducted in accordance with the most recent protocol survey guidelines established by the USFWS. The survey shall include an inventory and mapping of locations of Quino checkerspot and its host plant, *Plantago erecta*. For areas within Preserve Habitat-Category A as shown on Chula Vista MSCP Subarea Plan Figure 4-1, a detailed habitat assessment shall be conducted to identify patches of QCB habitat and delineate “significant QCB habitat patches” as described in the Chula Vista MSCP Subarea Plan Section 5.2.8.1 (4). Any “significant QCB habitat patches” within Preserve Habitat-Category A shall be avoided to the maximum extent practicable according to Section 5.2.8.1 (4). The applicant shall implement Mitigation Measure 5.6-2, which includes measures for preparation and implementation of a resource salvage plan for *Plantago erecta*. The Applicant shall notify the City and Wildlife Agencies if QCB are observed within 300 feet of the Preserve boundary, and shall work with the Wildlife Agencies to enable one-time only salvage by the Wildlife

Agencies of larvae, butterflies and/or appropriate habitat constituents in areas identified to have QCB in accordance with section 5.2.8.2.

Implementation of the Project could potentially result in significant impacts to coastal California gnatcatcher (Impact 5.6-4). Mitigation Measure 5.6-4 would reduce impacts to less than significant levels:

**5.6-4 Coastal California Gnatcatcher Avoidance.** For any work proposed between February 15 and August 15, prior to issuance of any land development permits for the Main Campus Property, Lake Property, and off-site impact areas, including clearing, grubbing, grading, and construction permits within or adjacent to suitable breeding habitat for the coastal California gnatcatcher, pre-construction surveys shall be performed in order to determine the presence or absence of the species and extent of occupied habitat. The pre-construction survey area for the coastal California gnatcatcher shall encompass suitable habitat within the project work zone, as well as a 300-foot buffer.

The pre-construction survey shall be performed to the satisfaction of the Development Services Director (or their designee) by a qualified biologist familiar with the City's MSCP Subarea Plan. The results of the pre-construction survey must be submitted in a report to the Development Services Director (or their designee) for review and approval prior to the issuance of any land development permits and prior to initiating any construction activities. If the coastal California gnatcatcher is detected, a minimum 300-foot buffer delineated by orange biological fencing shall be established around the detected species to ensure that no work shall occur within the occupied habitat from February 15 through August 15 and on-site noise reduction techniques shall be implemented to ensure that construction noise levels not exceed 60 dBA  $L_{EQ}$  (1 hour) at the location of any occupied sensitive habitat areas. The Development Services Director (or their designee) shall have the discretion to modify the buffer width depending on-site-specific conditions and in consultation with CDFW and USFWS. If the results of the pre-construction survey determine that the survey area is unoccupied, the work may commence at the discretion of the Development Services Director (or their designee) following the review and approval of the pre-construction report. The Applicant shall notify the City and Wildlife Agencies if QCB are observed within 300 feet of the Preserve boundary, and shall work with the Wildlife Agencies to enable one-time only salvage by the Wildlife Agencies of larvae, butterflies and/or appropriate habitat constituents in areas identified to have QCB in accordance with section 5.2.8.2.

Implementation of the Project could potentially result in significant impacts to least Bell's vireo (Impact 5.6-5). Mitigation Measure 5.6-5 would reduce impacts to less than significant levels:

**5.6-5 Least Bell's Vireo Avoidance.** For any work proposed between March 15 and September 15, prior to the issuance of any land development permits for the northern edge of the Main Campus Property and off-site impact areas, including clearing, grubbing, grading, and construction permits, a pre-construction survey for the least Bell's vireo shall be performed in order to reaffirm the presence and extent of occupied habitat. The pre-construction survey area for the species shall encompass all potentially

suitable habitat within the project work zone, as well as a 300-foot survey buffer. Habitat presumed to be occupied by least Bell's vireo is confined to southern willow scrub habitat approximately 200 feet northeast of the limit of proposed development. Buffer requirements for occupied habitat would encompass approximately 100 feet along the northeast edge of the proposed development area. The pre-construction survey shall be performed to the satisfaction of the Development Services Director (or their designee) by a qualified biologist familiar with the Chula Vista MSCP Subarea Plan. The results of the pre-construction survey must be submitted in a report to the Development Services Director (or their designee) for review and approval prior to the issuance of any land development permits and prior to initiating any construction activities. If least Bell's vireo is detected, a minimum 300-foot buffer delineated by orange biological fencing shall be established around the detected species to ensure that no work shall occur within occupied habitat from March 15 through September 15. On-site noise reduction techniques shall be implemented to ensure that construction noise levels not exceed 60 dBA  $L_{EQ}$  (1 hour) at the location of any occupied sensitive habitat areas. The Development Services Director (or their designee) shall have the discretion to modify the buffer width depending on site-specific conditions. If the results of the pre-construction survey determine that the survey area is unoccupied, the work may commence at the discretion of the Development Services Director (or their designee) following the review and approval of the pre-construction report.

Implementation of the Project could potentially result in significant impacts to burrowing owl (Impact 5.6-6). Mitigation Measure 5.6-6 would reduce impacts to less than significant levels:

**5.6-6 Pre-Construction Burrowing Owl Survey.** Prior to issuance of any land development permits, including clearing, grubbing, and grading permits for the Main Campus Property and off-site impact areas south of it, the project applicant shall retain a City-approved biologist to conduct focused pre-construction surveys for burrowing owls. The surveys shall be performed no earlier than 30 days prior to the commencement of any clearing, grubbing, or grading activities. If occupied burrows are detected, the City-approved biologist shall prepare a passive relocation mitigation plan subject to review and approval by the wildlife agencies and the City, including any subsequent burrowing owl relocation plans to avoid impacts from construction-related activities.

Implementation of the Project could potentially result in significant impacts to northern harrier (Impact 5.6-7). Mitigation Measure 5.6-7 would reduce impacts to less than significant levels:

**5.6-7 Pre-Construction Northern Harrier Survey.** Prior to issuance of any land development permits, including clearing, grubbing, and grading permits for the Main Campus Property and off-site impact areas south of it, the project applicant shall retain a City-approved biologist to conduct focused surveys for northern harrier to determine the presence or absence of this species within 900 feet of the construction area. The pre-construction survey must be conducted within 10 calendar days prior to the start of construction. The results of the survey must be submitted to the City for review and approval. If active nests are detected by the City-approved biologist, a 900-foot impact avoidance buffer around active nests will be established unless a different buffer is recommended by the City-approved biologist and approved by the City, CDFW, and

USFWS, and a bio-monitor shall be on site during construction to minimize construction impacts and ensure that no nests are removed or disturbed until all young have fledged.

Implementation of the Project could potentially result in significant impacts to southern California rufous-crowned sparrow, coastal cactus wren, and other nesting birds (Impacts 5.6-8a through 5.6-8c, respectively). Mitigation Measures 5.6-8a through 5.6-8e would reduce impacts to less than significant levels:

- 5.6-8a Pre-Construction Nesting Bird Survey.** To avoid any direct impacts to raptors and/or any migratory birds protected under the Migratory Bird Treaty Act, removal of habitat that supports active nests on the proposed area of disturbance for the Main Campus Property and Lake Property and all off-site impact areas should occur outside of the breeding season for these species. The breeding season is defined as February 15 to August 15 for coastal California gnatcatcher and other non-raptor birds and January 15 to August 31 for raptor species. If removal of habitat on the proposed area of disturbance must occur during the breeding season, the project applicant shall retain a City-approved biologist to conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey must be conducted within ~~40~~seven calendar days prior to the start of construction, and the results must be submitted to the City for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan, as deemed appropriate by the City, shall be prepared and include proposed measures to be implemented to ensure that disturbance of breeding activities are avoided, including establishing a 300-foot avoidance buffer (500 feet for raptors), unless a different buffer is recommended by the City-approved biologist and approved by the City, CDFW, and USFWS. The report or mitigation plan shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's mitigation monitor shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.
- 5.6-8b Construction Fencing.** Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits, the project applicant shall install fencing in accordance with Chula Vista Municipal Code 17.35.030. Prominently colored, well-installed fencing and signage shall be in place wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the qualified monitoring biologist. Fencing shall remain in place during all construction activities. All temporary fencing shall be shown on grading plans for areas adjacent to the Preserve and for all off-site facilities constructed within the Preserve. Prior to release of grading and/or improvement bonds (as may be required by the City), a qualified biologist shall provide evidence that work was conducted as authorized under the approved land development permit and associated plans.
- 5.6-8c Construction Staging Areas.** The project applicant shall ensure proper designation of construction staging areas for project activities such that no staging areas are located within Preserve areas or other sensitive habitat areas. Staging areas shall be identified following the advice of a qualified biologist, and with the approval of the City.

Designated staging areas shall be included on construction plans and if located outside of development areas, project plans shall include revegetation and/or mitigation for staging area impacts according to the HLIT. The construction contractor shall receive approval by the project applicant prior to mobilizations and staging of equipment outside of the project boundaries.

**5.6-8d Biological Construction Monitor.** Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits, for any areas adjacent to the Preserve and the off-site facilities located within the Preserve, the project applicant shall provide written confirmation that a City-approved biological monitor has been retained and shall be on site during clearing, grubbing, and/or grading activities. The biological monitor shall attend all pre-construction meetings and be present during the removal of any vegetation to ensure that the approved limits of disturbance are not exceeded and provide periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas, and protective fencing. Monitoring adjacent to Preserve Habitat Category A shall be consistent with the Chula Vista MSCP Subarea Plan Section 5.2.8.2. The biological monitor shall be authorized to halt all associated project activities that may be in violation of the Chula Vista MSCP Subarea Plan and/or permits issued by any other agencies having jurisdictional authority over the project.

Before construction activities occur in areas containing sensitive biological resources within the off-site facilities area, all workers shall be educated by a City-approved biologist to recognize and avoid those areas that have been marked as sensitive biological resources.

**5.6-8e Implement Preserve Edge Plan.** Prior to the issuance of grading permits, the project applicant shall submit evidence, to the satisfaction of the Development Services Director (or their designee), showing that the following features of the Preserve Edge Plans have been incorporated into grading and landscaping plans:

- Provide post and rail fencing and signage for sensitive habitat adjacent to trails. Prior to the issuance of land development permits, including clearing or grubbing and grading and/or construction permits, for the project, the project owner shall submit wall and fence plans depicting appropriate barriers to prevent unauthorized access to the Preserve. The wall and fence plans shall, at a minimum, illustrate the locations and cross-sections of proposed walls, fences, informational and directional signage, access controls, and/or boundary markers along the Preserve boundary and off-site pedestrian trails as conceptually described in the Edge Plans. The required wall and fence plan shall be subject to the approval of the Development Services Director (or their designee).
- Install canyon subdrains to prevent erosion of drainage and wetlands within the Preserve.

- Prevent release of toxins, chemicals, petroleum products, exotic plant materials, and other elements that might degrade or harm the natural environment or ecosystem within the Preserve.
- Implement all necessary requirements for water quality as specified by the state and local agencies.
- Do not allow the introduction of invasive, non-native plant species into areas immediately adjacent to the Preserve. All slopes immediately adjacent to the Preserve shall be planted with native species that reflect the adjacent native habitat, per the Edge Plan. Prior to the issuance of land development permits, including clearing or grubbing and grading and/or construction permits, for areas within the 100-foot Preserve edge, the project applicant shall prepare and submit to the satisfaction of the Development Services Director (or their designee) landscape plans to ensure that the proposed plant palette is consistent with the plant list contained in the Preserve Edge Plans for each village. The landscape plan shall also incorporate a manual weeding program for areas adjacent to the Preserve. The manual weeding program shall describe, at a minimum, the entity responsible for controlling invasive species, the maintenance activities and methods required to control invasive species, and a maintenance/monitoring schedule.
- Incorporate all fuel modification areas into development plans and do not include any areas within the Preserve, consistent with the Fire Protection Plan (FPP).
- In compliance with the Chula Vista MSCP Subarea Plan, all lighting shall be shielded and directed away from the Preserve. Prior to issuance of a building permit, a lighting plan and photometric analysis shall be prepared pursuant to Mitigation Measures 5.2-1 and 5.2-2 provided in Section 5.2, *Aesthetics/Landform Alteration*.
- Noise impacts adjacent to the Preserve lands shall be minimized. Berms or walls shall be constructed adjacent to commercial areas and any other use that may introduce noises that could impact or interfere with wildlife utilization of the Preserve, although no such uses are currently proposed within or adjacent to the Preserve Edge. Construction activities shall include noise reduction measures or be conducted outside the breeding season of sensitive bird species, consistent with Mitigation Measure 5.5-5, provided in Section 5.5.

Long-term edge effects could include noise, lighting, domestic animal predation, and attraction of natural predators. These indirect impacts to sensitive wildlife would be significant (Impact 5.6-9). Mitigation Measures 5.6-9 would reduce impacts to less than significant levels:

**5.6-9 Siting Criteria Analysis.** Prior to the issuance of any land development permits, including clearing, grubbing, and grading permits for all Planned and Future Facilities within 100 percent Conservation Areas including Preserve areas south of the Main Campus Property and north and west of the Lake Property, the project applicant shall

complete an updated siting criteria analysis for all proposed Planned and Future Facilities, based on biological surveys completed within one year of construction.

## **B. Sensitive Vegetation Communities/Habitats**

Implementation of the Project would result in significant direct impacts to five sensitive vegetation communities: maritime succulent scrub, Diegan coastal sage scrub, mule fat scrub, non-native grassland, and Diegan coastal sage scrub/non-native grassland (Impacts 5.6-10a through 5.6-10e). Mitigation Measures 5.6-10a through 5.6-10g would reduce impacts to less than significant levels:

**5.6-10a Compensatory Mitigation for Impacts to Sensitive Habitat.** Impacts to sensitive habitat types from development associated with the Lake Property and off-site impact areas will be mitigated as shown in Table 5.6-6, *Mitigation for Impacts to Vegetation in the Lake Property and Off-site Areas*, and in accordance with Table 5-3 of the Chula Vista MSCP Subarea Plan. Impacts associated with the Main Campus Property are in the Development Area of a Covered Project or are Planned and Future Facilities within 100 percent Conservation Areas of a Covered Project, and do not require compensatory mitigation above and beyond the restoration requirements specified in the Subarea Plan. Mitigation for impacts associated with the Lake Property will be in accordance with the Chula Vista MSCP Subarea Plan and the City's HLIT Ordinance and as provided in the HLIT Findings (Appendix E of this EIR). Areas within or adjacent to the Lake Property will be given priority for compensatory mitigation.

Prior to issuance of any land development permits, including clearing, grubbing, and grading permits for the Lake Property and off-site impact areas, the project applicant shall obtain an HLIT Permit from the City pursuant to Section 17.35.080 of the Chula Vista Municipal Code and shall mitigate for direct impacts pursuant to Sections 5.2.2 and 5.2.4 of the City's MSCP Subarea Plan, including any applicable wetland mitigation pursuant to table 5.6 of the City's MSCP Subarea Plan. In compliance with the Chula Vista MSCP Subarea Plan, the applicant shall secure the appropriate MSCP Tier mitigation credits within a City- and wildlife agency-approved mitigation bank or other approved location offering mitigation credits consistent with the ratios specified in Table 5.6-6.

**Table 5.6-6 MITIGATION FOR IMPACTS TO VEGETATION IN THE LAKE PROPERTY AND OFF-SITE AREAS (HLIT)<sup>1</sup>**

Community	Tier <sup>2</sup>	Impact (Acres)	Mitigation Ratio <sup>3</sup>	Required Mitigation <sup>3</sup> (Acres)
Diegan coastal sage scrub outside of the Preserve	II	9.63	1:1	9.63
Diegan coastal sage scrub inside of the Preserve	II	0.59	1.5:1	0.89
Non-native grassland outside of the Preserve	III	0.78	0.5:1	0.39
Non-native grassland inside of the Preserve	III	3.71	1:1	3.71

<sup>1</sup> For the Main Campus Property, this includes impacts of off-site Future Facilities inside the Preserve, since these impacts exceed the 2-acre per facility threshold to require mitigation. On-site impacts and Planned Facilities for the Main Campus Property do not require mitigation and are not included in this table. For the Lake Property, this includes on-site impacts (which are outside of the Preserve), off-site Future and Planned Facilities inside the Preserve, and off-site Future and Planned Facilities outside of the Preserve. This table does not include the temporary impacts inside the preserve; those will be restored/revegetated in place per Mitigation Measures 5.6-14 and 5.6-16.

<sup>2</sup> Tiers and mitigation ratios are in accordance with the Chula Vista MSCP Subarea Plan's HLIT Upland Habitat Mitigation Ratios. No mitigation is required for Tier IV habitat types (i.e., non-sensitive vegetation communities and land covers including disturbed land, ornamental, or developed land).

<sup>3</sup> It is assumed that mitigation will be located inside the Preserve. Mitigation outside of the Preserve (i.e., Chula Vista MSCP Subarea Plan or Planning Area boundary) will require increased mitigation per Table 5-3 of the City's MSCP Subarea Plan.

The project applicant shall be required to provide verification of purchase to the City prior to issuance of any land development permits.

In the event that a project applicant is unable to secure mitigation through an established mitigation bank approved by the City and wildlife agencies, the project applicant shall secure the required mitigation through the conservation of an area containing in-kind MSCP Tier habitat within the City's MSCP Subarea Plan or MSCP Planning Area in accordance with the mitigation ratios contained in Table 5-3 of the City's MSCP Subarea Plan and subject to wildlife agency concurrence.

Prior to issuance of any land development permit, and to the satisfaction and oversight of the City's Development Services Director (or their designee), the applicant shall secure the parcel(s) that will be permanently preserved for impact mitigation, prepare a long-term management and monitoring plan for the mitigation area, secure an appropriate management entity to ensure that long-term biological resource management and monitoring of the mitigation area is implemented in perpetuity, and establish a long-term funding mechanism for the management and monitoring of the mitigation area in perpetuity.

The long-term management and monitoring plan shall provide management measures to be implemented to sustain the viability of the preserved habitat and identify timing for implementing the measures prescribed in the management and monitoring plan. The mitigation parcel shall be restricted from future development and permanently

preserved through the recordation of a conservation easement or other mechanism approved by the wildlife agencies as being sufficient to ensure that the lands are protected in perpetuity. The conservation easement or other mechanism approved by the wildlife agencies shall be recorded prior to issuance of any land development permits.

The project applicant shall be responsible for maintaining the biological integrity of the mitigation area and shall abide by all management and monitoring measures identified in the management and monitoring plan until such time as the established long-term funding mechanism has generated sufficient revenues to enable a City-approved management entity to assume the long-term maintenance and management responsibilities.

**5.6-10b Maritime Succulent Scrub Restoration Plan.** Prior to the issuance of any land development permits (including clearing and grubbing or grading permits) on the Main Campus Property, the project applicant shall prepare a restoration plan to restore 0.31 acre of maritime succulent scrub in the temporary impact (grading) footprint within the Preserve. The maritime succulent scrub restoration shall be prepared by a City approved biologist and to the satisfaction of the Development Services Director (or their designee) pursuant to the Otay Ranch RMP restoration requirements. The restoration plan shall include, at a minimum, an implementation strategy; species salvage and relocation, appropriate seed mixtures and planting method; irrigation; quantitative and qualitative success criteria; maintenance, monitoring, and reporting program; estimated completion time; and contingency measures. The project applicant shall also be required to implement the restoration plan subject to the oversight and approval of the Development Services Director (or their designee).

**5.6-10c Salt Creek Coastal Sage Scrub Restoration Plan.** Prior to the issuance of any grading permits for the project, the project applicant shall prepare a restoration plan to restore 20.6 acres of disturbed habitat within Salt Creek (shown on Figure 3-2 of the Chula Vista MSCP Subarea Plan) to coastal sage scrub habitat. The restoration plan shall be prepared by a City approved biologist and to the satisfaction of the Development Services Director (or their designee) consistent with the guidelines established in the Otay Ranch Coastal Sage Scrub and Maritime Succulent Scrub Habitat Replacement Master Plan. The restoration plan shall include, at a minimum, an implementation strategy; appropriate seed mixtures and planting method; irrigation; quantitative and qualitative success criteria; maintenance, monitoring, and reporting program; estimated completion time; and contingency measures. The project applicant shall also be required to implement the restoration plan subject to the oversight and approval of the Development Services Director (or their designee).

**5.6-10d Coastal Sage Scrub and Non-Native Grassland Revegetation Plan.** Prior to issuance of land development permits, including clearing, grubbing, grading and construction permits for the Future and Planned Facilities associated with the Main Campus Property and the Lake Property, the Project applicant shall provide a revegetation plan for temporary impacts of Planned and Future Facilities within the Preserve, estimated at 0.66 acre of coastal sage scrub and 0.27 acre of non-native grassland. The revegetation

plan must be prepared by a qualified City-approved biologist familiar with the City's MSCP Subarea Plan and must include, but not be limited to, an implementation plan; appropriate seed mixtures and planting method; irrigation method; quantitative and qualitative success criteria; maintenance, monitoring, and reporting program; estimated completion time; and contingency measures. The Project applicant shall be required to prepare and implement the revegetation plan subject to the oversight and approval of the Development Services Director (or their designee).

**5.6-10e Annexation to Otay Ranch Preserve Community Facilities District (CFD) No. 97-2.** Prior to the approval of the First Final Map for the Project on the Main Campus Property, the project applicant shall coordinate with the City Engineer and annex the project area within the Otay Ranch Preserve Community Facilities District (CFD) No. 97-2.

**5.6-10f Land Conveyance to Otay Ranch Preserve Owner/Manager.** Prior to recordation of each Final Map, project applicant shall convey land within the Otay Ranch Preserve to the Otay Ranch Preserve Owner/Manager (POM) or its designee at a ratio of 1.188 acres for each acre of development area (excluding "common use" areas as defined by the GDP and RMP), as defined in the RMP. Access for maintenance purposes shall also be conveyed to the satisfaction of the POM, and each tentative map shall be subject to a condition that the applicant shall execute a maintenance agreement with the POM stating that it is the responsibility of the applicant to maintain the conveyed parcel until the Preserve CFD has generated sufficient revenues to enable the POM to assume maintenance responsibilities. The applicant shall maintain and manage the offered conveyance property consistent with the RMP Phase 2 until the Preserve CFD has generated sufficient revenues to enable the POM to assume maintenance and management responsibilities.

**5.6-10g Area Specific Management Directives for Conveyance Areas.** Prior to the POM's formal acceptance of the conveyed land in fee title, the project applicant shall prepare, to the satisfaction of the POM, Area Specific Management Directives (ASMDs) for the associated conveyance areas. The ASMDs shall incorporate the guidelines and specific requirements of the Otay Ranch RMP plans and programs, management requirements of Table 3-5 of the MSCP Subregional Plan and information and recommendations from any relevant special studies. Guidelines and requirements from these documents shall be evaluated in relationship to the Preserve configuration and specific habitats and species found within the associated conveyance areas and incorporated into the ASMDs to the satisfaction of the POM.

### **C. Jurisdictional Water and Wetlands**

Impacts to jurisdictional water and wetlands would be significant (Impact 5.6-11). Mitigation Measures 5.6-11a and 5.6-11b would reduce impacts to less than significant levels:

**5.6-11a Wetland Delineation Studies.** Prior to issuance of any land development permits, including clearing, grubbing, and grading permits on the Main Campus Property and Lake Property and off-site impact areas, the project applicant shall retain a qualified

biologist to perform a formal wetland delineation in order to qualify and quantify existing wetland resources potentially subject to the regulatory jurisdiction of the USACE, RWQCB, and/or CDFW. Wetland delineations shall be conducted in accordance with the methods and current regulatory guidance recommended by these agencies. The results of the wetland delineation shall be documented in a report to determine project impacts and avoidance, and if required, facilitate the acquisition of federal and state permits.

**5.6-11b Wetland Permits.** Prior to issuance of land development permits, including clearing or grubbing and grading permits for areas that impact jurisdictional waters, the project applicant shall provide evidence that all required regulatory permits, such as those required under Section 404 of the federal CWA, Section 401 of the federal CWA, and Section 1600 of the California Fish and Game Code, and/or the Porter Cologne Water Quality Act, have been obtained from the appropriate agencies. Wetland mitigation requirements under these permits might include preparation of a Habitat Mitigation and Monitoring Plan approved by USACE, CDFW, and RWQCB.

**D. Wildlife Movement Corridors and Nursery Sites**

No mitigation is required.

**E. Consistency with Local Policies, Ordinances, HCP, and NCCP**

Implementation of the Project would result in potentially significant impacts related to consistency with local biology-related policies, ordinances, and plans related to biological resources (Impact 5.6-12). Implementation of all mitigation measures in this section (Mitigation Measures 5.6-1a through 5.6-11), as well as Mitigation Measure 5.11-1a (development and implementation of a SWPPP and monitoring plan), would reduce impacts due to inconsistencies with applicable biology-related policies, ordinances, and HCPs/NCCPs to less than significant levels.

**5.6.6 Level of Significance After Mitigation**

**A. Sensitive Plant and Wildlife Species**

Significant impacts to sensitive plant and animal species (Impacts 5.6-1a through 5.6-9) would be reduced to less than significant levels with implementation of Mitigation Measures 5.6-1a through 5.6-9, as well as Mitigation Measure 5.11-1a (development and implementation of a SWPPP and monitoring plan; refer to Section 5.11.5), because the mitigation would require surveys for sensitive biological resources prior to the issuance of construction permits that would conclude that the resource is either absent, or if present, that avoidance, relocation, or additional permitting would be required before construction permits are obtained.

**B. Riparian Habitat and Other Sensitive Natural Communities**

Significant direct impacts to eight sensitive vegetation communities (Impact 5.6-10) would be reduced to less than significant levels with implementation of Mitigation Measures 5.6-8b through 5.6-8e and 5.6-10a through 5.6-10g above, as well as Mitigation Measure 5.11-1a

(development and implementation of a SWPPP and monitoring plan; refer to Section 5.11.5) because the mitigation would require surveys that would conclude that the resource is either absent, or if present, that avoidance, relocation, or additional permitting would be required before construction permits are obtained. Fulfillment of mitigation requirements per the Chula Vista MSCP Subarea Plan would involve compensatory mitigation to offset impacts on riparian habitat and sensitive natural communities, and the preparation and implementation of restoration plans prior to the issuance of construction permits would describe the specific methods to reduce impacts to the satisfaction of the City.

**C. Federally Protected Wetlands**

Significant direct impacts to jurisdictional water and wetlands (Impact 5.6-11) would be reduced to less than significant levels with implementation of Mitigation Measures 5.6-8b, 5.6-8e, 5.6-10a, 5.6-11a, and 5.6-11b above, as well as Mitigation Measure 5.11-1a (development and implementation of a SWPPP and monitoring plan; refer to Section 5.11.5) because the mitigation would require fencing and avoiding sensitive biological resources, verifying that the Preserve Edge Plan has been incorporated into grading and landscaping plans, meeting compensatory mitigation requirements (if any), and obtaining regulatory permits for impacts on wetlands.

**D. Wildlife Movement Corridors and Nursery Sites**

Impacts to wildlife movement corridors and nursery sites would be less than significant without mitigation.

**E. Consistency with Local Policies, Ordinances, HCP, and NCCP**

Potentially significant impacts due to inconsistencies with applicable biology-related policies, ordinances, and plans (Impact 5.6-12) would be reduced to less than significant levels with implementation of all mitigation measures in this section (Mitigation Measures 5.6-1a through 5.6-11), as well as Mitigation Measure 5.11-1a (development and implementation of a SWPPP and monitoring plan; refer to Section 5.11.5), because the mitigation would include addressing and implementing actions that address applicable biology-related policies, ordinances, and HCPs/NCCPs.

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