Ms. Catherine Presmyk  
UC San Diego Campus Planning  
9500 Gilman Drive MC 0074 (U.S. Mail)  
Torrey Pines Center South, Suite 355 (Deliveries)  
La Jolla, CA 92093-0074

Subject: Biological Resources Letter Report for the Mesa Housing Nuevo West and East Project

Dear Ms. Presmyk:

HELIX Environmental Planning, Inc. (HELIX) has prepared this letter report to document the findings of a biological resources technical study for the proposed Mesa Housing Nuevo West and East Project (project) located on the University of California, San Diego (UC San Diego) La Jolla campus in San Diego, California.

The study includes an assessment of existing conditions within an approximately 32.2-acre project site. The project site encompasses all proposed access, staging, and development areas associated with the proposed project. This letter references the findings of several biological studies performed by HELIX within the project site and surrounding areas, including those performed most recently for the 2018 Long Range Development Plan (LRDP) Update (HELIX 2016). Figures 1 and 2 depict the project location and impacts to existing biological resources.

This report is intended to provide the project-specific information necessary to support the proposed project’s California Environmental Quality Act (CEQA) document.

INTRODUCTION

Project Location

The project site is located on the East Campus portion of UC San Diego, east of Interstate (I-) 5, south of Miramar Street, and west of Regents Road (Figure 1). The project site is located between UC San Diego’s Central Canyon and South Canyon, which are two southwest-trending finger canyons that terminate at I-5. The site is located entirely outside of the Coastal Zone (Figure 1).
Project Description

The proposed project consists of two campus student housing developments and a shared parking structure located on separate, but proximate sites, as well as roadway and infrastructure improvements within the approximately 86-acre Mesa Housing Neighborhood on the East Campus of the UC San Diego. The proposed project would replace low-density student housing with higher-density apartment buildings that are environmentally responsible in design and construction. The proposed residential buildings would be located on two sites generally located south of Miramar Street and west of Regents Road and on either side of the Mesa Nueva project currently under construction. The proposed parking structure would be located north of Miramar Street and west of Athena Circle on an existing surface parking lot.

The Nuevo West component of the project would redevelop an approximately 6.2-acre housing site that forms the West Mesa portion of the neighborhood. The project would remove existing on-site facilities, including six low-density apartment buildings, the associated surface parking, and an amenity service building. Nuevo West would include the design and construction of two residential buildings for student housing and the UC San Diego Family House and a market building. The two residential buildings would be moderate to high-rise structures consistent with other development in the University City area and would contain 802 new beds for students and 82 beds for the UC San Diego Family House. Nuevo West would also include pedestrian and bicycle circulation paths, indoor and outdoor common spaces and community gathering areas, recreation spaces, and other support amenities.

Nuevo East would redevelop an approximately 13.2-acre housing site on the North Mesa portion of the neighborhood. Existing on-site structures consisting of one laundry building and 22 low-density apartment buildings, a community building, and the associated surface parking spaces would be removed. Nuevo East would construct moderate to high-rise student housing buildings consistent with other development in the University City area and would contain 1,374 new beds for single graduate and upper division undergraduate students within six buildings. A student support, annex, the Exchange space would also be constructed that would serve as a gateway to the entire Mesa Housing Neighborhood from Regents Road and a hub for student support spaces. Support spaces would also be provided, including pedestrian and bicycle circulation paths, indoor and outdoor common spaces and community gathering areas, recreation spaces, and other support amenities.

The shared-use, above-grade, multi-story parking structure would be constructed as part of Nuevo West on a 3.2-acre site on the north side of Miramar Street that currently contains lot P783. This existing 142-space surface parking lot would be removed and a multi-story parking garage containing 1,228 spaces would be constructed to accommodate Mesa Housing residents and staff of the UC San Diego Health System. Adjacent to the parking structure site, a surface parking lot containing 116 spaces, a pedestrian pathway, and a landing area/plaza for the future Mesa Housing Pedestrian and Bike Bridge would be constructed on a 3.4-acre site.

The proposed project also would construct a roadway connection between Miramar Street and Athena Circle to provide an internal vehicular campus connection between Mesa Housing and the Science Research Park on the East Campus. Other roadway improvements would include widening of

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1 Following construction, the Nuevo East housing site would cover approximately 9.5 acres and the remainder of the 13.2-acre redevelopment site would remain as open space and available for future development.
Street from Regents Road intersection to the Nuevo West project and modifications to the intersection of Miramar Street and Regents Road. Utility upgrades and relocations are proposed along Miramar Street and Athena Circle, adjacent to the housing sites.

A restoration plan would be implemented to restore areas adjacent to Central Canyon that would be temporarily disturbed by project construction, including temporary impacts to sensitive vegetation (i.e., Diegan coastal sage scrub) associated with the construction staging site. The adjacent recontoured north-facing canyon slope would also be revegetated as Diegan coastal sage scrub. A bioswale installed at the bottom of the slope and a bio-retention basin installed north of the parking structure would be revegetated with native herbaceous species. As part of the restoration efforts, site preparation activities would include weeding/clearing the revegetation area of non-native vegetation, removal of trash/debris, and installation of straw wattles for erosion control purposes and a temporary on-grade irrigation system. The revegetation area would then be planted and seeded with native species. Diegan coastal sage scrub restoration on the slope would include approximately 1,200 one-gallon container plants per acre and 20 pounds per acre of pure live seed. Species installed would consist of native sage scrub species that are representative of naturally-occurring sage scrub habitat on campus. The anticipated container stock palette and seed mix for Diegan coastal sage scrub restoration is shown in Table 1, Central Canyon Slope Restoration Proposed Container Stock Palette and Seed Mix. Final plant palette and seed mix would depend on availability at time of installation. Seed would be installed via hydroseed method using a bonded fiber matrix mulch to assist in erosion control.

Table 1
CENTRAL CANYON SLOPE RESTORATION PROPOSED CONTAINER STOCK PALETTE AND SEED MIX

<table>
<thead>
<tr>
<th>CONTAINER STOCK</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Species</strong></td>
</tr>
<tr>
<td>Artemisia californica</td>
</tr>
<tr>
<td>Encelia californica</td>
</tr>
<tr>
<td>Eriogonum fasciculatum</td>
</tr>
<tr>
<td>Heteromeles arbutifolia</td>
</tr>
<tr>
<td>Malosma laurina</td>
</tr>
<tr>
<td>Rhus integrifolia</td>
</tr>
<tr>
<td>Salvia mellifera</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SEED MIX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scientific Name</strong></td>
</tr>
<tr>
<td>Acmispon glaber</td>
</tr>
<tr>
<td>Artemisia californica</td>
</tr>
<tr>
<td>Dienandra fasciculata</td>
</tr>
<tr>
<td>Encelia californica</td>
</tr>
<tr>
<td>Eriogonum fasciculatum</td>
</tr>
<tr>
<td>Eriophyllum confertiflorum</td>
</tr>
<tr>
<td>Eschscholzia californica</td>
</tr>
<tr>
<td>Isocoma menziesii</td>
</tr>
<tr>
<td>Lupinus succulentus</td>
</tr>
<tr>
<td>Melica imperfecta</td>
</tr>
<tr>
<td>Mimulus aurantiacus</td>
</tr>
</tbody>
</table>
The native herbaceous seed mix for the drainage bioswale at the bottom of the slope and the bio-retention basin is shown below in Table 2, *Drainage Bioswale and Bio-retention Basin Proposed Seed Mix*. Species installed would consist of native species that are representative of naturally-occurring habitat on campus. Seed would be installed via hydroseed method using a bonded fiber matrix mulch to assist in erosion control.

### Table 2

**DRAINAGE BIOSWALE AND BIO-RETENTION BASIN**
**PROPOSED SEED MIX**

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Ambrosia psilostachya</em></td>
<td>western ragweed</td>
</tr>
<tr>
<td><em>Artemisia douglasiana</em></td>
<td>mugwort</td>
</tr>
<tr>
<td><em>Cyperus eragrostis</em></td>
<td>flatsedge</td>
</tr>
<tr>
<td><em>Distichlis spicata</em></td>
<td>saltgrass</td>
</tr>
<tr>
<td><em>Elymus triticoides</em></td>
<td>creeping wild rye</td>
</tr>
<tr>
<td><em>Juncus mexicanus</em></td>
<td>Mexican rush</td>
</tr>
<tr>
<td><em>Muhlenbergia rigens</em></td>
<td>deergrass</td>
</tr>
<tr>
<td><em>Pluchea odorata</em></td>
<td>saltmarsh fleabane</td>
</tr>
<tr>
<td><em>Sisyrinchium bellum</em></td>
<td>blue-eyed grass</td>
</tr>
</tbody>
</table>

1 20 lbs/acre pure live seed.

The revegetation area would be maintained and monitored for a period of three years following installation. Maintenance activities would include the treatment of invasive and non-native weeds, removal of trash and debris, adjustments to the irrigation system, and replacement of plant material, as required. Monitoring visits would occur four times per year.

Demolition, site improvements, and building construction for Nuevo West are anticipated to begin late 2017, and Nuevo West is estimated to take approximately 24 months to complete. Nuevo West is anticipated to be occupied by winter 2019. Construction staging for Nuevo West housing and the parking structure would occur between the two sites in the area north of Mesa Nueva and Miramar Street. This 3.7-acre staging area also would provide a point of connection for the two sites, which are expected to be under construction simultaneously. Demolition, site improvements, and building construction for Nuevo East are anticipated to begin in 2018, and Nuevo East is estimated to take approximately 24 months to complete. It is estimated that construction of Nuevo East would be completed in spring 2020. Construction staging for Nuevo East Housing would be located in the
METHODS

HELIX biologists completed vegetation mapping, general biological surveys, and rare plant surveys for the entire UC San Diego La Jolla campus in 2016 as part of the LRDP Update (HELIX 2016). Campus-wide surveys for coastal California gnatcatcher (*Polioptila californica californica*) also were completed by HELIX and HELIX subcontractor Tara Baxter in 2016, and campus-wide surveys for least Bell’s vireo (*Vireo pusillus bellii*) were completed by HELIX in 2017. The limits of work for the proposed project were included in these campus-wide surveys. Prior to conducting fieldwork for the LRDP Update, HELIX performed a review of recent aerial imagery, previous vegetation and sensitive resources mapping for the campus conducted as part of the 2004 LRDP (HELIX 2004), as well as vegetation mapping and associated reports prepared for specific campus projects over the past several years (HELIX 2005, 2009, 2010a-c; 2011a-b; and 2015).

General Biological Survey

Vegetation mapping and general biological surveys of this portion of the campus were conducted for the LRDP Update by HELIX biologist Stacy Nigro on March 30, 2016 and by HELIX biologist Sally Trnka on May 5, 2016. The site was surveyed on foot and with the aid of binoculars. Plant and animal species observed or otherwise detected during the surveys were recorded. Animal identifications were made in the field by direct, visual observation or indirectly by detection of calls, burrows, tracks, or scat. Plant identifications were made in the field or in the lab through comparison with voucher specimens or photographs. The locations of special status plant and animal species incidentally observed or otherwise detected were mapped.

Rare Plant Surveys

Rare plant surveys of this portion of the campus were conducted for the LRDP Update by Ms. Trnka on April 28 and 29, 2016. Searches were made for those species that are listed as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) or California Department of Fish and Wildlife (CDFW); and those with a California Rare Plant Rank (CRPR) 1 through 4 designated by the California Native Plant Society (CNPS). The surveys were conducted on foot with the aid of vegetation maps and aerial imagery. Special status plant species encountered were mapped using a hand-held global positioning system unit and/or on an aerial photograph.

Coastal California Gnatcatcher Surveys

Coastal California gnatcatcher surveys of this portion of the campus were conducted for the LRDP Update by Ms. Baxter on April 19, April 26, May 3, May 10, May 17, and May 24, 2016. Surveys were conducted in accordance with the *Coastal California Gnatcatcher Presence/Absence Survey Protocol* (USFWS 1997). UC San Diego is not a participating agency in the Natural Community Conservation Planning program. For non-participating agencies, the USFWS requires six protocol-level surveys for coastal California gnatcatcher to be completed between March 15 and June 30 at least seven days apart. This six-visit protocol was followed for the 2016 campus-wide surveys. The survey area consisted of all potential coastal California gnatcatcher habitat occurring on site (i.e., Diegan coastal sage scrub,
including disturbed phases). The survey was conducted by walking through the vegetation or on adjacent paths, and birds were viewed with the aid of binoculars, where necessary. If the coastal California gnatcatcher was not detected passively, a digital coastal California gnatcatcher call-prompt was briefly played. Coastal California gnatcatcher locations were mapped on an aerial photograph.

**Least Bell’s Vireo**

Least Bell’s vireo surveys of this portion of the campus were conducted by HELIX biologists in 2017 in accordance with *Least Bell’s Vireo Survey Guidelines* (USFWS 2001). The survey consisted of eight site visits made from April 10 through July 3, 2017. The survey area consisted of potential least Bell’s vireo riparian habitat (i.e., southern willow scrub and mule fat scrub). The survey was conducted by walking along the edges of potential least Bell’s vireo habitat while listening for least Bell’s vireo vocalizations and while viewing birds with the aid of binoculars. Special status bird species locations (and those of the brown-headed cowbird [*Molothrus ater*; a nest parasite]) were mapped on an aerial photograph.

**Database Review**

Database applications reviewed for the proposed project included the CDFW’s California Natural Diversity Database (CNDDB; CDFW 2017a), CNPS Inventory of Endangered and Rare Plants (2016), and USFWS listed species occurrence database (USFWS 2017).

**Nomenclature**

Nomenclature used in this report generally comes from Holland (1986) and Oberbauer (2008) for vegetation; Baldwin et al. (2012) for plants; and American Ornithologists’ Union (2016) for birds. Animal species status is from CDFW (2017b).

**EXISTING CONDITIONS**

The Nuevo West and Nuevo East housing sites and Miramar Street and Athena Circle improvements areas are entirely developed. The eastern half of the Nuevo West parking structure site is developed with existing parking and staging areas, and the western half of the parking structure site consists of disturbed habitat and disturbed Diegan coastal sage scrub. The limited areas of disturbed native habitat occurring within the project site are fragmented, intermixed with non-native vegetation, and located immediately adjacent to existing development. Overall, the project site supports low-quality biological resources and provides limited biological function and value.

**General Land Use**

The project site is located on East Campus, which is situated on a mesa that was once occupied by a portion of Camp Matthews, a U.S. Marine Corps rifle training range. Past military land uses disturbed much of this area. The majority of the project site consists of previously developed lands with existing roads, campus housing, and parking areas. Small areas of undeveloped land south of the Central Canyon occur within the project footprint. These areas consist largely of disturbed habitat, with small inclusions of disturbed native shrub habitat (see Attachment A, Site Photographs).

Lands off site to the northwest of the project include the Central Canyon, which includes native and non-native wetland vegetation communities primarily along the base of the canyon, and a mix of native and
non-native upland vegetation communities on the canyon slopes. Habitat restoration has occurred within portions of the Central Canyon, consisting primarily of wetland rehabilitation and upland enhancement. Lands off site to the southwest of the project include the South Canyon, which contains discontinuous stands of wetland habitat and a mix of native and non-native upland vegetation communities. Developed lands surround both canyons.

**Topography and Soils**

The project site is relatively flat with elevations ranging from approximately 312 to 366 feet above mean sea level. Three soil mapping units occur within the project site (Bowman 1973): Altamont clay (AtE2; 15 to 30 percent slopes, eroded), Chesterton fine sandy loam (CfB; 2 to 5 percent slopes), and Huerhuero-Urban land complex (HuE; 9 to 30 percent slopes).

Huerhuero-Urban land complex underlies the majority of the Miramar Street and Athena Circle Improvements site and Nuevo West Parking Structure site, with a small portion of Chesterton fine sandy loam mapped along Miramar Street. The majority of both housing sites (Nuevo West and Nuevo East) are underlain by Chesterton fine sandy loam. Small areas of Altamont clay also are mapped for the housing sites. As previously discussed, the entire project site has been altered by existing development or past disturbances.

**Vegetation Communities/Land Use Types within the Project Site**

A total of three vegetation communities/land use types occur within the project site: Diegan coastal sage scrub (including disturbed), disturbed habitat, and urban/developed land (Figure 2; Table 3). A description of each vegetation community/land use type is provided below.

<table>
<thead>
<tr>
<th>Vegetation Community1</th>
<th>Acreage2</th>
<th>Acreage2</th>
<th>Acreage2</th>
<th>Acreage2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nuevo West Housing Site and Parking Structure</td>
<td>Nuevo East Housing Site</td>
<td>Miramar Street and Athena Circle Roadway and Utility Improvements3</td>
<td>TOTAL</td>
</tr>
<tr>
<td>Diegan Coastal Sage Scrub-Disturbed</td>
<td>0.6</td>
<td>0</td>
<td>0</td>
<td>0.6</td>
</tr>
<tr>
<td>Disturbed Habitat</td>
<td>2.1</td>
<td>0</td>
<td>0</td>
<td>2.1</td>
</tr>
<tr>
<td>Urban/Developed</td>
<td>10.1</td>
<td>15.0</td>
<td>4.4</td>
<td>29.5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12.8</td>
<td>15.0</td>
<td>4.4</td>
<td>32.2</td>
</tr>
</tbody>
</table>

1. All vegetation communities/land uses listed in this table occur within the proposed project footprint.
2. Rounded to the nearest tenth acre.
3. Acreage for the Miramar Street and Athena Circle roadway and utility improvements includes areas outside the boundaries assumed for the Nuevo West and East sites. It should be noted that 0.26 acre of the 4.4 acres of Urban/Developed land mapped for these improvements falls outside the campus boundary on Regents Road and Executive Drive, as shown in Figure 2.
Diegan Coastal Sage Scrub (including disturbed)

Coastal sage scrub is one of the two major shrub types that occur in southern California, occupying xeric sites characterized by shallow soils (the other is chaparral). Four distinct coastal sage scrub geographical associations (northern, central, Venturan, and Diegan) are recognized along the California coast. Diegan coastal sage scrub may be dominated by a variety of species depending upon soil type, slope, and aspect. Typical species found within Diegan coastal sage scrub include California sagebrush, California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), lemonadeberry (*Rhus integrifolia*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*). Disturbed Diegan coastal sage scrub contains many of the same shrub species as undisturbed Diegan coastal sage scrub, but is sparser and has a higher proportion of non-native, annual species.

A total of 0.6 acre of disturbed Diegan coastal sage scrub occurs on the project site within the Nuevo West parking structure site (Table 3; Figure 2). Disturbed Diegan coastal sage scrub within the project site occupies portions of a disturbed mesa just south of the Central Canyon. This habitat is comprised of a relatively open shrub layer of broom baccharis (*Baccharis sarothroides*) with the herb layer dominated by houtentot-fig (*Carpobrotus edulis*). This community also contains a larger, more noticeable percentage of non-native grasses and forbs than undisturbed sage scrub. Disturbed Diegan coastal sage scrub on site is considered to be of low quality based on prevalence of non-native plant species, disturbance factors, adjacency to existing development, and lack of sensitive species, as demonstrated by surveys with negative findings for coastal California gnatcatcher and other sensitive animal species.

Disturbed Habitat

Disturbed habitat includes land cleared of vegetation (e.g., dirt roads), land containing a preponderance of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present animal usage that removes any capability of providing viable habitat.

Disturbed habitat within the project site consists of lands dominated by houtentot-fig and other non-native species such as acacia (*Acacia* sp.). A total of 2.1 acres of disturbed habitat occurs on the project site within the Nuevo West parking structure site (Table 3; Figure 2).

Urban/Developed Land

Urban/developed land on campus includes areas of development and redevelopment (locations of existing man-made structures), roadways, parking lots, pedestrian paths, horticultural open spaces, landscape buffers and courtyards, plazas, gardens, and recreation fields.

Developed land within the project site consists of existing roads, housing, and parking areas. A total of 29.5 acres of urban/developed land occurs within the project site (Table 3), and includes the Nuevo West housing site, the Nuevo East housing site, the Miramar Street and Athena Circle improvement areas, and the eastern half of the Nuevo West parking structure site (Figure 2).
SENSITIVE BIOLOGICAL RESOURCES

Sensitive Natural Communities

Sensitive natural communities include land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the CEQA Guidelines.

Sensitive natural communities observed within the project site include 0.6 acre of disturbed Diegan coastal sage scrub. No other sensitive natural communities are present in the project site.

Special-Status Plant and Animal Species

Special-Status Plant Species

Special-status plant species are those listed as federally threatened or endangered by the USFWS; State listed as threatened or endangered or considered sensitive by the CDFW; and/or, are CNPS List 1A, 1B, or two species, as recognized in the CNPS Inventory of Rare and Endangered Vascular Plants of California and consistent with the CEQA Guidelines.

A search of the USFWS, CNDDB, and CNPS species records reported in the project vicinity (within two miles) did not result in any point records for sensitive plant species on or immediately adjacent to the project impact limits. Furthermore, no sensitive plants were observed in the project footprint or within the Central or South Canyons during biological surveys, including focused surveys for rare plants, conducted in 2016, and none were found in previous biological surveys.

The majority of the impact limit is characterized by disturbed lands and developed areas. No sensitive plant species have a high potential to occur within the project impact limits due to lack of suitable habitat, inappropriate soil conditions, existing disturbances, and prevalence of non-native plant species.

Special-Status Animal Species

Special-status animal species are those listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS and considered sensitive animals by the CDFW. A search of the USFWS and CNDDB species records reported in the project vicinity (within 2 miles) did not result in any point records for sensitive animal species on or immediately adjacent the project site. Furthermore, no USFWS designated critical habitat occurs on site.

Special-status animal species were not observed within the project site during the biological resources surveys conducted in 2016 or 2017, nor in previous biological studies conducted. One special-status animal species (yellow warbler [Setophaga petechia]) was observed in the Central Canyon approximately 300 feet off site to the west of the proposed project during the 2016 surveys. Yellow warbler is a State Species of Special Concern that is widespread throughout the region in riparian woodland habitats. No suitable habitat for this species occurs on the project site.

Protocol surveys for coastal California gnatcatcher conducted in 2016 were negative for all of East Campus, including the Central and South Canyons (HELIX 2016b). The most recent record of this species on East Campus is from 2005, when three juveniles were observed in sage scrub on the north side of the
Central Canyon (HELIX 2005), approximately 500 feet to the northwest of the proposed project. Protocol surveys conducted in this vicinity in 2009 were negative (HELIX 2009), as were 2016 surveys.

Protocol surveys for least Bell’s vireo conducted in 2017 were negative for the entire campus, including the Central and South Canyons (HELIX 2017). Although southern willow scrub within the Central Canyon contains suitable habitat for least Bell’s vireo, previous biological surveys, including protocol surveys for this species, dating as far back as 1989 have been negative and this species is not anticipated to occur in the project vicinity.

No special-status animal species have a high potential to occur within the project footprint due to general lack of suitable habitat and existing disturbances.

Nesting Birds

The project site and immediate vicinity contain trees and shrubs that could provide suitable nesting habitat for a variety of common (non-sensitive) bird species, including raptors, which are protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFG Code). Avoidance and minimization measures are referenced herein to prevent impacts to nesting birds in violation of the MBTA and CFG Code.

Jurisdictional Waters and Wetlands

In the context of this assessment, jurisdictional waters and wetlands include those resources subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the federal Clean Water Act (CWA), the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the CWA and State Porter-Cologne Water Quality Control Act, or CDFW pursuant to Sections 1600 et seq. of California Fish and Game Code (CFG Code).

The project site does not contain any potential jurisdictional waters or wetlands.

Wildlife Corridors and Linkages

No wildlife corridors or linkages occur on the project site. The adjacent Central and South Canyons provide live-in habitat for several common amphibian, reptile, bird, and mammals, but do not provide corridors for movement that connect to other habitat areas. These two canyons connect to each other just east of I-5, but are otherwise completely surrounded by development.

REGIONAL CONTEXT AND REGULATORY SETTING

The UC San Diego campus is located within the City of San Diego (City), but is not included within the City’s Multiple Species Conservation Program (City 1997), nor is it an enrolled agency in the Natural Communities Conservation Planning Program. Although not subject to either of these programs, UC San Diego must still address impacts to threatened and endangered species as required by the federal Endangered Species Act (ESA) and California Endangered Species Act (CESA). In addition, impacts to all species and habitats considered sensitive by state and federal resource agencies are required to be disclosed under the CEQA.
The 2004 LRDP for UC San Diego includes goals and policies for the protection of certain sensitive habitats, including sensitive upland habitats such as Diegan coastal sage scrub. Mitigation measures are specified in the LRDP for the compensation of unavoidable impacts.

All migratory bird species that are native to the United States or its territories are protected under the federal MBTA as amended under the Migratory Bird Treaty Reform Act (MBTRA) of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, USFWS places restrictions on disturbances allowed near active raptor nests.

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.

Additional information regarding federal, state, and UC San Diego regulatory and guidance measures for biological resources are described in Section 4.0 of the LRDP biological resources technical report (HELIX 2004). Additional information pertaining to LRDP goals and policies are specified in the LRDP EIR (UC San Diego 2004).

**THRESHOLDS OF SIGNIFICANCE**

Significance thresholds from Appendix G of the state CEQA Guidelines are identified for biological resource issues in the 2004 LRDP EIR. A significant adverse impact is identified in this project-specific analysis if the proposed project would result in any of the following:

1. Substantial adverse effect, either directly or through habitat modifications, on any plant or animal species identified as a candidate, sensitive, or special status species;

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

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

**PROJECT IMPACT ANALYSIS**

This section describes potential direct and indirect impacts associated with the proposed project. Direct impacts immediately alter the affected biological resources such that those resources are permanently or temporarily eliminated. Indirect impacts consist of secondary effects of a project such as habitat isolation, edge effects, introduction of non-native plant or animal species, or increased lighting or human intrusion. The magnitude of an indirect impact can be the same as a direct impact; however, the effect usually takes a longer time to become apparent.
In addition to direct and indirect impacts are the cumulative impacts related to development of larger areas. The cumulative impact of LRDP implementation was addressed in the LRDP biological resources technical report (HELIX 2004); no new analysis is presented herein.

**Direct Impacts**

Direct impacts to vegetation communities would consist of 0.6 acre of disturbed Diegan coastal sage scrub. All impacts to this habitat are associated with construction of the Nuevo West Parking Structure. Impacts to 0.6 acre of disturbed Diegan coastal sage scrub would be a significant impact to a sensitive natural community, requiring mitigation.

No special-status plant or animal species were observed within the project site and none are expected to occur. Therefore, no direct impacts to special-status species are anticipated to occur and no mitigation would be required.

No impacts to riparian habitat or jurisdictional waters or wetlands would result from project implementation and no mitigation would be required.

No wildlife corridors or linkages are present and project implementation would therefore not result in impacts to wildlife corridors or linkages.

Eucalyptus and other trees occurring within the landscaping of the existing housing development and Miramar Street and Athena Circle improvements areas provide potential nesting habitat for common raptor and other bird species. Nesting birds, including raptors, are protected under the federal MBTA and CFG Code. Removal of eucalyptus and other trees within the Nuevo West and East housing sites and Miramar Street and Athena Circle improvements areas during the raptor breeding season (generally February through July) and general avian breeding season (February 15 through August 31) could directly impact nesting raptors and other birds, resulting in a potentially significant impact. Impacts to nesting birds protected by the MBTA and CFG Code would be considered a significant impact. The project would incorporate design guidelines and features promoted by the American Bird Conservancy to reduce bird collisions, including the use of an articulated façade pattern that creates geometrical shifts on the building exteriors. The façade is designed with living room windows located on wall surfaces that are at a non-90-degree relationship to the main building façade. At these locations, color shifts would help create a sense of a “woven façade” pattern. Proposed glazing on the buildings would represent a small percentage of total wall area, with stucco or metal panel making up the majority of the exterior building materials. Windows shades would also be provided to deter transparency effects. These building design features would help to reduce the likelihood of bird collisions.

The project would not conflict with any local policies or ordinances or habitat conservation plans.

**Indirect Impacts**

The following provides information on potential construction and post-construction indirect impacts related to the implementation of the proposed project.
Runoff/Water Quality

During project construction, runoff from the project site could result in erosion or sedimentation off site, affecting water quality downstream (addressed in Section 5.3.1 of the LRDP Biological Technical Report [HELIX 2004]). In addition, the use of petroleum products (i.e., fuels, oils, lubricants) in the staging area could potentially contaminate surface or ground water. Decreased water quality may adversely affect vegetation, and both aquatic and terrestrial wildlife that depend on these resources.

Degraded surface water quality or significantly increased water flows could be a potentially significant impact; however, the proposed project would be required, through the enforcement of water quality Best Management Practices contained in the National Pollutant Discharge Elimination System (NPDES) regulations, to minimize water quality impacts during and after construction. Based on the implementation of these minimization measures, water quality impacts to biological resources would be less than significant.

Fugitive Dust

Fugitive dust produced by construction activities (addressed in Section 5.3.2 of the LRDP biological resources technical report [HELIX 2004]) could disperse onto sensitive vegetation that occurs in the immediate vicinity of the project site. Dust cover can reduce plant vigor by reducing their photosynthetic capabilities, increase plant susceptibility to pests or disease, and ultimately affect animals dependent upon these plants.

Through enforcement of air quality mitigation in the 2004 LRDP EIR and NPDES regulations, the proposed project would be required to minimize dust production during construction via the application of water and seeding of disturbed areas for erosion control; therefore, dust impacts to vegetation would be a less than significant impact.

Noise/Animal Behavioral Changes

Breeding birds and mammals (addressed in Section 5.3.5 in the LRDP biological resources technical report [HELIX 2004]) may temporarily or permanently leave their territories to avoid disturbances from construction activities, which could lead to reduced reproductive success and increased mortality. These indirect impacts would be considered significant for federally or state listed species such as the coastal California gnatcatcher or least Bell’s vireo, or nesting birds and raptors, which are protected under the federal MBTA and CFG Code.

Protocol surveys conducted in the project vicinity for coastal California gnatcatcher and least Bell’s vireo were negative; no listed species have been documented in the vicinity of the construction activities and no impacts are expected to occur. However, if least Bell’s vireo is determined to be present in the Central Canyon at the time of construction, then construction noise impacts could be significant if construction were to occur during the breeding season for this species (March 15 through September 15). In addition, impacts to nesting birds and raptors are potentially significant.
Errant Construction Impacts

Inadvertent impacts to sensitive vegetation (addressed in Section 5.3.8 in the LRDP biological resources technical report [HELIX 2004]) outside of pre-approved development limits during construction would be considered significant. Because sensitive habitat occurs to the north of the Nuevo West Parking Structure site and to the south of the Nuevo West Housing site, this impact is considered potentially significant. Measures to decrease the potential for these types of impacts to occur are outlined below under Mitigation Requirements.

Non-native Plant Species

Non-native plants (addressed in Section 5.3.3 of the LRDP biological resources technical report [HELIX 2004]) could colonize sites disturbed by construction and could potentially spread into adjacent native habitats. Many of these non-native plants are highly invasive and can displace native vegetation, increase flammability and/or fire frequency, change ground and surface water levels, and potentially adversely affect native wildlife dependent upon native vegetation.

Habitats on the project site already support high percentages of invasive plant species. Project construction would reduce the amounts of invasive plant species adjacent to the Central Canyon, thus lessening their potential to spread into native areas. Furthermore, the project would not include any invasive plant species in its landscape plan. No impact would occur and no mitigation is required.

Edge Effects/Human Activity

Edge effects (addressed in Section 5.3.4 of the LRDP biological resources technical report [HELIX 2004]) occur when blocks of habitat are fragmented. These edges make it easier for non-native plant species to invade native habitats and for native and non-native predators to access prey that may have otherwise been protected within large, contiguous blocks of habitat. The proposed project is not creating additional edge effects because it is not splitting or encroaching into high quality undeveloped areas. No impact would occur and no mitigation is required.

Roadkill

Wildlife roadkill can occur as vehicles travel on roads in or adjacent to habitat areas (Section 5.3.6 of the LRDP biological resources technical report [HELIX 2004]). Wildlife activity at the project site is expected to be relatively low and restricted to animals that commonly occur in urbanized areas. Potential roadkill impacts are expected to be less than significant consistent with the 2004 LRDP EIR conclusion.

Night Lighting

Night lighting (addressed in Section 5.3.7 in the LRDP biological resources technical report [HELIX 2004]) on native habitats can provide nocturnal predators with an unnatural advantage over their prey. This could cause an increased loss in native wildlife that could be potentially significant, especially for any sensitive species that occur.

The site is situated in an urbanized area with existing lighting associated with roads, buildings, parking lots, and pedestrian/bike paths. However, new lighting, if not properly shielded, could have a significant impact on wildlife within in the Central Canyon.
MITIGATION REQUIREMENTS

With implementation of the following mitigation measures for significant impacts to sensitive biological resources, direct and indirect impacts from implementation of this portion of the 2004 LRDP would be considered less than significant.

Direct Impacts

Impacts to 0.6 acre of disturbed Diegan coastal sage scrub would be mitigated at a 2:1 ratio in accordance with Mitigation Measure Bio-3B of the 2004 LRDP EIR (UC San Diego 2004). Mitigation would occur through on-campus preservation of 1.2 acres of Diegan coastal sage scrub within the Ecological Reserve in the North Canyon on West Campus. UC San Diego shall identify the location(s) of the mitigation in the campus’ mitigation bank system, and the habitat shall be monitored and maintained pursuant to the Open Space Management Program.

Implementation of Mitigation Measure Bio-2D of the 2004 LRDP EIR would reduce potential impacts to raptors to a level that is less than significant. This measure includes conducting pre-construction surveys for raptors if major construction is to occur within 500 feet of suitable nesting trees (such as tall eucalyptus trees) during the breeding season (generally February through July). Construction activities within 500 feet of active nests shall not be allowed to commence until a qualified biologist determines that the nest is no longer active. LRDP Measure Bio-2D specifically addresses impacts to raptors. A project-specific measure has been added below to address direct impacts to all nesting birds protected by the MBTA.

Implementation of the following mitigation measure would reduce potential impacts to nesting birds protected by the MBTA to a level that is less than significant: No grubbing, trimming, or clearing of vegetation shall occur during the general avian breeding season (February 15-August 31). If grubbing, trimming, or clearing cannot feasibly occur outside of the general avian breeding season, then one pre-construction survey shall be conducted by a qualified biologist no more than seven days prior to the commencement of vegetation clearing or grubbing to determine if active bird nests are present in the affected areas. Should an active migratory bird nest be located, the project biologist would direct vegetation clearing away from the nest until it has been determined by the project biologist that the young have fledged or the nest has failed. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, clearing, grubbing, and grading shall be allowed to proceed.

Indirect Impacts

The following provides information on mitigation measures for potential construction and post-construction indirect impacts related to the implementation of the proposed project.

Noise/Animal Behavioral Changes

If least Bell’s vireo is found to occur within 500 feet of the project’s grading limits, implementation of 2004 LRDP EIR Mitigation Measure Bio-2C(ii) would reduce potential construction noise impacts to a level that is less than significant. This measure includes consultation with an acoustical technician to identify appropriate measures for reducing construction noise levels to 60 dBA hourly L_{EQ} during the portion of the breeding season when active nests are most likely. If ambient noise levels currently
exceed this level, then noise attenuation measures shall be implemented to prevent construction noise from exceeding ambient levels during this period.

As described above under Mitigation Requirements for Direct Impacts, implementation of Mitigation Measure Bio-2D of the 2004 LRDP EIR would reduce potential impacts to raptors to a level that is less than significant. This measure includes conducting pre-construction surveys for nesting birds and raptors if major construction is to occur within 500 feet of suitable nesting trees (such as tall eucalyptus trees) during the breeding season (generally February through July). Construction activities within 500 feet of active nests shall not be allowed to commence until a qualified biologist determines that the nest is no longer active. Therefore, potential indirect impacts would be avoided or are expected to be less than significant. No additional mitigation measures are required.

Errant Construction Impacts

To comply with Mitigation Measures Bio-3D(i)(iv) and (v) of the 2004 LRDP EIR (UC San Diego 2004), the following shall be implemented to avoid potential impacts outside of the proposed construction boundaries: conduct a pre-construction meeting with a project biologist to inform construction crews of the sensitive nature of the adjacent habitat; install appropriate fencing (chain link fence along with orange construction and/or silt fencing) to delineate the grading and staging area limits; inspect all fencing by a biologist prior to the start of construction. The locations for the chain link fence shall be determined by UC San Diego in coordination with the contractor. Construction monitoring shall be conducted by a qualified biologist responsible for ensuring the limits of construction have been properly staked and are readily identifiable and sensitive areas are fenced off, and for ensuring on at least a weekly basis during rough grading that the approved limits are not exceeded. The monitor also shall be responsible for ensuring that the contractor adheres to the other provisions described above. The monitor, in cooperation with the on-site construction manager, shall have the authority to halt construction activities in the event that these provisions are not met. Monitors shall submit a report to UC San Diego Campus Planning at the end of March, June, September and December of each year during construction documenting the implementation of all grading and construction minimization measures, or as mutually agreed to.

To decrease the potential for fire hazards and comply with 2004 LRDP Mitigation Measure Bio-3D(iii), equipment to extinguish small brush fires and appropriately trained personnel shall be present at all times during construction. In addition, smoking shall be prohibited in construction areas adjacent to flammable vegetation.

Night Lighting

During construction, the proposed project shall comply with 2004 LRDP Mitigation Measure Bio-3D(iv) by avoiding the use of night lighting adjacent to the natural habitats (i.e., the Central Canyon and South Canyon) unless determined to be absolutely necessary. If necessary, the lights shall be shielded to minimize temporary lighting of the surrounding habitat.

The project shall comply with 2004 LRDP Mitigation Measure Bio-3E(vi) by selectively placing, shielding, and directing its operational lighting away from sensitive habitat and Ecological Reserve to minimize potential impacts to sensitive animal species. Lighting from buildings or parking lots abutting the Central Canyon or South Canyon shall be screened with vegetation to the extent practicable.
August 18, 2017

Should you have any questions regarding this report, please do not hesitate to call me at (760) 517-9054 or Shelby Howard at (619) 462-1515.

Sincerely,

Stacy Nigro
Senior Scientist

Enclosures:

Figure 1  Project Vicinity
Figure 2  Vegetation/Impacts
Attachment A  Site Photographs
REFERENCES


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


2016b. Coastal California Gnatcatcher (Polioptila californica californica) Survey Report for the UC San Diego La Jolla Campus Long Range Development Plan Update Project.


HELIX Environmental Planning, Inc. (HELIX) (cont.)


Figure 1

MESA HOUSING NUEVO WEST AND EAST

Project Vicinity

UCSD La Jolla Campus Boundary
Coastal Zone Boundary
Nuevo West Parking Structure
Nuevo East Housing Site
Nuevo West Housing Site
Miramar Street and Athena Circle Improvements
Figure 2

MESA HOUSING NUEVO WEST AND EAST

Vegetation/Impacts

Project Boundaries
- Nuevo West Parking Structure
- Nuevo West Housing Site
- Nuevo East Housing Site
- Miramar Street and Athena Circle Improvements

Uplands
- Native Grassland
- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub Disturbed
- Southern Mixed Chaparral
- Non-native Grassland
- Eucalyptus Woodland
- Disturbed Habitat
- Urban/Developed Land

Vegetation
- Southern Willow Scrub
- Mule Fat Scrub
- Disturbed Wetland

Wetlands
- Southern Willow Scrub
- Mule Fat Scrub
- Disturbed Wetland

Central Canyon

Athena Way

Service Road

Executive Drive

Eastgate Mall

Athena Circle
Photo 1. Looking north at disturbed habitat within the Nuevo West Parking Structure project boundary.

Photo 2. Looking northeast at disturbed habitat and disturbed Diegan coastal sage scrub within the Nuevo West Parking Structure project boundary.