



# MEADOWS DEL MAR PROJECT BIOLOGICAL RESOURCES TECHNICAL REPORT

San Diego, California

May 5, 2022

*Prepared for:*

Grand Del Mar Hotel Properties, LLC  
5300 Grand Del Mar Court,  
San Diego, CA 92130  
(858) 314-2000

*Prepared by:*

Rocks Biological Consulting  
4312 Rialto Street  
San Diego, CA 92107  
(619) 701-6798

## TABLE OF CONTENTS

1	Summary .....	1
2	Introduction .....	2
3	Regulatory Context.....	4
3.1	Federal Regulations .....	4
3.2	State Regulations.....	6
3.3	Local Regulations- City of San Diego .....	8
4	Methods.....	10
5	Regulatory Compliance .....	13
5.1	MSCP and MHPA Land Use Adjacency Guideline Compliance .....	13
5.2	Nesting Bird Compliance .....	15
6	Survey Results .....	16
6.1	General Physical Characteristics .....	16
6.2	Biological Resources.....	16
7	Project Impact Analysis .....	21
7.1	Significance Criteria .....	21
7.2	Project Impacts.....	21
8	Mitigation and Regulatory Compliance.....	25
8.1	Habitat Mitigation .....	25
8.2	Site Revegetation Requirements .....	25
9	References.....	33

## TABLES

Table 1.	Key Dates in Site Development and NOV History .....	2
Table 2.	Potential for Narrow Endemic Plant Species .....	20
Table 3.	NOV Clearing Vegetation Communities/Land Use Impacts .....	23
Table 4.	New Development Vegetation Communities/Land Use Impacts .....	23
Table 5.	Habit Mitigation Requirements .....	25

## FIGURES

Figure 1.	Project Location .....	3
Figure 2a.	CNDDB Plants and Wildlife .....	11
Figure 2B.	USFWS Plants and Wildlife.....	12
Figure 3.	Pre-NOV Biological Resources (2003).....	17
Figure 41.	Current Biological Resources.....	18
Figure 5.	Impacts .....	22

## APPENDICES

Appendix A.	Historic Aerial Photographs
Appendix B.	Site Photographs
Appendix C.	Plant and Wildlife Species Observed
Appendix D.	Special-Status Species Potential for Occurrence
Appendix E.	Preparer Qualifications

## **1 SUMMARY**

This report has been prepared in conformance with City of San Diego biological regulations and the California Environmental Quality Act (CEQA) for development at 5702 Meadows Del Mar in the Del Mar Mesa neighborhood of the City of San Diego. The project includes habitat clearing and minor grading that has already occurred; based on aerial photograph interpretation, the clearing occurred sometime around 2010. The current homeowners would like to permit the clearing and enlarge the lot to incorporate the cleared area and additional zone 1 brush management and revegetation as directed by the City of San Diego; this report serves as part of the permit application for that effort.

The cleared area supported 0.29 acre of Diegan coastal sage scrub habitat, a sensitive vegetation community under City regulations. The additional zone 1 brush management required for the site requires an additional 0.01 acre of what was Diegan coastal sage scrub habitat.

The parcel does not lie within the Multi-Habitat Planning Area (MHPA), the target preserve under the City's Multiple Species Conservation Program (MSCP). Mitigation for impacts on 0.30 acre of Diegan coastal sage scrub and impacts that may have occurred on special-status species is proposed through payment into the City's Habitat Acquisition Fund (HAF) at a 1:1 ratio.

## 2 INTRODUCTION

The project is located at 5702 Meadows del Mar within the Carmel Valley community of the City of San Diego, California, within the United States Geological Survey (USGS) 7.5 minute Del Mar Quadrangle (Figure 1). The parcel is part of a residential neighborhood that abuts the Grand Del Mar golf course. Residential housing occurs immediately east of the site and the property borders the golf course to the south and north, with undeveloped land to the northeast.

The project was found to be in violation of the San Diego Municipal Code (SDMC) on November 14, 2016 and an official Civil Penalty Notice and Order (NOV) was sent on May 1, 2017. The notice described the violation as unpermitted grading of approximately 10,400 square feet of Environmentally Sensitive Lands (ESL)(Table 1).





The proposed project includes permitting of the clearing and grading work that occurred in 2010, and adjusting the parcel lot line so that a portion of the NOV cleared area is incorporated into the residential parcel. In addition, brush management areas would be added to the project footprint (0.40 acre total; 0.01 acre of significant impact on native habitat).

Additionally, revegetation is proposed as part of the project per discussions with City of San Diego Development Services staff. A total of 0.15 acre would be revegetated with native species as part of the proposed project.


**Table 1. Key Dates in Site Development and NOV History**

<b>Date</b>	<b>Activity/Event</b>
2002	Original grading at the 5702 Meadows del Mar residence site occurred, concurrent with neighborhood development.
2010	The residence on-site was built sometime in 2010. Clearing of the side yard, which supported primarily Diegan coastal sage scrub habitat, occurred around the same time the house was built in 2010; however, clearing of the side yard was not included in the development permit.
2016	The home located at 5702 Meadows del Mar was sold to the current owner, Mr. Jacobo Laniado, by Doug Manchester in April 2016.
2017	An official Civil Penalty Notice and Order (NOV) was issued to GDM Hotel Properties, LLC (owner of the Fairmont Grand Del Mar Hotel and Golf Course) on May 1, 2017. The NOV described the violation as: ...unpermitted grading of approximately 10,400 square feet of Environmentally Sensitive Lands. This area is located adjacent to the west side of the parcel identified as 5702 Meadows Del Mar, near the golf course at the rear.
2018	The current owner of the 5702 Meadows del Mar residence, Mr. Jacobo Laniado, wishes to retain the side yard (south of home and extending down from original yard area); it was thought to be part of the permitted development of the residence during the home purchase. A biological report, initial base site plan, and erosion control landscaping plan were submitted on April 11, 2018 as a first step toward permitting the side yard development. DSD provided direction that a site development permit will likely be required to retain the side yard and to permit the habitat clearing that occurred in 2010.





-  NOV Cleared Area
-  Current Parcel Boundary/Lot Line<sup>1</sup>
-  100-foot Survey Buffer
-  Previously Permitted Residential Parcel/Footprint<sup>2</sup>

#### Vegetation

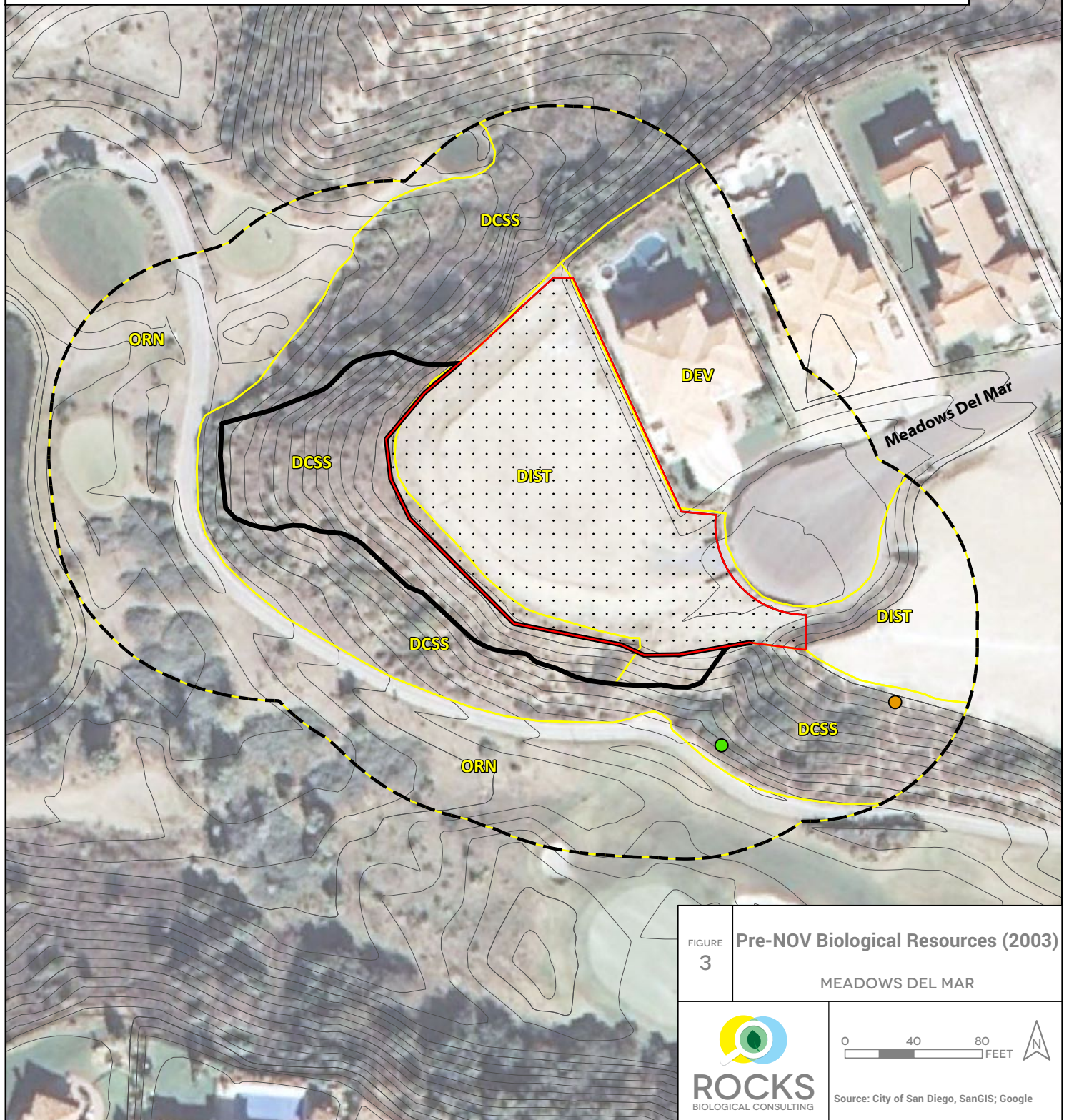
-  DCSS - Diegan Coastal Sage Scrub
- DEV - Developed
- DIST - Disturbed Land
- ORN - Ornamental

#### Special Status Species

-  California Adolphia (*Adolphia californica*)
-  San Diego Sunflower (*Bahiopsis laciniata*)

<sup>1</sup> Source: Latitude 33 Planning and Engineering, 2018

<sup>2</sup> Source: Dryve Design Group, Inc., 2018



### **3 REGULATORY CONTEXT**

The project will be required to comply with all local, state, and federal biological regulations, including but not limited to the California Environmental Quality Act (CEQA), the Multiple Species Conservation Program (MSCP), City of San Diego MSCP Subarea Plan, the Migratory Bird Treaty Act, and the California Fish and Game Code (§3503). This report has been prepared in conformance with City of San Diego's Biology Guidelines and CEQA.

#### **3.1 FEDERAL REGULATIONS**

##### *Federal Endangered Species Act*

The federal Endangered Species Act (ESA) of 1973, as amended, provides for listing of endangered and threatened species of plants and animals and designation of critical habitat for listed animal species. ESA regulates the "taking" of any endangered fish or wildlife species, per Section 9 of the Act. As development is proposed, the responsible agency or individual landowner is required to consult with the U.S. Fish and Wildlife Service (USFWS) to assess potential impacts to listed species (including plants) or its critical habitat, pursuant to Sections 7 and 10 of the act. USFWS is required to make a determination as to the extent of impact to a particular species a project would have. If it is determined that potential impacts to a species would likely occur, measures to avoid or reduce such impacts must be identified. USFWS may

issue an incidental take statement, following consultation and the issuance of a Biological Opinion. This allows for take of the species that is incidental to another authorized activity, provided that the action will not adversely affect the existence of the species. Section 10 of the federal ESA provides for issuance of incidental take permits to non-federal parties with the development of a habitat conservation plan (HCP); Section 7 of the act provides for permitting of federal projects.

##### *Migratory Bird Treaty Act*

The Migratory Bird Treaty Act (MBTA; 16 U.S. Code [U.S.C.] 703 *et seq.*) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and is listed at 50 CFR 10.13. The MBTA is enforced by USFWS and prohibits "by any means or in any manner, to pursue, hunt, take, capture, [or] kill" any migratory bird, or attempt such actions, except as permitted by regulation.

The applicant has received a copy of this report and shall avoid clearing grubbing and grading during the avian breeding season. If such work must occur during the breeding season, a pre-construction nesting bird survey will be conducted by a qualified biologist and no work shall be pursued that would violate the Migratory Bird Treaty Act.

##### *Rivers and Harbors Act of 1899*

The Rivers and Harbors Act of 1899 prohibits discharge of any material into navigable waters, or tributaries thereof, of the United States without a permit. The act also makes it a misdemeanor to excavate, fill, or alter the course, condition, or capacity of any port, harbor, or channel; or to dam navigable streams without a permit.

Many activities originally covered by the Rivers and Harbors Act are now regulated under the Clean Water Act of 1972, discussed below. However, the 1899 Act retains relevance and created the structure under which the U.S. Army Corps of Engineers oversees Clean Water Act 404 permitting.

#### ***Fish and Wildlife Coordination Act***

In its original 1934 form, the Fish and Wildlife Coordination Act authorized the Secretaries of Agriculture and Commerce to assist federal and state agencies in efforts related to the protection, rearing, and stocking of game and fur-bearing mammals; and the study of the effects of pollutants, such as domestic sewage and industrial waste, on wildlife. The Act in its original form also required consultation with the Bureau of Fisheries, a precursor to USFWS, prior to the construction of new dams, and further required the Bureau of Fisheries to use impounded waters for fisheries culture and migratory bird habitat.

Several substantive amendments since the Act's original passage have expanded it to its present status as the cornerstone of the present USFWS and NMFS jurisdiction over the fish and wildlife impacts of projects that involve federal jurisdictional waters. In particular, amendments in 1946 require consultation with USFWS for any federal project that would divert, impound, or otherwise control or modify natural waters, with the explicit goal of avoiding loss and damage to wildlife resources. Additional amendments in 1958 gave the law its present name and added language recognizing the vital importance of the nation's wildlife resources, along with the requirement that wildlife conservation needs receive equal consideration in review and authorization of water resources development projects. The 1958 amendments also expanded the range of situations in which diversion or modification of natural water bodies requires consultation with USFWS.

At present, the Fish and Wildlife Coordination Act requires federal agencies that undertake, permit, or fund activities that would control or modify federal waters to consult with USFWS and/or NMFS and the state agency with similar jurisdiction; and to incorporate the agencies' recommendations for the protection, development, and improvement of wildlife resources into the project where feasible. For the purposes of the Act, *control* and *modification* are now understood to include construction of dams, levees, impoundments, and diversion structures; relocation of streamcourses; placement of dredged and fill materials in federal jurisdictional waters; and discharge of pollutants, including municipal, industrial, and mining wastes into federal jurisdictional waters. This effectively gives USFWS and NMFS oversight responsibility over all projects requiring authorization from the Corps under Section 404 of the federal Clean Water Act and projects requiring authorization from the State Water Resources Board (through the Regional Water Quality Control Boards) under Section 402 of the Clean Water Act.

#### ***Clean Water Act***

Pursuant to Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) is authorized to regulate any activity that would result in the discharge of dredged or fill material into waters of the U.S. (including wetlands), which include those waters listed in 33 CFR 328.3. USACE, with oversight from the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 permits.

A water quality certification or waiver pursuant to Section 401 of the CWA is required for all Section 404 permitted actions. The Regional Water Quality Control Board (RWQCB), a division of the State Water Resources Control Board, provides oversight of the 401 permit process in California. The RWQCB is required to provide “certification that there is reasonable assurance that an activity that may result in the discharge to waters of the United States will not violate water quality standards.” Water Quality Certification must be based on the finding that proposed discharge will comply with applicable water quality standards.

The NPDES is the permitting program for discharge of pollutants into surface waters of the U.S. under Section 402 of the CWA. Substantial impacts to wetlands may require an Individual Permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits.

### **3.2 STATE REGULATIONS**

#### ***California Endangered Species Act and Natural Community Conservation Planning Act***

The California Endangered Species Act (CESA) of 1984, in combination with the California Native Plant Protection Act of 1977, regulates the listing and take of plant and animal species designated as endangered, threatened, or rare within the state. California also lists species of special concern based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. The California Department of Fish and Wildlife (CDFW; previously California Department of Fish and Game, CDFG) is the responsible for assessing development projects for their potential to impact listed species and their habitats. State-listed special status species are addressed through the issuance of a 2081 permit (Memorandum of Understanding).

In 1991, the California NCCP Act was approved and the NCCP Coastal Sage Scrub program was initiated in Southern California. California law (Section 2800 *et seq.* of the California Fish and Game Code [CFGF]) established the NCCP program “to provide for regional protection and perpetuation of natural wildlife diversity while allowing compatible land use and appropriate development and growth.” The NCCP Act encourages preparation of subarea plans such as the City’s Draft Subarea Plan that address habitat conservation and management on an ecosystem basis rather than one species or habitat at a time.

#### ***California Coastal Act***

The California Coastal Act of 1976 (California Public Resources Code 30000 *et seq.*) is administered by the California Coastal Commission (CCC). Among other requirements, the Act prohibits impacts on coastal zone wetlands except in eight specific situations. This section also requires that a proposed project be the least environmentally damaging feasible alternative, and that feasible and appropriate mitigation measures be imposed.

The California Coastal Act identifies the following goals for Coastal Zone lands:

- 1) Protection, maintenance and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources.



- 2) Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state.
- 3) Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners.
- 4) Assure priority for coastal-dependent and coastal-related development over other development on the coast.
- 5) Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone.

Under the Act, wetlands are defined as “lands within the coastal zone which may be covered periodically or permanently with shallow water” (California Public Resources Code Division 20, Section 30121).

Local jurisdiction (City and County) permit review is the principal regulatory tool under the Coastal Act. Each local jurisdiction is charged with developing and implementing a Local Coastal Program that lays out the types of projects it will approve within the Coastal Zone, consistent with general guidance in the Coastal Act. The Coastal Act also contains important provisions emphasizing the role of public participation in coastal planning and the right to public participation in review and decision-making relative to project applications within the Coastal Zone.

#### ***California Fish and Game Code Sections 1600-1602***

Pursuant to Division 2, Chapter 6, Section 1602 of the California Fish and Game Code (CFGCO), CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream or lake that supports fish or wildlife. A Lake or Streambed Alteration Agreement Application must be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” CDFW has jurisdiction over riparian habitats associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. CDFW jurisdiction does not include tidal areas or isolated resources. CDFW reviews the proposed actions and, if necessary, submits (to the applicant) a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and applicant is the Lake or Streambed Alteration Agreement.

#### ***Porter-Cologne Water Quality Control Act***

The Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) provides for statewide coordination of water quality regulations. The state Water Resources Control Board was established as the statewide authority and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis.

The RWQCB is the primary agency responsible for protecting water quality in California. As discussed above, the RWQCB regulates discharges to surface waters under the federal CWA. In addition, the RWQCB is responsible for administering the California Porter-Cologne Water Quality Control Act.

Pursuant to the Porter-Cologne Water Quality Control Act, the state is given authority to regulate waters of the state, which are defined as any surface water or groundwater, including saline waters. As such, any person proposing to discharge waste into a water body that could affect its water quality must first file a *Report of Waste Discharge* if Section 404 is not required for the activity. “Waste” is partially defined as any waste substance associated with human habitation, including fill material discharged into water bodies.

#### ***California Fish and Game Code (§3503)***

Under California Fish and Game Code (§3503) it is unlawful to “take, possess, or needlessly destroy” avian nests or eggs. Note that the project must comply with these regulations in addition to City of San Diego biological regulations described herein.

The applicant has received a copy of this report and shall avoid clearing grubbing and grading during the avian breeding season. If such work must occur during the breeding season, a pre-construction nesting bird survey will be conducted by a qualified biologist and no work shall be pursued that would violate the State Fish and Game Code.

The project will comply with all applicable state requirements.

### **3.3 LOCAL REGULATIONS– CITY OF SAN DIEGO**

#### ***Environmentally Sensitive Lands Regulations***

The project survey, report format, impact analysis, and mitigation requirements for sensitive biological resources follow the requirements of the City’s Biology Guidelines (2012) as outlined in the City’s Municipal Code Environmentally Sensitive Lands (ESL) Regulations (Chapter 14, Article 3, Division 1). ESL lands include sensitive biological resources, steep hillsides, coastal beaches, sensitive coastal bluffs and 100-year floodplains (San Diego Municipal Code [SDMC] 143.0110). If ESL resources are present within a project area, a Site Development Permit is typically required. The project will comply with City ESL regulations.

#### ***City Biology Guidelines***

The City’s Biology Guidelines (2012) have been formulated by the Development Services Department to aid in the implementation and interpretation of the ESL Regulations; San Diego Land Development Code, Chapter 14, Division 1, Section 143.0101 et seq; and the Open Space Residential (OR-1-2) Zone, Chapter 13, Division 2, Section 131.0201 et seq. Section III of the Biology Guidelines (Biological Impact Analysis and Mitigation Procedures) also serves as the standard for the determination of impact and mitigation under CEQA. The Biology Guidelines serve as biological standards for processing permits issued pursuant to ESL Regulations.

#### ***City of San Diego MSCP***

The City, USFWS, and CDFW, along with other local jurisdictions and stakeholders, developed the MSCP in the late 1990s. The MSCP is a comprehensive program to preserve a network of habitat and open space in the San Diego region and ensure the viability of native habitats and species, while still permitting necessary development. The City’s MSCP Subarea Plan (1997a) was prepared pursuant to the outline developed by USFWS and CDFW to meet the requirements of the State Natural Communities Conservation Planning (NCCP) Act of 1992. Adopted by the City in March 1997, the City’s Subarea Plan forms the basis for the MSCP Implementing

Agreement, which is the contract between the City, USFWS, and CDFW (City 1997b). The Implementing Agreement ensures implementation of the City's Subarea Plan and thereby allows the City to issue "take" permits under the FESA and CESA to address impacts at the local level. Under the federal ESA, an Incidental Take Permit is required when non-federal activities would result in "take" of a threatened or endangered species. A Habitat Conservation Plan, such as the City's MSCP Subarea Plan, must accompany an application for a Federal Incidental Take Permit. In July 1997, the USFWS, CDFW, and City entered into the 50-year MSCP Implementing Agreement, wherein the City received its FESA Section 10(a) Incidental Take Permit (City 1997b). As such, projects that are permitted through the City of San Diego and that comply with the MSCP implementing regulations can receive third party take authority through the City and need not go through federal or state ESA permit consultation for incidental impacts on certain federal and/or state-listed species, i.e., 'covered species'.

Pursuant to its MSCP, the City has incidental "take" authority over 85 rare, threatened, and endangered species including regionally sensitive species that it aims to conserve (i.e., "MSCP covered species"). "MSCP covered" refers to species that are covered by the City's Federal Incidental Take Permit and that are considered to be adequately protected within the MHPA. Special conditions apply to covered species that would be potentially impacted including, for example, designing a project to avoid impacts to covered species in the MHPA where feasible. Outside the MHPA, projects must incorporate measures (i.e., Area Specific Management Directives) for the protection of covered species; such requirements are outlined in Appendix A of the City's Subarea Plan. The City's ESL and Biology Guidelines, along with the City's MSCP Subarea Plan, are implementing regulations of the City's MSCP agreement with state and federal agencies.

#### ***MHPA Land Use Adjacency Guidelines***

The Project area occurs adjacent to lands designated as MHPA under the City's MSCP. Projects occurring adjacent to the City's MHPA, or preserve, must adhere to the City's MHPA land use adjacency guidelines as outlined in section 1.4.3 of City's MSCP Subarea Plan, including guidance regarding avoiding drainage and toxic runoff into the MHPA; avoiding lighting impacts on MHPA lands; avoiding noise impacts on special-status species; discouraging illegal trespass onto MHPA lands; avoiding invasive species plantings; and including all zone 1 brush management and grading within the project development footprint and outside the MHPA.

## 4 METHODS

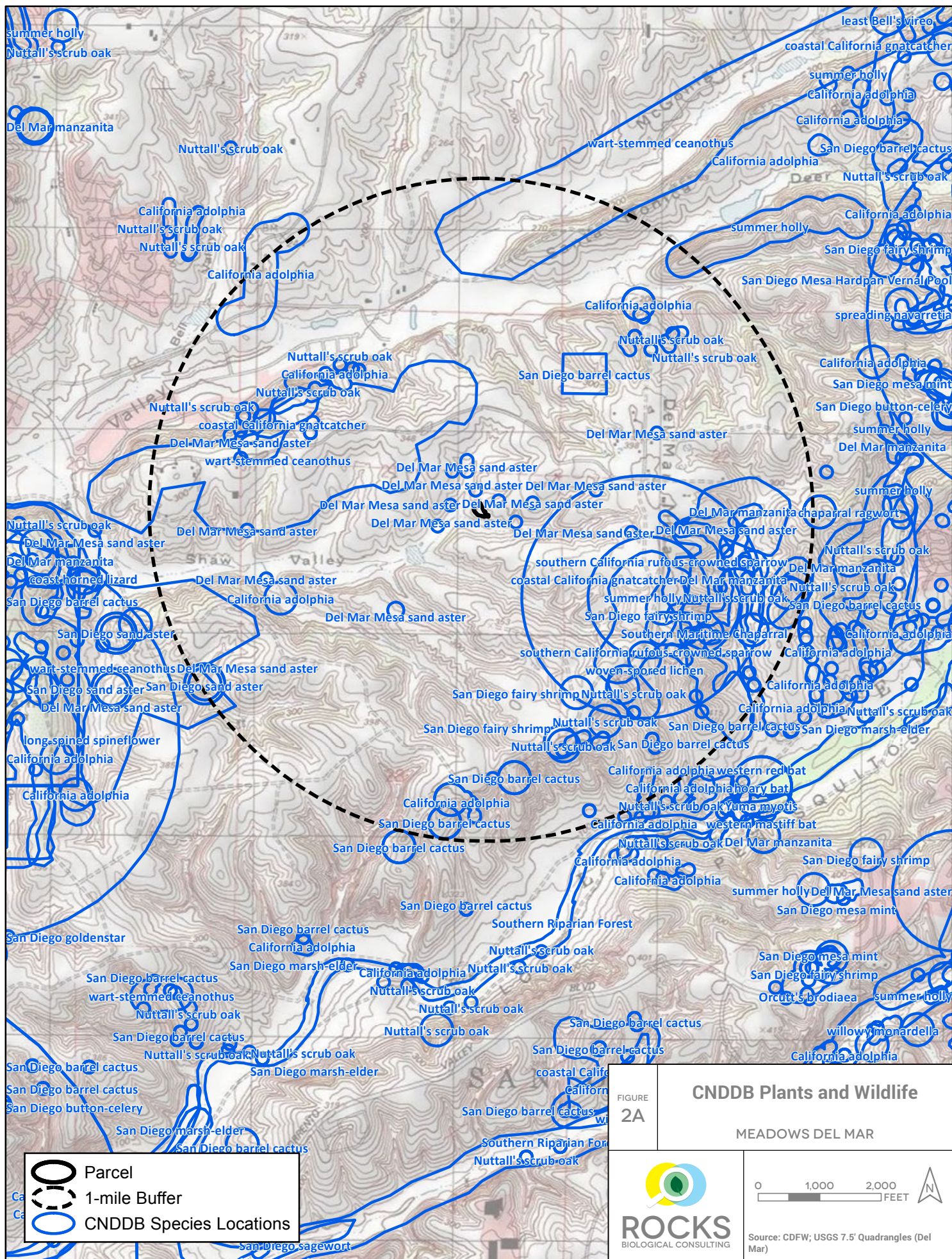
Rocks Biological Consulting (RBC) began preparations for a biological survey by creating field maps using Geographic Information System (GIS) and incorporating relevant data including a color aerial photograph, as well as information from the CDFW California Natural Diversity Database (CNDDB) and the USFWS (Figures 2a-b). Additionally, historic aerial photos were examined to determine likely site conditions prior to clearing (Appendix A). Note that analysis provided herein is limited to the project area as identified in the City of San Diego's May 1, 2017 NOV letter.

On February 13, 2018, Ian Hirschler of RBC conducted general surveys for flora and fauna on site and mapped vegetation communities/land uses within project impact areas and within a 100-foot mapping buffer. No focused surveys for plant or wildlife species were conducted, but locations of special-status species were mapped when observed.

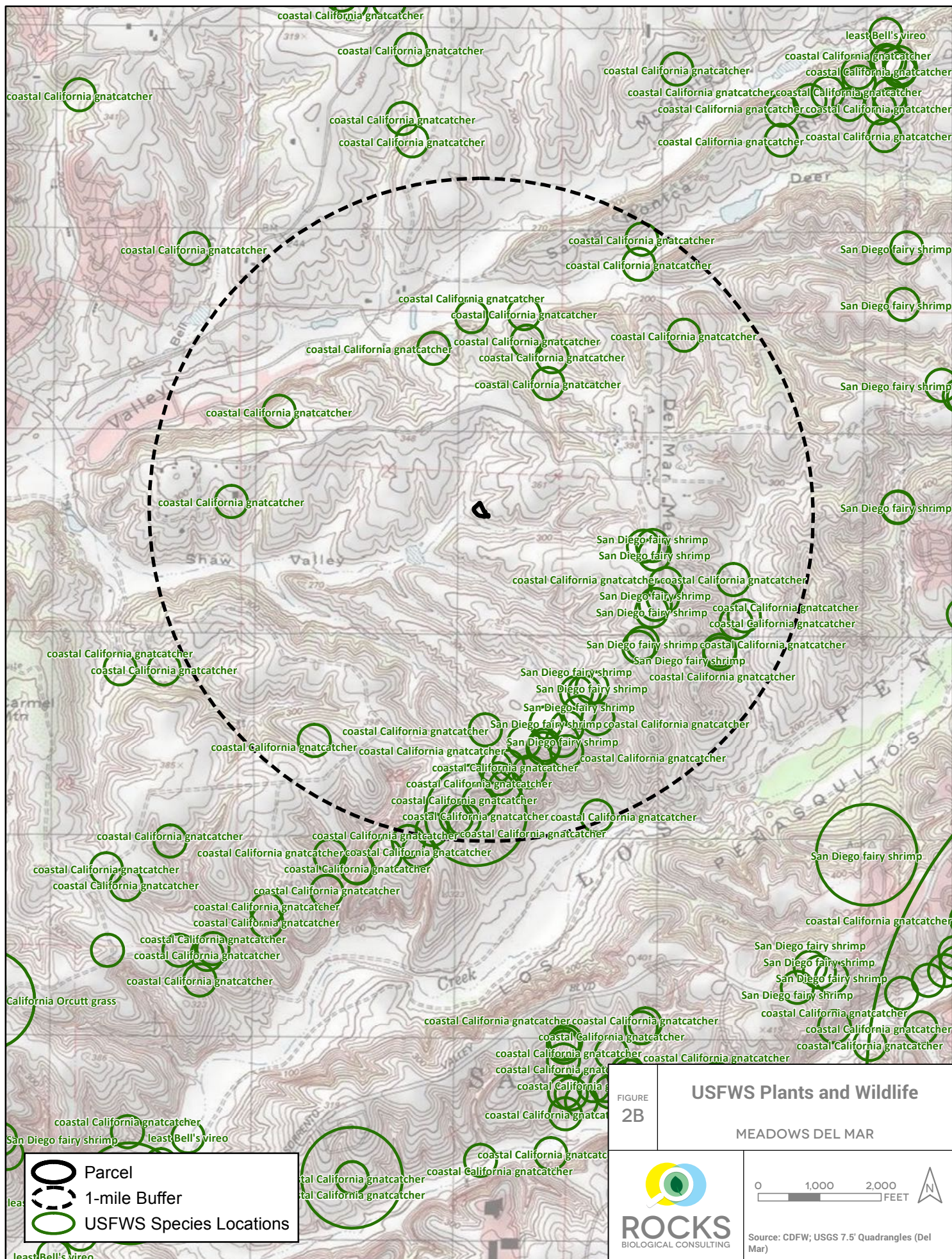
Mr. Hirschler conducted a follow-up site visit on January 21, 2020 to confirm or update vegetation communities on-site, as needed. Vegetation community classifications follow City of San Diego Biology Guidelines (2012), plant names follow Simpson and Rebman (2006), and animal names follow Laudenslayer (1991).

Because project developments occurred prior to the 2018 and 2020 field surveys, previous habitats and sensitive species likelihood were determined based on: 1) Historic aerial photography; 2) Review of the California Natural Diversity Database (CNDDB) and the USFWS databases. Project impacts were determined through overlaying historic vegetation mapping (as determined using historic aeriels) with current vegetation mapping. In addition, proposed revegetation areas were overlaid with vegetation mapping to determine project revegetation areas and acreages.











## 5 REGULATORY COMPLIANCE

### 5.1 MSCP AND MHPA LAND USE ADJACENCY GUIDELINE COMPLIANCE

The project lies within the City's MSCP Subarea and adjacent to lands designated as MHPA under the MSCP (Figures 4-5). Projects occurring adjacent to the City's MHPA, or preserve, must adhere to the City's MHPA land use adjacency guidelines as outlined in section 1.4.3 of City's MSCP Subarea Plan. The guidelines and analyses of project conformance are as follows; these requirements will become conditions of project approval.

#### *Drainage*

The Subarea Plan states:

*All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. 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 MHPA. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. These systems should be maintained approximately once a year, or as often as needed, to ensure proper functioning. Maintenance should include dredging out sediments if needed, removing exotic plant materials, and adding chemical-neutralizing compounds (e.g., clay compounds) when necessary and appropriate.*

No parking lots or developed areas would be constructed as part of the project; the project includes a yard, brush management, and revegetation. Additionally, all stormwater regulations will be followed during project revegetation activities.

#### *Toxics*

The Subarea Plan requires:

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

Please see the prior item for discussion of drainage and stormwater compliance. No toxic runoff into the MHPA is anticipated from the project.

### **Lighting**

The Subarea Plan states:

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

No new lighting is proposed as part of the project.

### **Noise**

The Subarea Plan states:

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

No new permanent noise sources would be created with project. Minor noise may occur during project revegetation and brush management activities may occur; however such work is not anticipated to be above 60 dB(A) hourly average. As such no noise is anticipated to affect wildlife activity or avian receptors in nearby MHPA areas.

### **Barriers**

The Subarea Plan states:

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

The site does not have direct access to MHPA land and would not create any new pathways for MHPA access.

### **Invasives**

The Subarea Plan states:

*No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.*

No ornamental landscaping is proposed as part of project development.

**Brush Management**

The Subarea Plan states:

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

All brush management would occur outside the MHPA.

**Grading/Land Development**

The Subarea Plan states:

*Manufactured slopes associated with site development shall be included within the development footprint for Projects within or adjacent to the MHPA.*

No manufactured slopes are proposed within the MHPA.

**5.2 NESTING BIRD COMPLIANCE**

The applicant has received a copy of this report and shall be responsible for avoiding any clearing, grubbing, or grading during the avian breeding season. If such work must occur during the breeding season, a preconstruction nesting bird survey will be conducted by a qualified biologist and no work shall be pursued that would violate the Migratory Bird Treaty Act or California Fish and Game Code 3503. With this notification in place, no impacts on nesting birds are anticipated during site revegetation efforts.

## 6 SURVEY RESULTS

### 6.1 GENERAL PHYSICAL CHARACTERISTICS

The project area is a residential parcel developed with a two-story home, as well as the adjacent slope which is part of a parcel owned by the Fairmont Grand Del Mar Hotel's Grand Golf Course.

Based on meetings with the City of San Diego and Latitude 33 Planning & Engineering, MHPA boundaries in the project area were delineated under Grand Del Mar permit 2017-0231719; linework files from the permit were provided by Latitude 33 Planning & Engineering on November 15, 2019 and were used for the purposes of this analysis. Based on this mapping, MHPA designated land occurs immediately north of the site (Figures 4 and 5).

### 6.2 BIOLOGICAL RESOURCES





#### VEGETATION

Currently, the entire project area is composed of developed disturbed land, with disturbed areas dominated by Bermuda buttercup (*Oxalis pes-caprae*), bristly ox-tounge (*Helminthotheca echinoides*) and filaree (*Erodium* sp.). However, based on historic aerial photograph interpretation and an analysis of adjacent habitats, pre-project vegetation within the parcel appears to have included Diegan coastal sage scrub habitat and disturbed land (Figures 3 and 4). The adjacent golf course supports primarily ornamental lands. These habitats are described below. Site photographs are provided as Appendix B, and plant species observed within the survey area are presented in Appendix C.

**Diegan Coastal Sage Scrub** (Tier II) is comprised of low, soft-woody subshrubs to about 1 meter (3 feet) high, many of which are facultatively drought-deciduous. This association is typically found on dry sites, such as steep, south-facing slopes or clay-rich soils that are slow to release stored water. Dominant shrub species in this vegetation type vary, depending on local site factors and levels of disturbance. Shrubs likely present in this community on-site (based on adjacent habitats) include California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), and bush sunflower (*Encelia californica*).

**Disturbed Land** (Tier IV) land is any land on which the native vegetation has been significantly altered by development, agriculture, or other land-clearing activities, and the species composition and site conditions are not characteristic of the disturbed phase of a plant association (e.g., disturbed Diegan coastal sage scrub). Disturbed land is typically found in developed areas, vacant lots, roadsides, construction staging areas, or abandoned fields. In areas with no buildings, roadways or ornamental vegetation, land is dominated by non-native annual species and perennial broadleaf species. On-site Disturbed Lands are developed with a single-family residence and associated driveways and ornamental vegetation.



**Developed** (Tier IV) areas are any lands developed with roads, buildings, etc. Developed lands in the project area and vicinity include a home, driveway, and Meadows Del Mar Road.

-  NOV Cleared Area
-  Current Parcel Boundary/Lot Line<sup>1</sup>
-  100-foot Survey Buffer
-  Previously Permitted Residential Parcel/Footprint<sup>2</sup>

### Vegetation

-  DCSS - Diegan Coastal Sage Scrub
- DEV - Developed
- DIST - Disturbed Land
- ORN - Ornamental

### Special Status Species

-  California Adolphia (*Adolphia californica*)
-  San Diego Sunflower (*Bahiopsis laciniata*)

<sup>1</sup> Source: Latitude 33 Planning and Engineering, 2018

<sup>2</sup> Source: Dryve Design Group, Inc., 2018

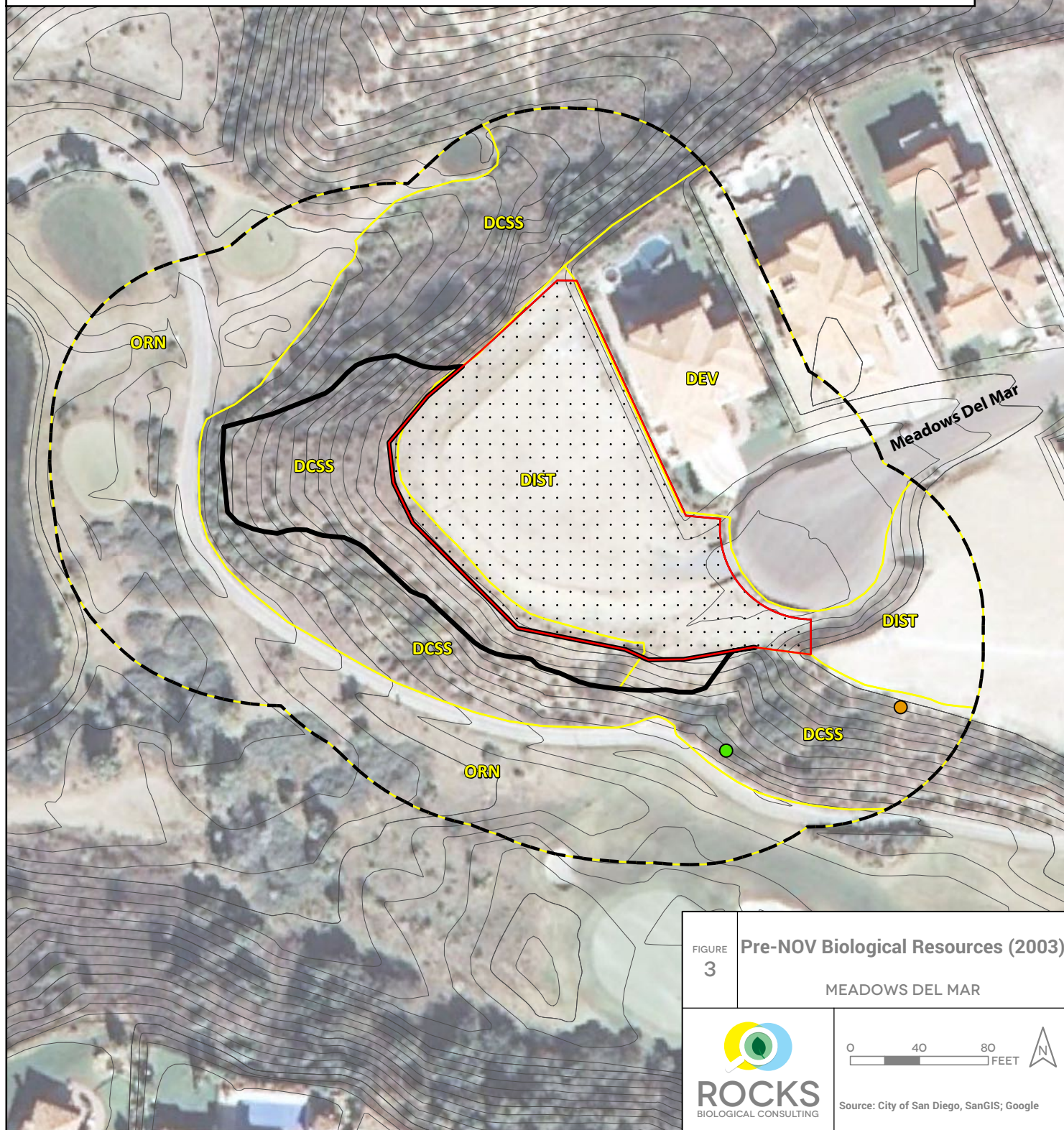


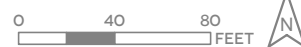
FIGURE  
3

Pre-NOV Biological Resources (2003)

MEADOWS DEL MAR








**ROCKS**  
BIOLOGICAL CONSULTING




Source: City of San Diego, SanGIS; Google





-  NOV Cleared Area
-  Current Parcel Boundary/Lot Line<sup>1</sup>
-  100-foot Survey Buffer
-  Previously Permitted Residential Parcel/Footprint<sup>2</sup>
-  MHPA<sup>3</sup>

#### Vegetation

-  DCSS - Diegan Coastal Sage Scrub
- DEV - Developed
- DIST - Disturbed Land
- ORN - Ornamental
- RUD - Ruderal

#### Special Status Species

-  California Adolphia (*Adolphia californica*)
-  San Diego Sunflower (*Bahiopsis laciniata*)

<sup>1</sup> Source: Latitude 33 Planning and Engineering, 2018

<sup>2</sup> Source: Dryve Design Group, Inc., 2018

<sup>3</sup> MHPA boundaries per Doc# 2017-0231719 and 10/29/2019 project meeting with City staff.

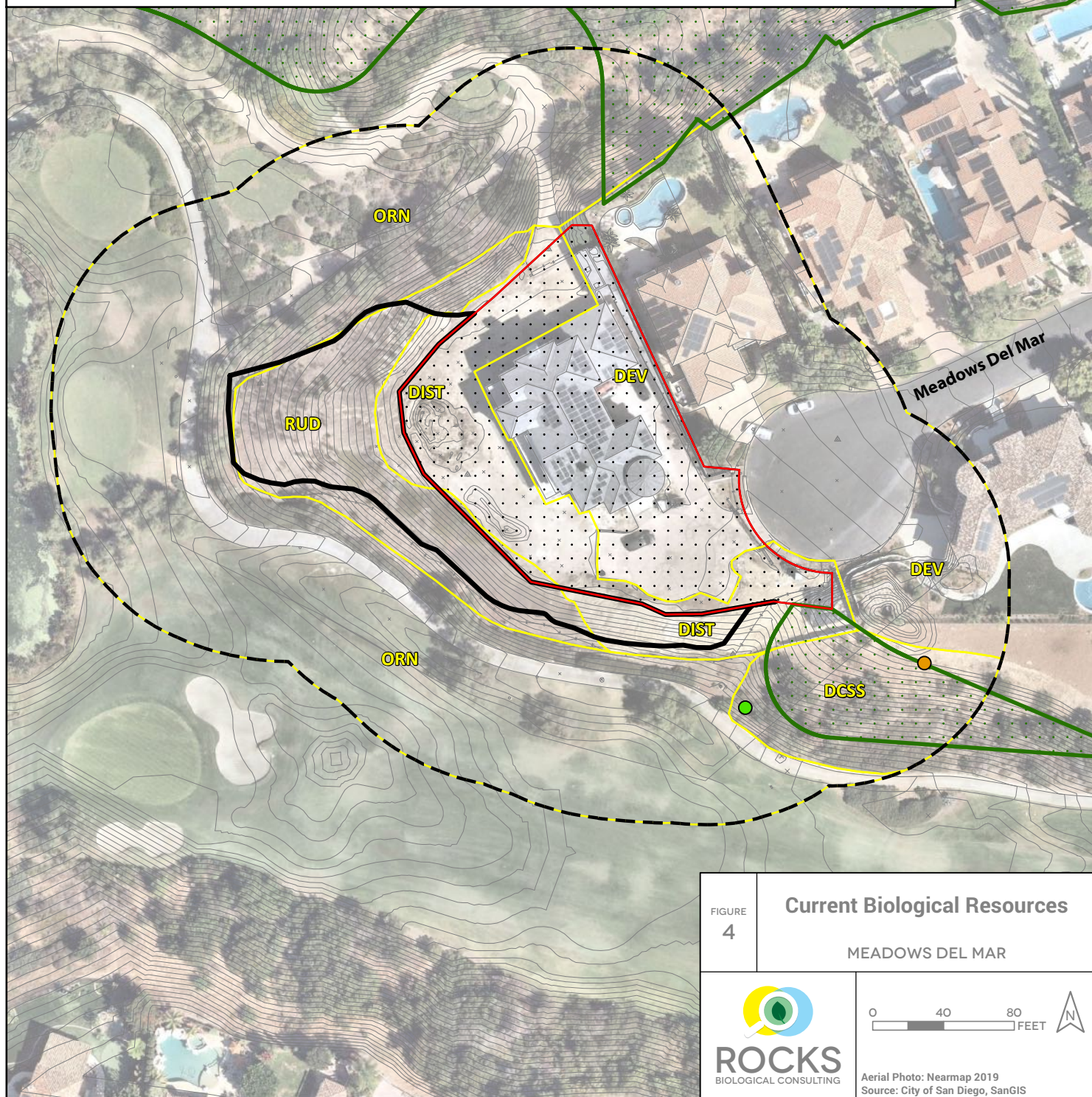


FIGURE  
4

### Current Biological Resources

MEADOWS DEL MAR



Aerial Photo: Nearmap 2019  
Source: City of San Diego, SanGIS



**Ornamental** (Tier IV; occurs within mapping buffer) lands typically consist of non-native landscape and/or garden plantings that have been planted in association with development. San Diego County supports many ornamental trees, shrubs and herbs that decorate urban areas. Ornamental species occur within the 100-foot buffer in association with the adjacent golf-course.

**Ruderal** (Tier IV) habitat typically develops on sites with heavily compacted soils following intense levels of disturbance such as grading. Ruderal habitat in the project area occurs on a newly graded slope and is dominated by cheeseweed (*Malva parviflora*).

## **ANIMALS**

Bird species observed on the project site were consistent with an urban interface area, and included California Towhee (*Melospiza crissalis*), Anna's Hummingbird (*Calypte anna*), bushtit (*Psaltiriparus minimus*), and Bewick's Wren (*Thryomanes bewickii*). No special-status animal species were observed during general biological surveys. A full species list is presented in Appendix C.

## **RARE, THREATENED, ENDANGERED, ENDEMIC AND/OR SENSITIVE SPECIES OR MSCP-COVERED SPECIES**

CNDDDB and USFWS databases have reports of seven special-status plant species and three special-status animal species within one mile of the project site (Figures 2a-b; Appendix D). Special-status plants, animals and habitats are defined here as rare and/or endangered or depleted or declining according to the USFWS, CDFW, California Native Plant Society (CNPS) and/or the City of San Diego. General surveys were conducted for plant and animal species and habitats that are considered sensitive according to the USFWS, CNPS and the CDFW's Natural Diversity Database (CNDDDB) record for the U.S. Geological Survey (USGS) Del Mar 7.5' minute quadrangle.

### **Animals**

No special-status animal species were observed on-site or within the 100-foot buffer during the biological survey in February 2018 or the site visit in January 2020. However, coastal California gnatcatcher (*Poliophtila californica californica*; federally-listed threatened, MSCP covered) has been recorded in both the CNDDDB and USFWS database within one mile of the project site. No gnatcatchers were documented within nearby intact habitats during the biological surveys, and the Diegan coastal sage scrub habitat in this area is minimal and fragmented. As such, coastal California gnatcatcher has a low potential for occurrence on-site.

### **Plants**

Two plant species identified on California Rare Plant Rank (CRPR) lists were observed off-site within Diegan coastal sage scrub to the southeast of the parcel (Figures 3-4), including three California adolphia (*Adolphia californica*; CRPR 2B.1) and one San Diego sunflower (*Bahiopsis laciniata*; CRPR 4.2). CNPS classifies a species with a 2B.1 California Rare Plant Rank (CRPR) as rare, threatened, or endangered in California, but more common elsewhere. Species with a 4.2 CRPR are plants with limited distribution and moderately threatened in California, with 20-80% of occurrences threatened with a moderate degree and immediacy of threat. List 4 is considered a 'watch list' for species that may be experiencing declines.

Table 2 summarizes the potential for Narrow Endemic Species (City of San Diego 1997) to have occurred on site prior to clearing. Narrow endemic species are those with a very restricted habitat and occur only in the San Diego region. Specific protections apply to Narrow Endemic species pursuant to the MSCP. The table has been created using information from CNDDDB records, San Diego Plant Atlas, Rare Plants of San Diego County (Reiser 1994), knowledge of local biological resources, and field surveys.

Table 2. Potential for Narrow Endemic Plant Species

Species	Potential to Occur/Comments
San Diego Thornmint ( <i>Acanthomintha ilicifolia</i> )	Low. Species occurs on clay lenses in open, generally grassland areas. The species is not known from the project area and adjacent (undisturbed) soils do not appear to be suitable for the species.
Shaw's Agave ( <i>Agave shawii</i> )	None. Species occurs exclusively on coastal bluffs; not known from project area.
San Diego Ambrosia ( <i>Ambrosia pumila</i> )	Low. Species occurs in disturbed areas, seasonally dry drainages and floodplains. No incidence of this species is known from the project area.
Aphanisma ( <i>Aphanisma blitoides</i> )	None. Species occurs on coastal dunes.
Coastal Dunes Milk Vetch ( <i>Astragalus tener</i> var. <i>titi</i> )	None. Species occurs on coastal dunes.
Encinitas baccharis ( <i>Baccharis vanessae</i> )	Low. Species occurs in southern maritime and southern mixed chaparrals on sandstone soils, typically in north San Diego County.
Short-leave Live-Forever ( <i>Dudleya brevifolia</i> )	None. Sandstone bluff soil formation habitat of species does not occur within the project area; adjacent (undisturbed) soils are looser soils not suitable for the species.
Variegated Dudleya ( <i>Dudleya variegata</i> )	Low. Habitat is typically openings in coastal sage scrub or grasslands. Species is not known from the vicinity and was not observed during surveys performed for the golf course and surrounding development (Bougainvillea).
San Diego Button-Celery ( <i>Eryngium aristulatum</i> var. <i>parishii</i> )	None. Species occurs in vernal pool habitats, which are not present in project area.
Otay Tarplant ( <i>Deinandra conjugens</i> )	None. Species occurs in grasslands and coastal sage scrub in clay soils in southern San Diego County. The project area is outside of this species' known geographic range.
Prostrate Navarretia ( <i>Navarretia fossalis</i> )	None. Species occurs in vernal pool habitats, which are not present in project area.
Snake Cholla ( <i>Opuntia parryi</i> var. <i>serpentina</i> )	None. Species occurs in chaparral and coastal sage scrub in southern San Diego.
Orcutt Grass ( <i>Orcuttia californica</i> )	None. Species occurs in vernal pool habitats, which are not present in project area.
San Diego Mesa Mint ( <i>Pogogyne abramsii</i> )	None. Species occurs in vernal pool habitats, which are not present in project area.
Otay Mesa Mint ( <i>Pogogyne nudiuscula</i> )	None. Species occurs in vernal pool habitats, which are not present in project area.

## **7 PROJECT IMPACT ANALYSIS**

### **7.1 SIGNIFICANCE CRITERIA**

The California Environmental Quality Act (CEQA) Guideline Section 21068 defines “significant effect on the environment” as a “substantial, or potentially substantial adverse change in the environment.” The City of San Diego Biology Guidelines’ Appendix I Significance Determinations Guidelines Under CEQA: Biological Resources provide the following guidance regarding significant impacts to biological resources.

Would the proposal result in:

- 1) A substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP or other local or regional plans, policies or regulations, or by the CDFW or USFWS?
- 2) A substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development manual or other sensitive natural community identified in local or regional plans, policies or regulations, or by the CDFW or USFWS?
- 3) A substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means?
- 4) Interfering substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites?
- 5) A conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP plan area or in the surrounding region?
- 6) Introducing land use within an area adjacent to the MHPA that would result in adverse edge effects?
- 7) A conflict with any local policies or ordinances protecting biological resources?
- 8) An introduction of invasive species of plants into a natural open space area?

### **7.2 PROJECT IMPACTS**

#### **DIRECT BIOLOGICAL IMPACTS**

Based on aerial photograph interpretation and a field survey of the site and adjacent areas, estimated project impacts that occurred to the west of the home during 2010 clearing are presented in Table 3 and depicted on Figure 5. Additionally, some new areas outside the 2010 NOV clearing will be required for brush management and revegetation. This would result in new impacts on areas that were Diegan coastal sage scrub in 2010 based on historical aerial interpretation (Table 4). Though this area currently supports ornamental vegetation, for the purposes of this report, project impacts are assessed against site conditions prior to the violation.

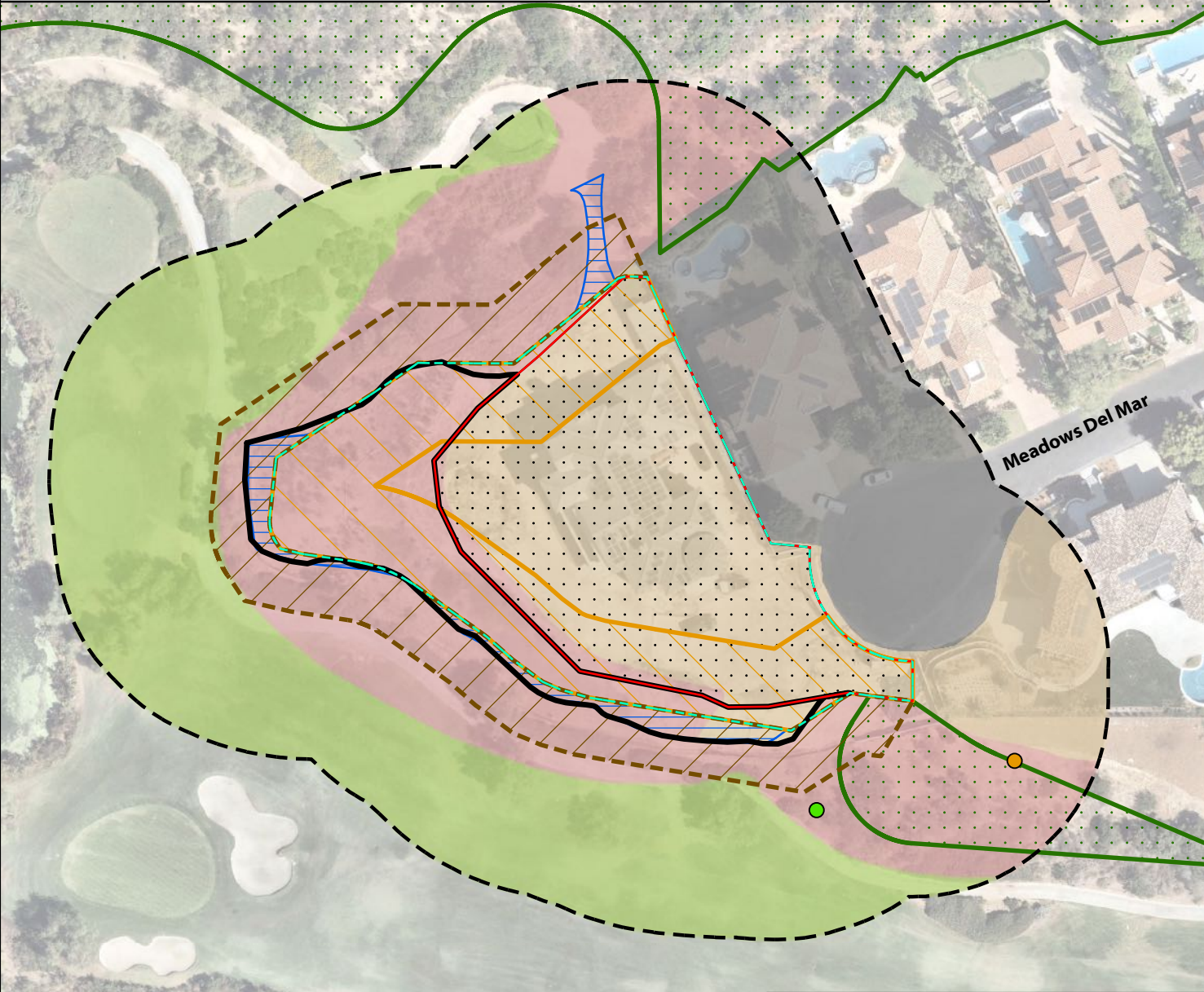
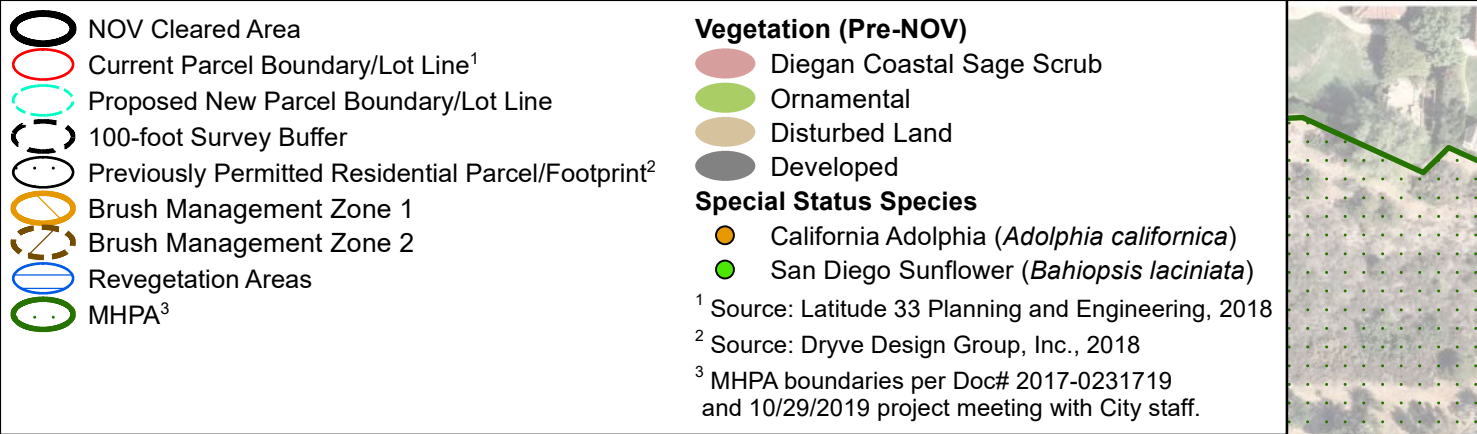


FIGURE  
5

# Impacts

MEADOWS DEL MAR



Aerial Photo: Nearmap 2019  
Source: City of San Diego, SanGIS

Table 3. NOV Clearing Vegetation Communities/Land Use Impacts

Habitat Type	NOV Cleared Areas			Total
	Cleared Area/ Non-BM Zone	BM Zone 1*	BM Zone 2 / Revegetation	
Developed	-	-	-	-
Diegan Coastal Sage Scrub	0.01	0.23	0.05	0.29
Disturbed Land	-	0.10	0.01	0.11
Ornamental	-	-	-	-
<b>Total:</b>	<b>0.01</b>	<b>0.33</b>	<b>0.06</b>	<b>0.40</b>

*\*Note that a portion of the required zone 1 brush management occurs on the existing residential lot that was permitted as part of the larger neighborhood development.*

Table 4. New Development Vegetation Communities/Land Use Impacts

Habitat Type	Proposed Additional Development (Post-NOV)					Total	Impacts on Tier I-III*
	Cleared Area/ Non-BM Zone	BM Zone 1	BM Zone 2	BM Zone 2 / Revegetation	Revegetation outside BM Zone 2		
Developed	-	-	-	-		-	-
Diegan Coastal Sage Scrub	-	0.01	0.37	0.08	0.005	0.47	0.01
Disturbed Land	-	0.002	0.002	-	-	0.004	-
Ornamental	-	-	0.01	-	-	0.01	-
<b>Total:</b>	<b>-</b>	<b>0.01</b>	<b>0.39</b>	<b>0.08</b>	<b>0.005</b>	<b>0.48</b>	<b>0.01</b>

*\*Note that zone 2 brush management impacts are considered 'impact neutral' per the City of San Diego Biology Guidelines and are not included in this calculation.*

The site has a low potential to support the coastal California gnatcatcher, an MSCP covered species. Based on the fragmented nature of Diegan coastal sage scrub habitats in this area and development in very close proximity on both sides of the slope, potential for this species is low. As such, impacts on this species were not likely to have occurred during initial clearing and are not expected with revegetation work.

The site may have supported California adolphia and/or San Diego sunflower. While impacts on these species would be adverse, they would not constitute significant impacts on the species. If present, there likely would not have been a large population within the 0.29 acre of Diegan coastal sage scrub cleared, and these species are not highly endangered. There are no occurrences of these species in the new parcel boundary/zone 1 clearing area. Regional habitat preservation through the MSCP is typically considered to conserve lower-level sensitive species such as

California adolphia and San Diego sunflower in addition to MSCP covered species like coastal California gnatcatcher.

### **INDIRECT IMPACTS**

Minor erosion and dust are anticipated during project landscaping activities; however, these impacts are anticipated to be minor in nature and would not result in significant impacts on biological resources. Project contractors will be required to implement standard dust control measures, and with these in place, and given the temporary nature of dust-generating activities, construction dust is not expected to result in significant impacts on biological resources.

Additionally, the project will be conditioned to comply with MHPA land use adjacency guidelines, which helps ensure the avoidance of indirect impacts associated with drainage, toxins, lighting, etc. to nearby MHPA lands.

### **CUMULATIVE IMPACTS**

Cumulative impacts are potential regional effects of a project and how a project, in combination with other projects and conditions of a region, may affect an ecosystem or one of its components beyond the project limits and on a regional scale. The project is very small (less than one acre), occurs outside the MHPA, and will incorporate habitat mitigation in conformance with City standards and habitat mitigation requirements of the City of San Diego's MSCP, a regional conservation plan. As such, no cumulatively significant biological impacts are anticipated from the project.



## 8 MITIGATION AND REGULATORY COMPLIANCE

### 8.1 HABITAT MITIGATION

Under the City's Biology Guidelines (City of San Diego, 2012), Project impacts to Tiers I-III habitats must be mitigated. Project mitigation must occur at ratios outlined in Table 4. Lands designated as Tier IV, such as ornamental and disturbed areas, are not considered to have significant habitat value and, as discussed above, impacts would not be considered significant, subsequently the impacts to Tier IV lands would not require mitigation.

Table 5. Habit Mitigation Requirements

Habitat Type	Impact	Mitigation Ratio*	Required Acreage
Diegan Coastal Sage Scrub	0.30	1:1	0.30

*Assumes that mitigation will occur inside the MHPA through the HAF program; if mitigation is pursued outside the MHPA, note that the mitigation ratio would be 1.5:1.*

During 2010 NOV clearing, 0.29 acre of Diegan coastal sage scrub was cleared. The proposed expanded brush management zone 1 area would add an additional 0.01 acre impact on this habitat (for a total of 0.30 acre impact on Diegan coastal sage scrub). This impact will be mitigated through purchase of 0.30 acre of habitat through the City of San Diego's HAF (cost at today's HAF rate would be \$11,400; note that the HAF rate is adjusted periodically; rate will be assessed at time of payment).

A portion of the site will be revegetated with native habitat; however, most NOV clearing occurred within existing or proposed brush management zones. As such, on-site revegetation that will occur as part of the project (Figure 5) is ineligible to be used as mitigation credit due to its location within a brush management zone. The necessary mitigation acreage is extremely small at less than a half acre, thus use of the HAF is appropriate for project mitigation usage. Further, the MSCP targets restoration within MHPA lands; the site is not designated MHPA land but HAF monies are used to purchase MHPA preserve lands.

### 8.2 SITE REVEGETATION REQUIREMENTS

Prior to the issuance of a Notice to Proceed (NTP) or any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits the ADD environmental designee of the City's LDR Division shall incorporate specific Site Revegetation Requirements into the project design. The following Site Revegetation Requirements would become conditions of project approval and included as permit conditions in the Site Development Permit (SDP).

#### PRIOR TO PERMIT ISSUANCE

##### A. Land Development Review (LDR) Plan Check

- 1) Prior to NTP or issuance for any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, whichever is

applicable, the ADD environmental designee shall verify that the requirements for the revegetation/restoration plans and specifications, including mitigation of direct impacts to upland habitat have been shown and noted on the appropriate landscape construction documents. The landscape construction documents and specifications must be found to be in conformance with the project revegetation plan, the requirements of which are summarized below.

#### **B. Revegetation/Restoration Plan(s) and Specifications**

- 1) Landscape Construction Documents (LCD) shall be prepared on D-sheets and submitted to the City of San Diego Development Services Department, Landscape Architecture Section (LAS) for review and approval. LAS shall consult with Mitigation Monitoring Coordination (MMC) and obtain concurrence prior to approval of LCD. The LCD shall consist of revegetation/restoration, planting, irrigation and erosion control plans; including all required graphics, notes, details, specifications, letters, and reports as outlined below.
- 2) Landscape Revegetation/Restoration Planting and Irrigation Plans shall be prepared in accordance with the San Diego Land Development Code (LDC) Chapter 14, Article 2, Division 4, the LDC Landscape Standards submittal requirements, and Attachment "B" (General Outline for Revegetation/Restoration Plans) of the City of San Diego's LDC Biology Guidelines (July 2002). The Principal Qualified Biologist (PQB) shall identify and adequately document all pertinent information concerning the revegetation/restoration goals and requirements, such as but not limited to, plant/seed palettes, timing of installation, plant installation specifications, method of watering, protection of adjacent habitat, erosion and sediment control, performance/success criteria, inspection schedule by City staff, document submittals, reporting schedule, etc. The LCD shall also include comprehensive graphics and notes addressing the ongoing maintenance requirements (after final acceptance by the City).
- 3) The Revegetation Installation Contractor (RIC), Revegetation Maintenance Contractor (RMC), Construction Manager (CM) and Grading Contractor (GC), where applicable shall be responsible to insure that for all grading and contouring, clearing and grubbing, installation of plant materials, and any necessary maintenance activities or remedial actions required during installation and the 120 day plant establishment period are done per approved LCD. The following procedures at a minimum, but not limited to, shall be performed:
  - a. The RMC shall be responsible for the maintenance of the upland mitigation area for a minimum period of 120 days. Maintenance visits shall be conducted on a weekly basis throughout the plant establishment period.
  - b. At the end of the 120-day period the PQB shall review the mitigation area to assess the completion of the short-term plant establishment period and submit a report for approval by MMC.

- c. MMC will provide approval in writing to begin the five-year long-term establishment/maintenance and monitoring program.
  - d. Existing indigenous/native species shall not be pruned, thinned or cleared in the revegetation/mitigation area.
  - e. The revegetation site shall not be fertilized.
  - f. The RIC is responsible for reseeding (if applicable) if weeds are not removed, within one week of written recommendation by the PQB.
  - g. Weed control measures shall include the following: (1) hand removal, (2) cutting, with power equipment, and (3) chemical control. Hand removal of weeds is the most desirable method of control and will be used wherever possible.
  - h. Damaged areas shall be repaired immediately by the RIC/RMC. Insect infestations, plant diseases, herbivory, and other pest problems will be closely monitored throughout the five-year maintenance period. Protective mechanisms such as metal wire netting shall be used as necessary. Diseased and infected plants shall be immediately disposed of off-site in a legally-acceptable manner at the discretion of the PQB or Qualified Biological Monitor (QBM) (City approved). Where possible, biological controls will be used instead of pesticides and herbicides.
- 4) If a Brush Management Program is required the revegetation/restoration plan shall show the dimensions of each brush management zone and notes shall be provided describing the restrictions on planting and maintenance and identify that the area is impact neutral and shall not be used for habitat mitigation/credit purposes.

#### **C. Letters of Qualification Have Been Submitted to ADD**

- 1) The applicant shall submit, for approval, a letter verifying the qualifications of the biological professional to MMC. This letter shall identify the PQB, Principal Restoration Specialist (PRS), and QBM, where applicable, and the names of all other persons involved in the implementation of the revegetation/restoration plan and biological monitoring program, as they are defined in the City of San Diego Biological Review References. Resumes and the biology worksheet should be updated annually.
- 2) MMC will provide a letter to the applicant confirming the qualifications of the PQB/PRS/QBM and all City Approved persons involved in the revegetation/restoration plan and biological monitoring of the project.
- 3) Prior to the start of work, the applicant must obtain approval from MMC for any personnel changes associated with the revegetation/restoration plan and biological monitoring of the project.
- 4) PBQ must also submit evidence to MMC that the PQB/QBM has completed Storm Water Pollution Prevention Program (SWPPP) training.

## **PRIOR TO START OF CONSTRUCTION**

### **A. PQB/PRS Shall Attend Preconstruction (Precon) Meetings**

- 1) Prior to beginning any work that requires monitoring:
  - a. The owner/permittee or their authorized representative shall arrange and perform Precon Meeting that shall include the PQB or PRS, Construction Manager (CM) and/or Grading Contractor (GC), Landscape Architect (LA), Revegetation Installation Contractor (RIC), Revegetation Maintenance Contractor (RMC), Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC.
  - b. The PQB shall also attend any other grading/excavation related Precon Meetings to make comments and/or suggestions concerning the revegetation/restoration plan(s) and specifications with the RIC, CM and/or GC.
  - c. If the PQB is unable to attend the Precon Meeting, the owner shall schedule a focused Precon Meeting with MMC, PQB/PRS, CM, BI, LA, RIC, RMC, RE and/or BI, if appropriate, prior to the start of any work associated with the revegetation/restoration phase of the project, including site grading preparation.
- 2) Where Revegetation/Restoration Work Will Occur
  - a. Prior to the start of any work, the PQB/PRS shall also submit a revegetation/restoration monitoring exhibit (RRME) based on the appropriate reduced LCD (reduced to 11"x 17" format) to MMC, and the RE, identifying the areas to be revegetated/restored including the delineation of the limits of any disturbance/grading and any excavation.
  - b. PQB shall coordinate with the construction superintendent to identify appropriate Best Management Practices (BMP's) on the RRME.
- 3) When Biological Monitoring Will Occur
  - a. Prior to the start of any work, the PQB/PRS shall also submit a monitoring procedures schedule to MMC and the RE indicating when and where biological monitoring and related activities will occur.
- 4) PQB Shall Contact MMC to Request Modification
  - a. The PQB may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the revegetation/restoration plans and specifications. This request shall be based on relevant information (such as other sensitive species not listed by federal and/or state agencies and/or not covered by the MSCP and to which any impacts may be considered significant under CEQA) which may reduce or increase the potential for biological resources to be present.

## DURING CONSTRUCTION

### A. PQB or QBM Present During Construction/Grading/Planting

- 1) The PQB or QBM shall be present full-time during construction activities including but not limited to, site preparation, cleaning, grading, excavation, landscape establishment in association with restoration or revegetation activities which could result in impacts to sensitive biological resources as identified in the LCD and on the RRME. The RIC and/or QBM are responsible for notifying the PQB/PRS of changes to any approved construction plans, procedures, and/or activities. The PQB/PRS is responsible to notify the CM, LA, RE, BI and MMC of the changes.
- 2) The PQB or QBM shall document field activity via the Consultant Site Visit Record Forms (CSVSR). The CSVSR's shall be faxed by the CM the first day of monitoring, the last day of monitoring, monthly, and in the event that there is a deviation from conditions identified within the LCD and/or biological monitoring program. The RE shall forward copies to MMC.
- 3) The PQB or QBM shall be responsible for maintaining and submitting the CSVSR at the time that CM responsibilities end (i.e., upon the completion of construction activity other than that of associated with biology).
- 4) All construction activities (including staging areas) shall be restricted to the development areas as shown on the LCD. The PQB/PRS or QBM staff shall monitor construction activities as needed, with MMC concurrence on method and schedule. This is to ensure that construction activities do not encroach into biologically sensitive areas beyond the limits of disturbance as shown on the approved LCD.
- 5) The PQB or QBM shall supervise the placement of orange construction fencing or City approved equivalent, along the limits of potential disturbance adjacent to (or at the edge of) all sensitive habitats, including Diegan coastal sage scrub, as shown on the approved LCD.
- 6) The PBQ shall provide a letter to MMC that limits of potential disturbance has been surveyed, staked and that the construction fencing is installed properly
- 7) The PQB or QBM shall oversee implementation of BMP's, such as gravel bags, straw logs, silt fences or equivalent erosion control measures, as needed to ensure prevention of any significant sediment transport. In addition, the PQB/QBM shall be responsible to verify the removal of all temporary construction BMP's upon completion of construction activities. Removal of temporary construction BMP's shall be verified in writing on the final construction phase CSVSR.
- 8) PQB shall verify in writing on the CSVSR's that no trash stockpiling or oil dumping, fueling of equipment, storage of hazardous wastes or construction equipment/material, parking or other construction related activities shall occur adjacent to sensitive habitat. These activities shall occur only within the designated staging area located outside the area defined as biological sensitive area.

- 9) The long-term establishment inspection and reporting schedule per LCD must all be approved by MMC prior to the issuance of the Notice of Completion (NOC) or any bond release.

#### **B. Disturbance/Discovery Notification Process**

- 1) If unauthorized disturbances occur or sensitive biological resources are discovered that were not previously identified on the LCD and/or RRME, the PQB or QBM shall direct the contractor to temporarily divert construction in the area of disturbance or discovery and immediately notify the RE or BI, as appropriate.
- 2) The PQB shall also immediately notify MMC by telephone of the disturbance and report the nature and extent of the disturbance and recommend the method of additional protection, such as fencing and appropriate Best Management Practices (BMP's). After obtaining concurrence with MMC and the RE, PQB and CM shall install the approved protection and agreement on BMP's.
- 3) The PQB shall also submit written documentation of the disturbance to MMC within 24 hours by fax or email with photos of the resource in context (e.g., show adjacent vegetation)

#### **C. Determination of Significance**

- 1) The PQB shall evaluate the significance of disturbance and/or discovered biological resource and provide a detailed analysis and recommendation in a letter report with the appropriate photo documentation to MMC to obtain concurrence and formulate a plan of action which can include fines, fees, and supplemental mitigation costs.
- 2) MMC shall review this letter report and provide the RE with MMC's recommendations and procedures.

### **POST CONSTRUCTION**

#### **A. Mitigation Monitoring and Reporting Period**

- 1) Five-Year Mitigation Establishment/Maintenance Period
  - a. The RMC shall be retained to complete maintenance monitoring activities throughout the five-year mitigation monitoring period.
  - b. Maintenance visits will be conducted twice per month for the first six months, once per month for the remainder of the first year, and quarterly thereafter.
  - c. Maintenance activities will include all items described in the LCD.
  - d. Plant replacement will be conducted as recommended by the PQB (note: plants shall be increased in container size relative to the time of initial installation or establishment or maintenance period may be extended to the satisfaction of MMC).
- 2) Five-Year Biological Monitoring



- a. All biological monitoring and reporting shall be conducted by a PQB or QBM, as appropriate, consistent with the LCD.
- b. Monitoring shall involve both qualitative horticultural monitoring and quantitative monitoring (i.e., performance/success criteria). Horticultural monitoring shall focus on soil conditions (e.g., moisture and fertility), container plant health, seed germination rates, presence of native and non-native (e.g., invasive exotic) species, any significant disease or pest problems, irrigation repair and scheduling, trash removal, illegal trespass, and any erosion problems.
- c. After plant installation is complete, qualitative monitoring surveys will occur monthly during year one and quarterly during years two through five.
- d. Upon the completion of the 120-days short-term plant establishment period, quantitative monitoring surveys shall be conducted at 0, 6, 12, 24, 36, 48 and 60 months by the PQB or QBM. The revegetation/restoration effort shall be quantitatively evaluated once per year (in spring) during years three through five, to determine compliance with the performance standards identified on the LCD. All plant material must have survived without supplemental irrigation for the last two years.
- e. Quantitative monitoring shall include the use of fixed transects and photo points to determine the vegetative cover within the revegetated habitat. Collection of fixed transect data within the revegetation/restoration site shall result in the calculation of percent cover for each plant species present, percent cover of target vegetation, tree height and diameter at breast height (if applicable) and percent cover of non-native/non-invasive vegetation. Container plants will also be counted to determine percent survivorship. The data will be used determine attainment of performance/success criteria identified within the LCD.
- f. Biological monitoring requirements may be reduced if, before the end of the fifth year, the revegetation meets the fifth-year criteria and the irrigation has been terminated for a period of the last two years.
- g. The PQB or QBM shall oversee implementation of post-construction BMP's, such as gravel bags, straw logs, silt fences or equivalent erosion control measure, as needed to ensure prevention of any significant sediment transport. In addition, the PBQ/QBM shall be responsible to verify the removal of all temporary post-construction BMP's upon completion of construction activities. Removal of temporary post-construction BMPs shall be verified in writing on the final post-construction phase CSV.

## **B. Submittal of Draft Monitoring Report**

- 1) A draft monitoring letter report shall be prepared to document the completion of the 120-day plant establishment period. The report shall include discussion on weed control, horticultural treatments (pruning, mulching, and disease control), erosion control,

trash/debris removal, replacement planting/reseeding, site protection/signage, pest management, vandalism, and irrigation maintenance. The revegetation/restoration effort shall be visually assessed at the end of 120-day period to determine mortality of individuals.

- 2) The PQB shall submit two copies of the Draft Monitoring Report which describes the results, analysis, and conclusions of all phases of the Biological Monitoring and Reporting Program (with appropriate graphics) to MMC for review and approval within 30 days following the completion of monitoring. Monitoring reports shall be prepared on an annual basis for a period of five years. Site progress reports shall be prepared by the PQB following each site visit and provided to the owner, RMC and RIC. Site progress reports shall review maintenance activities, qualitative and quantitative (when appropriate) monitoring results including progress of the revegetation relative to the performance/success criteria, and the need for any remedial measures.
- 3) Draft annual reports (three copies) summarizing the results of each progress report including quantitative monitoring results and photographs taken from permanent viewpoints shall be submitted to MMC for review and approval within 30 days following the completion of monitoring.
- 4) MMC shall return the Draft Monitoring Report to the PQB for revision or, for preparation of each report.
- 5) The PQB shall submit revised Monitoring Report to MMC (with a copy to RE) for approval within 30 days.
- 6) MMC will provide written acceptance of the PQB and RE of the approved report.

#### **C. Final Monitoring Report(s)**

- 1) PQB shall prepare a Final Monitoring upon achievement of the fifth-year performance/success criteria and completion of the five-year maintenance period.
  - a. This report may occur before the end of the fifth year if the revegetation meets the fifth-year performance /success criteria and the irrigation has been terminated for a period of the last two years.
  - b. The Final Monitoring report shall be submitted to MMC for evaluation of the success of the mitigation effort and final acceptance. A request for a pre-final inspection shall be submitted at this time, MMC will schedule after review of report.
  - c. If at the end of the five years any of the revegetated area fails to meet the project's final success standards, the applicant must consult with MMC. This consultation shall take place to determine whether the revegetation effort is acceptable. The applicant understands that failure of any significant portion of the revegetation/restoration area may result in a requirement to replace or renegotiate that portion of the site and/or extend the monitoring and establishment/maintenance period until all success standards are met.

## 9 REFERENCES

- Baldwin, B.G., Goldman, D.H., Keil, D.J., Patterson, R., Rosatti, T.J. (eds). 2011. The Jepson Manual: Vascular Plants of California, Second Edition, Thoroughly Revised and Expanded. University of California Press, Berkeley, California. 1400 pp.
- California Department of Fish and Game (CDFG). California Department of Fish and Game Natural Diversity Data Base (CNDDB) – Electronic Format. Accessed 2013.
- City of San Diego. 2017. Civil Penalty Notice and Order.
- City of San Diego. 2017. Covenant of Easement for Protection of Environmentally Sensitive Lands within the Multiple Species Conservation Program Multi-Habitat Planning Area and Other Environmentally Sensitive Areas. Document # 2017-0231719.
- City of San Diego. 2012. Significance Determination Guidelines Under the California Environmental Quality Act.
- City of San Diego. 2012. Biology Guidelines of the San Diego Municipal Code's Land Development Code. City of San Diego.
- City of San Diego. 1997. City of San Diego MSCP Subarea Plan.
- City of San Diego. 1996. Bougainvillea Environmental Impact Report.
- Fisher, R.N. and Case, T.J. 1997. A Field Guide to the Reptiles and Amphibians of Coastal Southern California. United States Geological Service. San Mateo, CA.
- Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. State of California, The Resources Agency.
- Laudenslayer, William F., Jr., W. E. Grenfell, Jr. and D. Zeiner. 1991. A check-list of the amphibians, reptiles, birds, and mammals of California. The Resources Agency: 77(3): 109-141.
- Oberbauer, T. 1991. Terrestrial vegetation communities in San Diego County based on Holland's descriptions. December.
- Ogden Environmental. 1998. Multiple Species Conservation Program: MSCP Plan.
- Reiser, C. H. 1994. Rare plants of San Diego County. Imperial Beach: Aquifer Press. May. 180 pp.
- Sibley, D.A. 2000. The Sibley Guide to Birds, National Audubon Society. Chanticleer Press, Inc. New York.
- Simpson, M.G. and J.P. Rebman. 2006. Checklist of the Vascular Plants of San Diego County, 4th Edition. 100 pp.
- Tracy, Chris. 2019. Personal communication via electronic mail, Re: Meadows Del Mar Comments (Project Nbr: 604841). April 24, 2019.
- Unitt, P. 2004. San Diego County Bird Atlas. San Diego Natural History Museum. 645 pp.

## **APPENDIX A**

### **Meadows Del Mar**

**Historical Aerial Photographs of Project Site, 1994 -  
2016**

Appendix B  
Meadows Del Mar Site Photographs



Photo 1. View of project site from southeast corner facing west. Driveway of residence is visible on right side of photo. February 13, 2018.



Photo 2. View of disturbed project site from south-central project area, facing north. February 13, 2018.





Photo 3. View golf course path and ornamental vegetation immediately north of site within project buffer. February 13, 2018.



Photo 4. View of pit within project area, facing northwest. February 13, 2018.



Photo 5. View of disturbed roadway northwest of project site (within buffer) facing northeast. February 13, 2018.



Photo 6. View of road northwest of project site (within buffer), facing southwest. February 13, 2018.





Photo 7. View of ornamental project buffer outside of MHPA facing north. February 13, 2018.



Photo 8. South-facing view of Diegan coastal sage scrub in project buffer. February 13, 2018.



Appendix B  
Meadows Del Mar Site Photographs



Photo 1. View of project site from southeast corner facing west. Driveway of residence is visible on right side of photo. February 13, 2018.



Photo 2. View of disturbed project site from south-central project area, facing north. February 13, 2018.



Photo 3. View golf course path and ornamental vegetation immediately north of site within project buffer. February 13, 2018.



Photo 4. View of pit within project area, facing northwest. February 13, 2018.





Photo 5. View of disturbed roadway northwest of project site (within buffer) facing northeast. February 13, 2018.



Photo 6. View of road northwest of project site (within buffer), facing southwest. February 13, 2018.



Photo 7. View of ornamental project buffer outside of MHPA facing north. February 13, 2018.



Photo 8. South-facing view of Diegan coastal sage scrub in project buffer. February 13, 2018.

Appendix C  
Plant and Wildlife Species Observed

Family Name	Scientific Name	Common Name	Status
<b>Plants</b>			
Anacardiaceae	<i>Malosma laurina</i>	Laurel Sumac	
Anacardiaceae	<i>Rhus integrifolia</i>	Lemonadeberry	
Anacardiaceae	<i>Schinus molle</i>	Peruvian Pepper Tree	
Asteraceae	<i>Artemisia californica</i>	Coastal Sagebrush	
Asteraceae	<i>Baccharis salicifolia subsp. salicifolia</i>	Mule-Fat, Seep-Willow	
Asteraceae	<i>Bahiopsis laciniata</i>	San Diego Sunflower	CRPR 4.2
Asteraceae	<i>Encelia californica</i>	California Encelia	
Asteraceae	<i>Helminthotheca echioides</i>	Bristly Ox-Tongue	
Brassicaceae	<i>Brassica nigra</i>	Black Mustard	
Cactaceae	<i>Opuntia littoralis</i>	Coast Prickly-Pear	
Cucurbitaceae	<i>Marah macrocarpa</i>	Manroot, Wild-Cucumber	
Fabaceae	<i>Acacia redolens</i>	Vanilla Scented Wattle	
Lamiaceae	<i>Salvia mellifera</i>	Black Sage	
Oxalidaceae	<i>Oxalis pes-caprae</i>	Bermuda-Buttercup	
Rhamnaceae	<i>Adolphia californica</i>	Spineshrub	CRPR 2B.1
<b>Birds</b>			
Aegithalidae	<i>Psaltiriparus minimus</i>	bushtit	
Anatidae	<i>Aythya valisineria</i>	canvasback	
Anatidae	<i>Bucephala albeola</i>	bufflehead	
Anatidae	<i>Spatula cyanoptera</i>	cinnamon teal	
Corvidae	<i>Aphelocoma californica</i>	California scrub-jay	
Corvidae	<i>Corvus brachyrhynchos</i>	American crow	
Fringillidae	<i>Haemorhous mexicanus</i>	house finch	
Mimidae	<i>Mimus polyglottos</i>	northern mockingbird	
Mimidae	<i>Toxostoma redivivum</i>	California thrasher	
Odontophoridae	<i>Callipepla californica</i>	California quail	
Parulidae	<i>Setophaga coronate</i>	yellow-rumped warbler	
Passerellidae	<i>Melospiza crissalis</i>	California towhee	
Passerellidae	<i>Pipilo maculatus</i>	spotted towhee	
Passerellidae	<i>Zonotrichia leucophrys</i>	white-crowned sparrow	

Poliioptilidae	<i>Poliioptila caerulea</i>	blue-gray gnatcatcher	
Rallidae	<i>Fulica Americana</i>	American coot	
Regulidae	<i>Regulus calendula</i>	ruby-crowned kinglet	
Sylviidae	<i>Chamaea fasciata</i>	wrentit	
Trochilidae	<i>Calypte anna</i>	Anna's hummingbird	
Trochilidae	<i>Selasphorus sasin</i>	Allen's hummingbird	
Troglodytidae	<i>Thryomanes bewickii</i>	Bewick's wren	
Tyrannidae	<i>Sayornis nigricans</i>	black phoebe	
Tyrannidae	<i>Tyrannus vociferans</i>	Cassin's kingbird	

**CRPR** – California Rare Plant Rank

**1B** – Plants rare, threatened, or endangered in California and elsewhere

**2B** – Plants rare, threatened, or endangered in California but more common elsewhere

**4** – Plants of limited distribution – a watch list

0.1 – Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2 – Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

APPENDIX D:  
MEADOWS DEL MAR SPECIAL-STATUS SPECIES  
POTENTIAL FOR OCCURRENCE

Species	Status	Habitat Description	Potential for Occurrence
<b>Plants</b>			
California adolphia ( <i>Adolphia californica</i> )	CRPR 2B.1	Native shrub. Found in chaparral, valley grassland, and coastal sage scrub. Blooms Dec-May. Elev 20-655 ft.	Present within coastal sage scrub in project buffer.
Del Mar manzanita ( <i>Arctostaphylos glandulosa</i> ssp. <i>crassifolia</i> )	FE, CRPR 1B.1	Native shrub. Found in chaparral. Blooms Dec-Jun. Elev 65-2,295 ft.	None. Suitable habitat not present within project area.
Wart-stemmed ceanothus ( <i>Ceanothus verrucosus</i> )	CRPR 2B.2	Native shrub. Found in chaparral. Blooms Jan-Apr. Elev 25-2,165 ft.	None. Suitable habitat not present within project area.
Summer holly ( <i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i> )	CRPR 1B.2	Native shrub. Found in chaparral. Blooms Apr-Jun. elev 100-2,690 ft.	Low potential to occur. Species was not observed during biological resources survey.
Del Mar Mesa sand aster ( <i>Corethrogyne filaginifolia</i> var. <i>linifolia</i> )	CRPR 1B.1	Perennial herb. Found in chaparral and coastal sage scrub. Blooms May-Sep. Elev 65-460 ft.	Low potential to occur. Species not observed during biological resources survey.
San Diego barrel cactus ( <i>Ferocactus viridescens</i> )	CRPR 2B.1	Native succulent shrub. Found in chaparral, valley grassland, coastal sage scrub, and freshwater wetlands. Blooms May-Jun. Elev 25-1,245 ft.	Low potential to occur. Species not observed during biological resources survey.
Nuttall's scrub oak ( <i>Quercus dumosa</i> )	CRPR 1B.1	Native shrub. Found on chaparral and coastal sage scrub. Blooms Feb-Mar. Elev 45-6,855 ft.	Low to moderate potential to occur. Species not observed within project site or mapping buffer.



Invertebrates			
San Diego fairy shrimp ( <i>Branchinecta sandiegonensis</i> )	FE	Found in vernal pools and other temporary pools	None. Suitable habitat not present within project site.

Birds			
Southern California rufous-crowned sparrow ( <i>Aimophila ruficeps canescens</i> )	WL	Occurs mainly in coastal sage scrub and chaparral habitats.	Low potential to occur. Some suitable habitat present but not observed during biological resources survey.
Coastal California gnatcatcher ( <i>Polioptila californica californica</i> )	FT, SSC	Occurs mainly in coastal sage scrub and chaparral habitats.	Low potential to occur. Some suitable habitat present but not observed during biological resources survey.

**CRPR** – California Rare Plant Rank

**1B** – Plants rare, threatened, or endangered in California and elsewhere

**2B** – Plants rare, threatened, or endangered in California but more common elsewhere

0.1 – Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2 – Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

0.3 – Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

**FE** – Federally Endangered (USFWS)

**FT** – Federally Threatened (USFWS)

**SE** – State Endangered (CDFW)

**SSC** – Species of Special Concern (CDFW)

**WL** – Watch List (CDFW)





## TEAM QUALIFICATIONS SUMMARY

### **Melanie Rocks, M.S.**

#### **Principal & Senior Project Manager**

Ms. Rocks serves as regulatory specialist, project manager, and biologist for the firm. Melanie Rocks holds a Master of Science degree in environmental science and has nearly 20 years of experience in environmental regulation and biological science in Southern California. Prior to joining Rocks Biological Consulting, Melanie served as lead biologist for the City of San Diego's Multiple Species Conservation Program (MSCP) where she reviewed development projects for conformance with City biological regulations and served on a working group that revised the City's wetland regulations (implemented in 2012). She also performed a Citywide vernal pool inventory and oversaw revisions to the MSCP monitoring programs. Melanie is well-versed in local, state, and federal environmental regulations. She also has extensive experience preparing California Environmental Quality Act (CEQA) documents and holds a USFWS 10(a) recovery permit for the all California fairy shrimps and the Quino checkerspot butterfly.

### **Ian Hirschler, B.S.**

#### **Associate Biologist**

Ian Hirschler has three years of professional experience working as a wildlife biologist and is well versed in ecology and field biology. Ian holds a B.S. in field and wildlife biology from California Polytechnic State University, San Luis Obispo and has worked closely with small mammals including Heermann's, Aguonga, and Dulzura kangaroo rats and Gunnisons's prairie dog, as well as chacma baboons in Africa, and has thus gained practical knowledge of behavioral ecology and field research techniques. Ian conducts protocol surveys for the Southern California special-status burrowing owl as well as the state and federally-endangered least Bell's vireo; performs biological monitoring and vegetation mapping; is authorized to conduct surveys for the federally endangered Quino checkerspot butterfly; works closely with permitted biologists to survey for the federally threatened coastal California gnatcatcher; and aids clients in the preparation of technical reports for compliance with federal, state, and local environmental laws and regulations.