Pebbly Beach Landfill Site Life Optimization Project

Biota Report

Pebbly Beach Canyon Significant Ecological Area
APN: 7480-045-900
Los Angeles County Project No. RPAP2024004136

prepared for

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RINCON CONSULTANTS

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Executive Summary

This Biota Report has been prepared by Rincon Consultants, Inc. (Rincon) on behalf of the City of Avalon (Owner/Applicant) for the Pebbly Beach Landfill (PBL) Site Optimization Project (project) to support a Conditional Use Permit (CUP). This Biota Report was prepared according to the Los Angeles County Department of Regional Planning Significant Ecological Areas (SEA) Ordinance Implementation Guide. This Biota Report presents detailed discussions of the biological resources, natural features, and regional context of the project site, and provides a thorough community-level assessment of the biological resources on the project site and surrounding area. This Biota Report is based on a combination of literature review and on-site investigations.

The project site is located in unincorporated Los Angeles County (County) on the southeast edge of Santa Catalina Island (Catalina), south of the City of Avalon (Figure 1). The proposed project occurs in portions of the *Santa Catalina East, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangle and the Public Land Survey System (PLSS) depicts the project site within Township T09S, Range R14W, Section 35. The site encompasses approximately 7.7 acres of land within Assessor's Parcel Number (APN) 7480-045-900 with an approximate 5.6-acre waste disposal footprint (City of Avalon 2023).

The existing PBL facility provides refuse pickup and solid waste processing for the City of Avalon. The project proposes to extend the life of the landfill primarily through the construction of an approximately 20-foot-high mechanically stabilized earthen wall at the top of the existing landfill footprint. This will allow for additional waste filling behind the wall to a final grade of 305 feet above mean sea level. All of the proposed additional capacity for waste filling is contained within the existing permitted waste footprint. This additional capacity will extend the life of the landfill to approximately 2048 at current fill rates.

The project site occurs within Los Angeles County and the Coastal Zone, and more specifically, as outlined in the Los Angeles County General Plan Coastal Element, within the Pebbly Beach Canyon Significant Ecological Area, a County designation of land that contains irreplaceable biological resources and subject to the Santa Catalina Island Local Coastal Plan (LCP) policies and ordinances. The Santa Catalina Island LCP was certified by the California Coastal Commission in November of 1983, allowing Los Angeles County to issue permits within the Coastal Zone of Santa Catalina Island. The 1990 Santa Catalina Specific Plan, under Title 22, Chapter 22.46 of the Los Angeles County Code of Ordinances and adopted as Ordinance 89-0148, constitutes the primary implementation mechanism for the Santa Catalina Island LCP. As such, it establishes regulations for the development, protection and management of the island's unique resources.

As a result of this analysis, the project site does not occur within federally designated Critical Habitat for any plant or wildlife species or overlap with County-defined Environmentally Sensitive Habitat Areas (ESHAs). No aquatic resources occur on the project site and the project site is topographically isolated from the coastline by an approximately 150-foot-tall cliff to the east of the site. The project site, and existing landfill, is also topographically isolated by rocky cliffs to the west of the site. The project site does not support sensitive plant communities, special-status species populations, or protected trees or woodlands. The project will incorporate measures to ensure that impacts to biological resources are avoided or minimized to the greatest extent possible. These measures include implementation of a worker environmental awareness program, pre-activity surveys, and other best management practices.

County of Los Angeles Department of Regional Planning Biota Report Checklist

Biota Report Checklist	Page
Cover/Spine/Title Page	
A. Project name, type of report (Biota Report)	Title Page
B. County identification numbers (Project number, Permit number, APNs)	Title Page
C. Applicant name and contact information	Title Page
D. SEA name(s)	Title Page
E. Name of lead biologist and consulting company contact information	Title Page
F. Date	Title Page
Introduction	
A. Project description	Page 2
1. Project name, type of report, address of project	Page 1
2. County application identification numbers including APNs	Page 1
3. Applicant name and contact information	Page 1
4. SEA name(s)	Page 1
5. Supervising biologist, company, directive information	Appendix A
6. Parcel and Acreage Table (for more than one parcel)	N/A
7. Location	Page 1, Figure 1
8. Project Alternatives Considered	Page 5
a. Map of regional features in vicinity showing project location, and including all drainages and wetlands	Figure 5
b. Color USGS topographic map with outline of project parcels, SEA, open space resource areas, etc.; scale about 1:24000	Figure 3
c. Color orthogonal aerial showing project parcels, SEA, open space, etc.	Figure 8
B. Description of Natural Geographic Features	Section 1.3
1. Summary of known biological resources including relation to:	
a) Landforms and geomorphology	Page 6
b) Drainage and wetland features	Page 10, Figure 5
c) Soils; include soil map	Page 7, Figure 4
d) Vegetation communities	Page 10, Figure 6
e) SEA criteria and resources	Page 8, 28-30
C. Methodology of Biological Survey	Section 2
1. Table of surveys (surveys approximately 1 year old or more recent)	N/A
2. Text descriptions of survey methods	Page 13
3. Table of information on biologist(s) and other contributors for BCA; appendix of contributors' experience	Appendix A
4. Proof of permits or Memoranda of Understanding for trapping shall be in the appendix	N/A
Biological Characteristics of the Site	
A. Vegetation Data and Descriptions	Section 3.1
1. Vegetation map of Sawyer, Keeler-Wolf, Evens (2009) alliances and associations of vegetation types, relevé locations	Figure 6
2. Vegetation cover table	Page 14

Biota Report Checklist	Page
3. Map of trees (for jurisdictional oaks, State and County, an oak tree report will be needed. Oak tree reports will be in an appendix.)	N/A
4. Summary of vegetation site habitats in relation to soil, sensitivity, rainfall, potential for impact (only necessary if there is a possibility of rare plant occurrences that would be made possible by the presence of some important soil type or geological formation)	Page 14-16
B. Fauna and Flora Sensitive Species Tables and Discussion	Section 4
1. Table of sensitive species known from the region, sensitivity rankings, habitat requirements, and likelihood of occurrence on site – with rationale for likelihood determination.	Appendix E
2. Table of break points on rough estimate of population size (appendix)	N/A
3. Paragraph for each sensitive species on characteristics that might lead to project impact. Listed species paragraphs in separate section.	Page 19-23
C. Maps of occurrence for sensitive species	N/A
D. Wildlife movement/habitat linkage analysis with map of site and movement areas	Page 29
E. Floral and faunal compendia (all plant and animal species observed directly or indirectly on site, and for animals, in adjacent areas of similar habitat), updated for latest observation if multiple versions of the BCA are submitted, version date	Appendix D
F. All voucher collections shall be deposited in an appropriate, recognized public institution, and shall be tabulated in the floristic and faunal lists.	N/A
Characteristics of the Surrounding Area	
A. Description of Existing Land Uses in the Project Area	Page 27
B. Table of development projects in the vicinity and summary discussion (acreage, units, etc.)	N/A
C. Map of land uses	Figure 8
D. Description of open space reserves in the area and depiction of wildlife movement/habitat linkage relationships to open space. Include known conservation and open space easements in perpetuity. Refer to maps II.A.7	Page 27
E. Reference to and relationship to any conservation plans in the vicinity	Page 27
F. Description of habitats, alliances, associations and vegetative communities in the vicinity with respect to those on site	Page 23
G. Rough estimates of the overall population sizes of species of flora and fauna on site and in vicinity fauna on site and in vicinity	Appendix D
H. Description of overall biological value of the area: fit to the biotic mosaic; contribution to surrounding area and SEA ecological functions	Page 27
Impact Evaluation	
A. Regulatory framework	Page 30, Appendix B
B. Tables	
1. Table of impact for sensitive vegetation and species	Table 2, 3 and 4
2. Table of vegetation type and proposed changes	Table 2
3. Table of acreage additions and deductions of SEA land	Page 6, Figure 2
C. Maps [may be combined, but each of the following should be illustrated in one form or other]	
1. Map(s) of vegetation constraints.	Figure 6
2. Map of proposed vegetation impacts (grading and fuel-modification superimposed on vegetation map)	Figure 6

Biota Report Checklist		Page
3.	Map of noteworthy or protected tree species, sensitive plant observations (and animal if highly resource dependent, e.g. aquatics, burrowing owl, etc.), showing removals and disturbance proposed	N/A
4.	Regional and local maps of wildlife corridors and habitat linkages [including regional and statewide efforts (e.g. South Coast Missing Linkages, California Essential Connectivity Project, Puente Hills "Missing Middle", etc.), as well as any site-specific features (ridgelines, drainages, culverts, fencing, etc.) that may facilitate or constrain movement	Page 29
D. Discussion of Impacts—direct (grading and fuel-modification), indirect, and cumulative impacts to each of the following must be discussed		Section 6
1.	Vegetation, with note of any sensitive vegetation types (refer to State and Global sensitivity rankings included on the CDFW Natural Communities List) or noteworthy natural stands that may be unique to the site.	Page 31, Appendix E
2.	Special-status species, including any locally-recognized sensitive species (e.g. the Los Angeles Audubon list of Los Angeles County's Sensitive Bird Species) and unusual sightings of otherwise common taxa (e.g. *Gilia diegensis* in the Liebre Mountains, *Petalonyx thurberi* in the Santa Clara River, etc.).	Page 32, Appendix E
3.	Protected and noteworthy trees	Page 24
4.	Wildlife habitat, including wildlife corridors and habitat linkages	Page17 and 29
5.	Project impact on integrity of the SEA	Page 38
E. Discussion of project consistency with SEA CUP compatibility criteria		Section 8.1, page 43
1.	That the requested development is designed to be highly compatible with the biotic resources present, including the setting aside of appropriate and sufficient undisturbed areas	
2.	That the requested development is designed to maintain water bodies, watercourses, and their tributaries in a natural state	
3.	That the requested development is designed so that wildlife movement corridors (migratory paths) are left in an undisturbed and natural state	
4.	That the requested development retains sufficient natural vegetative cover and/or open spaces to buffer critical resources, habitat areas, or migratory paths	
5.	That the roads and utilities serving the proposed development are located and designed so as not to conflict with critical resources, habitat areas, or migratory paths	
F. Biological constraints on the Project Site		Section 6.9, page 38
1.	Biological Constraints Map	Figure 9
Mitigation Measures		
A. List of impact and mitigation measures that apply. The following aspects of SEA impact must be addressed:		Section 7.1, page 41
1.	Acreage remaining as natural open space and percentage of original	
2.	Existing designated open space on and adjacent to the parcel in question	
3.	Short and long term measures & preservation instruments that will provide protection of natural open areas	
4.	Type and amount of landscaping; utilization of locally-indigenous native plants; prohibition on invasive plants	

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Monitoring Program	
A. Directly applicable to addressing impact; measurement of biological response to mitigation	Section 7.2, page 43
B. Performance standards	N/A
C. Alternatives for failure to meet performance standards	N/A
D. Funding and bond establishment	N/A
E. Schedule	Section 7.2
F. Responsible parties	Section 7.2
G. Adaptive management	N/A
Conclusion	
A. Project Consistency with SEA CUP Compatibility Criteria	Page 43
B. Recommendations for Further Studies	Page 44
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A. Bibliography of cited references	Section 10.0
Appendices	
A. Table of biologists and other contributors; Preparer and other contributor qualifications; permits, MOUs	Appendix A
B. Regulatory Framework	Appendix B
C. Site Photographs	Appendix C
D. Floral and faunal compendia	Appendix D
E. Special Status Species Potential to Occur Table	Appendix E
F. Conceptual Project Design	Appendix F

1 Introduction

This Biota Report has been prepared by Rincon Consultants, Inc. (Rincon) on behalf of the City of Avalon (Owner/Applicant) for the Pebbly Beach Landfill (PBL) Site Optimization Project (project). This Biota Report was prepared according to the Los Angeles County Department of Regional Planning (LADRP) Significant Ecological Areas (SEA) Ordinance Implementation Guide, Santa Catalina Island Local Coastal Plan, and the Santa Catalina Specific Plan, located in Section 22.46.050 through Section 22.46.750 of the County of Los Angeles Code of Ordinances. This Biota Report presents detailed discussions of the biological resources, natural features, and regional context of the project site, and provides a thorough community-level assessment of the biological resources on the project site and surrounding area. This Biota Report was informed by a previously prepared Biological Constraints Analysis (Rincon 2026) which presented detailed discussions of the biological resources, natural features, and regional context of the project site, and provides a thorough community-level assessment of the biological resources on the project site and surrounding area. This BCA is based on a combination of literature review and on-site investigations. While this Biota Report's structural organization varies from the example provided in the County's Biota Report Checklist, it contains all required content to fully inform the County's review.

Owner/Applicant

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Los Angeles County Project No. RPAP2024004136

A complete list of report preparers is provided as Appendix A.

1.1 Project Location

The project site is located in unincorporated Los Angeles County (County), on the southeast edge of Santa Catalina Island (hereinafter referred to as Santa Catalina Island or Catalina), south of the City of Avalon (Figure 1). The project site is located on 7.7 acres of land with an approximate 5.6-acre waste disposal footprint within Assessor's Parcel Number (APN) 7480-045-900 (City of Avalon 2023). The proposed project occurs within portions of the *Santa Catalina East, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangle and the Public Land Survey System (PLSS) depicts the project site within Township T09S, Range R14W, Section 35, San Bernardino base and meridian. Access to the site is from the north, via Pebbly Beach Road to Dump Road, traversing the east side of the existing PBL disposal site. The Study Area for this Biota Report includes the project site plus a 200-foot buffer (Figure 2).

Figure 1 Regional Location Map

Figure 2 Project Site and Study Area

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Fig 2 Study Area

1.2 Project Description and Background

The project involves optimizing the life of the existing PBL primarily through the construction of an approximately 20-foot-high retaining wall placed at the toe of slope. Waste would be filled against the retaining wall and project back to the top deck at an average grade of 2:1 horizontal run to vertical rise (H:V), allowing sufficient space to construct a final cover system that would tie into a concrete v-ditch installed along the top of the wall to intercept and divert surface water to the original discharge locations. The permitted height of the PBL would increase from its current height by approximately 50 feet. Site life at PBL would be extended by approximately 27.5 years, to roughly 2048. No changes to the permitted limit of waste landfill footprint, nor related to daily waste volume being received, are anticipated. All proposed waste filling activities will occur within the existing permitted limit of waste. Drawing C03 of the plan set in Appendix F depicts cross sections through the landfill where landfill base grades, existing fill grades, and proposed final fill grades are shown. The permitted limit of waste is also shown in these cross sections. The proposed waste fill on the western side of the landfill would begin at the waste limit and slopes up and to the east at 2H:1V to the proposed top deck at 305 feet mean sea level (msl). The proposed waste fill on the eastern side of the landfill would begin at the approved waste limit, which coincides with the mechanically stabilized earthen wall boundary, and slopes up and to the west at 2H:1V to the top deck at 305 feet msl. Mid-slope benches would be installed to promote site drainage. The earthen wall would function as an engineered buttress providing stability for the waste mass behind the wall and includes a geosynthetic grid material interwoven with compacted local soil matrix allowing for vegetation growth. The difference in airspace between the current permitted final grade (elevation 260 feet msl) and proposed final grade (elevation 305 feet msl) is the additional capacity that will extend the site life to approximately the year 2048. No changes to the waste composition, increase in permitted daily tonnage, nor increase in vehicular traffic is anticipated. Material Recovery Facility (MRF) and composting facility operations are not anticipated to change.

The project site is relatively isolated and visually secluded from adjacent land uses by the surrounding mountainous terrain. The sole responsibility for this facility is refuse pickup and solid waste processing for the City of Avalon. The project site was originally utilized as a rock quarry providing riprap material for projects in southern California. In the 1950s, the rock quarry transitioned to a landfill (County Public Works 2023). In 1986, PBL transitioned from an open burn dump to a pit burner incinerator system where ash from the incinerator and sewage from the nearby treatment plant were methodically deposited in the current landfill area. Since the early 2000s, the PBL has adopted a waste processing strategy for incoming solid waste, with a focus on removing recyclable materials, which are baled at the MRF and transported to the mainland. Concurrently, organic materials are subjected to shredding and composting, while the remaining materials are baled and subsequently landfilled. The compacted blocks of waste material are stacked and interlocked in the PBL. The landfilled waste material does not include hazardous material, such as, TVs, computer monitors and other E-waste, motor oil and filters, batteries, pesticides, fertilizers and weed killers, paints, thinners, stains and varnish, chemical dyes, drain cleaners, household cleaners, commercial cleaners, solvents, auto or furniture polish, antifreeze, compressed gas cylinders. These materials are taken to the City of Avalon Household Hazardous Waste Site, located off-site. The nearest structures are the contractor's sheds and storage buildings on adjacent leased land and the City of Avalon wastewater treatment plant, located approximately 0.15 mile northwest of the disposal site, and the rock quarry, located approximately 0.80 mile southwest. No permitted residential developments (or other sensitive receptors) are adjacent to or within 1,000 feet of the PBL.

Conceptual project designs are provided in Appendix F.

1.2.1 Anticipated Construction Schedule

The MSE wall would be constructed in three phases. Phase 1 is the portion of the MSE wall located furthest south and construction is anticipated to occur between June and August 2026. Phase 2 is the

portion of the MSE wall located in the central portion of the waste footprint, and construction is anticipated to occur between June and August 2028. Phase 3 is the northernmost portion of the MSE wall and construction is anticipated to occur between June and August 2030. Construction would occur between 8:00 a.m. and 5:00 p.m. on weekdays; no weekend or nighttime construction is anticipated.

Table 1 shows project construction phases, their estimated duration, and anticipated phase completion dates.

Table 1 Project Construction Schedule

Activity Type	Phase 1	Phase 2	Phase 3
Site Preparation	5 days	5 days	5 days
Grading	60 days	60 days	60 days
Completion Date	August 2026	August 2028	August 2030

1.2.2 Alternatives Considered

As part of the ongoing effort to address waste disposal issues, the City has been an active participant in Los Angeles County's Conversion Technology Assessment Program which seeks to explore a range of technologies aimed at identifying alternatives to traditional landfill disposal. Several other alternatives to landfill expansion beyond the scope of conversion technologies have also been identified and considered, including shipping waste from Avalon to the mainland via barge, incineration on-island, and creation of a new on-island landfill at an alternative site. An overview of each of these alternatives to the project is provided below.

2011 Phase IV Conversion Technology Project

In 2011 the City initiated discussions with the County and began to work together on Phase IV of the Conversion Technology Project. This effort resulted in a detailed report submitted to the County which evaluated a number of technologies including thermal and anaerobic digestion technologies. The primary technologies evaluated included anaerobic digestion with no preprocessing, anaerobic digestion with preprocessing, thermal (plasma), and thermal (pyrolysis).

The report found that anaerobic digestion would not achieve significant waste diversion and would require shipment of material off-island for disposal after just 10 years. Plasma technology was found to have high capital costs and low power output.

The report found that pyrolysis, a form of gasification thermal conversion, would be the most cost effective and could achieve sufficient diversion - up to 80% waste stream diversion, thereby significantly extending the lifespan of the landfill. However, the economic modeling for such technology at the scale suitable for Avalon's small waste stream proved to be cost prohibitive and thus infeasible.

Barging Waste to the Mainland

Shipping waste to the mainland was studied in 2012 and was found to be cost prohibitive (an additional $500,000 in 2012 dollars, or a 25% increase in the City's overall annual solid waste management budget) just for transportation of waste to the mainland. Additionally, this alternative would require identifying a mainland landfill with available capacity and secure necessary permits for the facility as a receiver site, as well as designate and permit both island and mainland ports as transfer stations. Moreover, tipping fees currently range between 50-80 dollars per ton. At a rate of approximately 30 tons per day, these fees would result in an annual cost of between $547,500 and $876,000. Other constraints to shipping waste off the island include mitigating hazardous waste exposure during transfer and implementation of an on-island sludge management system. Currently, sludge from the

City's wastewater facility is disposed of at the landfill. Landfill closure would require an alternative for sludge disposal. The preliminary cost estimate of designing, constructing, and implementing an on-island sludge management facility is significant and potentially greater than that to expand the existing landfill. Combined, the City determined these constraints would be neither fiscally prudent nor logistically feasible.

Incineration

Regarding incineration, the City found that the cost to build and operate an incinerator, as well as the related production of greenhouse gas and toxic contaminant emissions were such that this alternative is considered a last resort. Moreover, the time required to design, permit, and construct such a facility was found to be beyond the lifespan of the existing facility and therefore infeasible.

New On-Island Landfill

After careful investigation, the City found that no suitable location is available on the island of sufficient size for a facility to serve the needs of Avalon, and that the anticipated environmental impacts of a new landfill anywhere on the island would be far greater than those associated with expansion of the existing facility. Therefore, the City considers construction of a new landfill infeasible for the foreseeable future.

In comparison to the alternatives considered, the City concludes that expansion of the existing landfill is both economically viable and practically feasible in the required timeframe, while also avoiding or minimizing most, if not all, of the environmental effects of other options investigated.

1.3 Description of Natural Geographic Features

The following provides a summary of natural geographic features and known biological resources.

1.3.1 Significant Ecological Area

The project site occurs within Los Angeles County and the Coastal Zone and is subject to Los Angeles County Santa Catalina Island Local Coastal Plan (Santa Catalina Island LCP) (County DRP 1983) policies and ordinances. The project site occurs within the Pebbly Beach Canyon Significant Ecological Area (SEA), under the Santa Catalina Specific Plan which works in conjunction with the zoning ordinance, Title 22 of the Los Angeles County Code of Ordinances, to define and control potential growth and development on the island. The Santa Catalina Specific Plan, and various provisions of the zoning ordinance, work together to provide the necessary detailed land use regulations and the appropriate administrative procedures to implement the goals and policies of the Santa Catalina Island LCP.

The project is anticipated to impact approximately 3.78 acres of the Pebbly Beach Canyon SEA (Figure 2).

1.3.2 Landforms and Geomorphology

Catalina's geomorphology is diverse and rugged, with a variety of rock types, coastal cliffs, rolling hills, canyons, and sandy and pebbly beaches. The most primary rock composition of the island is made up of a type of metamorphic rock called blue and green schist, located mainly on the western and central parts of the island. Catalina is also made up of quartz, located on the east end of the island. The island's highest peak is Mount Orizaba, which is approximately 2,000 feet in elevation. The project site is located on the coastal southeastern extent of the island surrounded by mountainous terrain (Figure 3). The project site occurs at approximately 200 feet in elevation, west of the Pacific Ocean. The hillsides within two miles to the west of the project site extend to approximately 1,500 feet in elevation.

The local climate is characterized by a mild subtropical climate, contributing to consistently warm temperatures throughout the year. In the summer months (June through September), the average high temperature stands at 74 °F, while the average low temperature is 62 °F. During the winter months (December through March), the average high temperature is 63 °F, accompanied by an average low of 51 °F. The region receives an average annual precipitation of 12 inches, with most rainfall concentrated between November and March (U.S. Climate Data 2024).

1.3.3 Soils

The U.S. Department of Agricultura Natural Resources Conservation Service (USDA NRCS) Web Soil Survey identifies two soil map units within the Study Area (Figure 4): Oboship-Nauti-Bosun complex and Urban land-Xerorthents, landscaped soils (USDA NRCS 2024a). Each of these soil map units is described in detail below and illustrated in Figure 4.

Oboship-Nauti-Bosun Complex, 50 to 75 Percent Slopes

Oboship-Nauti-Bosun complex is a well-drained soil type that occurs on mountains. It is formed from slope alluvium over residuum weathered from quartz-diorite and/or quartz-diorite porphyry. Oboship component consists of decomposed plant material, gravelly loam soils, extremely gravelly soils and bedrock. Available water storage in the Oboship component of this soil type is moderate (about 7.0 inches), and the runoff class is high. Nauti component consists of gravelly clay loam, cobbly clay, clay loam and bedrock. The available water storage in the Nauti component of this soil type is low (about 4.7 inches) and the runoff class is very high. Bosun component consists of decomposed plant material, gravelly sand loam, gravelly loam, extremely gravelly sandy clay loam and bedrock. The available water storage in the Bosun component of this soil type is low (about 3.0 inches) and the runoff class is high. All components of this soil type are not prone to flooding or ponding and it is not considered hydric (USDA NRCS 2024b).

Urban Land-Xerorthents, Landscaped, Association 0 to 8 Percent Slopes

This soil type complex is a well-drained soil that occurs on alluvial flats. It is formed from pavement and building materials layered over alluvium derived from quartz-diorite. This mapped soil type occurs within the existing landfill area and not a naturally occurring soil type. Available water storage is high (about 9.7 inches), and the runoff class is low. This soil is not prone to flooding or ponding (rare for both) and is not classified as hydric (USDA NRCS 2024b).

Figure 3 Topographic Map

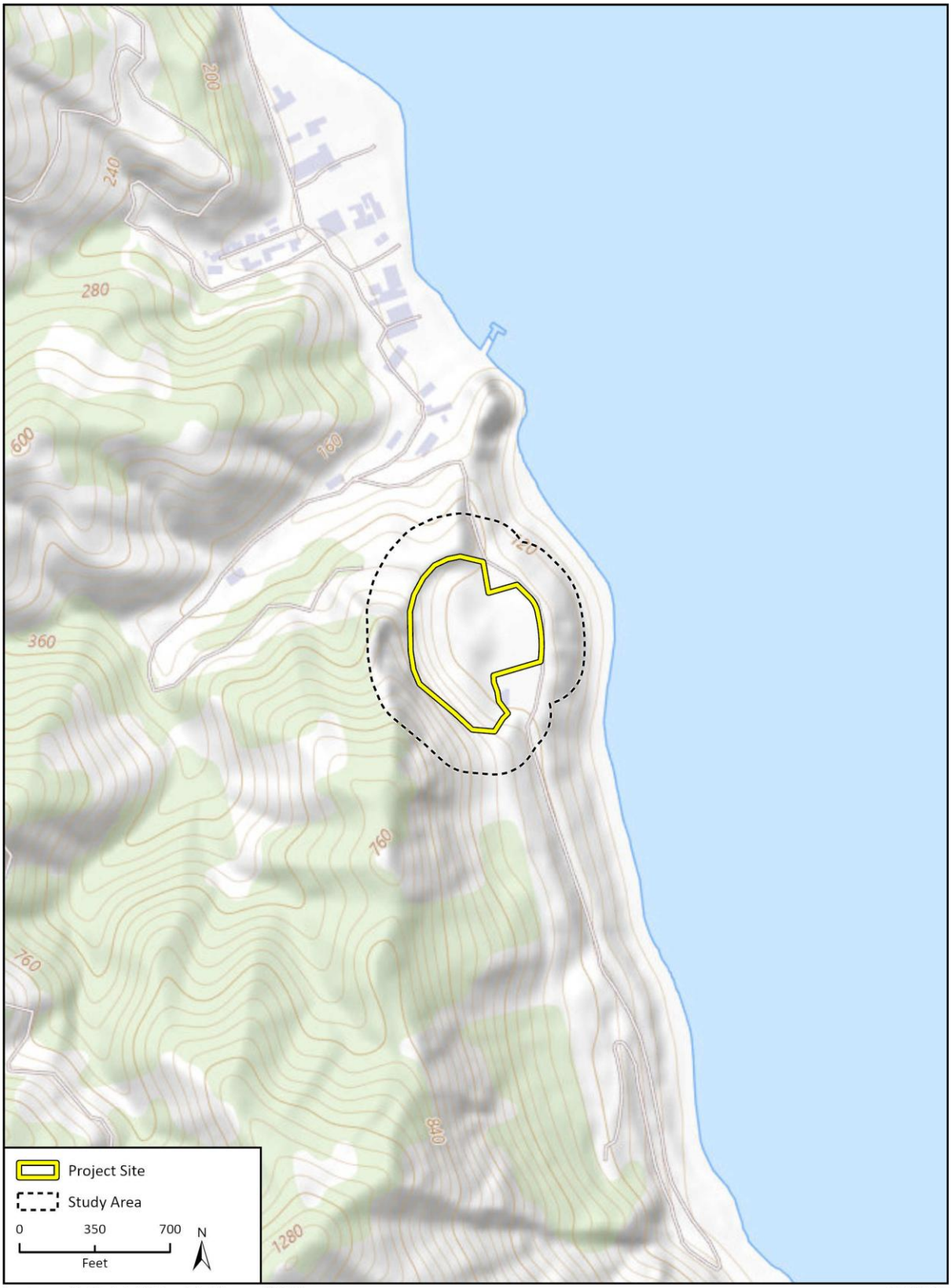
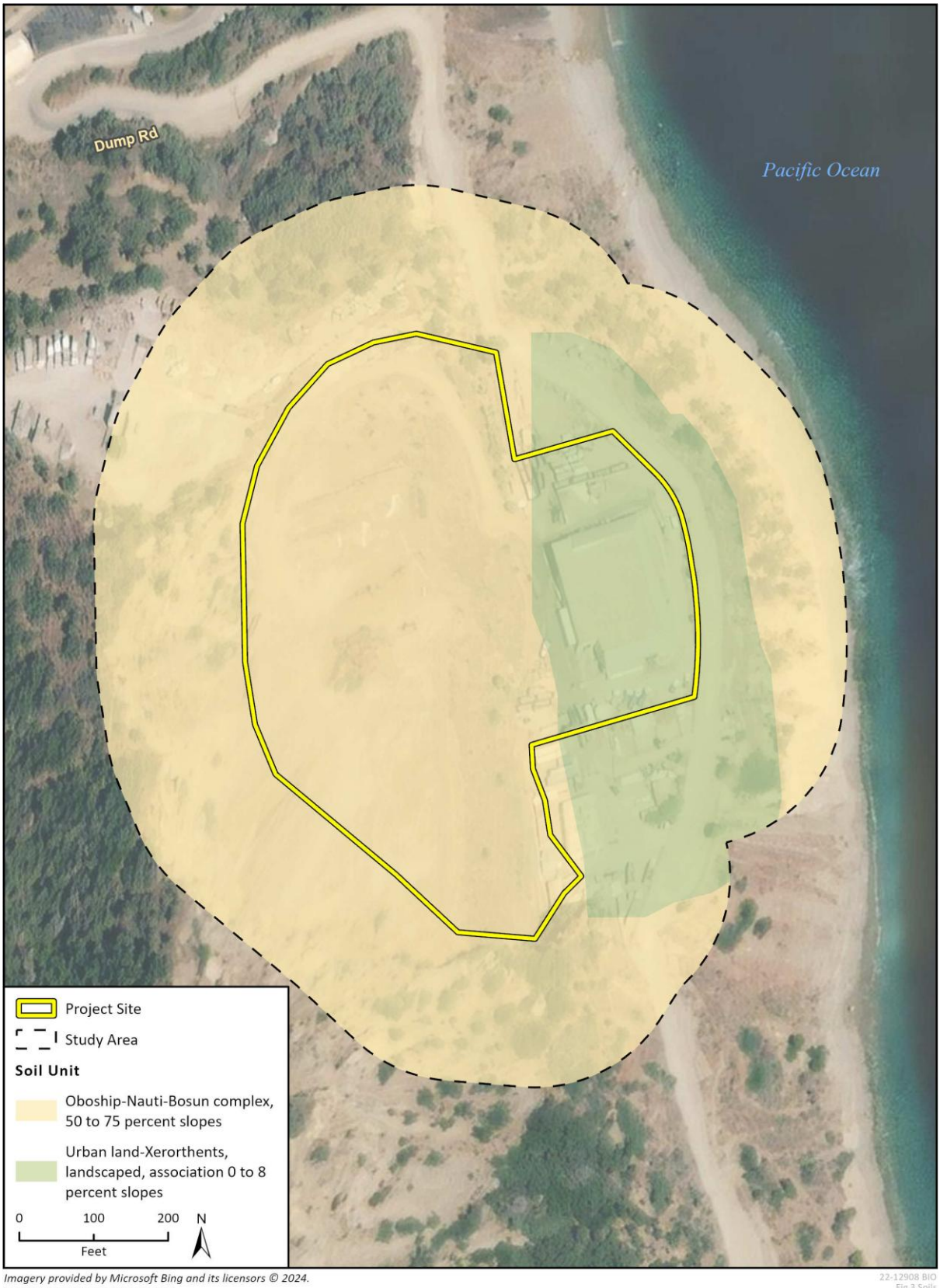


Figure 4 Soils Map



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Soils data provided by NRCS, 2023.

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Fig 3 Soils

1.3.4 Watershed and Drainages

The project is located within the Channel Island Watershed, specifically the San Nicholas Island-Santa Catalina Island Watershed (Hydrologic Unit Code [HUC] 10 No. 1807010700) which consists of two Subwatersheds on Catalina. The western portion of the island is defined as the Santa Catalina Island-Frontal Pacific Ocean Subwatershed, and eastern portion of the island where the project site is located is defined as the Santa Catalina Island-Frontal San Pedro Channel Subwatershed (HUC 12 No. 180701070002). The Santa Catalina Island-Frontal San Pedro Channel Subwatershed captures surface water flows from rainfall throughout the mountainous hillsides west to east that eventually drain to the Pacific Ocean. Undefined drainage features occur throughout the cleavages of the adjacent hillsides, with one defined drainage occurring approximately 550 feet to the north of the project site (Figure 5). No drainage features intersect the project site. The Pacific Ocean mean high tide line is located approximately 290 feet to the east of the project site.

1.3.5 Vegetation and Other Land Cover

Santa Catalina Island generally comprises of a variety of unique community types including maritime succulent scrub, southern coastal bluff scrub, island chapparal, island oak woodland, ironwood woodland, island cherry woodland, non-native grasslands, native grassland, and disturbed vegetation (County of Los Angeles 2000). The project site previously operated as a rock quarry and currently operates as a landfill consisting of significantly disturbed areas and developed areas with associated landscaped areas of ornamental vegetation. The immediately surrounding vegetation consists of native chapparal, dominated by toyon (*Heteromeles arbutifolia*) and other native species, including California sagebrush (*Artemisia californica*), bush monkey flower (*Diplacus aurantiacus*), and black sage (*Salvia mellifera*). This vegetation is sparse due to the rocky nature of the site; in particular, the entire western extent of the existing PBL is a nearly vertical rock wall. To the east of the project site, and existing facilities of the PBL, is steep terrain that drops approximately 150 feet vertically to a pebbly beach area of the Pacific Ocean. Both the western and eastern slopes are man-made during operation of the rock quarry at the site prior to development of the landfill.

Figure 5 Watershed and Drainage Map

Imagery provided by Microsoft Bing and its licensors © 2024.
Additional data provided by NHD, 2024.

22-12908 BIO
Fig X Hydrology

2 Methodology

A Biological Constraints Analysis (BCA) (Rincon 2026) for this project was previously prepared and used to inform the preparation of this Biota Report. The BCA presents detailed discussions of the biological resources, natural features, and regional context of the project site, and provides a thorough community-level assessment of the biological resources on the project site and surrounding area. This BCA is based on a combination of literature review and on-site investigations, which is further discussed below.

2.1 Literature Review

The development of this Biota Report included a literature review to acquire baseline information on biological resources within the project site and in the surrounding area. The literature review included database queries, information available in peer-reviewed journals, and standard reference materials (e.g., Bowers et al. 2004; Sawyer et al. 2009; Stebbins 2003). Aerial imagery, topographic maps, soil survey maps, geologic maps, and climatic data for the Study Area were also reviewed. Preliminary desktop mapping of land cover types was completed based on the review of background literature and aerial imagery and was verified and refined during a reconnaissance-level field survey.

The following databases and literature were included in this review:

- Sensitive resource occurrences from the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2024b)
- Biogeographic Information and Observation System (BIOS) (CDFW 2024c)
- CDFW Special Animals List (CDFW 2024a)
- CDFW Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2024d)
- CDFW California Sensitive Natural Communities List (CDFW 2023)
- CDFW Wildlife Habitat Relationship System (Zeiner et al. 1988)
- California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California (CNPS 2024a)
- National Marine Fisheries Service (NMFS) California Species List Tool (NMFS 2024)
- U.S. Fish and Wildlife Service (USFWS) Critical Habitat Portal (USFWS 2024)
- USFWS Information for Planning and Consultation (IPaC) portal (USFWS 2024b)
- National Wetlands Inventory (NWI) Wetlands Mapper (USFWS 2024c)
- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA NRCS 2024a)
- All About Birds (Cornell Lab of Ornithology 2024a)
- eBird, an online database of bird distribution and abundance (Cornell Lab of Ornithology 2024b)
- City of Avalon 2023 General Plan/Local Coastal Plan (City of Avalon 2013)
- Santa Catalina LCP (County of Los Angeles 1983)
- Santa Catalina Island Conservancy Checklist of the Avifauna of Santa Catalina Island (Catalina Island Conservancy 2015)

Additional information on the regulatory framework of these agencies is provided as Appendix B.

2.2 Reconnaissance-Level Field Survey

Rincon Biologists, Charleen Rode and Ben Chubak, conducted a field reconnaissance-level survey of the Study Area (project site and 200-foot buffer) on October 9, 2023, between 0815 and 1000. The survey was conducted to document existing conditions within the Study Area, including natural, disturbed, and landscaped habitats, and to evaluate the suitability of these habitats for special-status species. The general weather conditions during the survey consisted of heavy cloud cover (100%) with air temperatures ranging from 62 degrees Fahrenheit (°F) to 66 °F, 8 mile per hour northeast winds, and a layer of marine fog. The biologists surveyed along meandering transects throughout all accessible portions of the Study Area. Binoculars (10 X 42) were used to aid in identification and to achieve visual coverage of all terrestrial and human-made portions of the Study Area.

Plant species nomenclature and taxonomy followed *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012). The vegetation classification used for this analysis is based on *A Manual of California Vegetation, Second Edition* (MCV2, Sawyer et al. 2009), which establishes systematic classifications and definitions of vegetation communities. Updates to the MCV2 provided in the online database (CNPS 2024b) were taken into account. Each vegetation mapping unit was analyzed for characteristics to define the applicable vegetation community, such as dominant or co-dominant plant species and community membership rules. For those vegetated areas that could not be classified per MCV2, descriptive vegetation community names were used (e.g., ornamental). Additionally, land covers were characterized in areas that lacked vegetation (e.g., disturbed). Refer to Appendix C for photographs that depict current site conditions.

Wildlife identification and nomenclature followed standard reference texts, including Sibley Birds West: Field Guide to Birds of Western North America (Sibley 2016), Field Guide to Western Reptiles and Amphibians (Stebbins 2003), and Mammals of North America (Bowers et al. 2004). The habitat requirements for each regionally occurring sensitive and special-status species were assessed and compared to the type and quality of the habitats observed within the Study Area during the field surveys. Several special-status species were eliminated from consideration as having potential to occur on site due to lack of suitable habitat, lack of suitable soils/substrate, and/or knowledge of regional distribution. All identifiable terrestrial plants and wildlife species observed were documented. A complete list of all plant and wildlife species observed during the survey is included as Appendix D - Floral and Faunal Compendium.

3 Biological Characteristics of the Site

The following provides information retained from Rincon's field survey and literature/database review. The Floral and Faunal Compendium (Appendix D) includes an estimate of population sizes of the flora and fauna observed on the project site.

3.1 Vegetation Communities

Vegetation communities and land cover types documented in the Study Area include: Toyon chaparral (*Heteromeles arbutifolia* Shrubland Alliance); ruderal vegetation; landscaped areas; and developed and disturbed areas from the existing PBL.

Vegetation community characterizations for this analysis were based on the classification system presented in the MCV2 (Sawyer et al. 2009) but have been modified to most accurately reflect existing site conditions, as necessary. Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) is still used for reference and historical perspective, though its classifications are no longer supported by the State of California and have been superseded by MCV2. Plant species nomenclature and taxonomy used for this report follow the treatments within the second edition of The Jepson Manual (Baldwin et al. 2012).

Table 2 provides a summary of vegetation communities and land cover types present within the project site and Study Area. Figure 6 provides an overview of these vegetation communities and land cover types.

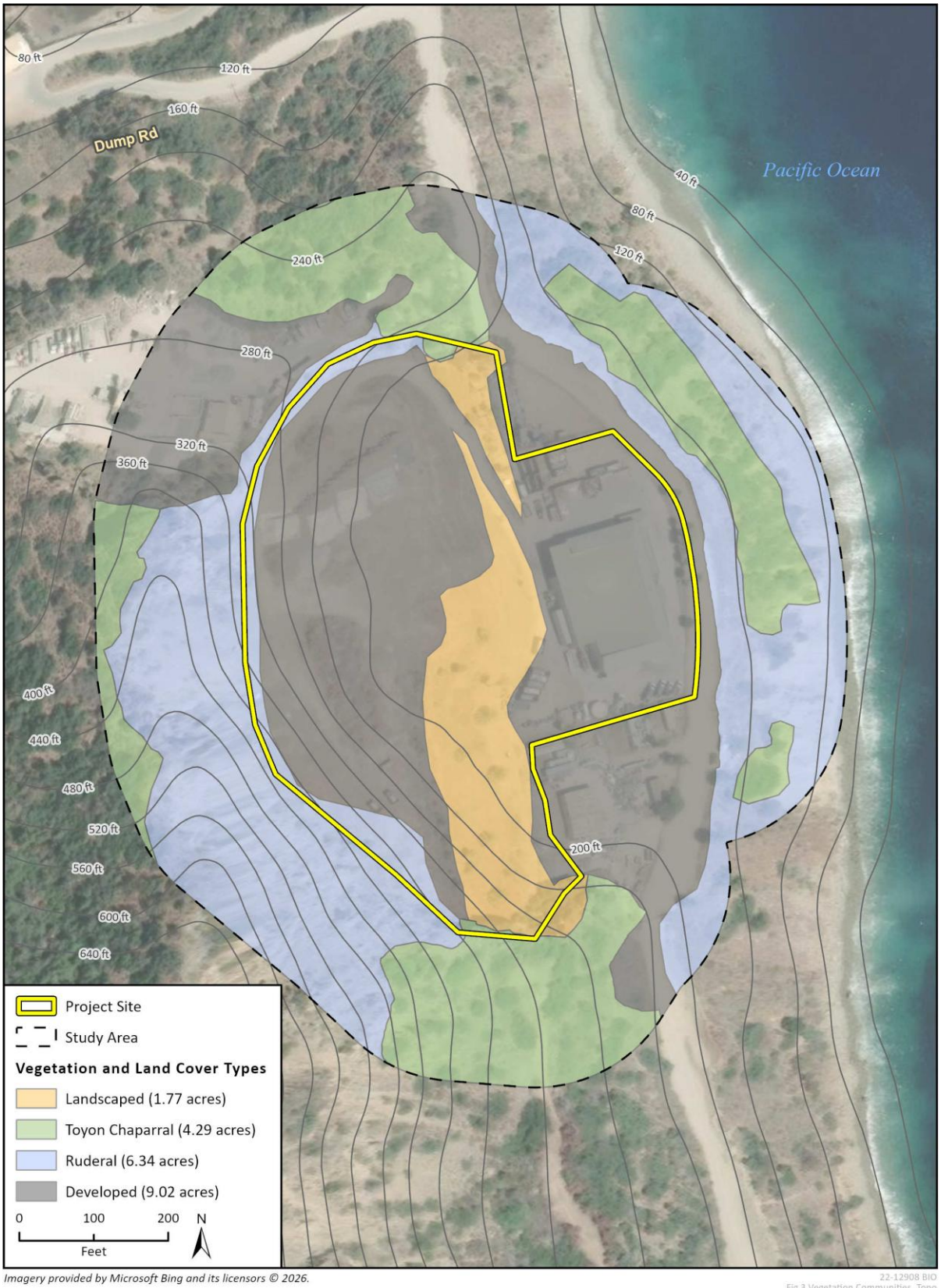
Table 2 Summary of Vegetation Communities and Land Cover Types

Vegetation Community or Land Cover Type	Ranking[1]	CDFW Sensitive Natural Community	Acreage within the Project Site	Acreage within Study Area
Toyon Chaparral	G5S4	No	0.05	4.29
Ruderal	G5S4	No	0.51	6.34
Landscaped	G5S5	No	1.69	1.77
Developed	GNASNA	No	5.43	9.02

[1] Ranking refers to global and state ranks for native vegetation communities, defined as follows:

- G1 S1: Critically imperiled worldwide/statewide
- G2 S2: Imperiled worldwide/statewide
- G3 S3: Vulnerable worldwide/statewide
- G4 S4: Apparently secure worldwide/statewide
- G5 S5: Demonstrably secure because of its worldwide/statewide abundance
- GNA SNA: Not ranked due to being a non-native vegetation community or land cover type

Figure 6 Vegetation Communities



Toyon Chaparral (*Heteromeles arbutifolia* Shrubland Alliance)

Toyon chaparral (*Heteromeles arbutifolia* Shrubland Alliance) is a native vegetation community that often occurs on steep, north-facing slopes. These soils tend to be derived from bedrock or colluvium. Toyon (*Heteromeles arbutifolia*) is dominant in the shrub canopy, where it must have greater than 30 percent relative cover. Common co-dominants and associates include California sagebrush (*Artemisia californica*), bush monkey flower (*Diplacus aurantiacus*), and black sage (*Salvia mellifera*). Toyon and California sagebrush are co-dominants in the shrub layer, with deerweed (*Acmispon glaber*) and common sandaster (*Corethrogyne filaginifolia*) also present. The canopy is typically open to continuous, with a sparse to continuous herbaceous layer. This vegetation community is ranked G5S4 and is not classified as a CDFW sensitive natural community (CDFW 2023).

This community occurs on the slopes surrounding the project site and occupies approximately 0.05 acres within the northernmost portion of project site (< 1 percent). Approximately 4.29 acres of toyon chaparral occur in the entire Study Area (20 percent).

Developed

Developed areas include the paved parking lot, industrial buildings unpaved access roads, and disturbed areas within the existing operations of the PBL. This land cover type occupies most of the project site at approximately 5.43 acres (71 percent) and consists of approximately 9.02 acres of the entire Study Area (42 percent). Developed areas are not classified in the MCV2 classification system (Sawyer et al. 2009) or the Holland (1986) classification system.

Landscaped

Landscaped areas occupy approximately 1.69 acres within the center of the Study Area, contained primarily within the project site (22 percent). Landscaped areas are not classified in the MCV2 classification system (Sawyer et al. 2009) or the Holland (1986) classification system. Landscaped species within the Study Area include Mexican fan palm (*Washingtonia robusta*), mission cactus (*Opuntia ficus-indica*), black poui (*Jacaranda mimosifolia*), and pine (*Pinus sp.*).

Ruderal

Ruderal areas consist of vegetation that has been heavily disturbed or altered such that natural plant communities have largely been removed and non-native plant species are dominant. Ruderal areas cover approximately 0.51 acres along the margins of the project site. A total of 6.34 acres comprise the entire Study Area (approximately 30 percent). Ruderal areas are not classified in the MCV2 classification system (Sawyer et al. 2009) or the Holland (1986) classification system. Within the Study Area, ruderal species include non-native cheeseweed (*Malva parviflora*), Bermuda buttercup (*Oxalis pes caprae*), wild mustard (*Hirschfeldia incana*), Russian thistle (*Salsola tragus*) and ice plant (*Carpobrotus edulis*).

3.2 General Wildlife

The Study Area contains habitat suitable for a variety of wildlife species commonly found in developed areas. Wildlife observed within terrestrial portions of the Study Area include California ground squirrel (*Otospermophilus beecheyi*), domestic cat (*Felix catus*), Brewer's blackbird (*Euphagus cyanocephalus*), western gull (*Larus occidentalis*), house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), Eurasian collared dove (*Streptopelia decaocto*), European starling (Sturnus vulgaris), and American crow (*Corvus brachyrhynchos*). Other avian species observed flying over or near the Study Area included double-crested cormorant (*Nannopterum auritum*), turkey vulture (*Cathartes aura*), and California brown pelican (*Pelecanus occidentalis californicus*).

3.2.1 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between areas of suitable habitat that allow for physical and genetic exchange between otherwise isolated wildlife populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein wildlife periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young wildlife. A group of habitat linkages in an area can form a wildlife corridor network. The California Essential Habitat Connectivity Project, commissioned by the California Department of Transportation (Caltrans) and CDFW, identifies "Natural Landscape Blocks" which support native biodiversity and the "Essential Connectivity Areas" which link them (Spencer et al. 2010).

The project site is located on an island and does not support regional movement of wildlife except for on a local (within the island) scale. Local wildlife movement is limited within the Study Area due to the developed nature of the site and the presence of the paved parking lot, industrial buildings, unpaved roads, existing security fencing, and operations of the existing landfill. Additionally, wildlife movement is limited by topographical barriers such as steep cliffs in the western and eastern portions of the Study Area that may prohibit the movement of terrestrial species through the Study Area. Regionally, wildlife movement may be hindered by the developed community of Pebbly Beach located to the north of the Study Area and the developed quarry located south of the Study Area. Disturbance-tolerant species, such as California ground squirrel, common raccoon (*Procyon lotor*), spotted skunk (*Spilogale gracilis*), and migratory birds may utilize the project site temporarily for foraging/scavenging around the perimeter of the existing landfill; however, the project will not remove any existing migratory corridors essential for movement patterns in the project region.

3.3 Resources Protected by Local Policies and Ordinances

The project site is located within the jurisdiction of the County and within the Coastal Zone, subject to Santa Catalina Island LCP policies and County ordinances. Sections II.B (Marine and Land Resource Protection) of the Los Angeles County Santa Catalina Island Local Coastal Plan (County of Los Angeles 1983) include policies to protect biological resources, water quality and wildlife nursery and movement corridors. The Santa Catalina Island LCP lists four Areas of Special Biological Significance (ASBS). The closest ASBS is Subarea Four: Binnacle Rock northwest to Jewfish Point, which is approximately 0.70 mile southeast of the project site. The Santa Catalina Island LCP states that the ASBS is offshore and not affected by the quarry at the east end of the island (County of Los Angeles 1983).

4 Sensitive Biological Resources

Local, state, and federal agencies regulate special-status species and other sensitive biological resources and may require an assessment of their presence or potential presence to be conducted prior to the approval of proposed development. This section discusses the special-status species and sensitive biological resources observed within the Study Area and/or evaluated as having the potential to occur in the Study Area based on the methods described above.

4.1 Special-Status Species

This section discusses the presence, or potential for presence, of special-status and sensitive biological resources to occur within the Study Area. 'Potential to occur' is based on the presence or absence of suitable habitat for each special-status species reported in the scientific database queries conducted for the proposed Study Area. The potential for each special-status species to occur within the Study Area was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the site is clearly unsuitable for the species' requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on site if present (e.g., oak trees).
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- **Moderate Potential**. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded (e.g., CNDDB, other reports) on the site recently (within the last 5 years).

Plant or animal taxa may have "special-status" due to declining populations, vulnerability to habitat change, or because they have restricted ranges. Some are listed as threatened or endangered by the USFWS or by the CDFW and are protected by the federal Endangered Species Act (ESA) and California Endangered Species Act (CESA). Others have been identified as sensitive or as special-status species by the USFWS, the CDFW, or by private conservation organizations, including the CNPS.

For the purpose of this report, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS under the ESA; those listed or candidates for listing as Rare, Threatened, or Endangered by the CDFW under the CESA or Native Plant Protection Act; those identified as Fully Protected under Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code (CFGC); those identified on watch lists (WL) as important resources to identify and conserve; those recognized as Species of Special Concern (SSC) by the CDFW; and plants occurring on lists 1 and 2 of the CNPS California Rare Plant Rank (CRPR) system. Avian species listed on the Audubon Society's 'Los Angeles County Sensitive Bird List' (County of Los Angeles 2009) and species that receive protection when nesting but otherwise maintain no federal or State protections are not considered special-status species but are included in this analysis due to their potential to occur or nest in the Study Area.

Vegetation communities are considered special-status biological resources if they have limited distributions, have high value for sensitive wildlife, contain special-status species, or are particularly

susceptible to disturbance. Additionally, the current California Sensitive Natural Communities List was referenced to determine the current sensitivity status of the vegetation alliances found within the Study Area. The list provides the current G and S rank for each community and indicates whether CDFW considers the community to be sensitive.

4.1.1 Special-Status Plant Species

Thirty-seven special-status plant species were evaluated for their potential to occur within the Study Area (Appendix E) based on the literature/database review and existing site conditions. Eight special-status plant species have the potential to occur within the Study Area. One non-listed special-status plant species has a moderate potential to occur within the Study Area and the remaining species were determined to have a low potential to occur. Table 3 lists each of these species and their status (i.e., federal, state, or CRPR).

Table 3 Special-Status Plant Species with Potential to Occur within the Study Area

Scientific Name	Common Name	Status[1]	Potential to Occur
Atriplex pacifica	south coast saltscale	CRPR 1B.2	Low Potential
Cercocarpus traskiae	Catalina Island mountain-mahogany	FE, SE, CRPR 1B.1	Low Potential
Crocanthemum greenei	island rush-rose	FT/CRPR 1B.2	Low Potential
Crossosoma californicum	Catalina crossosoma	CRPR 1B.2	Low Potential
Cryptantha wigginsii	Wiggins' cryptantha	CRPR 1B.2	Low Potential
Isocoma menziesii var. *decumbens*	decumbent goldenbush	CRPR 1B.2	Moderate Potential
Phacelia lyonii	Lyon's phacelia	CRPR 1B.2	Low Potential
Ribes viburnifolium	Santa Catalina Island currant	CRPR 1B.2	Low Potential

[1]Status Notes

FE = Federally Endangered; FT = Federally Threatened; SE = State Endangered

CRPR = California Rare Plant Rank

1B = Rare, Threatened, or Endangered in California and elsewhere

.1 = Seriously endangered in California (>80% of occurrences threatened/ high degree and immediacy of threat)

.2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)

The remaining 29 special-status plant species are not expected to occur within the Study Area based on the absence of suitable habitat types and/or soils and the generally developed and disturbed nature of the site. For the purposes of this analysis, special-status plant species that were determined to have a low potential to occur in the Study Area are not addressed further in this report as they are not expected to occur within the project site. Special-status plant species that have a potential to occur are discussed in further detail below. Detailed evaluation of the special-status plant species is included in the potential to occur table provided in Appendix E.

Decumbent Goldenbush (*Isocoma menziesii* var. *decumbens*)

Status: CRPR 1B.2

Study Area: Moderate Potential to Occur

Decumbent goldenbush is a perennial shrub in the daisy family that is native to California, known by the common names San Diego goldenbush and Menzies' goldenbush. It generally grows in chaparral and coastal scrub communities and in sandy soils. Decumbent goldenbush plants reach one to two meters tall with branching stems that may be hairless or contain trichomes. This species produces leaves that range from brown to green and yellow clustered flowerheads.

The Study Area contains suitable chaparral and disturbed habitat for decumbent goldenbush within the 200-foot buffer surrounding the project site and partially (approximately 0.05 acre) within the project site (Figure 6). One tracked occurrence in 2011 recorded over 29 plants in disturbed areas approximately one mile northwest of the Study Area, on Catalina Island. Decumbent goldenbush was not observed during the field survey conducted during the species' blooming period (April through November) in October 2023 and due to the significantly disturbed nature of the project site, the species is not expected to occur in the project site. However, due to the nearby documented occurrences, and potentially suitable habitat within the remainder of the Study Area, outside the project site, it was determined that there remains a moderate potential for occurrence in the Study Area.

4.1.2 Special-Status Wildlife Species

Rincon evaluated 14 special-status wildlife species for their potential to occur within the Study Area (Appendix E), of which five have potential to occur within the Study Area. Table 4 lists each of these species and their potential to occur within the Study Area.

Table 4 Special-Status Wildlife Species with Potential to Occur in the Study Area

Scientific Name	Common Name	Status[1]	Potential to Occur
Birds			
Athene cunicularia	burrowing owl	SCE, SSC	Low Potential (Low Nesting Potential)
Haliaeetus leucocephalus	bald eagle	SE, FP	Low Potential (No Nesting Potential)
Phalacrocorax auritus	double-crested cormorant	WL	Low Potential (No Nesting Potential)
Synthliboramphus scrippsi	Scripps's murrelet	ST	Low Potential (No Nesting Potential)
Mammals			
Urocyon littoralis catalinae	Santa Catalina Island fox	FT, ST	Moderate Potential

[1] Notes:

FE = Federally Endangered	FT= Federally Threatened	FC = Federal Candidate	FD = Federal Delisted
SE = State Endangered	ST = State Threatened	FP = State Fully Protected	
SSC = CDFW Species of Special Concern	WL = CDFW Watch List	SCE = State Candidate Endangered	

The remaining species evaluated are not expected to occur in the Study Area or immediate vicinity based on the absence of riparian, grassland, woodland, chaparral, coastal scrub, vernal pool, or other suitable natural habitats or vegetation communities, and/or because the range of the species does not overlap with the Study Area. Special-status wildlife species that have a potential to occur on site, are discussed in further detail below. Further information regarding the evaluation of special-status wildlife species is included in Appendix E.

Burrowing Owl (*Athene cunicularia*)

Status: State Candidate Endangered (SCE)

Study Area: Low Potential (Low Nesting Potential)

Burrowing owls are small (less than 12 inches tall), long-legged owls with short tails. They are mostly brown with numerous white or tan spots on their heads and have white eyebrows above their bright yellow eyes. The chest and abdomen are white with variable brown spotting or barring. They are crepuscular (active primarily during dusk and dawn) and often perch during daylight at burrow entrances or on low posts. Burrowing owls typically use burrows made by fossorial mammals such as squirrels, badgers, coyotes, foxes, and tortoises. These burrows are usually found in arid and semi-arid environments that occur in dry, level, open terrain such as prairies, plains, deserts, grasslands, shrub

lands with short vegetation, including drainage ditches, earthen berms, pastureland, fallow fields, and agricultural areas. Burrowing owls are opportunistic feeders, consuming a diet that includes arthropods, small mammals, birds, and occasionally amphibians and reptiles (Shuford and Gardali 2008).

There is low potential for burrowing owl to occur in the Study Area. California ground squirrels were observed during the field survey and may provide burrowing opportunities for burrowing owls. However, the potential for burrowing owls to occur in the Study Area is low due to ongoing disturbances (e.g., noise) from PBL activities and the lack of preferred habitat (e.g., uneven terrain and developed areas) surrounding the Study Area. No burrowing owl observations on Catalina Island are recorded in the CNDDB; however, there are recorded observations on citizen-science databases (iNaturalist 2024), and the species is considered a "rare" occurrence during the breeding season and "fairly common" occurrence during the wintering months on Catalina Island by the Santa Catalina Island Conservancy (Catalina Island Conservancy 2015).

Bald Eagle (*Haliaeetus leucocephalus*)

Status: State Endangered (SE), State Fully Protected (FP), Bald and Golden Eagle Act Protected

Study Area: Low Potential (No Nesting Potential)

The bald eagle is a federally protected species and is regulated by the Bald and Golden Eagle Protection Act. It is one of the largest raptors in America. The adults of this species have a wingspan of 6 to 7 feet long, have white heads and tails with dark brown bodies and wings and their legs and bills are bright yellow. This raptor species typically lives near coasts, rivers, large lakes and open country where they feed on fish (salmon, herring, and shad), birds, reptiles, amphibians, and mammals. Suitable nesting habitat for the bald eagle include tall, sturdy trees and rocky peaks.

This species has the potential to fly over within the Study Area and perch on the rocky steep slopes near the project site. It is not likely that bald eagle would utilize the project site for foraging or nesting. There are several occurrences of the species documented in eBird (Cornell Lab of Ornithology 2023b) on Santa Catalina Island, including the most recent occurrence on October 25, 2023, within the eastern portion of the Study Area. Suitable nesting habitat for bald eagles is absent within the Study Area; however, there is suitable nesting habitat within one mile of the Study Area.

Double-Crested Cormorant (*Phalacrocorax auratus*)

Status: CDFW Watch List (WL)

Study Area: Low Potential (No Nesting Potential)

Double-crested cormorants are colonial nesters on coastal cliffs, offshore islands, and along lake margins in the interior of California. They usually nest on ground with sloping surfaces, or in tall trees along lake margins. Double-crested cormorants are black / brown with a patch of yellow / orange on their faces, and they are typically 28 to 35 inches long. Their diet consists of a wide variety of fish that they dive into the ocean to hunt.

Double-crested cormorants were observed flying over the Pacific Ocean outside of the Study Area during the field survey. They are only expected to fly over the Study Area to forage in the ocean and have low potential to occur briefly in the Study Area to roost or sunbathe. They are not expected to nest within the Study Area due to the absence of suitable habitat, nor to forage there due to absence of marine habitat. There are 15 documented occurrences dating between January and March 2023, approximately 0.3-mile northwest of the Study Area near the Pebbly Beach coastal community.

Scripps' Murrelet (*Synthliboramphus scrippsi*)

Status: State Threatened (ST)

Study Area: Low Potential (No Nesting Potential)

The Scripps' murrelet is a state-threatened species that occurs in the open ocean in warm offshore waters, except during breeding season when it breeds on the rocky islands in Southern California. It generally nests in rock crevices, under bushes, in old burrows and among man-made debris. This species is a small bird, less than 10 inches long, that is mostly black with a white chest, a small head and thin, sharp bill. Its diet consists of mostly small crustaceans and other marine invertebrates.

There is a low potential for the Scripps' murrelet to fly over or forage within the Study Area. There are several occurrences of the species documented offshore of Santa Catalina Island in eBird (Cornell Lab of Ornithology 2023b). The closest mapped occurrences are approximately 6 miles offshore of the Study Area, which documented approximately 30 individuals from February to May 2023. Scripps' murrelet is known to nest on Catalina Island; for example, 2012 data suggest a current breeding population of roughly 100–200 pairs at Catalina, the fourth largest colony in southern California. Congregations were strongly associated with coastal cliffs between (1) Isthmus Cove and Twin Rocks and (2) Iron Bound Bay and Catalina Harbor (Whitworth, et al 2014). Due to the high level of previous PBL disturbance and ongoing PBL operations and human activity within the project site, and high level of predatory birds (i.e., ravens and gulls) that forage within the project site, suitable nesting habitat is absent within the Study Area.

Santa Catalina Island Fox (*Urocyon littoralis catalinae*)

Status: Federally Threatened (FT), State Threatened (ST)

Study Area: Moderate Potential

The Santa Catalina Island fox is a federally threatened and state threatened species. This subspecies is only found on Santa Catalina Island. They are normally found in mixed chapparal, coastal scrub and shrubby woodland. The Santa Catalina Island fox prefers more complex, layered vegetation with a high density of woody, perennial fruiting shrubs, and rocky places for cover. Individuals weigh approximately 2 kilograms and have a body length that ranges from 59 to 79 centimeters. Their coat is grey, white, and black with cinnamon underfur on the dorsal side and a rusty brown on the ventral side. This species also molts once a year from August to November when their coat fades in color. Santa Catalina Island foxes hunt mice, lizards and birds and forage for berries and cactus fruit. Natal season is between January and early June. During the summer, the parents train the pups how to hunt and find food for themselves until September when the pups leave the den and find their own territory.

No fox, or sign of fox (i.e., prey remains, burrows, tracks, scat), were observed in the Study Area. Santa Catalina Island foxes are highly mobile scavengers and opportunistic feeders, making the PBL a viable foraging site; however, due to the steep rocky cliffs to the west and east of the Study Aera, and the presence of a security fence around the existing PBL site, access to the site is fairly restricted to fox movement. Therefore, the potential for the fox to occur within the Study Area was determined to be moderate.

Other Protected Wildlife Species

Nesting birds protected under the MBTA and Sections 3503 and 3503.5 of the CFGC may also occur in the Study Area. Potentially suitable nesting habitat within the Study Area occurs in ornamental vegetation, toyon chapparal, cliff habitat, pebbly beach habitat, on the ground surface, and within developed structures and equipment related to PBL activities. Although potentially suitable nesting habitat occurs throughout the Study Area, nesting activity is likely to be deterred by disturbances (e.g., noise) stemming from ongoing PBL activities. Additionally, common ravens were observed to be

prevalent within the Study Area, presumably due to foraging opportunities within the landfill, and may deter nesting activity via nest predation and mobbing behavior.

Multiple species listed on the Audubon Society's Los Angeles County Sensitive Bird List (County of Los Angeles 2009) have been documented to occur on Santa Catalina Island. One of these species, turkey vulture (*Cathartes aura*), was observed during the field survey. Turkey vultures may scavenge in the Study Area and cliff habitat potentially suitable for nesting occurs in the Study Area. However, the cliff habitat appears to lack caves and the associated rocky features that may facilitate nesting, and ongoing PBL activities in the vicinity of the cliffside may deter nesting activity. Other species listed on the Los Angeles County Sensitive Bird List and Watchlist that have been recorded on Santa Catalina Island are listed below (Catalina Island Conservancy 2015). Species occurrences designated by the Santa Catalina Island Conservancy as rare (e.g., turkey vulture) or accidental on the island are excluded from the list below.

- Bald eagle (fairly common)
- Burrowing owl (fairly common)
- Caspian tern (*Hydroprogne caspia*; uncommon)
- Common poorwill (*Phalaenoptilus nuttallii*; common)
- Horned lark (*Eremophila alpestris*; fairly common)
- Hutton's vireo (*Vireo huttoni*; common)
- Loggerhead shrike (*Lanius ludovicianus*; fairly common)
- Mountain bluebird (*Sialia currucoides*; irregular)
- Northern harrier (*Circus hudsonius*; occasional)
- Swainson's thrush (*Catharus ustulatus*; uncommon)
- Vesper sparrow (*Pooecetes gramineus*; occasional)
- Western meadowlark (*Sturnella neglecta*; common)

Although these species are present on Santa Catalina Island, they are anticipated to have low or no potential to occur within the Study Area. These species are highly mobile, therefore, these species may be present briefly in the Study Area; however, the Study Area lacks suitable habitat for optimal foraging or nesting. For most of these species the Study Area lacks or contains only marginally suitable habitat for foraging and nesting due to its developed nature. Potentially suitable foraging habitat for some of these species (e.g., mountain bluebird and vesper sparrow) may occur in toyon chapparal within the Study Area but is considered low quality due to its limited distribution, isolation from better-quality foraging habitat, and surrounding disturbances stemming from ongoing PBL activities. Species that may occur in nearby beach habitat (e.g., Caspian tern) in the eastern portion of the Study Area are anticipated to only occur transiently over the Project site, as the Project site and pebbly beach habitat are topographically separated by a steep cliff.

4.2 Sensitive Natural Communities

The Study Area is under the local jurisdiction of the County, and specifically the Santa Catalina LCP and other provisions in Title 22 of the Los Angeles County Code, such as the County of Los Angeles Oak Tree Ordinance, and County of Los Angeles Oak Woodlands Conservation Management Plan Guide. In addition, federal and state regulations provide further protection of sensitive natural communities. Below is a discussion of resources protected by the policies in these programs.

4.2.1 Sensitive Plant Communities and Critical Habitat

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. Vegetation rarity ranking is based on a rank calculator developed by NatureServe. According to the CDFW

Vegetation Program, alliances with state ranks of S1-S3, as well as certain additional associations specifically noted as sensitive in the list, are considered to be imperiled, and thus, potentially of special concern. No sensitive plant communities occur within the Study Area.

Critical habitat does not occur within the Study Area; however, designated green sea turtle (*Chelonia mydas*) and black abalone (*Haliotis cracherodii*) critical habitats occur in the Pacific Ocean immediately east of the Study Area buffer. A description of these critical habitat designations is provided below.

On July 19, 2023, NMFS issued a *Proposed Rule to Designate Marine Critical Habitat for Six Distinct Population Segments of Green Sea Turtles*. The proposed Marine Critical Habitat of the East Pacific Distinct Population Segment of green sea turtle is located from San Onofre to Santa Monica Bay and includes the Catalina coastline from the mean high water line to 20 meters depth. This area is considered an essential foraging/resting area for the green sea turtle. The critical habitat boundary/mean high tide line abut the Study Area buffer to the east of the project site (Figure 5 above and Figure 7 below). This critical habitat is topographically isolated from the project site by an approximately 150-foot-tall cliff.

Defined critical habitat for black abalone also occurs along the Catalina coastline (NMFS 2011; Figure 7). This designation includes approximately 360 square kilometers of rocky intertidal and subtidal habitat within five segments of the California coast between the Del Mar Landing Ecological Reserve to the Palos Verdes Peninsula, as well as on the Farallon Islands, Año Nuevo Island, San Miguel Island, Santa Rosa Island, Santa Cruz Island, Anacapa Island, Santa Barbara Island, and Santa Catalina Island. This designation includes rocky intertidal and subtidal habitats from the mean higher high water (MHHW) line to a depth of −6 meters (relative to the mean lower low water (MLLW) line), as well as the coastal marine waters encompassed by these areas. This critical habitat boundary/MHHW line abuts the Study Area buffer to the east of the project site (Figure 5 above and Figure 7 below). This critical habitat is topographically isolated from the project site by an approximately 150-foot-tall cliff.

4.2.2 Protected Trees and Woodlands

Per the County of Los Angeles Oak Tree Ordinance (Section 22.56.2050 *et seq.*; County of Los Angeles 2018), any tree of the oak genus that meets the following requirements is considered protected:

- The tree has a trunk diameter of eight inches or more (25 inches in circumference), as measured 4.5 feet above mean natural grade
- The tree has multiple trunks, where the combined diameter of any two trunks is 12 inches (28 inches in circumference) or more
- The tree is a heritage oak, where the largest trunk is at least 36 inches in diameter, or the tree has significant historical or cultural importance to the community, notwithstanding that the diameter is less than 36 inches
- The tree was provided as a replacement tree (Section 22.56.2180)

The County of Los Angeles Oak Woodlands Conservation Management Plan (County of Los Angeles 2011) and the accompanying Woodlands Conservation Management Plan Guide (Woodland Guide) (County of Los Angeles 2014) regulate impacts to oak woodlands. The Woodland Guide defines oak woodlands as:

> An oak stand, including its understory, which consists of two or more oak trees (all native trees of the genus *Quercus*) of at least five inches in diameter (of the largest trunk) measured at 4.5 feet above mean natural grade, with greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover as early as January 1, 2005 (effective date of California Public Resources Code Section 21083.4).

No oak trees or oak woodlands are present within the Study Area.

Figure 7 Critical Habitat

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Additional data provided by NOAA, 2024.

22-12908 BIO
Fig X Critical Habitat

4.2.3 Jurisdictional Waters and Wetlands

The United States Army Corps of Engineers (USACE) asserts jurisdiction under Section 404 of the Clean Water Act (CWA) over non-wetland (e.g., streams, lakes, oceans) and wetland (e.g., marshes, estuaries) waters of the U.S. For non-tidal waters, the limits of jurisdiction extend to the Ordinary High Water Mark (OHWM) or to the outer edge of adjacent wetlands, where present. Wetlands must exhibit all three criteria defining federal wetlands: hydric soils, hydrophytic vegetation, and wetland hydrology. In addition, adjacent wetlands are "waters of the U.S." only if there is a continuous surface connection between the potential wetland and a navigable or relatively permanent water body (USACE 2023). USACE jurisdiction also includes territorial seas, including the Pacific Ocean, with the landward limits of jurisdiction extending to the high tide line.

The Regional Water Quality Control Board (RWQCB) has jurisdiction over waters of the U.S. under Section 401 of the CWA. The RWQCB may also assert jurisdiction over waters of the State, typically considered "isolated," under the Porter-Cologne Water Quality Control Act. The CDFW has regulatory authority over activities that divert, obstruct, or alter the channel, bed, or bank of any river, stream, or lake under Section 1600 et seq. of the CFGC. Therefore, perennial, intermittent, and ephemeral streams and associated riparian vegetation also fall under the jurisdiction of the CDFW.

During the field reconnaissance survey and literature review, no jurisdictional waters or wetlands were observed or recorded within the Study Area. The landward limits of the high tide line of the adjacent (east) Pacific Ocean extend landward approximately 200 feet to the east of the project site, illustrated in Figure 5 and Figure 7 above.

5 Characteristics of the Surrounding Area

5.1 Surrounding Land Use

The project site is relatively isolated and visually secluded from adjacent land uses by the surrounding mountainous terrain. Access to the site is from the north, via Pebbly Beach Road to Dump Road, traversing the east side of the disposal site. The sole responsibility for this facility is refuse pickup and solid waste processing for the City of Avalon. The project site was originally utilized as a rock quarry providing riprap material for projects in southern California. In the 1950s, the rock quarry transitioned to a landfill (Los Angeles RWQCB 2016). In 1986, PBL transitioned from an open burn dump to a pit burner incinerator system where ash from the incinerator and sewage from the nearby treatment plant were methodically deposited in the current landfill area. Since the early 2000s, the PBL has adopted a waste processing strategy for incoming solid waste, with a focus on removing recyclable materials, which are baled at a MRF and transported to the mainland. Concurrently, organic materials are subjected to shredding and composting, while the remaining materials are baled and subsequently landfilled. The nearest structures are the contractor's sheds and storage buildings on adjacent leased land and the City of Avalon wastewater treatment plant, located approximately 0.15-mile northwest of the disposal site, and the rock quarry, located approximately 0.8-mile southwest. No permitted residential developments (or other sensitive receptors) are present adjacent to or within 1,000 feet of the PBL.

5.2 Open Space Reserves and Overall Biological Value of the Area

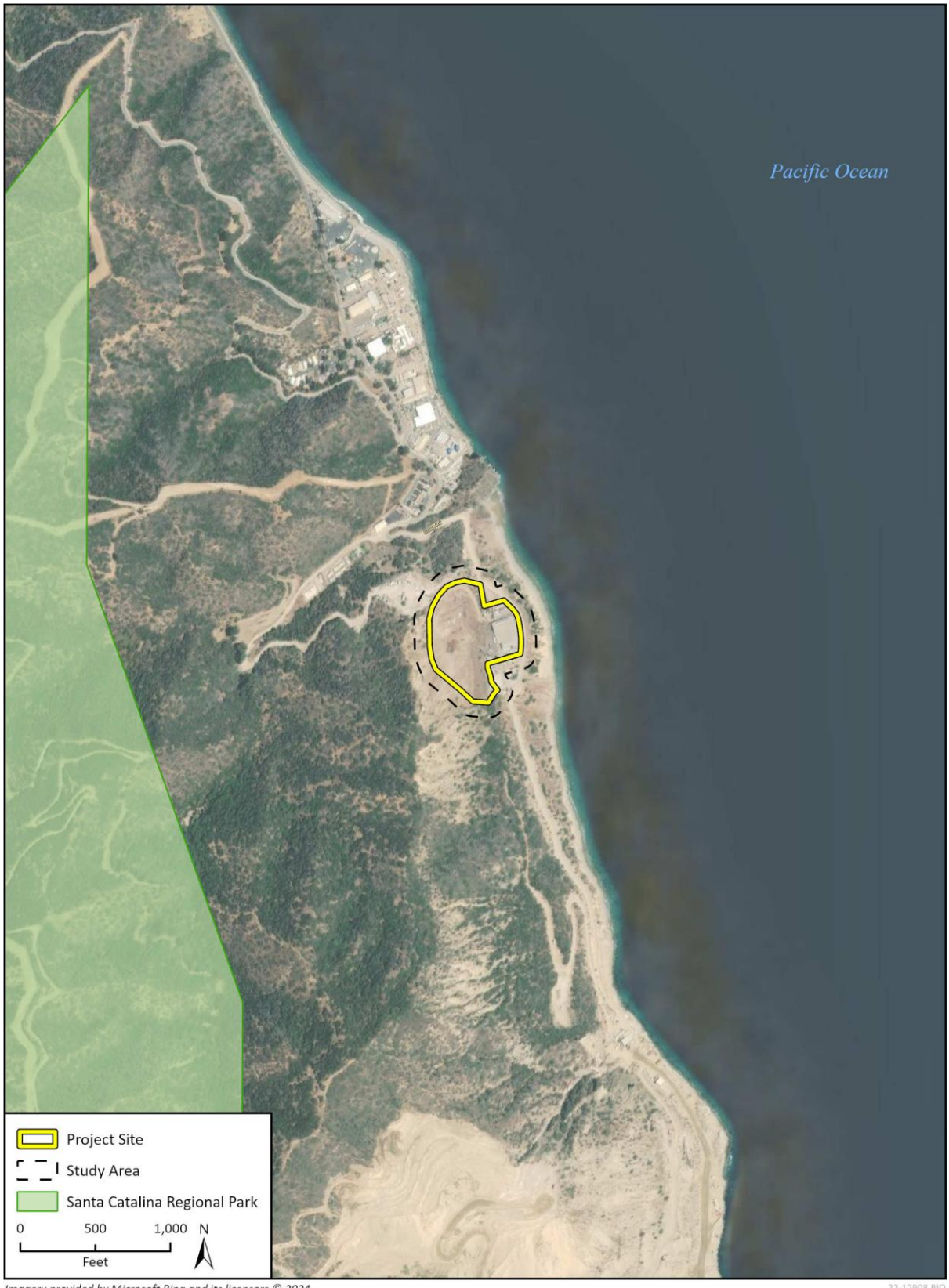
In 1974, a 50-year Open Space Easement Agreement was signed between the County of Los Angeles and the Santa Catalina Island Company which calls for preservation of the natural character of Catalina and improvement of Catalina's access and recreational opportunities. Shortly thereafter, the Santa Catalina Island Conservancy was established to manage, in perpetuity, Catalina's biotic resources.

One of the requirements of the California Coastal Act of 1976, which sets forth policies to guide new development and to improve public access to coastal areas, is the submission and approval of a Santa Catalina Island LCP for coastal areas such as Catalina. The Santa Catalina Island LCP (County DRP 1983) was adopted by Los Angeles County and certified by the California Coastal Commission in November of 1983, recognizes and responds to the goals and requirements of the Open Space Easement Agreement, the Santa Catalina Island Conservancy and the California Coastal Act. It ensures that the vast majority of the island will remain in its present natural state for future generations to enjoy.

As shown in Figure 8, the Santa Catalina Regional Park encompasses more than 42,000 acres of Catalina and is located approximately 0.3-mile west of the Study Area. (County of Los Angeles 2023, 2024).

The overall biological value of the surrounding area has been recognized by the designation of the Pebbly Beach Canyon SEA. The land within the SEA is an area where the County of Los Angeles focuses efforts to manage development with biological resources values in mind, including native vegetation communities, native species, and wildlife habitat and movement needs. This SEA is large in size and topographically complex. The Pebbly Beach Canyon SEA currently supports few developed land uses. Nearly all the land within the SEA is undisturbed open space supporting native vegetation. Other land uses include low density residential and commercial in the community of Two Harbors and many small camp facilities scattered around the Island's shoreline and interior (County of Los Angeles 2000).

Figure 8 Public Open Space in the Project Vicinity



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Additional data provided by LA County, 2024.

22-12908 BIO
Fig X Public Spaces

5.3 Relationship to Biotic Mosaic and Wildlife Movement

Natural movement corridors and habitat linkages have been the focus of several studies intended to better understand relationships between animal populations, open space reserves, and natural movement patterns (e.g., Penrod et al. 2001, South Coast Wildlands 2008, and Spencer et al. 2010). Roads, railroads, dams, canals, urban development, and agriculture can limit wildlife movement. Fragmentation of large habitat areas into small, isolated segments has been shown to generally reduce biological diversity, eliminate disturbance-sensitive species, restrict genetic flow between populations of organisms, and may eventually lead to the loss of local floral or faunal assemblages. Wildlife corridors and habitat linkages are important landscape elements that reduce the potential loss in biological diversity. Most smaller project areas (that is, encompassing fewer than several hundred square miles) do not actually fully contain major wildlife movement corridors within their boundaries; however, they may lie along or within such a route, or they may contain smaller, secondary movement pathways or trail systems, with or without major corridor connections. The following discussion begins with large-scale wildlife corridors and proceeds to smaller scale movement pathways and places the project site within the context of each.

Wildlife movement occurs throughout Santa Catalina Island. Concentrated movement corridors or bottlenecks are uncommon on the Island due to the abundance of uninterrupted open space and the lack of disturbed areas. In general, movement takes place in large drainages, along ridgelines, and along dirt roads.

Wildlife movement is limited within the project site, and surrounding Study Area, due to the developed nature of the site and the presence of paved parking lot, industrial buildings and unpaved roads. The site also does not occur on a ridgeline or immediately adjacent to any mapped drainage features. Disturbance-tolerant species, such as California ground squirrel, racoon, and skunks, are most likely to utilize these local wildlife corridors. Migratory birds may also utilize the Study Area as a temporary “stop-over” for resting and feeding as they migrate through the area, however, due to the high level of crows and gulls on the site, these temporary stop-overs may be brief. Ultimately, the site is not situated to link substantial habitat areas and likely does not function as a significant corridor for wildlife movement on a regional basis.

6 Impact Evaluation

This section discusses the regional regulatory overview and potential adverse impacts to biological resources that may occur from implementation of the proposed project with respect to the regulatory framework. Mitigation measures to be implemented to avoid and minimize potential impacts to biological resources are discussed herein and are presented in their entirety in Section 7 of this analysis.

6.1 Regulatory Overview

Regulated or sensitive resources studied and analyzed herein include special-status plant and wildlife species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, regionally protected resources (e.g., from county-wide Habitat Conservation Plans [HCPs] and Natural Community Conservation Plans [NCCPs]), and locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by Federal, State, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the Los Angeles County Department of Regional Planning). Specifically, due to its location in the Coastal Zone, the Study Area is subject to the requirements set forth in the Santa Catalina Island LCP and Santa Catalina Specific Plan. Further details on the regulatory framework are included in Appendix B.

6.2 Impact Evaluation

The following impact evaluation discussion has been provided to further define potential constraints of the proposed project as a result of impact associated with project activities. “Impacts” are defined as project-related activities that destroy, damage, alter, or otherwise affect biological resources. This may include injury or mortality to plant or wildlife species, effects on an animal’s behavior (such as through harassment or frightening off an animal by construction noise), as well as the loss, modification, or disturbance of natural resources or habitats. Impacts are defined as either direct or indirect, and either permanent or temporary.

“Direct impacts” are generally those that occur during project activities. Direct impacts for this project may include injury, death, and/or harassment of special-status wildlife species, if present in the work areas or vicinity. Direct impacts may also include the destruction of vegetation communities necessary for special-status species breeding, feeding, or sheltering. Direct impacts to plants can include crushing of plants, bulbs, or seeds where present in the impact areas.

“Indirect impacts” are those that are reasonably foreseeable and caused by a project but occur later in time and/or potentially at locations of some distance from the source of the impact. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect impact. Specific examples for this project may include soil compaction that, in the future, following completion of the project, prevents wildlife from digging burrows or allows weedy plant species to thrive. Other examples may include dust that drifts outside of project disturbance areas and covers native plants, thereby decreasing their photosynthetic capacity, and unintentional introduction of invasive species (particularly weedy plant species that outcompete native plant species) that over time negatively affect the local ecology.

“Permanent impacts” are those that result in the long-term or irreversible loss of biological resources are considered permanent. For example, construction of a new electrical substation, which would result in a large, developed, and fenced property where native vegetation may have existed before would be a permanent impact.

“Temporary impacts” to biological resources are those that are reversible over time, with or without implementation of appropriate avoidance and minimization measures. Examples include the generation of fugitive dust and noise during project implementation, trimming or crushing vegetation that will regrow following project completion, and removed vegetation that will be actively restored. These temporary impacts are anticipated to last during project implementation and shortly thereafter. However, the biological resources are anticipated to return to baseline after project completion.

6.3 Special-Status Species

6.3.1 Special-Status Plant Species

One special-status plant species has a moderate potential to occur within the Study Area: decumbent goldenbush (CRPR 1B.2). Project activities would only occur within previously disturbed terrestrial areas, including paved parking lots and dirt roads, that do not contain decumbent goldenbush; therefore, direct impacts (e.g., crushing or removal of individuals) would not occur.

Suitable decumbent goldenbush habitat occurs adjacent to the project site within the Study Area, and indirect impacts resulting in the degradation of habitat quality could occur during the proposed project. These potential indirect impacts that may degrade habitat quality include, but are not limited to, fugitive dust reducing photosynthetic capacity of plants, vegetation crush during unapproved overland travel, and soil contamination resulting from equipment leaks or accidental spills. Mitigation measures (presented in Section 7) would be implemented during the proposed project to avoid and minimize potential indirect impacts to decumbent goldenbush habitat to the greatest extent feasible. Mitigation measure BIO-1: Worker Environmental Awareness Program would ensure all project-related personnel are informed of the potential of decumbent goldenbush to occur, general best management practices to be implemented during the project, and consequences for non-compliance. Mitigation measure BIO-2: General Best Management Practices would establish general procedures to be implemented that promote the preservation of habitat quality within and surrounding the project site, including but not limited to, clearly delineating work boundaries and restricting travel outside of the project site, prohibiting the feeding of wildlife that could attract non-native species that alter local species compositions and degrade habitat quality (e.g., domestic cat), and requiring proper vehicle maintenance protocols to avoid and remediate potential leaks and spills. Mitigation measure BIO-5: Disturbance Area, Staging, and Materials Storage would require vehicles to obey a five mile-per-hour speed limit on site to avoid and minimize the accumulation of fugitive dust.

No permanent impacts to decumbent goldenbush habitat would occur, as the proposed project would increase the landfill’s disposal capacity within the existing footprint. The landfill footprint would not expand into previously undisturbed habitat, and all project activities would only occur within previously disturbed areas currently being utilized for PBL activities.

Although indirect impacts to decumbent goldenbush habitat could occur, this habitat contains already-disturbed areas and the likelihood of these impacts occurring is not expected to increase compared to current, ongoing PBL activities. The proposed project would not increase the daily volume of trash being transported to the landfill and would not introduce new potential risks to decumbent goldenbush habitat quality (e.g., fugitive dust or equipment leaks), as vehicles and heavy equipment are routinely utilized within the project site during regular PBL activities. The proposed project would also not promote the storage of materials that increase the risk of wildfire or contamination of soil (e.g., batteries, fuels, etc.). Additionally, the implementation of the aforementioned mitigation measures would avoid and minimize potential indirect impacts to the greatest extent feasible. Thus, the proposed project’s potential impacts to decumbent goldenbush would be less than significant.

6.3.2 Special-Status Wildlife Species

Five special-status wildlife species have potential to occur within the project site or immediate surrounding area. Potential impacts to special-status species and other protected wildlife (i.e., nesting birds and species listed on the Audubon Society's 'Los Angeles County Sensitive Bird List', are further discussed below.

Burrowing Owl

The burrowing owl has a low potential to forage in the Study Area. Suitable burrows were not observed in the Study Area during the field survey; however, burrowing species (i.e., California ground squirrel and spotted skunk) that can potentially excavate suitable burrows were observed or are expected to occur in the Study Area. Should the burrowing owl occur in the project site, potential direct impacts could include noise disturbance interrupting foraging or breeding behavior or injury or mortality via vehicle strikes or crushing by heavy equipment. However, the likelihood of direct injury occurring is low due to the burrowing owl's mobility. To avoid and minimize direct impacts to the greatest extent feasible, mitigation measures BIO-1: Worker Environmental Awareness Program, BIO-2: General Best Management Practices, BIO-3: Special-status Birds, Raptors, and Other Nesting Birds Preconstruction Survey, BIO-5: Disturbance Area, Staging, and Materials Storage, and BIO-6: Biological Monitoring would be implemented. Mitigation measure BIO-1: Worker Environmental Awareness Program would require that all project personnel receive training regarding burrowing owl identification, ecology, regulatory protections, and consequences of non-compliance prior to beginning work. Mitigation measure BIO-2: General Best Management Practices would establish general measures to be implemented during the project to avoid direct impacts to wildlife. These measures include, but are not limited to, prohibiting firearms and pets from the project site and requiring nighttime lighting to be angled downward to minimize glare and avoid disturbing wildlife. The Study Area would be surveyed prior to the commencement of construction activities to confirm the presence or absence of nesting birds, including the burrowing owl, with implementation of mitigation measure BIO-3: Special-status Birds, Raptors, and Other Nesting Birds Preconstruction Survey. This measure would require a pre-construction nesting bird survey to be conducted no more than 7 days prior to the initiation of ground disturbing activities or vegetation removal. The survey area would encompass the project site plus a 100-foot buffer (500 feet for raptors). If active burrowing owl burrows are observed, an avoidance buffer dependent upon the individuals' activity (e.g., wintering, incubating, chick rearing, etc.), proposed work activity, and existing disturbances outside of the project site shall be determined and demarcated by the biologist. Intrusion into the buffer would be conducted at the discretion of a qualified biologist. Potential vehicle strikes would be avoided with implementation of mitigation measure BIO-5: Disturbance Area, Staging, and Materials Storage, which requires all project vehicles to obey a five mile-per-hour speed limit. Biological monitoring would occur if an active burrowing owl burrow is present, as outlined in mitigation measure BIO-6: Biological Monitoring. This mitigation measure would require that all ground-disturbing activities be documented and monitored to confirm that burrowing owl "take" does not occur during the proposed project.

Potential indirect impacts that can occur include the degradation of suitable burrowing owl foraging habitat via fugitive dust reducing photosynthetic capacity of plants or the introduction of non-native species. Indirect impacts would be avoided and minimized to the greatest extent feasible with implementation of mitigation measures BIO-1: Worker Environmental Awareness Program, BIO-2: General Best Management Practices, and BIO-5: Disturbance Area, Staging, and Materials Storage. Mitigation measure BIO-1: Worker Environmental Awareness Program which would ensure all project-related personnel are informed of the potential of burrowing owl to occur, general best management practices to be implemented throughout the duration of the project, and consequences for non-compliance. Mitigation measure BIO-2: General Best Management Practices would establish general procedures to be implemented to promote preservation of habitat quality within and surrounding the project site, including but not limited to, clearly delineating work boundaries and restricting travel outside of the project site, prohibiting the feeding of wildlife that could attract non-native species that

could alter local species compositions and degrade habitat quality (e.g., domestic cat), and requiring proper vehicle maintenance protocols to avoid and remediate potential leaks. Mitigation measure BIO-5: Disturbance Area, Staging, and Materials Storage would require vehicles to obey a five mile-per-hour speed limit on site to avoid and minimize the accumulation of fugitive dust.

No permanent impacts to burrowing owl habitat would occur, as the proposed project would increase the landfill's disposal capacity within the existing landfill footprint and would not expand into previously undisturbed habitat. Further, all project activities would only occur within previously disturbed areas currently being utilized for PBL activities.

Although direct and indirect impacts can occur to the burrowing owl during the proposed project, the likelihood of these impacts occurring is not expected to increase compared to current, ongoing PBL activities. The proposed project would not increase the daily volume of trash being transported to the landfill; therefore, no increase in daily traffic is expected. Further, the proposed project would not introduce new potential disturbances to wildlife stemming from heavy equipment use (e.g., noise or fugitive dust), as heavy equipment is routinely utilized during regular PBL activities. Additionally, the implementation of the aforementioned mitigation measures would avoid and minimize potential impacts to the greatest extent feasible. Thus, the proposed project's potential impacts to burrowing owl would be reduced to less than significant levels.

Santa Catalina Island Fox

The Santa Catalina Island fox has a moderate potential to occur transiently in the project site while foraging. Suitable burrows were not observed in the Study Area during the field survey. Should the Santa Catalina Island fox occur in the project site, potential direct impacts could include nighttime lighting or noise disturbance interrupting foraging or breeding behavior or injury or mortality via vehicle strikes or crushing by heavy equipment. To avoid and minimize direct impacts to the greatest extent feasible, mitigation measures BIO-1: Worker Environmental Awareness Program, BIO-2: General Best Management Practices, BIO-4: Santa Catalina Island Fox Avoidance and Minimization, BIO-5: Disturbance Area, Staging, and Material Storage, and BIO-6: Biological Monitoring would be implemented. Mitigation measure BIO-1: Worker Environmental Awareness Program would require that all project personnel receive training regarding Santa Catalina Island Fox's potential to occur, identification, ecology, regulatory protections, and consequences of non-compliance prior to beginning work. Mitigation measure BIO-2: General Best Management Practices would establish general measures to be implemented during the project to avoid direct impacts. These measures include, but are not limited to, prohibiting firearms and pets from the project site and requiring nighttime lighting to be angled downward to minimize glare and avoid disturbing wildlife. With implementation of mitigation measure BIO-4: Santa Catalina Island Fox Avoidance and Minimization, the Study Area would be surveyed prior to the commencement of construction activities to confirm the presence or absence of the Santa Catalina Island fox. This measure would require a pre-construction survey to be conducted within the Study Area no more than seven days prior to the start of construction activities. If a potential den is observed, a wildlife camera survey would be conducted to confirm whether the den is occupied or inactive. If the den is determined to be occupied, a non-disturbance buffer would be implemented. Other guidelines presented in this mitigation measure include, but are not limited to, covering all pipe ends greater than three inches in diameter, covering or installing escape ramps on excavation pits to avoid entrapment, and prohibiting the use of pesticides or rodenticides. Potential vehicle strikes would be avoided with implementation of mitigation measure BIO-5: Disturbance Area, Staging, and Materials Storage, which requires all project vehicles to obey a five mile-per-hour speed limit. Mitigation measure BIO-6: Biological Monitoring would be implemented if a potential fox den is present. This measure would require that all ground-disturbing activities be documented and monitored to confirm that Santa Catalina Island fox "take" does not occur during the proposed project.

Potential indirect impacts that can occur include the degradation of suitable Santa Catalina Island fox habitat via fugitive dust reducing photosynthetic capacity of plants or the introduction of non-native species. Indirect impacts would be avoided and minimized to the greatest extent feasible with

implementation of mitigation measures BIO-1: Worker Environmental Awareness Program, BIO-2: General Best Management Practices, and BIO-5: Disturbance Area, Staging, and Materials Storage. Mitigation measure BIO-1: Worker Environmental Awareness Program which would ensure all project-related personnel are informed of the potential of Santa Catalina Island fox to occur, general best management practices to be implemented throughout the duration of the project, and consequences for non-compliance. Mitigation measure BIO-2: General Best Management Practices would establish general procedures to be implemented to promote preservation of habitat quality within and surrounding the project site, including but not limited to, clearly delineating work boundaries and restricting travel outside of the project site, prohibiting the feeding of wildlife that could attract non-native species that could alter local species compositions and degrade habitat quality (e.g., domestic cat), and requiring proper vehicle maintenance protocols to avoid and remediate potential leaks. Mitigation measure BIO-5: Disturbance Area, Staging, and Materials Storage would require vehicles to obey a five mile-per-hour speed limit on site to avoid and minimize the accumulation of fugitive dust.

No permanent impacts to Santa Catalina Island fox would occur, as the proposed project would increase the landfill's disposal capacity within the existing landfill footprint and would not expand into previously undisturbed habitat. Further, all project activities would only occur within previously disturbed areas currently being utilized for PBL activities.

Although direct and indirect impacts can occur to the Santa Catalina Island fox during the proposed project, the likelihood of these impacts occurring is not expected to increase compared to current, ongoing PBL activities. The proposed project would not increase the daily volume of trash being transported to the landfill; therefore, no increase in daily traffic is expected. Further, the proposed project would not introduce new potential disturbances to wildlife stemming from heavy equipment use (e.g., noise or fugitive dust), as heavy equipment is routinely utilized during regular PBL activities. Additionally, the implementation of the aforementioned mitigation measures would avoid and minimize these potential impacts to the greatest extent feasible. Thus, the proposed project's potential impacts to Santa Catalina Island fox would be reduced to less than significant levels.

Other Special-status Bird Species

The bald eagle, double-crested cormorant, and Scripps' murrelet have low potential to occur in the Study Area; however, they may be seen flying over the project site to forage in the Pacific Ocean east of the Study Area or temporarily perch along the rocky cliff faces of the Study Area; however, there is low potential for these species to occur for foraging or nesting due to disturbances stemming from current PBL activities. Should these species be present during the project, potential direct impacts could include nighttime lighting or noise disturbance interrupting roosting or breeding behavior (e.g., courtship displays, vocalizations, and copulation) and injury or mortality via vehicle strikes. However, the likelihood of direct injury to special-status bird species occurring is low due to their mobility and lack of foraging or nesting habitat. To avoid and minimize potential direct impacts to bald eagle, double-crested cormorant, and Scripps' murrelet to the greatest extent feasible, mitigation measures BIO-1: Worker's Environmental Awareness Program, BIO-2: Best Management Practices, BIO-3: Special-status Birds, Raptors, and Other Nesting Birds Preconstruction Survey, and BIO-5: Disturbance Area, Staging, and Materials Storage would be implemented. Mitigation Measure BIO-1: Worker Environmental Awareness Program which would ensure all project-related personnel are informed of these species' potential to occur, identification, ecologies, regulatory protections, and consequences of non-compliance. Mitigation measure BIO-2: General Best Management Practices would establish general measures to be implemented during the project to avoid direct impacts to wildlife. These measures include, but are not limited to, prohibiting firearms and pets from the project site and requiring nighttime lighting to be angled downward to minimize glare and avoid disturbing wildlife. Mitigation measure BIO-3: Special-status Birds, Raptors, and Other Nesting Birds Preconstruction Survey would be implemented to confirm presence or absence of nesting birds prior to the commencement of construction activities, although these species are not expected to nest in the Study Area due to the lack of suitable habitat. This measure would require a pre-construction nesting bird survey to be conducted no more than 7 days prior to the initiation of ground disturbing activities or

vegetation removal. The survey area would encompass the project site plus a 100-foot buffer (500 feet for raptors). If active nests are observed, an avoidance buffer dependent upon the species, proposed work activity, and existing disturbances outside of the project site shall be determined and demarcated by the biologist. Intrusion into the buffer would be conducted at the discretion of a qualified biologist. Potential vehicle strikes would be avoided with implementation of mitigation measure BIO-5: Disturbance Area, Staging, and Materials Storage, which requires all project vehicles to obey a five mile-per-hour speed limit. Biological monitoring would occur if active nests are present, as outlined in mitigation measure BIO-6: Biological Monitoring. This mitigation measure would require that all ground-disturbing activities be documented and monitored to confirm that "take" of nesting birds does not occur during the proposed project.

Indirect impacts (e.g., habitat degradation) to bald eagle, double-crested cormorant, and Scripps' murrelet habitat are not expected to occur due to the lack of suitable habitat in the Study Area. Although suitable forage and roosting habitat occurs in the Pacific Ocean and shoreline adjacent to the Study Area, this habitat is topographically isolated from the project site by an approximately 150-foot-tall cliff and construction activities would not occur in the vicinity of this habitat. This habitat is further isolated from the project site by developed structures between the landfill disposal footprint and the cliff.

No permanent impacts to bald eagle, double-crested cormorant, and Scripps' murrelet habitat would occur, as project activities would not occur near these species' habitat and would only occur within previously disturbed areas currently being utilized for PBL activities.

Although direct impacts can occur to the bald eagle, double-crested cormorant, and Scripps' murrelet during the proposed project, the likelihood of these impacts occurring is not expected to increase compared to current, ongoing PBL activities. The proposed project would not increase the daily volume of trash being transported to the landfill; therefore, no increase in daily traffic is expected. Further, the proposed project would not increase or alter the drainage of stormwater runoff from the project site into the Pacific Ocean, and the current surface water quality monitoring program conducted by the Los Angeles Regional Water Quality Control Board would remain in place. The proposed project would also not alter the types of materials routinely stored within the landfill; therefore, no increase in the presence of potential water contaminants is expected to occur. The proposed project would not introduce new potential disturbances to wildlife stemming from heavy equipment use (e.g., noise or fugitive dust), as heavy equipment is routinely utilized during regular PBL activities. Additionally, the implementation of the aforementioned mitigation measures would avoid and minimize potential impacts to the greatest extent feasible. Thus, the proposed project's potential impacts to these species would be reduced to less than significant levels.

Nesting Birds and Los Angeles County Sensitive Bird Species

Migratory birds protected under the MBTA and nesting birds and raptors protected under CFGC Section 3503 have the potential to breed throughout the project site during the nesting season (February 1 to September 15). Additionally, species listed on the Audubon Society's Los Angeles County Sensitive Bird List (County of Los Angeles 2009) were observed (e.g., turkey vulture) or can occur in the project site. Potential nesting and/or foraging habitat could include landscaped trees and shrubs (e.g., acacia [*Acacia* sp.] and Mexican fan palm [*Washingtonia robusta*]), native shrubs (e.g., toyon and California sagebrush), man-made structures, and the ground surface. However, nesting activity within the project site may be deterred by ongoing PBL activities or nest predation or mobbing behavior from common ravens, which were observed to be prevalent throughout the Study Area during the field survey.

Should protected bird nests or species listed on the Audubon Society's Los Angeles County Sensitive Bird List (County of Los Angeles 2009) occur, potential direct impacts could include removal of potential nesting habitat (e.g., vegetation), destruction of nests, nighttime lighting or noise disturbance interrupting nesting behavior and causing a nest to fail, and injury or mortality to individuals via vehicle strikes. However, the likelihood of vehicles striking fledglings and adult avian species is low due to their mobility. To avoid and minimize potential direct impacts to nesting birds and Los Angeles County sensitive species to the greatest extent feasible, mitigation measures BIO-1: Worker's Environmental

Awareness Program, BIO-2: Best Management Practices, BIO-3: Special-status Birds, Raptors, and Other Nesting Birds Preconstruction Survey, and BIO-5: Disturbance Area, Staging, and Materials Storage would be implemented. Mitigation measure BIO-1: Worker Environmental Awareness Program which would ensure all project-related personnel are informed of the potential for nesting to occur, nest identification, relevant regulatory protections, and consequences of non-compliance. Mitigation measure BIO-2: General Best Management Practices would establish general measures to be implemented during the project to avoid direct impacts to wildlife. These measures include, but are not limited to, prohibiting firearms and pets from the project site, requiring nighttime lighting to be angled downward to minimize glare and avoid disturbing wildlife, and covering open excavation areas to avoid wildlife entrapment. Mitigation measure BIO-3: Special-status Birds, Raptors, and Other Nesting Birds Preconstruction Survey would be implemented to confirm presence or absence of nesting birds prior to the commencement of construction activities. This measure would require a pre-construction nesting bird survey to be conducted no more than 7 days prior to the initiation of ground disturbing activities or vegetation removal. The survey area would encompass the project site plus a 100-foot buffer (500 feet for raptors). If active nests are observed, an avoidance buffer dependent upon the species, proposed work activity, and existing disturbances outside of the project site shall be determined and demarcated by the biologist. Intrusion into the buffer would be conducted at the discretion of a qualified biologist. Potential vehicle strikes would be avoided with implementation of mitigation measure BIO-5: Disturbance Area, Staging, and Materials Storage, which requires all project vehicles to obey a five mile-per-hour speed limit. Biological monitoring would occur if active nests are present, as outlined in mitigation measure BIO-6: Biological Monitoring. This mitigation measure would require that all ground-disturbing activities be documented and monitored to confirm that "take" of nesting birds does not occur during the proposed project.

Indirect impacts could include the degradation of nesting habitat via fugitive dust reducing the photosynthetic capacity of plants and the introduction of non-native predators that can deter avian activity (e.g., domestic cat and spotted skunk). Indirect impacts would be avoided and minimized to the greatest extent feasible with implementation of mitigation measures BIO-1: Worker Environmental Awareness Program, BIO-2: General Best Management Practices, and BIO-5: Disturbance Area, Staging, and Materials Storage. Mitigation measure BIO-1: Worker Environmental Awareness Program which would ensure all project-related personnel are informed of the potential of nesting birds and species listed on the Audubon Society's Los Angeles County Sensitive Bird List to occur, general best management practices to be implemented throughout the duration of the project, and consequences for non-compliance. Mitigation measure BIO-2: General Best Management Practices would establish general procedures to be implemented to promote preservation of habitat quality within and surrounding the project site, including but not limited to, clearly delineating work boundaries and restricting travel outside of the project site, prohibiting the feeding of wildlife that could attract non-native species that could alter local species compositions and degrade habitat quality (e.g., domestic cat), and requiring proper vehicle maintenance protocols to avoid and remediate potential leaks. Mitigation measure BIO-5: Disturbance Area, Staging, and Materials Storage would require vehicles to obey a five mile-per-hour speed limit on site to avoid and minimize the accumulation of fugitive dust.

The loss of a nest or disturbance of nesting habitat due to construction activities would be a violation of the MBTA and CFGC Section 3503. Although impacts can occur to nesting birds and species listed on the Audubon Society's Los Angeles County Sensitive Bird List during the proposed project, the likelihood of these impacts occurring is not expected to increase compared to current, ongoing PBL activities. The proposed project would not increase the daily volume of trash being transported to the landfill; therefore, no increase in daily traffic is expected and the project is not expected to increase the abundance of common nest predators (e.g., common raven) throughout the landfill. Further, the proposed project would not introduce new potential disturbances to wildlife stemming from heavy equipment use (e.g., noise or fugitive dust), as heavy equipment is routinely utilized during regular PBL activities. Additionally, the implementation of the aforementioned mitigation measures would avoid and minimize potential impacts to the greatest extent feasible. Thus, the proposed project's potential

impacts to nesting birds and species listed on the Audubon Society's Los Angeles County Sensitive Bird List these species would be reduced to less than significant levels.

Project Characteristics Protective of Special Status Wildlife Species

The proposed project would not increase or alter the drainage of stormwater runoff from the project site into the Pacific Ocean, and the current surface water quality monitoring program conducted by the Los Angeles Regional Water Quality Control Board would remain in place. The proposed project would also not alter the types of materials routinely stored within the landfill; therefore, no increase in the presence of potential water contaminants is expected to occur. The proposed project would not introduce new potential disturbances to wildlife stemming from heavy equipment use (e.g., noise or fugitive dust), as heavy equipment is routinely utilized during regular PBL activities. Additionally, the implementation of the aforementioned mitigation measures would avoid and minimize potential impacts from the proposed project to the greatest extent feasible. Thus, the proposed project's potential impacts to these species would be reduced to less than significant levels.

6.4 Sensitive Habitats

6.4.1 Sensitive Plant Communities

Sensitive plant communities do not occur within the project site. Therefore, no impacts from the project would occur to sensitive plant communities.

6.4.2 Critical Habitat

There is no designated critical habitat within the project site. Designated green sea turtle and black abalone critical habitats occur adjacent to the Study Area and are defined by the mean high tide line (green sea turtle) and mean higher high-water mark (black abalone). However, these critical habitats both occur outside of the Study Area (Figure 7) and are topographically isolated from the project site by an approximately 150-foot-tall cliff. Potential impacts to critical habitat could include accidental spills or debris falling off the cliffside and reaching the shoreline; however, proposed construction activities would not occur immediately adjacent to the cliffside and developed structures are present between the landfill disposal footprint and the cliff. Thus, these impacts are not expected to occur. Impacts could also include fugitive dust or noise disturbing green sea turtles resting on the shore, but these impacts are expected to be avoided and minimized with implementation of mitigation measures presented in Section 7 and are not expected to affect shoreline habitat due to the elevation of the project site. Additionally, the proposed project is not expected to increase the potential for impacts to critical habitat to occur compared to current, ongoing PBL activities. Thus, the proposed project is not expected to result in impacts to green sea turtle or black abalone critical habitats.

6.4.3 Environmentally Sensitive Habitat Areas

There are no defined ESHAs within the project site. Project activities are not expected to result in adverse modification or destruction, therefore, no measures are recommended.

6.5 Jurisdictional Waters and Wetlands

There are no jurisdictional waters within the project site. Project activities are not expected to result in impacts to jurisdictional waters.

6.6 Wildlife Movement

The project site currently functions as a landfill and therefore an increase in direct and indirect impacts are not anticipated. The project site is not located within a regional wildlife movement corridor and no defined wildlife nursery sites have been documented within, or immediately adjacent to, the project site.

6.7 Local Policies and Ordinances

The Santa Catalina Island LCP and Santa Catalina Specific Plan include policies to protect sensitive habitats and vegetation, water, fish and wildlife resources. These ordinances include the designation of SEAs, as outlined in Chapter 22.102 of the Los Angeles County Code. Due to the proposed project site occurring within the Pebbly Beach Canyon SEA, a Conditional Use Permit is required prior to the commencement of project activities to ensure, to the extent possible, that such development maintains and where possible enhances the remaining biotic resources of the SEA. The proposed project is not expected to diminish the integrity of the SEA and its associated biotic resources due to the proposed project occurring within an already-developed site currently utilized for PBL activities. The proposed project would increase the long-term disposal capacity within the existing landfill footprint and would not increase the daily volume of materials or types of materials transported to the landfill. Thus, the proposed project would not increase daily traffic levels at the landfill or promote an increase of potential fire or contamination risks via the storage of hazardous materials. Further, the proposed project would not increase the potential for direct and indirect impacts to biological resources compared to current, ongoing activities at the PBL landfill, and these potential impacts would be avoided and minimized to the greatest extent feasible with implementation of the proposed mitigation measures presented in Section 7.

6.8 Adopted or Approved Plans

The project site is not included in any adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plans. Therefore, no conflicts would occur, and no additional measures are recommended.

6.9 Biological Constraints on the Project Site

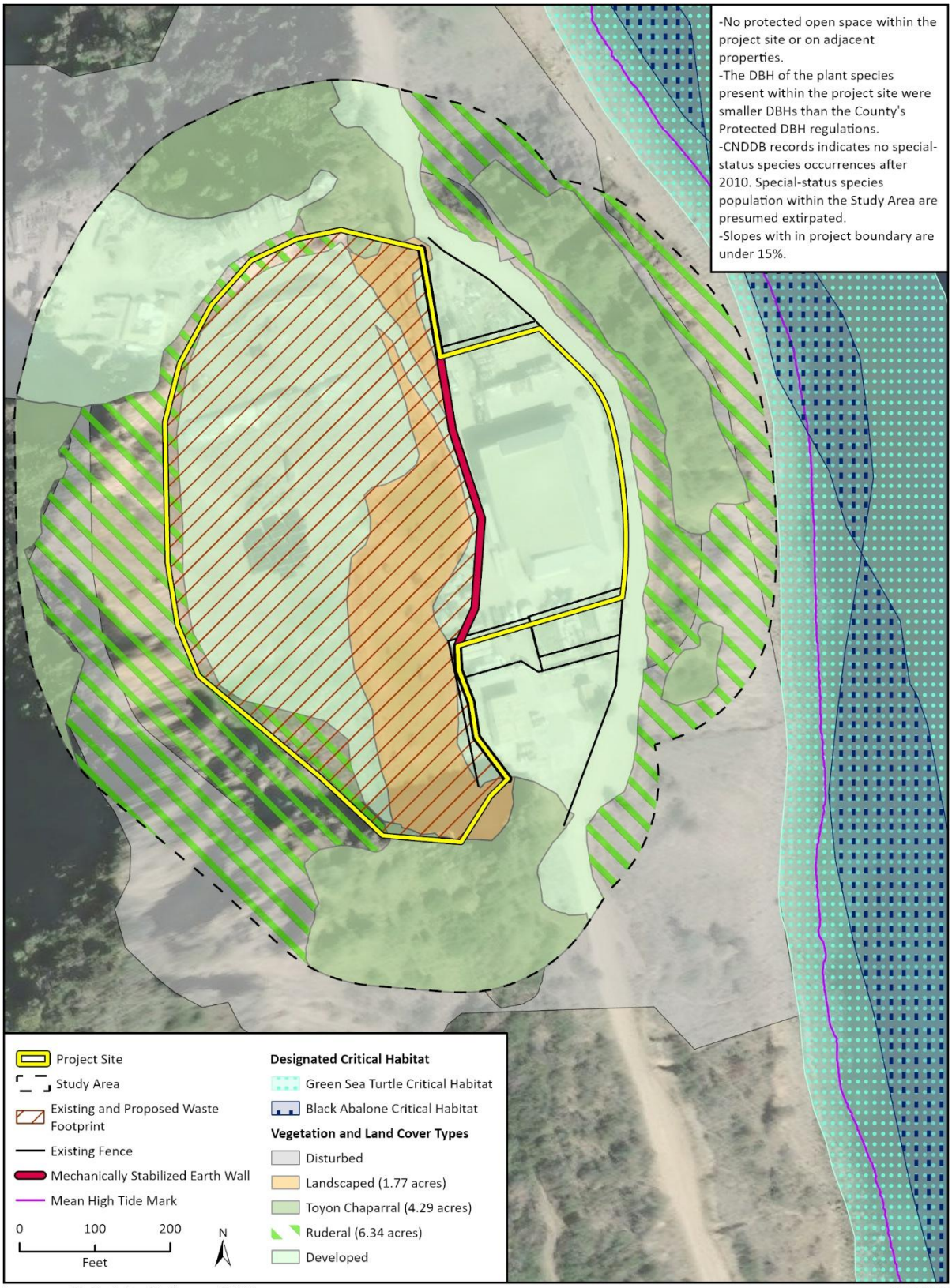
The biological constraints of the project site were evaluated based on the presence of sensitive resources and habitat as well as wildlife movement values. The biological constraints map (BCM), provided as Figure 9 below, was prepared according to the County of Los Angeles Department of Regional Planning BCM Checklist and includes all content required for review by the Significant Ecological Areas Technical Advisory Committee (SEATAC). Figure 9 presents the biological constraints in the Study Area.

County of Los Angeles Department of Regional Planning BCM and Conceptual Project Design Checklist

Biological Constraints Map (BCM) Checklist	
Biological Constraints Map (BCM)	
✓	Shows all project site parcel(s) boundaries
✓	Existing permitted development (structures, graded areas, roads, etc.)
✓	Vegetation communities (utilizing Sawyer, Keeler-Wolf Evens 2009 classifications), and indicating CDFW Natural Community Rarity Ranking, extending out to 200-feet from the project site boundaries

Biological Constraints Map (BCM) Checklist	
Biological Constraints Map (BCM)	
✓	Map location of native trees that meet the protected sizes listed in the SEA Protected Tree List. Not all trees on the property need to be mapped; only enough to meet the preservation requirements. Do not need to provide DBH or Protected Zones at this stage.
✓	Location of observed and previously recorded sensitive species (e.g. from site survey, previous biological reports, or identified through CNDDB records, etc.)
✓	Delineated boundaries of water resources, such as rivers and streams (including intermittent and ephemeral drainages), lakes, reservoirs, ponds, wetlands, marshes, seeps, springs, vernal pools, and playas and required setbacks.
✓	Important physical site features that may provide important habitat for sensitive species (e.g. rock outcrops) or facilitate or restrict wildlife movement (e.g. ridgelines, culverts, fences, etc.)
✓	Existing protected open space that has been recorded on or adjacent to any part of the subject parcel.
Conceptual Project Design	
✓	Show the conceptual development footprint and the following information of the proposed project as much as possible. Can be shown on the BCM or a separate plan. All anticipated graded areas- Existing and proposed structure locations Fuel modification to 200-feet from all structures Utility access- Driveways and parking areas Landscaped areas Exploratory testing locations

Figure 9 Biological Constraints within the Study Area



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Additional data provided by NOAA, 2024.

22-12908 BIO
Fig 9 Biological Constraints Map

7 Mitigation Measures

7.1 Mitigation Measures

This section outlines mitigation measures to be implemented during the proposed project to avoid and minimize potential impacts and maintain the ecological integrity of the SEA and its associated biotic resources.

BIO-1 Worker Environmental Awareness Program

Prior to initiation of each phase of project activities (including initial staging and mobilization of each of the three project phases), all personnel associated with project construction shall attend a Worker Environmental Awareness Program (WEAP) training conducted by a qualified biologist to aid workers in recognizing special-status species, native birds, and other biological resources that may occur in the project site. The specifics of this program shall include identification and habitats of special-status species with potential to occur at the project site, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information will also be prepared for distribution to all contractors, their employers, and other personnel involved with construction. All employees will sign a form provided by the trainer indicating they have attended the WEAP training and understand the information presented to them.

BIO-2 General Best Management Practices

The following Best Management Practices (BMPs) will be followed by construction personnel during each of the three project phases:

- The contractor will clearly delineate the construction limits and prohibit any construction related traffic outside these boundaries.
- Project-related vehicles and construction equipment will restrict off-road travel outside of the designated construction area. Cross-country travel is prohibited.
- All open trenches will be fenced or sloped to prevent entrapment of wildlife species.
- All food-related trash items such as wrappers, cans, bottles, and food scraps generated during proposed project construction will be cleaned up daily and disposed of in closed containers only.
- No deliberate feeding of wildlife will be allowed.
- No pets will be allowed on the project site.
- Except for authorized personnel, no firearms will be allowed on the project site.
- If vehicle or equipment maintenance is necessary, it will be performed in the designated staging areas.
- If construction must occur at night (between dusk and dawn), all lighting will be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties and to reduce impacts on local wildlife.
- During construction, heavy equipment will be operated in accordance with standard BMPs. All equipment used on site will be properly maintained such that no leaks of oil, fuel, or residues will take place. Provisions will be in place to remediate any accidental spills.

BIO-3 Preconstruction Nesting Bird Survey

To avoid or minimize potential impacts to native nesting birds and raptors protected by the Migratory Bird Treaty Act and California Fish and Game Code 3503 and 3503.5, activities related to the project including, but not limited to, vegetation removal, ground disturbance, and construction will commence outside of the breeding season (generally February 1 through August 31), if feasible. This measure will be adhered to during each of the three project phases.

If project activities must commence during the breeding season, a qualified biologist will conduct a pre-construction nesting bird survey no more than seven days prior to initiation of ground disturbance and vegetation removal. The nesting bird pre-construction survey will be conducted on foot inside the project footprint and within a 100-foot buffer (500 feet for raptors, including eagles), using binoculars to survey inaccessible areas as needed. The qualified biologist will be familiar with the identification of avian species known to occur in the region. If active nests of protected species are found, an avoidance buffer (dependent upon the species, the proposed work activity, and existing disturbances outside of the project site) will be determined and demarcated by the biologist with construction fencing, flagging, or other means. The buffer will include a 300-foot buffer for passerines and a 500-foot buffer for raptors; however, these buffers may be reduced, at the discretion of the qualified biologist, if the proposed activity would not disturb the nest occupants.

BIO-4 Santa Catalina Island Fox Avoidance and Minimization

A pre-construction clearance survey for the island fox will be conducted within seven days prior to the initiation of ground-disturbing activities with the goal of 100 percent avoidance, for each of the three project phases. The survey area will include the entire study area and all accessible undeveloped habitat within 200 feet. If potential dens are observed, game cameras will be deployed to confirm island fox occupancy or absence. If occupied island fox burrows are identified within the project footprint, avoidance buffers will be established, and no impacts will occur. Eviction of the island fox and impacts to active burrows require federal and state “take” authorization. Construction activities will adhere to the avoidance and minimization measures outlined below:

- A preconstruction survey will be conducted by a qualified biologist no more than seven days prior to initiation of project activities. The survey will be conducted by a biologist familiar with the identification of island fox and potential den sites. If potential dens are found, an appropriate avoidance buffer (typically 100-foot buffer), will be determined and demarcated by the qualified biologist with high visibility material. If a natal den is observed, an appropriate avoidance buffer will be installed and a remote camera used to monitor the natal status of the den. No project activities will occur within the buffer until the qualified biologist has confirmed that natal season is complete, the young have vacated the den, or the den is no longer active. Encroachment into the buffer will occur only at the discretion of the qualified biologist.
- To prevent inadvertent entrapment of island foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than two feet deep will be covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. Any pipes greater than three inches in diameter will also be capped when not in use to prevent entrapment or mortality of individuals. A qualified biologist will survey the excavation sites at the beginning of the morning to ensure no island foxes were entrapped in the sites prior to the start of daily project activities. If at any time a trapped or injured island fox is discovered, the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife will be notified in writing within 72 hours of the discovery.
- All food-related trash (e.g., wrappers, cans, bottles, and food scraps) will be disposed of in closed containers and removed from the project site each day during the construction period. Project personnel will not feed or otherwise attract wildlife to the project site.
- No firearms or pets will be allowed on the project site.

- Vehicles will adhere to a five mile-per-hour speed limit throughout the site, except on county roads and state and federal highways. This is particularly important at night when island foxes are most active. If a vehicle has been parked for a duration of an hour or more, the driver will check underneath vehicle to confirm foxes are absent. To the extent possible, night-time construction will be minimized. Off-road traffic outside of designated work areas will be prohibited.
- Use of rodenticides and herbicides on the project site will be restricted. This is necessary to prevent primary or secondary poisoning of island foxes and the depletion of prey populations on which they depend. All uses of such compounds will observe label and other restrictions mandated by the United States Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation, as well as additional project-related restrictions deemed necessary by the U.S. Fish and Wildlife Service.

BIO-5 Disturbance Area, Staging, and Materials Storage

Materials shall be stored on impervious surfaces or plastic ground covers, with containment to prevent any spills or leakage to soils and waters on the site. Any materials storage devices and drainage controls used must be "wildlife friendly" to avoid entrapment (e.g., with wildlife-proof closures; avoidance of mono-filament plastics; escape ramps for trenches, holes, and water containers). Vehicles driving within the laydown and staging area shall maintain speeds of no more than 5 miles per hour, and a water truck or other method of dust suppression shall be utilized, so that no dust leaves the project site during construction.

BIO-6 Biological Monitoring

If a nesting site or potential fox den are found during pre-construction surveys, an approved biologist will be on site during all project ground disturbing activities, including vegetation removal. The approved biologist will ensure that all mitigation measures are adhered to and provide recommendations to avoid unnecessary impacts to biological resources. The biologist will have the authority to temporarily halt or redirect work to avoid impacts to special-status species or other protected biological resources.

7.2 Mitigation Monitoring and Reporting Program

The following table provides a summary of the Mitigation Measures, responsible parties, monitoring/reporting actions, and schedule for the proposed project.

Table 5. Mitigation Monitoring Program

Mitigation Measure	Monitoring Program			
	Implementation Responsibility	**Monitoring/ Reporting Action**	**Responsibility**	**Schedule**
BIO-1 Worker Environmental Awareness Program	City of Avalon Construction Contractor Consulting Biologist	All employees will sign a form provided by the trainer indicating they have attended the WEAP training and understand the information presented to them.	City of Avalon	Prior to project initiation of each project phase.
BIO-2 Best Management Practices	City of Avalon Construction Contractor	Incorporate measure into plans and specifications.	City of Avalon	Throughout duration of project,

Mitigation Measure	Monitoring Program			
	Implementation Responsibility	**Monitoring/ Reporting Action**	**Responsibility**	**Schedule**
				during all project phases.
BIO-3 Preconstruction Nesting Bird Survey	City of Avalon Construction Contractor Consulting Biologist	Incorporate measure into plans and specifications. Consulting biologist to conduct pre-construction surveys, provide documentation of surveys and any additional actions.	City of Avalon	No more than seven days prior to initial ground disturbing activities during the nesting season (February 1 through August 31). Prior to each project phase.
BIO-4 Santa Catalina Island Fox Avoidance and Minimization	City of Avalon Construction Contractor Consulting Biologist	Incorporate measure into plans and specifications. Consulting biologist to conduct pre-construction surveys, provide documentation of surveys and any additional actions.	City of Avalon	No more than seven days prior to the initiation of ground-disturbing activities, for each project phase.
BIO-5 Disturbance Area, Staging, and Materials Storage	City of Avalon Construction Contractor	Incorporate measure into plans and specifications.	City of Avalon	Throughout duration of project, during all project phases.

8 Conclusion

The information presented in this Biota Report encompasses the results of general and focused biological surveys conducted recently on the project site, an extensive literature review and database searches of recent and historical records of biological resources in the area. The level of research and survey effort undertaken provides a relatively complete understanding of the project site's existing conditions and biological resources in the context of the region in which it is located including plant and wildlife species, vegetation communities, waters and wetlands, wildlife movement through the site and in the vicinity, and locally important resources.

8.1 Project Consistency with SEA CUP Compatibility Criteria

Per the Los Angeles County Zoning code Section 22.102.050 of Title 22 the Applicant must provide Burden of Proof for a Conditional Use Permit in an SEA by demonstrating that the Project will be consistent with six criteria. The responses to each of these criteria below demonstrate that the Project would be consistent with these criteria and that impacts would be less than significant.

1) *That the requested use is designed to be highly compatible with the biotic resources present, including the setting aside of appropriate and sufficient undisturbed areas.*

The proposed project is not expected to diminish the integrity of the SEA and its associated biotic resources due to the proposed project occurring within an already-developed site currently utilized for PBL activities. As the Project would be sited entirely in areas that are already developed or highly modified, the Project does not specifically propose to set aside and preserve undisturbed habitats.

2) *That the requested development is designed to maintain water bodies, watercourses, and their tributaries in a natural state.*

The proposed project occurs within a pre-disturbed existing landfill with no waters or wetlands occur within the project footprint or within 200 feet of the project site. The project will incorporate existing landfill BMPs in addition to Mitigation Measure BIO-2 to further ensure construction equipment will be properly maintained such that no leaks of oils, fuel, or residues will take place and provisions will be in place to remediate any accidental spills.

3) *That the requested development is designed so that wildlife movement corridors (migratory paths) are left in an undisturbed and natural state.*

The project site currently functions as a landfill and therefore an increase in direct and indirect impacts to wildlife movement activities are not anticipated. The project site is not located within a regional wildlife movement corridor and no defined wildlife nursery sites have been documented within, or immediately adjacent to, the project site.

4) *That the requested development retains sufficient natural vegetative cover and/or open spaces to buffer critical resources, habitat areas, or migratory paths.*

The project will be restricted to previously disturbed and developed portions of the existing landfill. No critical resources, habitat areas, or migratory paths occur within the project area. Designated green sea turtle and black abalone critical habitats occur approximately 200 feet from the project site within the Pacific Ocean however these critical habitats occur outside of the project site and are topographically isolated from the project site by an approximately 150-foot-tall cliff. Additionally, the proposed project is not expected to increase the potential for impacts to critical habitat to occur compared to current, ongoing PBL activities. Thus, the proposed project is not expected to result in adverse modification or destruction of green sea turtle and black abalone critical habitats.

5) That roads and utilities serving the proposed development are located and designed so as not to conflict with critical resources, habitat areas, or migratory paths.

The proposed project occurs in an existing landfill and no new roads will be developed and therefore will not conflict with critical resources, habitat areas, or migratory paths.

8.2 Recommendations for Further Studies

Additional biological studies are not recommended at this time, as the information included in this report is sufficient to support analyses of potential impacts to special-status species, sensitive resources, and wildlife movement, and recommendation of suitable avoidance, minimization, and mitigation measures.

9 Limitations, Assumptions, and Use Reliance

This Biota Report was prepared in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. The biological surveys conducted are limited by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future on the site. In particular, mobile wildlife species could occupy the site on a transient basis or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

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Appendix A

List of Preparers and Contributor Experience Summary

List of Preparers and Contributor Experience

List of Preparers

Rincon Consultants, Inc.

Primary Author

- Thea Benson, Supervising Biologist

Technical Review

- Christopher Julian, Principal Regulatory Specialist, SEATAC-approved biologist

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- Abby Robles, GIS Analyst

Contributor Experience

Thea Benson, Senior Biologist/Project Manager

Ms. Benson is a Senior Biologist/Project Manager with Rincon Consultants. She has over 15 years of experience as a consultant for private and public sector projects. Prior to consulting, she conducted sensitive species research for the U.S. Forest Service, Endangered Species Recovery Program, South Sierra Research Station, and for various Sacramento State University graduate programs. Her duties at Rincon include biological field surveys for special-status species, habitat and plant community mapping, wetlands assessments, biological resources analyses, conservation planning, regulatory compliance, CEQA/NEPA support, and the preparation of biological reports, environmental documents and permit applications in support of federal, state, and local regulations. Ms. Benson has project experience with a variety of project throughout Los Angeles County, specifically within the Santa Monica Mountains and other Significant Ecological Areas.

Christopher Julian, Rincon Principal/ Senior Regulatory Specialist, SEATAC-approved Biologist

Mr. Julian has over 20 years of postgraduate work experience as an environmental consultant, including eight years as an interdisciplinary project manager. His technical emphases include environmental analyses under NEPA and CEQA, all aspects of state (California) and federal stream and wetlands permitting (including agency coordination and negotiations, jurisdictional determination, wetlands functional assessment, and 404(b)(1) analysis), and endangered species permitting. He has effectively assisted clients with designing projects to ensure compliance with agency regulations, and has managed and prepared highly complex CEQA, NEPA, and ESA documents. Mr. Julian also has an extensive stream ecology background, encompassing lake and stream bioassessments, surveys for common and special-status aquatic wildlife species, and mapping of aquatic habitats. He has managed and conducted reconnaissance- and protocol-level surveys for threatened and endangered plants and animals, including the California red-legged frog, tidewater goby, blunt-nosed leopard lizard, desert tortoise, and others. Mr. Julian is a Los Angeles County-approved biologist for preparation of Biological Constraints Analyses.

Appendix B

Regulatory Framework

Regulatory Framework

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the project site include the following:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States)
- U.S. Fish and Wildlife Service (federally listed species and migratory birds)
- Los Angeles Regional Water Quality Control Board (waters of the State)
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes; state-listed species; nesting birds, marine resources)
- California Coastal Commission
- California Coastal Act

United States Army Corps of Engineers Jurisdiction

The United States Army Corps of Engineers (USACE) is responsible for administering several federal programs related to ensuring the quality and navigability of the nation's waters.

Clean Water Act Section 404

Congress enacted the Clean Water Act (CWA) "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 404 of the CWA authorizes the Secretary of the Army, acting through the USACE, to issue permits regulating the discharge of dredged or fill materials into the "navigable waters at specified disposal sites."

Section 502 of the CWA further defines "navigable waters" as "waters of the United States, including the territorial seas." "Waters of the United States" are broadly defined at 33 CFR Part 328.3 to include navigable, tidal, and interstate waters and certain impoundments, tributaries, and wetlands. The agencies' most recent regulatory definition of the term was promulgated in January 2023, following failed attempts in prior years that had been frustrated by legal challenges. However, in May 2023 the U.S. Supreme Court issued its ruling in *Sackett v. Environmental Protection Agency,* which invalidated portions of the updated regulations. To address this ruling, in September 2023 the agencies issued a "conforming rule" (88 FR 61964-61969) modifying their definition of "waters of the United States" to comport with the Court's ruling. This definition is described in detail below.

Waters of the U.S.

Current USACE and USEPA regulations, reflecting of the January 2023 definition as modified by the September 2023 Conforming Rule, define "waters of the United States" as follows (33 CFR 328.3; see also 88 FR 61964-61969):

(1) Waters which are:

(i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) The territorial seas; or

(iii) Interstate waters;

(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;

(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;

(4) Wetlands adjacent to the following waters:

(i) Waters identified in paragraph (a)(1) of this section; or

(ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

(5) Intrastate lakes and ponds, not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.

The definition specifies that the following features are not "waters of the United States" even where they otherwise meet the terms of provisions (2) through (5) above:

(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;

(2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;

(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;

(4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;

(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;

(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;

(7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and

(8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

The lateral limits of USACE jurisdiction in non-tidal waters is defined by the "ordinary high-water mark" (OHWM) unless adjacent wetlands are present. The OHWM is a line on the shore or edge of a channel established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of vegetation, or the presence of debris (33 CFR 328.3(c)(1)). As such, waters are recognized in the field by the presence of a defined watercourse with appropriate physical and topographic features. If wetlands occur within, or adjacent to, waters of the United States, the lateral limits of USACE jurisdiction extend beyond the OHWM to the outer edge of the wetlands (33 CFR 328.4 (c)). The upstream limit of jurisdiction in the absence of adjacent wetlands is the point beyond which the OHWM is no longer perceptible (33 CFR 328.4; see also 51 FR 41217).

Wetlands

The USACE defines wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3(c)(1)). The USACE's delineation procedures identify wetlands in the field based on indicators of three wetland parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. The following is a discussion of each of these parameters.

HYDROPHYTIC VEGETATION

Hydrophytic vegetation dominates areas where frequency and duration of inundation or soil saturation exerts a controlling influence on the plant species present. Plant species are assigned wetland indicator status according to the probability of their occurring in wetlands. More than fifty percent of the dominant plant species must have a wetland indicator status to meet the hydrophytic vegetation criterion. The USACE published the National Wetland Plant List (USACE 2018), which separates vascular plants into the following four basic categories based on plant species frequency of occurrence in wetlands:

- **Obligate Wetland (OBL).** Almost always occur in wetlands
- **Facultative Wetland (FACW).** Usually occur in wetlands, but occasionally found in non-wetlands
- **Facultative (FAC).** Occur in wetlands or non-wetlands
- **Facultative Upland (FACU).** Usually occur in non-wetlands, but may occur in wetlands
- **Obligate Upland (UPL).** Almost never occur in wetlands

The USACE considers OBL, FACW and FAC species to be indicators of wetlands. An area is considered to have hydrophytic vegetation when greater than 50 percent of the dominant species in each vegetative stratum (tree, shrub, and herb) fall within these categories. Any species not appearing on the United States Fish and Wildlife Service's list is assumed to be an upland species, almost never occurring in wetlands. In addition, an area needs to contain at least 5% vegetative cover to be considered as a vegetated wetland.

HYDRIC SOILS

Hydric soils are saturated or inundated for a sufficient duration during the growing season to develop anaerobic or reducing conditions that favor the growth and regeneration of hydrophytic vegetation. Field indicators of wetland soils include observations of ponding, inundation, saturation, dark (low chroma) soil colors, bright mottles (concentrations of oxidized minerals such as iron),

gleying (indicates reducing conditions by a blue-grey color), or accumulation of organic material. Additional supporting information includes documentation of soil as hydric or reference to wet conditions in the local soils survey, both of which must be verified in the field.

WETLAND HYDROLOGY

Wetland hydrology is inundation or soil saturation with a frequency and duration long enough to cause the development of hydric soils and plant communities dominated by hydrophytic vegetation. If direct observation of wetland hydrology is not possible (as in seasonal wetlands), or records of wetland hydrology are not available (such as stream gauges), assessment of wetland hydrology is frequently supported by field indicators, such as water marks, drift lines, sediment deposits, or drainage patterns in wetlands.

Limitations on Jurisdiction based on Sackett v. USEPA Supreme Court Decision

On May 25, 2023, the Supreme Court issued its decision on the petition from the Sacketts, a family in Idaho that was subject to a compliance order from the USEPA for backfilling their lot near Priest Lake, which the USEPA claimed contained federally regulated wetlands. The wetlands in question were adjacent to a ditch that fed a creek that ultimately drained into Priest Lake, a navigable water body. The USEPA asserted that the Sacketts had violated the law by filling the wetlands on their property without a permit. The Court's decision addressed controversy over whether, and under what conditions, the CWA reaches navigable waters' tributaries or adjacent wetlands. The Supreme Court's decision in *Sackett* provides definitive guidance to the agencies in determining the limits of their Clean Water Act authority. Major tenets of the decision have been incorporated into the agencies' current regulations through the September 2023 Conforming Rule.

The Court decided:

> "Adjacent wetlands" are WOTUS only if there is a continuous surface connection between the wetland and a navigable or relatively permanent water body, such that it is difficult to determine the boundary between the wetland and the water body. The opinion notes that "temporary interruptions to surface connection may sometimes occur because of phenomena like low tides or dry spells." The agencies addressed this element by defining the term "adjacent" to mean "having a continuous surface connection" in the Conforming Rule.
>
> The Significant Nexus Standard, introduced by the Court in prior decisions, is not mentioned in the Clean Water Act and should not be used. The Court determined that the standard applies ecological factors whose use in determining jurisdiction is not supported by the statute. The Conforming Rule removed significant nexus considerations from the definition.
>
> Although jurisdiction over tributaries was not addressed by the Court, the decision stated that "…the [Clean Water Act's] use of "waters" encompasses only those relatively permanent, standing or continuously flowing bodies of water forming geographical features that are described in ordinary parlance as streams, oceans, rivers, and lakes." The Conforming Rule makes clear that only relatively permanent tributaries qualify as "waters of the United States."

Rivers and Harbors Act Section 10

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the USACE for the construction of any structure in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if

the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the United States and applies to all structures and work. It further includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g. riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction. It is important to note that Section 10 applies only to navigable waters, and thus does not apply to work in non-navigable wetlands or tributaries. In some cases, Section 10 authorization is issued by the USACE concurrently with CWA Section 404 authorization, such as when certain Nationwide Permits are used.

Regional Water Quality Control Board Jurisdiction

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over "waters of the State," which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code sec. 13050(e)). These agencies also have responsibilities for administering portions of the CWA.

Clean Water Act Section 401

Section 401 of the CWA requires an applicant requesting a federal license or permit for an activity that may result in any discharge into navigable waters (such as a Section 404 Permit) to provide state certification that the proposed activity will not violate state and federal water quality standards. In California, CWA Section 401 Water Quality Certification (Section 401 Certification) is issued by the RWQCBs and by the SWRCB for multi-region projects. The process begins when an applicant requests a pre-application meeting with the RWQCB, waits no less than 30 days, and then submits an application to the RWQCB and informs the USACE (or the applicable agency from which a license or permit was requested) that an application has been submitted. The USACE will then determine a "reasonable period of time" for the RWQCB to act on the application; this is typically 60 days for routine projects and longer for complex projects but may not exceed one year. Under current regulations, once initiated, the reasonable period of time cannot be stopped or paused. When the period has elapsed, if the RWQCB has not either issued or denied the application for Section 401 Certification, the USACE may determine that Certification has been waived and issue the requested permit. If a Section 401 Certification is issued it may include binding conditions, imposed either through the Certification itself or through the requested federal license or permit.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code section 13000 *et seq*.), the policy of the State is as follows:

- The quality of all the waters of the State shall be protected
- All activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason

- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation

The Porter-Cologne Act established nine RWQCBs (based on watershed boundaries) and the SWRCB, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The SWRCB provides program guidance and oversight, allocates funds, and reviews RWQCB decisions. In addition, the SWRCB allocates rights to the use of surface water. The RWQCBs have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The SWRCB and RWQCBs have numerous nonpoint source related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

Section 13260 of the Porter-Cologne Act requires any person discharging or proposing to discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The RWQCB may then authorize the discharge, subject to conditions, by issuing Waste Discharge Requirements (WDRs). While this requirement was historically applied primarily to outfalls and similar point source discharges, the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, effective May 2020, make it clear that the agency will apply the Porter-Cologne Act's requirements to discharges of dredge and fill material as well. The *Procedures* state that they are to be used in issuing CWA Section 401 Certifications and WDRs, and largely mirror the existing review requirements for CWA Section 404 Permits and Section 401 Certifications, incorporating most elements of the USEPA's *Section 404(b)(1) Guidelines*. Following issuance of the *Procedures*, the SWRCB produced a consolidated application form for dredge/fill discharges that can be used to obtain a CWA Section 401 Water Quality Certification, WDRs, or both.

Non-Wetland Waters of the State

The SWRCB and RWQCBs have not established regulations for field determinations of waters of the state except for wetlands currently. In many cases the RWQCBs interpret the limits of waters of the State to be bounded by the OHWM unless isolated conditions or ephemeral waters are present. However, in the absence of statewide guidance each RWQCB may interpret jurisdictional boundaries within their region and the SWRCB has encouraged applicants to confirm jurisdictional limits with their RWQCB before submitting applications. As determined by the RWQCB, waters of the State may include riparian areas or other locations outside the OHWM, leading to a larger jurisdictional area over a given water body compared to the USACE.

Wetland Waters of the State

Procedures for defining wetland waters of the State pursuant to the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020. The SWRCB defines an area as wetland if, under normal circumstances:

1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;
2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and
3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB's Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State (2020), states that waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

California Department of Fish and Wildlife Jurisdiction

California Fish and Game Code section 1602 states that it is unlawful for any person to "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake" without first notifying the California Department of Fish and Wildlife (CDFW) of that activity. Thereafter, if CDFW determines and informs the entity that the activity will not substantially adversely affect any existing fish or wildlife resources, the entity may commence the activity. If, however, CDFG determines that the activity may substantially adversely affect an existing fish or wildlife resource, the entity may be required to obtain from CDFW a Streambed Alteration Agreement (SAA), which will include reasonable measures necessary to protect the affected resource(s), before the entity may conduct the activity described in the notification. Upon receiving a complete Notification of Lake/Streambed Alteration, CDFW has 60 days to present the entity with a Draft SAA. Upon review of the Draft SAA by the applicant, any problematic terms are negotiated with CDFW and a final SAA is executed.

The CDFW has not defined the term "stream" for the purposes of implementing its regulatory program under Section 1602, and the agency has not promulgated regulations directing how jurisdictional streambeds may be identified, or how their limits should be delineated. However, four relevant sources of information offer insight as to the appropriate limits of CDFW jurisdiction as discussed below.

- **The plain language of Section 1602 of CFGC** establishes the following general concepts:
  - References "river," "stream," and "lake"
  - References "natural flow"
  - References "bed," "bank," and "channel"
- **Applicable court decisions**, in particular *Rutherford v. State of California* (188 Cal App. 3d 1276 (1987), which interpreted Section 1602's use of "stream" to be as defined in common law. The Court indicated that a "stream" is commonly understood to:
  - Have a source and a terminus
  - Have banks and a channel
  - Convey flow at least periodically, but need not flow continuously and may at times appear outwardly dry
  - Represent the depression between the banks worn by the regular and usual flow of the water
  - Include the area between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including intervening sand bars
  - Include the land that is covered by the water in its ordinary low stage
  - Include lands below the OHWM

- **CDFW regulations** defining "stream" for other purposes, including sport fishing (14 CCR 1.72) and streambed alterations associated with cannabis production (14 CCR 722(c)(21)), which indicate that a stream:
  - Flows at least periodically or intermittently
  - Flows through a bed or channel having banks
  - Supports fish or aquatic life
  - Can be dry for a period of time
  - Includes watercourses where surface or subsurface flow supports or has supported riparian vegetation
- **Guidance documents**, *including A Field Guide to Lake and Streambed Alteration Agreements* (CDFG 1994) and *Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants* (Brady and Vyverberg 2013), which suggest the following:
  - A stream may flow perennially or episodically
  - A stream is defined by the course in which water currently flows, or has flowed during the historic hydrologic course regime (approximately the last 200 years)
  - Width of a stream course can reasonably be identified by physical or biological indicators
  - A stream may have one or more channels (single thread vs. compound form)
  - Features such as braided channels, low-flow channels, active channels, banks associated with secondary channels, floodplains, islands, and stream-associated vegetation, are interconnected parts of the watercourse
  - Canals, aqueducts, irrigation ditches, and other means of water conveyance can be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife
  - Biologic components of a stream may include aquatic and riparian vegetation, all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system
  - The lateral extent of a stream can be measured in different ways depending on the particular situation and the type of fish or wildlife resource at risk

The tenets listed above, among others, are applied to establish the boundaries of streambeds in various environments. The importance of each factor may be weighted based on site-specific considerations and the applicability of the indicators to the streambed at hand.

United States Fish and Wildlife Service

The United States Fish and Wildlife Service (USFWS) implements several laws protecting the Nation's fish and wildlife resources, including the Endangered Species Act (ESA; 16 United States Code [USC] Sections 153 et seq.), the Migratory Bird Treaty Act (MBTA; 16 USC Sections 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668).

Endangered Species Act

The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the ESA. Generally, the USFWS implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in "take" of any threatened or endangered animal species, or a threatened or endangered plant species if occurring on federal land, are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of the ESA, depending on the involvement by the federal government in funding, authorizing, or carrying out the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. "Take" under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of the ESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

Migratory Bird Treaty Act

The MBTA of 1918 implements four international conservation treaties that the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The law has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS.

The list of migratory bird species protected by the law, in regulations at 50 CFR Part 10.13, is primarily based on bird families and species included in the four international treaties. A migratory bird species is included on the list if it meets one or more of the following criteria:

1. It occurs in the United States or U.S. territories as the result of natural biological or ecological processes and is currently, or was previously listed as, a species or part of a family protected by one of the four international treaties or their amendments.
2. Revised taxonomy results in it being newly split from a species that was previously on the list, and the new species occurs in the United States or U.S. territories as the result of natural biological or ecological processes.
3. New evidence exists for its natural occurrence in the United States or U.S. territories resulting from natural distributional changes and the species occurs in a protected family.

In 2004, the Migratory Bird Treaty Reform Act limited the scope of the MBTA by stating the MBTA applies only to migratory bird species that are native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or ecological processes. The MBTRA requires the USFWS to publish a list of all nonnative, human-introduced bird species to which the MBTA does not apply, and an updated list was published in 2020. The 2020 update identifies species belonging to biological families referred to in treaties the MBTA implements but are not protected because their presence in the United States or U.S. territories is solely the result of intentional or unintentional human-assisted introductions.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone, without a permit issued by the USFWS, from "taking" bald or golden eagles, including their parts (including feathers), nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

"Disturb" means "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) derives its authority from the Fish and Game Code of California and administers several State laws protecting fish and wildlife resources and the habitats upon which they depend.

California Endangered Species Act

The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is defined as "Hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (Fish and Game Code sec. 86). This definition does not prohibit indirect harm by way of habitat modification, except where such harm is the proximate cause of death of a listed species. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated. Unlike the federal ESA, CESA's protections extend to candidate species during the period (typically one year) while the California Fish and Game Commission decides whether the species warrants CESA listing.

Native Plant Protection Act

The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare, and prohibits the take of listed plant species. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA's permitting procedures would be applied to plants listed under the NPPA as "Rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Fully Protected Species Laws

The CDFW enforces Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code, which prohibit take of species designated as Fully Protected. The CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided. The exception is situations where a Natural Community Conservation Plan (NCCP) is in place that authorizes take of the fully protected species.

Avian Protection Laws

California Fish and Game Code sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level offense to take any bird in violation of the federal Migratory Bird Treaty Act.

California Coastal Act

The California Coastal Act (Public Resources Code Division 20, 1976) declares that the California coastal zone is a distinct and valuable natural resource of vital and enduring interest to all the people and exists as a delicately balanced ecosystem. As such, development within the coastal zone requires a Coastal Development Permit from either the California Coastal Commission or a local government. Coastal Development Permits are the regulatory mechanism by which proposed developments in the coastal zone are brought into compliance with the policies of Chapter 3 of the Coastal Act. After the Commission certifies a Local Coastal Program, most coastal development permit authority is delegated, and coastal development permit applications are then reviewed and acted on by cities and counties (in this case, the County of Los Angeles Local Coastal Program).

Section 30107.5 of the Coastal Act defines Environmentally Sensitive Habitat Areas (ESHA) as areas in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem, and which could be easily disturbed, degraded, or enhanced by human activities and developments. The Coastal Act states that resource extraction, development, and sales or transfers should be limited or prohibited in ESHA in order to ensure that these areas remain intact (especially Sections 30240, 30233, 30263, and 30609.5). These areas must be protected against habitat disruption, including land use and development that are adjacent to ESHA and may impact such areas. Under the Coastal Act, only uses that are dependent on ESHA resources shall be allowed in ESHA.

The California Coastal Act mandates that local governments prepare a land use plan and schedule of implementing actions to carry out the policies of the Coastal Act. The County of Los Angeles Local Coastal Program represents the County's commitment to implement the Coastal Act through policies and identification of detailed land use recommendations.

County of Los Angeles

The following provides key sections of the Los Angeles County Code, specifically within Division 4 (Combining Zones and Supplemental Districts) and Division 5 (Special Management Areas) of Title 22. Additional information can be found at: https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances/354460?nodeId=LOS_ANGELES_CO_CODE

Specific Plans

22.46.020 - Procedure and Adoption.

Specific Plans, including any associated regulations, conditions, programs and proposed legislation shall be adopted by ordinance according to the procedures established in Article 8, Chapter 3, Division 1,Title 7, and other applicable provisions of the California Government Code. Any amendments to such Specific Plans or regulations shall also be adopted in accordance with the applicable Government Code provisions. No amendment to a Specific Plan certified as part of a Local Coastal Program shall be effective in the Coastal Zone until the amendments are certified by the California Coastal Commission, pursuant to section 30514 of the California Public Resources Code.

(Ord. 2022-0008 § 161, 2022.)

22.46.045 - Santa Catalina Specific Plan and Introduction.

A. The Santa Catalina Island Specific Plan is located in Section 22.46.050 (Purpose) through Section 22.46.750 (Energy).

B. The Santa Catalina Island Specific Plan was certified by the California Coastal Commission on January 9, 1990.

(Ord. 2019-0004 § 1, 2019.)

22.46.050 - Purpose.

This Specific Plan constitutes the primary implementation mechanism for the Santa Catalina Island Land Use Plan (LUP) as certified by the California Coastal Commission in November, 1983. As such, it establishes regulations for the development, protection and management of the island's unique resources. The LUP constitutes the first part of the County's State-mandated local coastal program or LCP; the LIP is the second part of the LCP.

(Ord. 2019-0004 § 1, 2019; Ord. 89-0148 § 1 (part), 1989.)

22.46.060 - Relationship to the Los Angeles County General Plan.

Under Chapter 22.46 (Specific Plans) of the Los Angeles County Code, the following is stated under Chapter 22.46.060 regarding the relationship between the Los Angeles County General Plan and the Santa Catalina Specific Plan.

A. The Los Angeles County General Plan consists of those countywide chapters and elements mandated by the California Government Code, as well as a series of community and area plans setting forth more detailed growth and development policies for specific unincorporated communities.

B. The countywide General Plan establishes, in a broad perspective, future land use, development and conservation policies for Santa Catalina Island.

C. The Santa Catalina Island LUP serves as the community plan for the unincorporated portions of the island. The LUP essentially constitutes a refinement of General Plan policy and provides a basis for its ultimate implementation through application of this Specific Plan. The LUP contains background information on Catalina Island conditions and resources; the implementation of its policies will be assured in the coastal development permit process

which requires a finding that any proposed development is consistent with the local coastal program.

(Ord. 2019-0004 § 1, 2019; Ord. 89-0148 § 1 (part), 1989.)

Significant Ecological Areas

22.102.010 - Purpose.

Provided within Chapter 22.102 of the Los Angeles County Code – Significant Ecological Areas

A Conditional Use Permit (Chapter 22.158) application is required to protect resources contained in Significant Ecological Areas as specified in the General Plan from incompatible development, which may result in or have the potential for environmental degradation. In extending protection to these environmentally sensitive areas, it is intended further to provide a process whereby the reconciliation of potential conflict within these areas may equitably occur. It is not the purpose to preclude development within these areas but to ensure, to the extent possible, that such development maintains and where possible enhances the remaining biotic resources of the Significant Ecological Areas, while allowing for limited controlled development therein.

(Ord. 2019-0004 § 1, 2019.)

22.102.020 - Application Required.

Provided within Chapter 22.102 of the Los Angeles County Code – Significant Ecological Areas

Except as specified in Section 22.102.030 (Exemptions), below, prior to the issuance of any building or grading permits, the relocation of two or more property lines between three or more contiguous lots in a coordinated effort as determined by the Director regardless of the ownership of the involved lots and regardless of whether the relocations are applied for concurrently or through multiple or successive applications, approval of a minor land division or subdivision, or the commencement of any construction or enlargement of any building or structure on a lot which is in or partly in an area designated in the General Plan and related maps as a Significant Ecological Area, a Conditional Use Permit for Significant Ecological Areas shall be applied for and approved as provided by Chapter 22.158 (Conditional Use Permits) and this Chapter only when, unless a Conditional Use Permit is otherwise required by this Title 22, the property contains an area that, on or after January 1, 2012, was designated in the General Plan as a Significant Ecological Area, and if the proposed project includes development on the portion of that property that is located in the Significant Ecological Area.

(Ord. 2019-0004 § 1, 2019.)

Appendix C

Site Photographs

Photograph 1. View of Pebbly Beach Landfill and the proposed project site. View facing southeast. October 9, 2023.

Photograph 2. View of landscaped vegetation community along unpaved access road. View facing west. October 9, 2023.

Photograph 3. View of the proposed project site and disturbed area. View facing northwest. October 9, 2023.

Photograph 4. View of developed land use within the proposed project site, with landscaped vegetation community in the background. View facing northwest. October 9, 2023.

Photograph 5. View of toyon chaparral outside of the proposed project site. View facing south. October 9, 2023.

Photograph 6. View of landscaped vegetation community within proposed project site, with developed area and toyon chaparral in the background. View facing east. October 9, 2023.

Photograph 7. View of landscaped vegetation community along eastern edge of proposed project area. View facing southwest. October 9, 2023.

Photograph 8. View of developed area within the proposed project site. View facing northeast. October 9, 2023.

Photograph 9. View of proposed project site. View facing south. October 9, 2023.

Photograph 10. View of landscaped and ruderal within northern section of the proposed project site. View facing west. October 9, 2023.

Photograph 9. View of cliff adjacent to shoreline east of the proposed project site. View facing west. October 9, 2023.

Photograph 10. View of shoreline substrate north of Study Area. Facing west. October 9, 2023.

Appendix D

Floral and Faunal Compendium

Plant Species Observed within the Study Area on October 9, 2023

Scientific Name	Common Name	Status[1]	Native or Introduced[2]	Estimated Abundance On-Site[3]	Estimated Abundance Vicinity[3]
Herbs					
Carpobrotus edulis	ice plant	None	Introduced, Cal-IPC: High	o	f
Centranthus ruber	Jupiter's beard	None	Introduced	f	f
Conium maculatum	poison hemlock	None	Introduced, Cal-IPC: Moderate	o	o
Corethrogyne filaginifolia	Common sandaster	None	Native	f	f
Crassula connata	sand pygmy weed	None	Native	s	s
Eriodictyon traskiae	Trask's yerba santa	None	Native	u	f
Hirschfeldia incana	wild mustard	None	Introduced, Cal-IPC: Moderate	c	c
Malva neglecta	dwarf mallow	None	Introduced	c	c
Malva parviflora	cheeseweed	None	Introduced	c	c
Oxalis pes-caprae	Bermuda buttercup	None	Introduced, Cal-IPC: Moderate	c	c
Perityle emoryi	Emory's rockdaisy	None	Native	f	f
Salsola tragus	Russian thistle	None	Introduced, Cal-IPC: Limited	f	f
Shrubs					
Artemisia californica	California sagebrush	None	Native	o	f
Arundo donax	giant reed	None	Introduced, Cal-IPC: High	f	o
Atriplex semibaccata	Australian saltbrush	None	Introduced, Cal-IPC: Moderate	c	f
Heteromeles arbutifolia	toyon	None	Native	o	f
Opuntia ficus-indica	mission cactus	None	Introduced	c	f
Nicotiana glauca	tobacco	None	Introduced, Cal-IPC: Moderate	c	f
Trees					
Acacia melanoxylon	blackwood acacia	None	Introduced, Cal-IPC: Limited	s	s
Jacaranda mimosifolia	black poui	None	Introduced	s	s
Pinus sp.	pine	None	Introduced (Planted)	s	s
Washintonia robusta	Mexican fan palm	None	Introduced, Cal-IPC: Moderate	c	f

Scientific Name	Common Name	Status[1]	Native or Introduced[2]	Estimated Abundance On-Site[3]	Estimated Abundance Vicinity[3]
Grasses					
Bromus sp.	brome	None	Introduced	c	f
Hordeum murinum	foxtail barley	None	Introduced, Cal-IPC: Moderate	c	f

[1] Status:

CRPR = California Rare Plant Rank

1B.1 = Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California

1B.2 = Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California

[2] Cal-IPC = California Invasive Plant Council Rank

[3] Abundancy Definitions: common (c), fairly common (f), uncommon (u), occasional, (o), and scarce (s)

Wildlife Species Observed Within the Study Area on October 9, 2023

Scientific Name	Common Name	Status[1]	Native or Introduced	Estimated Abundance Onsite[2]	Estimated Abundance Vicinity[2]
Birds					
Buteo jamaicensis	red-tailed hawk	None	Native	o	o
Cathartes aura	turkey vulture	None	Native	c	f
Corvus brachyrhynchos	American crow	None	Native	c	f
Haemorhous mexicanus	house finch	None	Native	o	o
Larus occidentalis	western gull	None	Native	c	c
Nannopterum auritum	double-crested cormorant	WL	Native	f	f
Pelecanus occidentalis californicus	California brown pelican	None	Native	f	f
Sayornis nigricans	black phoebe	None	Native	o	o
Streptopelia decaocto	Eurasian collared dove	None	Introduced	f	f
Sturnus vulgaris	European starling	None	Introduced	f	f
Mammals					
Felis catus	domestic cat	None	Introduced	o	o
Otospermophilus beecheyi	California ground squirrel	None	Native	f	f

[1] FT= Federally Threatened FP= State Fully Protected, WL=Watchlist

[2] Abundancy Definitions: common (c), fairly common (f), uncommon (u), occasional, (o), and scarce (s)

Appendix E

Special-status Species Potential to Occur Evaluations

Special-status Plant and Lichen Species in the Regional Vicinity of the Study Area

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Aphanisma blitoides aphanisma	None/None G3G4/S2 1B.2	Annual herb. Coastal bluff scrub, coastal dunes, coastal scrub. Gravelly (sometimes), sandy (sometimes). Elevations: 5-1000ft. (1-305m.) Blooms Feb-Jun.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There is only one CNDDB occurrence within five miles of the Study Area and that was in 1901.
Arctostaphylos catalinae Santa Catalina Island manzanita	None/None G2?/S2? 1B.2	Perennial evergreen shrub. Chaparral. Volcanic soil. Elevations: 245-1970ft. (75-600m.) Blooms (Feb)Mar-Apr(May).	Not Expected	No chaparral or volcanic soil occurs within the Study Area. All of the CNDDB occurrences within five miles of the Study Area are over 25 years old.
Atriplex coulteri Coulter's saltbush	None/None G3/S1S2 1B.2	Perennial herb. Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Alkaline (sometimes), clay (sometimes). Elevations: 10-1510ft. (3-460m.) Blooms Mar-Oct.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There are only two CNDDB occurrences from 1931 and 1965 within five miles of the Study Area.
Atriplex pacifica south coast saltscale	None/None G4/S2 1B.2	Annual herb. Coastal bluff scrub, coastal dunes, coastal scrub, playas. Alkali soils. Elevations: 0-460ft. (0-140m.) Blooms Mar-Oct.	Low Potential	Limited disturbed coastal scrub habitat occurs within the Study Area. There are only two records in the CNDDB within five miles of the Study Area. The most recent occurrence was in 1997 approximately 2.3 miles southwest of the Study Area.
Atriplex serenana var. *davidsonii* Davidson's saltscale	None/None G5T1/S1 1B.2	Annual herb. Coastal bluff scrub, coastal scrub. Alkaline. Elevations: 35-655ft. (10-200m.) Blooms Apr-Oct.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There is only one CNDDB record from 1904.
Bergerocactus emoryi golden-spined cereus	None/None G2G3/S2 2B.2	Perennial stem. Chaparral, closed-cone coniferous forest, coastal scrub. Sandy. Elevations: 10-1295ft. (3-395m.) Blooms May-Jun.	Not Expected	No chaparral or closed-cone coniferous forest occurs within the Study Area. Limited disturbed coastal scrub habitat occurs within the Study Area. There are not any occurrences of this species within five miles of the Study Area.
Centromadia parryi ssp. *australis* southern tarplant	None/None G3T2/S2 1B.1	Annual herb. Marshes and swamps, valley and foothill grassland, vernal pools. Often in disturbed sites near the coast at marsh edges; also in alkaline soils sometimes with saltgrass. Sometimes on vernal pool margins. Elevations: 0-1575ft. (0-480m.) Blooms May-Nov.	Not Expected	No aquatic features (i.e., marshes, swamps, and vernal pools) occur within the Study Area. There is only one CNDDB occurrence from 1973 within five miles of the Study Area.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Cercocarpus traskiae Catalina Island mountain-mahogany	FE/SE G1/S1 1B.1	Perennial evergreen shrub. Chaparral, coastal scrub. Gabbroic, rocky. Elevations: 330-820ft. (100-250m.) Blooms Mar-May.	Low Potential	Limited disturbed coastal scrub habitat occurs within the Study Area. There are no CNDDB occurrences within five miles of the Study Area.
Cirsium occidentale var. *compactum* compact cobwebby thistle	None/None G3G4T2/S2 1B.2	Perennial herb. Chaparral, coastal dunes, coastal prairie, coastal scrub. On dunes and on clay in chaparral; also in grassland. Elevations: 15-490ft. (5-150m.) Blooms Apr-Jun.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There is only one CNDDB record from 1965 within five miles of the Study Area.
Constancea nevinii Nevin's woolly sunflower	None/None G3/S3 1B.3	Perennial deciduous shrub. Coastal bluff scrub, coastal scrub. Slopes and cliffs. Elevations: 15-1345ft. (5-410m.) Blooms Apr-Aug.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There are several CNDDB occurrences within five miles of the Study Area, but they are all from 1965 or earlier.
Crocanthemum greenei island rush-rose	FT/None G3/S3 1B.2	Perennial evergreen shrub. Chaparral, cismontane woodland, closed-cone coniferous forest, coastal scrub. Rocky sites; usually in open places among pines or chaparral. Elevations: 50-1610ft. (15-490m.) Blooms (Jan)Mar-Jul(Aug).	Low Potential	No chaparral or cismontane woodland occurs within the Study Area. Limited disturbed coastal scrub habitat occurs within the Study Area. There are several recent (within the last ten years) CNDDB occurrences within five miles of the Study Area.
Crossosoma californicum Catalina crossosoma	None/None G3/S3 1B.2	Perennial deciduous shrub. Chaparral, coastal scrub. On rocky sea bluffs, wooded canyons, and dry, open sunny spots on rocky clay. Elevations: 0-1640ft. (0-500m.) Blooms Feb-May.	Low Potential	Limited disturbed coastal scrub habitat and rocky sea bluffs occur within the Study Area. There are two CNDDB occurrences within five miles of the Study Area. The most recent CNDDB occurrence was in 2019 and is approximately 1.5 miles northwest of the Study Area.
Cryptantha wigginsii Wiggins' cryptantha	None/None G2/S1 1B.2	Annual herb. Coastal scrub. Often on clay soils. Elevations: 65-900ft. (20-275m.) Blooms Feb-Jun.	Low Potential	Limited disturbed coastal scrub habitat occurs within the Study Area. There is one CNDDB occurrence from 2012 within five miles of the Study Area.
Diplacus traskiae Santa Catalina Island monkeyflower	None/None GX/SX 1A	Annual herb. Coastal scrub. In shade. Elevations: -ft. (-m.) Blooms Mar-Apr.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There is only one CNDDB occurrence from 1904 within five miles of the Study Area.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Dissanthelium californicum California dissanthelium	None/None G2/S1 1B.2	Annual herb. Coastal scrub. Elevations: 15-1640ft. (5-500m.) Blooms Mar-May.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There is only one CNDDB occurrence from 2005 within five miles of the Study Area.
Dithyrea maritima beach spectaclepod	None/ST G1/S1 1B.1	Perennial rhizomatous herb. Coastal dunes, coastal scrub. Sea shores, on sand dunes, and sandy places near the shore. Elevations: 10-165ft. (3-50m.) Blooms Mar-May.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. No sand dunes occur within the Study Area. The CNDDB occurrence noted this species to be on the island in 1923, but there are no other occurrences within five miles of the Study Area.
Dudleya virens ssp. *hassei* Catalina Island dudleya	None/None G3?T2/S2 1B.2	Perennial herb. Coastal bluff scrub, coastal scrub. Rocky places. Elevations: 0-1310ft. (0-400m.) Blooms Mar-Jun.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There are only three CNDDB occurrences within five miles of the Study Area, and these occurrences are over 25 years old.
Dudleya virens ssp. *insularis* island green dudleya	None/None G3?T3/S3 1B.2	Perennial herb. Coastal bluff scrub, coastal scrub. Rocky soils. Elevations: 15-985ft. (5-300m.) Blooms Apr-Jun.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There are two CNDDB occurrences both over 25 years old and occurred approximately 1.2 and 4.8 miles northwest of the Study Area.
Dudleya virens ssp. *virens* bright green dudleya	None/None G3?T2/S2 1B.2	Perennial herb. Chaparral, coastal bluff scrub, coastal scrub. Rocky outcrops on bluffs facing the ocean. Elevations: 15-1310ft. (5-400m.) Blooms Apr-Jul.	Not Expected	Limited disturbed suitable coastal scrub habitat occurs within the Study Area. However, there are no CNDDB occurrences within five miles of the Study Area.
Euphorbia misera cliff spurge	None/None G5/S2 2B.2	Perennial shrub. Coastal bluff scrub, coastal scrub, mojavean desert scrub. Rocky sites. Elevations: 35-1640ft. (10-500m.) Blooms (Oct)Dec-Aug.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. However, there are no CNDDB occurrences within five miles of the Study Area.
Galium catalinense ssp. *catalinense* Santa Catalina Island bedstraw	None/None G4T2/S2 1B.3	Perennial deciduous shrub. Chaparral, coastal scrub. Mostly known from rocky see bluffs. Elevations: 15-1445ft. (5-440m.) Blooms Feb-Jul.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. All CNDDB occurrences within five miles of the Study Area are over 25 years old.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Gambelia speciosa showy island snapdragon	None/None G3/S3 1B.2	Perennial shrub. Coastal scrub. Rocky cliffs and canyons. Elevations: 0-2955ft. (0-900m.) Blooms Feb-May.	Not Expected	Limited disturbed coastal scrub habitat and rocky cliffs occur within the Study Area. All CNDDB occurrences within five miles of the Study Area are over 25 years old.
Isocoma menziesii var. *decumbens* decumbent goldenbush	None/None G3G5T2T3/S2 1B.2	Perennial shrub. Chaparral, coastal scrub. Sandy soils; often in disturbed sites. Elevations: 35-445ft. (10-135m.) Blooms Apr-Nov.	Moderate Potential	Limited disturbed coastal scrub habitat occurs within the Study Area. A 2011 occurrence recorded over 29 plants in disturbed areas approximately one mile northwest of the Study Area.
Lavatera assurgentiflora ssp. *assurgentiflora* island mallow	None/None G1T1/S1 1B.1	Perennial evergreen shrub. Coastal bluff scrub, coastal scrub. Sandy flats and rocky places. Mainland and Todos Santos Island plants probably planted. Elevations: 50-805ft. (15-245m.) Blooms Mar-Nov.	Not Expected	There are no CNDDB occurrences within five miles of the Study Area. There are no CNDDB occurrences within five miles of the Study Area. This species is not documented on Santa Catalina Island.
Lavatera assurgentiflora ssp. *glabra* southern island mallow	None/None G1T1/S1 1B.1	Perennial evergreen shrub. Coastal bluff scrub. One site says: in low dense thicket with Coreopsis, Malva parviflora, Opuntia, annual grasses. 3. Elevations: 15-820ft. (5-250m.) Blooms May-Sep.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. All CNDDB occurrences within five miles of the Study Area are over 25 years old.
Lonicera subspicata var. *subspicata* Santa Barbara honeysuckle	None/None G5T2?/S2? 1B.2	Perennial evergreen shrub. Chaparral, cismontane woodland, coastal scrub. Elevations: 35-3280ft. (10-1000m.) Blooms (Feb)May-Aug(Dec).	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. All CNDDB occurrences within five miles of the Study Area are over 25 years old.
Lyonothamnus floribundus ssp. *floribundus* Santa Catalina Island ironwood	None/None G3T2/S2 1B.2	Perennial evergreen tree. Broadleafed upland forest, chaparral, cismontane woodland. Rocky slopes and canyons, north exposures. Elevations: 245-1640ft. (75-500m.) Blooms May-Jun.	Not Expected	No broad-leafed upland forest or chaparral occurs within the Study Area. All CNDDB occurrences within five miles of the Study Area are over 25 years old.
Nemacaulis denudata var. *denudata* coast woolly-heads	None/None G3G4T2/S2 1B.2	Annual herb. Coastal dunes. Elevations: 0-330ft. (0-100m.) Blooms Apr-Sep.	Not Expected	No coastal dunes occur within the Study Area. There is only one CNDDB occurrence from 1903 within five miles of the Study Area.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Pentachaeta lyonii Lyon's pentachaeta	FE/SE G1/S1 1B.1	Annual herb. Chaparral, coastal scrub, valley and foothill grassland. Edges of clearings in chaparral, usually at the ecotone between grassland and chaparral or edges of firebreaks. Elevations: 100-2265ft. (30-690m.) Blooms (Feb)Mar-Aug.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There are no CNDDB occurrences within five miles of the Study Area. There is one recent occurrence in an adjacent quadrangle.
Phacelia lyonii Lyon's phacelia	None/None G2/S2 1B.2	Annual herb. Chaparral, coastal bluff scrub, coastal dunes, coastal scrub. Gravelly, Openings, Rocky, Talus. Elevations: 0-1510ft. (0-460m.) Blooms Apr-Oct.	Low Potential	Limited disturbed coastal scrub habitat and rocky cliffs occur within the Study Area. There are a few recent occurrences within 1.5 miles of the Study Area.
Pseudognaphalium leucocephalum white rabbit-tobacco	None/None G4/S2 2B.2	Perennial herb. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Sandy, gravelly sites. Elevations: 0-6890ft. (0-2100m.) Blooms (Jul)Aug-Nov(Dec).	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There are no CNDDB occurrences within five miles of the Study Area.
Ribes viburnifolium Santa Catalina Island currant	None/None G2?/S2? 1B.2	Perennial evergreen shrub. Chaparral, cismontane woodland. Dry shade areas such as under oaks or Large chaparral shrubs. Among shrubs in canyons. Elevations: 100-1150ft. (30-350m.) Blooms Feb-Apr.	Low Potential	No chaparral or cismontane woodland occurs within the Study Area. There are several CNDDB occurrences within five miles of the Study Area. The most recent occurrence was in 2002 within 0.5 miles of the Study Area.
Scrophularia villosa Santa Catalina figwort	None/None G3/S3 1B.2	Perennial shrub. Chaparral, coastal scrub. Rocky canyons. Elevations: 150-1675ft. (45-510m.) Blooms Apr-Aug.	Not Expected	Limited disturbed coastal scrub habitat and rocky cliffs occur within the Study Area. There are no CNDDB occurrences within five miles of the Study Area.
Senecio aphanactis chaparral ragwort	None/None G3/S2 2B.2	Annual herb. Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. Elevations: 50-2625ft. (15-800m.) Blooms Jan-Apr(May).	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There is only one CNDDB occurrence from 1901 within five miles of the Study Area.
Sibara filifolia Santa Cruz Island winged-rockcress	FE/None G2/S2 1B.1	Annual herb. Coastal scrub. Shady slopes; rocky, volcanic soils. Elevations: 195-1000ft. (60-305m.) Blooms (Feb)Mar-Apr.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There is only one CNDDB occurrence from 1901 within five miles of the Study Area.
Solanum wallacei Wallace's nightshade	None/None G3Q/S2 1B.1	Perennial herb. Chaparral, cismontane woodland. Canyons; rocky sites. Elevations: 10-1345ft. (3-410m.) Blooms Mar-Aug.	Not Expected	No chaparral or cismontane woodland occurs within the Study Area. All CNDDB occurrences within five miles are over 25 years old.

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Tortula californica California screw moss	None/None G2G3/S2? 1B.2	Moss. Chenopod scrub, valley and foothill grassland. Moss growing on sandy soil. Elevations: 35-4790ft. (10-1460m.)	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. There is one CNDDB occurrence within five miles of the Study Area that was over 25 years old.

Regional Vicinity refers to within an 8-quad search radius of the Study Area.

Status (Federal/State)

FE = Federal Endangered
FT = Federal Threatened
FPE = Federal Proposed Endangered
FPT = Federal Proposed Threatened
FD = Federal Delisted
FC = Federal Candidate
SE = State Endangered
ST = State Threatened
SCE = State Candidate Endangered
SCT = State Candidate Threatened
SR = State Rare
SD = State Delisted
SSC = CDFW Species of Special Concern
FP = CDFW Fully Protected
WL = CDFW Watch List

CRPR (CNPS California Rare Plant Rank)

1A = Presumed extirpated in California, and rare or extinct elsewhere
1B = Rare, Threatened, or Endangered in California and elsewhere
2A = Presumed extirpated in California, but common elsewhere
2B= Rare, Threatened, or Endangered in California, but more common elsewhere

CRPR Threat Code Extension

.1 = Seriously endangered in California (>80% of occurrences threatened/ high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% of occurrences threatened/ moderate degree and immediacy of threat)
.3 = Not very endangered in California (<20% of occurrences threatened/ low degree and immediacy of threat)

Other Statuses

G1 or S1 Critically Imperiled Globally or Subnationally (state)
G2 or S2 Imperiled Globally or Subnationally (state)
G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)
G4/5 or S4/5 Apparently secure, common and abundant
GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

Special-status Wildlife Species in the Regional Vicinity of the Study Area

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Invertebrates				
Cicindela hirticollis gravida sandy beach tiger beetle	None/None G5T2/S2	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico. Clean, dry, light-colored sand in the upper zone. Subterranean larvae prefer moist sand not affected by wave action.	Not Expected	Suitable habitat does not occur within the Study Area. This species is possibly extirpated according to the CNDDB record.
Coelus globosus globose dune beetle	None/None G1G2/S1S2	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico. Inhabits foredunes and sand hummocks; it burrows beneath the sand surface and is most common beneath dune vegetation.	Not Expected	Suitable habitat does not occur within the Study Area. This species was presumed to be on the island in a 1976 paper, but no collections or other CNDDB records exist.
Haplotrema catalinense Santa Catalina lancetooth	None/None G1/S1	Occurs only on Santa Catalina Island. .	Not Expected	There is only one CNDDB record with an unknown date.
Pristiloma shepardae Shepard's snail	None/None G1/S1	Known only from Santa Catalina, Santa Cruz, San Clemente, Anacapa, and Santa Rosa islands. Usually found in moist leaf litter.	Not Expected	This species is usually found in moist leaf litter that does not occur within the Study Area.
Radiocentrum avalonense Catalina mountainsnail	None/None G1/S1	Known only from southeast end of Santa Catalina Island. Coastal sage scrub habitats dominated by Salvia and Opuntia.	Not Expected	Limited disturbed coastal scrub habitat occurs within the Study Area. All CNDDB occurrences within five miles are over 25 years old.
Sterkia clementina San Clemente Island blunt-top snail	None/None G1/S1S2	Known only from San Clemente, San Nicolas, Santa Catalina, and Santa Barbara islands. Inhabits the undersides of rocks or the soil beneath iceplant.	Not Expected	Suitable habitat does not occur within the Study Area. There is only one CNDDB occurrence within five miles and it is over 25 years old.
Reptiles				
Thamnophis hammondii two-striped gartersnake	None/None G4/S3S4 SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	Not Expected	Suitable habitat does not occur within the Study Area. All CNDDB occurrences within five miles of the Study Area are over 25 years old.

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Birds				
Athene cunicularia burrowing owl	None/SCE G4/S2 SSC	Natural and modified habitats typically characterized by low growing vegetation. Preferred habitat includes, but is not limited to, native and non-native grassland, interstitial grassland within shrub lands, shrub lands with low density shrub cover, and urbanized environments.	Low Potential (Low Nesting Potential)	Potentially suitable burrows were not observed during the field reconnaissance survey. However, species that may excavate suitable burrows (e.g., foxes, skunks, etc.) can occur in the Study Area. Burrowing owl observations on citizen science databases (e.g., iNaturalist) have occurred on Catalina Island but are not recorded in the CNDDB. Ongoing activities at the PBL may deter burrowing owl activity from the Study Area.
Haliaeetus leucocephalus bald eagle	FD/SE G5/S3 FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Low Potential (No Nesting Potential)	A bald eagle observation was made on eBird on October 25, 2023, within the Study Area. Furthermore, there are two occurrences from 2002 approximately two miles from the Study Area. The species has high potential to fly over within the Study Area and this species has a low potential to nest within the Study Area.
Phalacrocorax auritus double-crested cormorant	None/None G5/S4 WL	Colonial nesters on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	Low Potential (No Nesting Potential)	This species was observed flying over the coastline outside of the Study Area during the field reconnaissance survey. There is a low potential for the species to nest within the Study Area. The highly disturbed nature of the Study Area is not suitable for nesting; however, this species does have a high potential to fly over within the Study Area.
Synthliboramphus scrippsi Scripps's murrelet	None/ST G2/S2	Open ocean except during breeding season. Breeds on offshore islands in Southern California. Nests in rock crevices, under bushes, in old burrows and among man-made debris.	Low Potential (No Nesting Potential)	Some suitable rock crevices and bushes occur within the Study Area. However, there are no CNDDB occurrences within five miles of the Study Area.
Mammals				
Corynorhinus townsendii Townsend's big-eared bat	None/None G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open,	Not Expected	Suitable habitat does not occur within the Study Area. The CNDDB occurrences are from collections made in the 1940s.

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
		hanging from walls & ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.		
Sorex ornatus willetti Santa Catalina shrew	None/None G5T1/S1 SSC	Santa Catalina Island. Larger stream-bearing canyons of valley foothill riparian. Prefers moist areas. Uses stumps, logs, and litter for cover.	Not Expected	Suitable habitat does not occur within the Study Area. According to CNDDB this species is possibly extirpated.
Urocyon littoralis catalinae Santa Catalina Island fox	FT/ST G3T1/S2	Found only on Santa Catalina Island. Mixed chaparral, coastal scrub and shrubby woodland. Prefers more complex, layered vegetation with a high density of woody, perennial fruiting shrubs, and rocky places for cover.	Moderate Potential	Limited disturbed coastal scrub habitat occurs within the Study Area. The species has a moderate potential of foraging within the Study Area.

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2B= Rare, Threatened, or Endangered in California, but more common elsewhere
3 = Need more information (Review List)
4 = Limited Distribution (Watch List)

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G4/5 or S4/5 Apparently secure, common and abundant
GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

Additional notations may be provided as follows
T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)
? – Inexact numeric rank Q – Questionable taxonomy that may reduce conservation priority

Appendix F

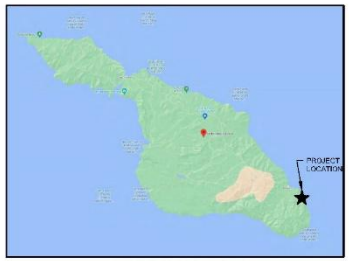
Conceptual Project Design

PEBBLY BEACH LANDFILL

SITE LIFE OPTIMIZATION
DESIGN REPORT DRAWINGS

MARCH 2024

CALIFORNIA COUNTIES



REGIONAL MAP

VICINITY MAP

SHEET INDEX

G01 TITLE
G02 EXISTING SITE CONDITIONS AND PROJECT SITE PLAN
C01 PROPOSED FINAL GRADING PLAN
C02 PROPOSED FINAL GRADING PLAN ISOPACH
C03 REPRESENTATIVE CROSS SECTION
C04 GRADING DETAILS

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN AND ANY OTHER LINES OR STRUCTURES NOT SHOWN ON THESE PLANS.

CONTRACTOR FURTHER AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD GOVERNMENT AGENCIES, THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

GEOTECHNICAL ENGINEER AND ENGINEERING GEOLOGIST STATEMENT

THIS PLAN HAS BEEN REVIEWED AND CONFORMS TO RECOMMENDATIONS OF SOILS ENGINEERING/GEOLOGIC REPORTS DATED MARCH 2020 WITH JUNE 2020 ADDENDUM.

DATE: _____ DATE: _____

SIGNATURE: _____ SIGNATURE: _____

CIVIL ENGINEER

GEO-LOGIC ASSOCIATES
2777 EAST GUASTI ROAD
ONTARIO, CA 91761
PHONE: (909) 628-2282
WWW.GEO-LOGIC.COM

GEOTECHNICAL ENGINEER/
ENGINEERING GEOLOGIST

GEO-LOGIC ASSOCIATES
2777 EAST GUASTI ROAD
ONTARIO, CA 91761
PHONE: (909) 628-2282
WWW.GEO-LOGIC.COM

ISSUED FOR PERMIT

REFERENCE AERIAL TOPO BASED ON SEPTEMBER 29, 2021 AERIAL SURVEY BY JON READ CORPORATION

REV NO	DATE	DESCRIPTION	APPROVED BY

DATE OF ISSUE: MARCH 2024
DESIGNED BY: D. HARICH
CAD DESIGN BY: L. PADILLA
CHECKED BY: D. HARICH
APPROVED BY: D. HARICH

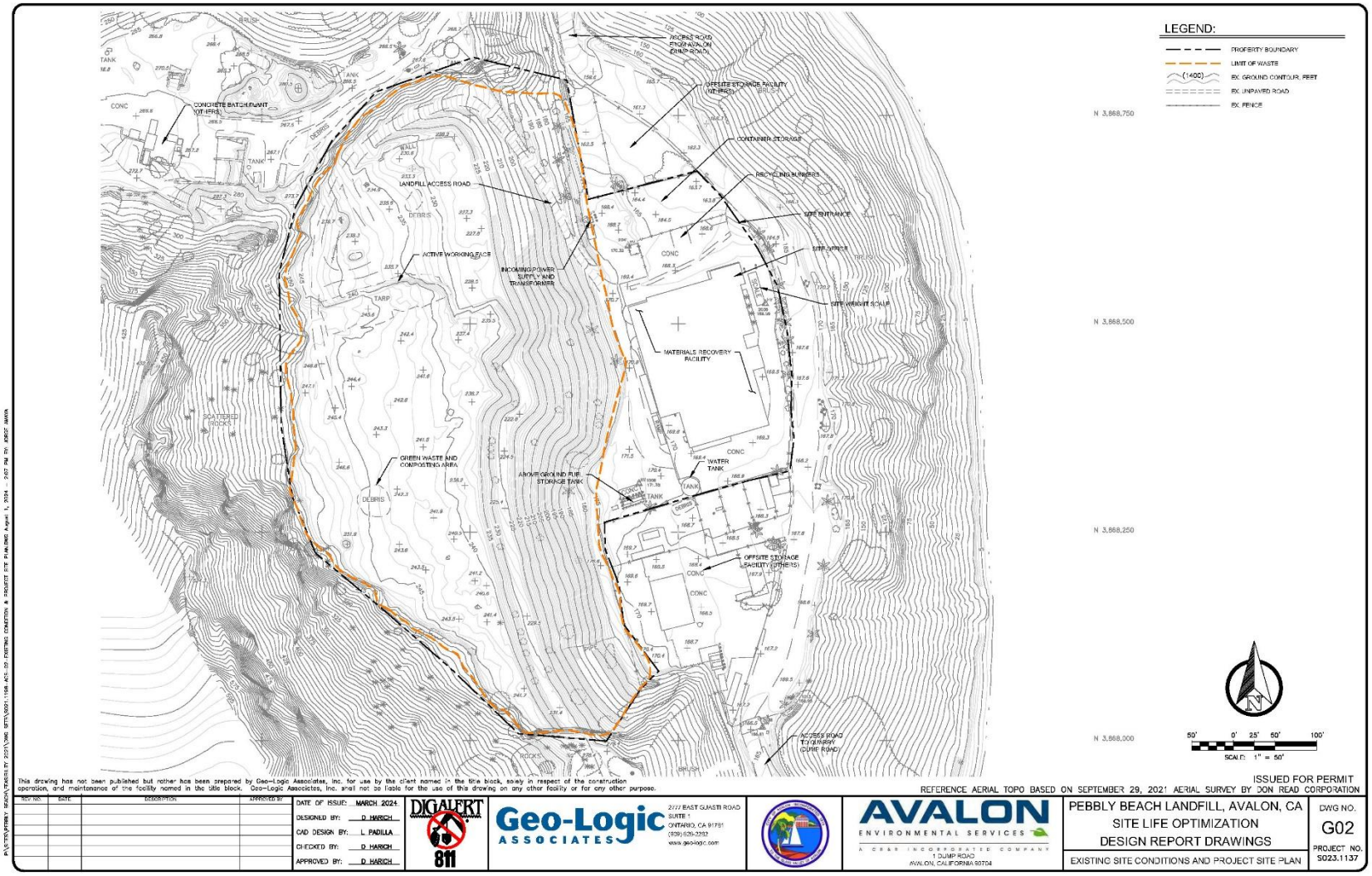
DIGALERT 811

Geo-Logic ASSOCIATES
2777 EAST GUASTI ROAD
SUITE 1
ONTARIO, CA 91761
(909) 628-2282
www.geo-logic.com

AVALON ENVIRONMENTAL SERVICES
A CRAB INCORPORATED COMPANY
1 DUMP ROAD
AVALON, CALIFORNIA 90704

PEBBLY BEACH LANDFILL, AVALON, CA
SITE LIFE OPTIMIZATION
DESIGN REPORT DRAWINGS
TITLE

DWG NO. G01
PROJECT NO. 5023.1137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PROPERTY BOUNDARY
LIMIT OF WASTE
(1400) EX. GROUND CONTOUR, FEET
EX. UNPAVED ROAD
EX. FENCE
ACCESS ROAD FROM AVALON DUMP ROAD
OFFSITE STORAGE FACILITY (OTHERS)
CONCRETE BATCH PLANT (OTHERS)
CONTAINER STORAGE
RECYCLING BINS
SITE ENTRANCE
SITE OFFICE
SITE WEIGHT SCALE
LANDFILL ACCESS ROAD
ACTIVE WORKING FACE
INCOMING POWER SUPPLY AND TRANSFORMER
MATERIALS RECOVERY FACILITY
GREEN WASTE AND COMPOSTING AREA
ABOVE GROUND FUEL STORAGE TANK
WATER TANK
OFFSITE STORAGE FACILITY (OTHERS)
ACCESS ROAD TO QUARRY (DUMP ROAD)
N 3,868,750
N 3,868,500
N 3,868,250
N 3,868,000
50' 0' 25' 50' 100'
SCALE: 1" = 50'
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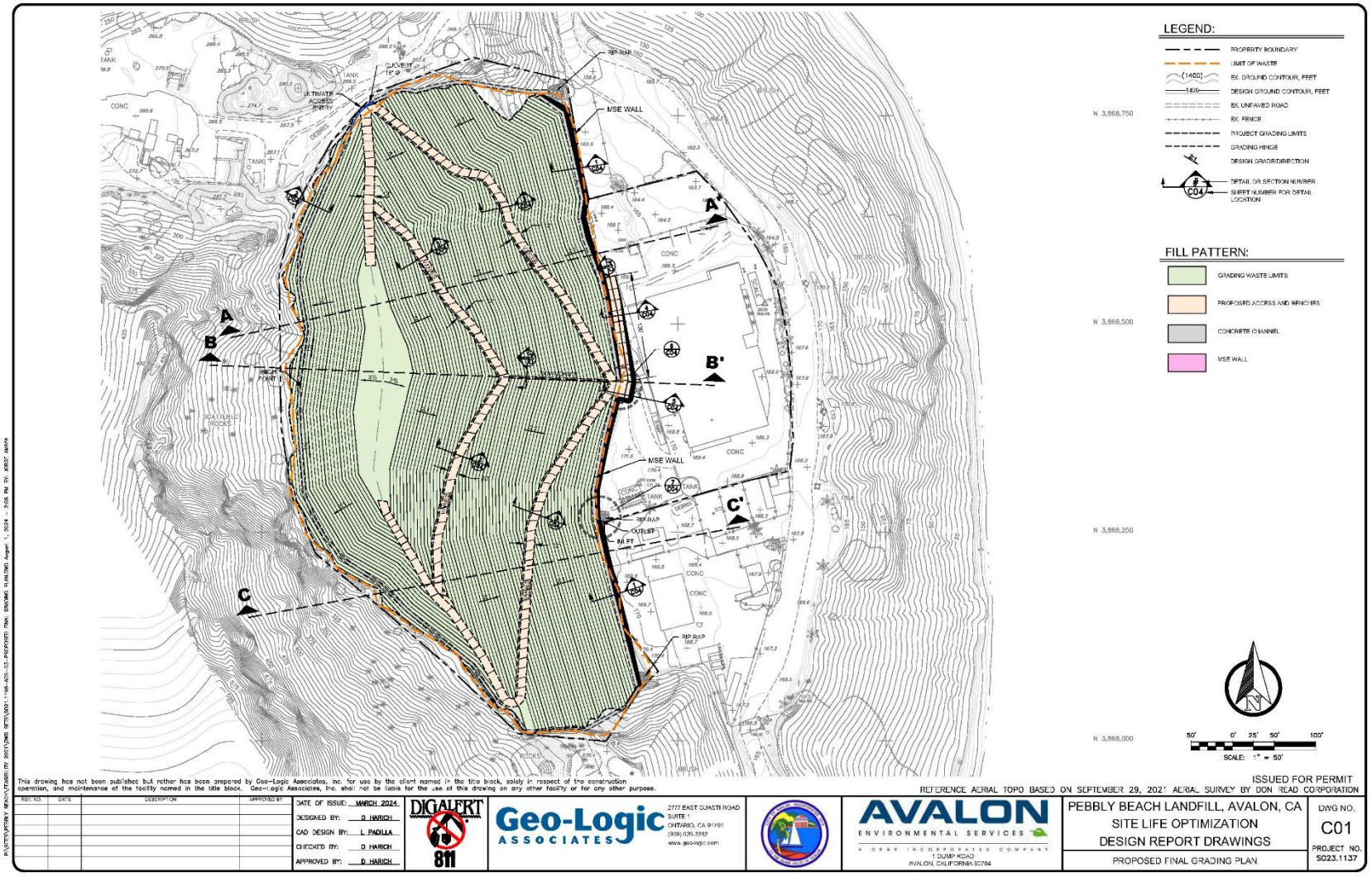
CAD DESIGN BY: L. PADILLA
CHECKED BY: D. HARICH
APPROVED BY: D. HARICH
DIGALERT 811
Geo-Logic ASSOCIATES
2777 EAST GUASTI ROAD SUITE 1 ONTARIO, CA 91761 (909) 626-2392 www.geo-logic.com
AVALON ENVIRONMENTAL SERVICES
A CR&R INCORPORATED COMPANY
1 DUMP ROAD AVALON, CALIFORNIA 90704
PEBBLY BEACH LANDFILL, AVALON, CA
SITE LIFE OPTIMIZATION
DESIGN REPORT DRAWINGS
EXISTING SITE CONDITIONS AND PROJECT SITE PLAN
DWG NO. G02
PROJECT NO. 5023.1137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PROPERTY BOUNDARY
LIMIT OF WASTE
(1400) EX. GROUND CONTOUR, FEET
1400 DESIGN GROUND CONTOUR, FEET
EX. UNPAVED ROAD
EX. FENCE
PROJECT GRADING LIMITS
GRADING HINGE
DESIGN GRADE/DIRECTION
DETAIL OR SECTION NUMBER
SHEET NUMBER FOR DETAIL LOCATION
FILL PATTERN:
GRADING WASTE LIMITS
PROPOSED ACCESS AND BENCHES
CONCRETE CHANNEL
MSE WALL
N 3,868,750
N 3,868,500
N 3,868,250
N 3,868,000
A
A'
B
B'
C
C'
MSE WALL
RIP-RAP
CULVERT
ULTIMATE ACCESS ENTRY
SCALE: 1" = 50'
ISSUED FOR PERMIT
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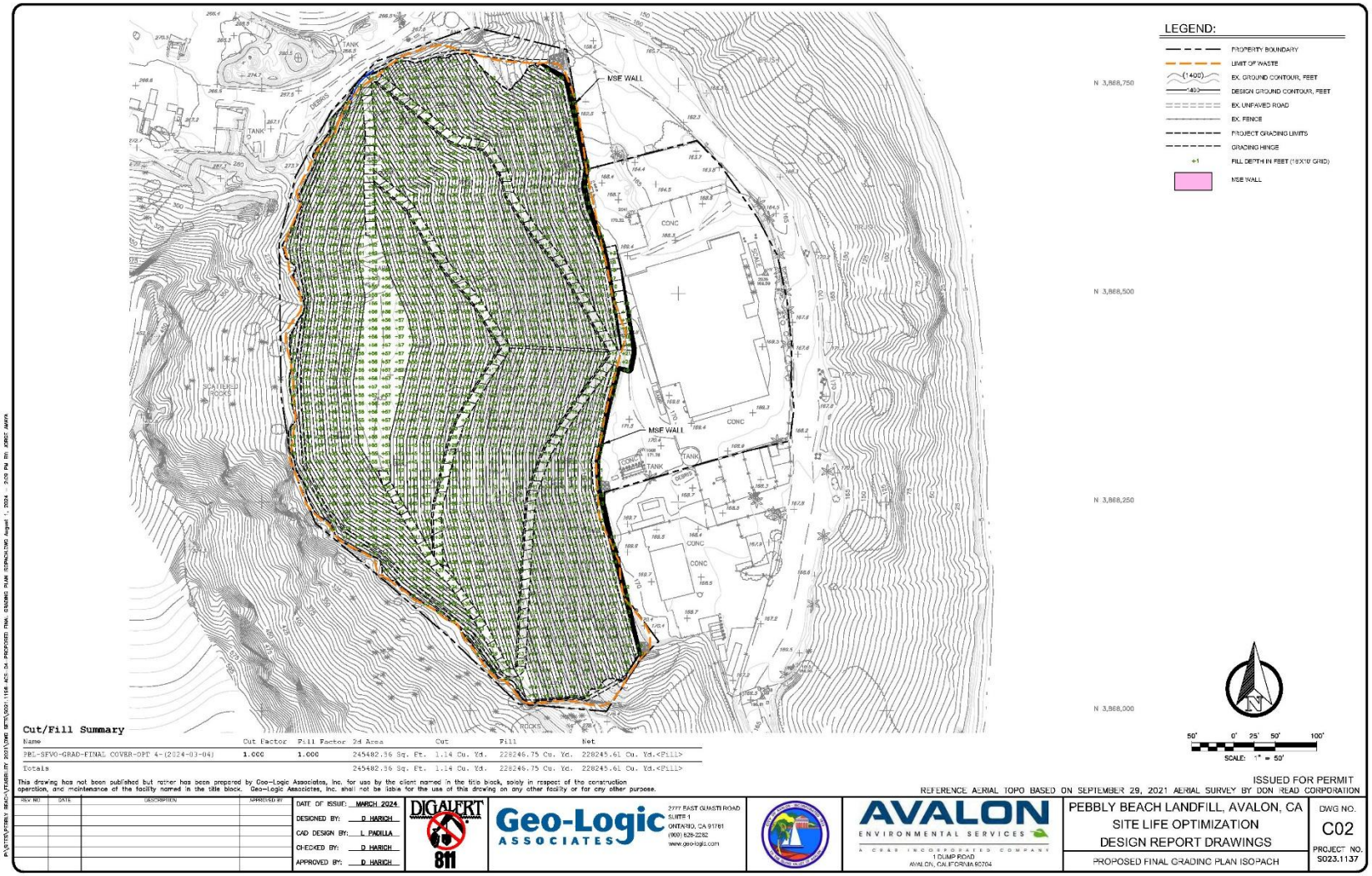
PROPOSED FINAL GRADING PLAN
DWG NO. C01
PROJECT NO. S023.1137


LEGEND:
PROPERTY BOUNDARY
LIMIT OF WASTE
EX. GROUND CONTOUR, FEET
DESIGN GROUND CONTOUR, FEET
EX. UNPAVED ROAD
EX. FENCE
PROJECT GRADING LIMITS
GRADING HINGE
FILL DEPTH IN FEET (15'X15' GRID)
MSE WALL
MSE WALL
MSE WALL
N 3,868,750
N 3,868,500
N 3,868,250
N 3,868,000
SCALE: 1" = 50'
Cut/Fill Summary
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Totals | | | 245482.36 Sq. Ft. | 1.14 Cu. Yd. | 228246.75 Cu. Yd. | 228245.61 Cu. Yd.<Fill>
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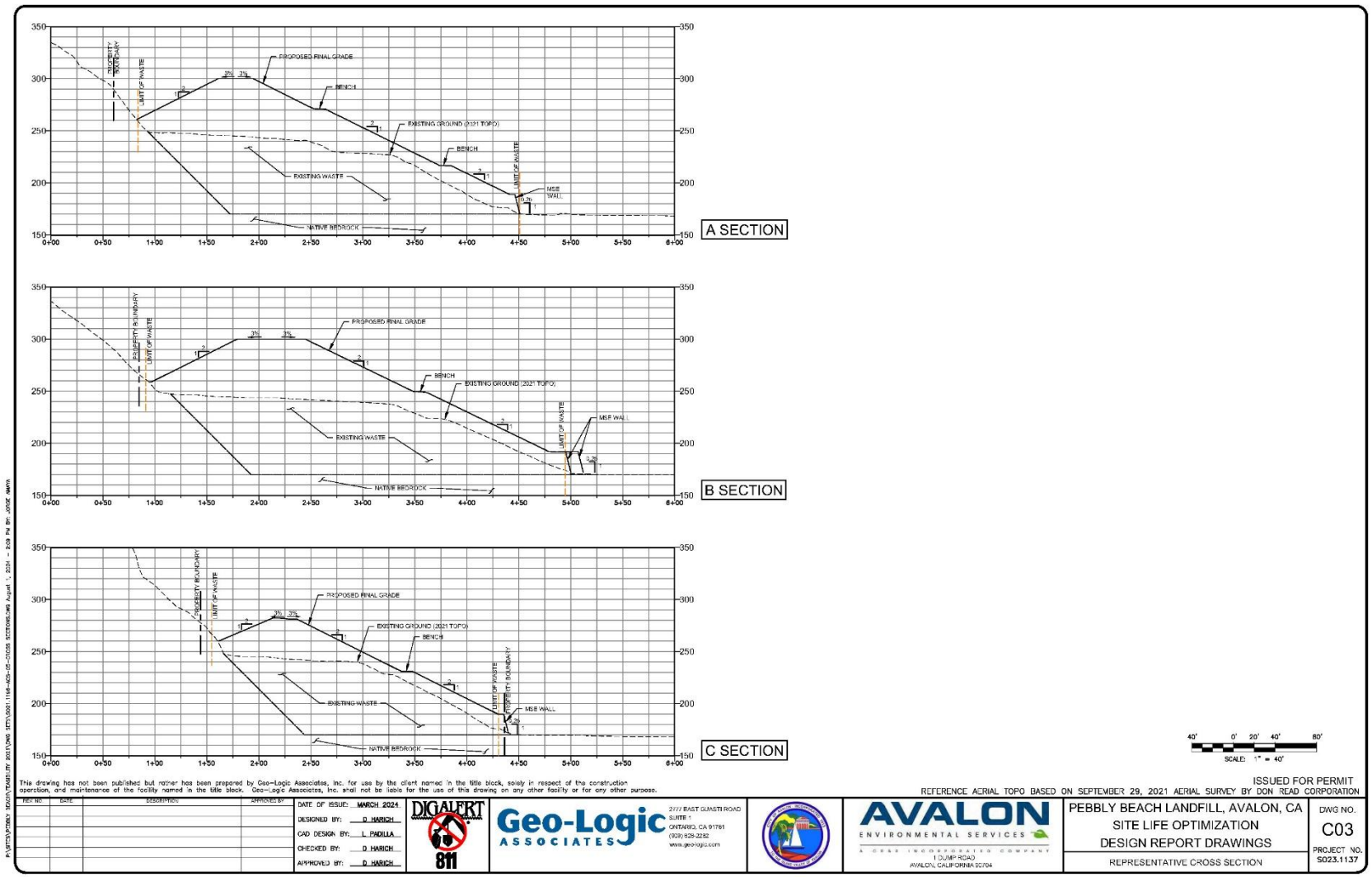
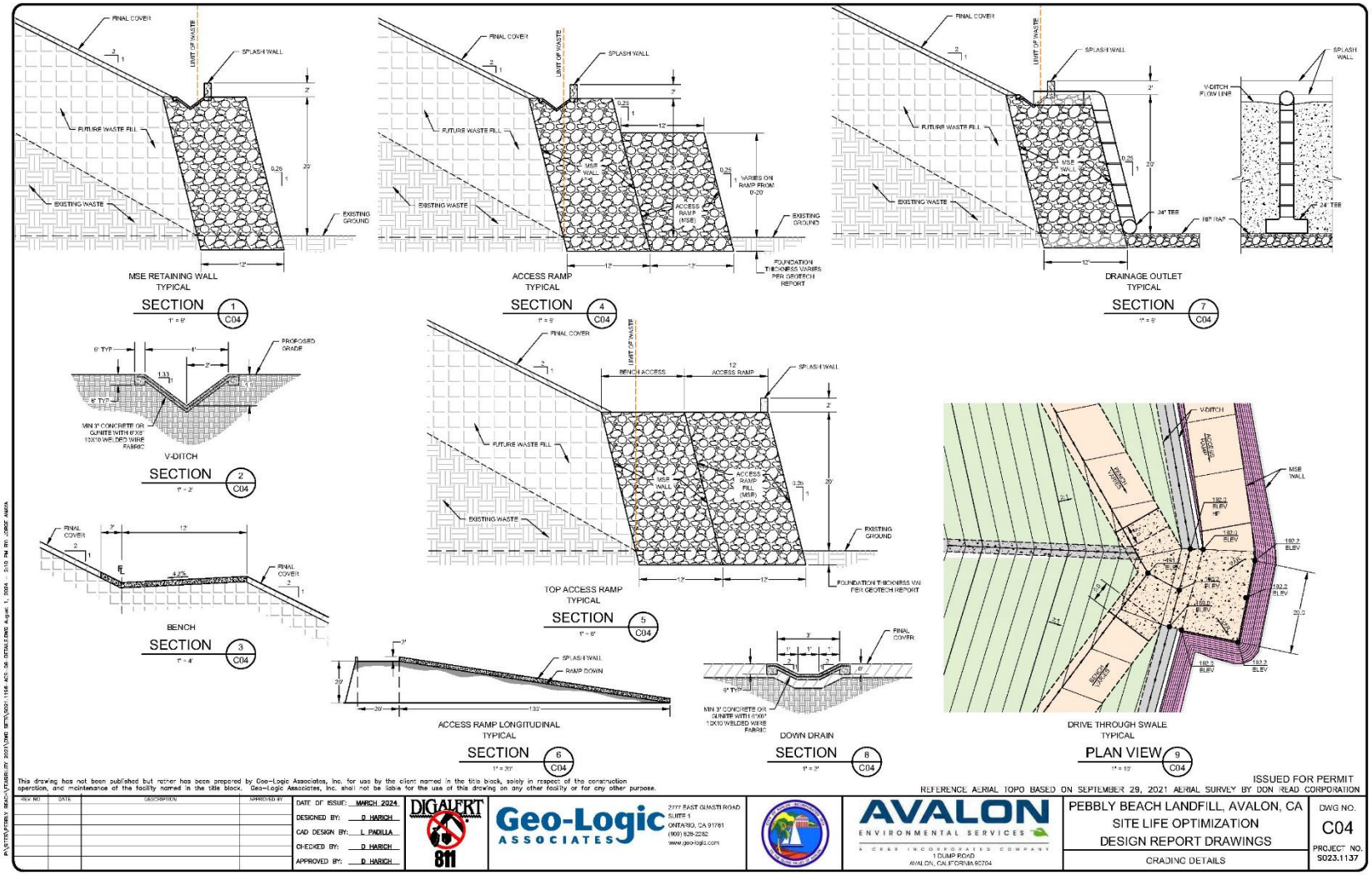
ISSUED FOR PERMIT
REFERENCE AERIAL TOPO BASED ON SEPTEMBER 29, 2021 AERIAL SURVEY BY DON READ CORPORATION
PEBBLY BEACH LANDFILL, AVALON, CA
SITE LIFE OPTIMIZATION
DESIGN REPORT DRAWINGS
PROPOSED FINAL GRADING PLAN ISOPACH
DWG NO. C02
PROJECT NO. S023.1137


A SECTION
B SECTION
C SECTION
PROPERTY BOUNDARY
LIMIT OF WASTE
PROPOSED FINAL GRADE
BENCH
EXISTING GROUND (2021 TOPO)
EXISTING WASTE
MSE WALL
NATIVE BEDROCK
SCALE: 1" = 40'
ISSUED FOR PERMIT
REFERENCE AERIAL TOPO BASED ON SEPTEMBER 29, 2021 AERIAL SURVEY BY DON READ CORPORATION
This drawing has not been published but rather has been prepared by Geo-Logic Associates, Inc. for use by the client named in the title block, solely in respect of the construction operation, and maintenance of the facility named in the title block. Geo-Logic Associates, Inc. shall not be liable for the use of this drawing on any other facility or for any other purpose.
DATE OF ISSUE: MARCH 2024
DESIGNED BY: D HARICH
CAD DESIGN BY: L PADILLA
CHECKED BY: D HARICH
APPROVED BY: D HARICH
Geo-Logic ASSOCIATES
2777 EAST GUASTI ROAD SUITE 1 ONTARIO, CA 91761 (909) 628-2282 www.geologic.com
AVALON ENVIRONMENTAL SERVICES
1 DUMP ROAD AVALON, CALIFORNIA 90704
PEBBLY BEACH LANDFILL, AVALON, CA
SITE LIFE OPTIMIZATION
DESIGN REPORT DRAWINGS
REPRESENTATIVE CROSS SECTION
DWG NO. C03
PROJECT NO. S023.1137


FINAL COVER
SPLASH WALL
FUTURE WASTE FILL
EXISTING WASTE
EXISTING GROUND
MSE RETAINING WALL TYPICAL
SECTION 1 C04
ACCESS RAMP TYPICAL
SECTION 4 C04
DRAINAGE OUTLET TYPICAL
SECTION 7 C04
V-DITCH
SECTION 2 C04
BENCH
SECTION 3 C04
TOP ACCESS RAMP TYPICAL
SECTION 5 C04
ACCESS RAMP LONGITUDINAL TYPICAL
SECTION 6 C04
DOWN DRAIN
SECTION 8 C04
DRIVE THROUGH SWALE TYPICAL
PLAN VIEW 9 C04
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Geo-Logic ASSOCIATES
AVALON ENVIRONMENTAL SERVICES
PEBBLY BEACH LANDFILL, AVALON, CA
SITE LIFE OPTIMIZATION
DESIGN REPORT DRAWINGS
GRADING DETAILS
DWG NO. C04
PROJECT NO. S023.1137