PUBLIC REVIEW DRAFT

Watermark Del Mar Specific Plan
Environmental Impact Report

Prepared for:

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EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This Executive Summary provides a brief synopsis of: 1) the proposed project Options A and B, 2) results of the environmental analysis contained within this environmental document, 3) alternatives to the proposed project Options that were considered, and 4) major areas of controversy and issues to be resolved by decision-makers. This summary does not contain the extensive background and analysis found throughout the individual chapters within the EIR. Therefore, the reader should review the entire document to fully understand the project and its environmental consequences.

ES.2 SUMMARY OF THE PROPOSED PROJECT

The City of Del Mar (City) prepared this EIR to provide the public and responsible agencies with information about the potential adverse effects on the environment associated with the proposed Watermark Del Mar Specific Plan (WDMSP Option A and Option B). The proposed Options are intended to create a regulatory framework in the form of a specific plan to govern development of the subject property as a high-quality multi-family residential development in a manner that implements the goals of the Del Mar Community Plan and, in particular, the Housing Element.

The proposed project Options are located on 2.37 acres (Assessor's Parcel Numbers 299-100-47 and 299-100-48) on the southern corner of the intersection of Jimmy Durante Boulevard and San Dieguito Drive. The existing site is vacant and is currently used for limited paid fairground and racetrack parking. Historic grading of the natural bluffs occurred along the southeastern edge of the property. The site presently has a commercial land use designation and entitlements as approved in the Riverview EIR which was approved 2007 (SCH #2005061143) in the North Commercial Zone, which allows a variety of commercial uses up to 23,120 square feet. There are also three overlay designations applicable to some or all of the property: Bluff, Slope, and Canyon Overlay; Floodplain Overlay; and Lagoon Overlay Zone.

The project proposes a multi-family residential development consisting of two options: Option A would include 48 residential units (**Figure 3-5**) built over a partially subterranean parking garage, and Option B would include 38 residential units built over a partially subterranean parking garage (**Figure 3-6**). For a side-by-side comparison of Option A and Option B, see **Table 3-1**. Both Options would include a recreation room, a pool, a spa area, and associated maintenance and administrative facilities. Both Options would provide a secured parking structure partially underground on the 2.37-acre site with a vehicular access point from San Dieguito Drive. Option A would have 108 stalls and Option B would have 100 stalls. Each Option would allow for the continuation of paid parking for Del Mar Fairground events until building permits are issued for the chosen development Option.

The Option A and Option B Specific Plans (**Appendix A**) each provide a description of the proposed land use and infrastructure requirements, and describe guidelines and standards for site development (see Chapter 6 in both Specific Plans). As a regulatory document, the Option A and Option B Specific Plans create new zoning for the project site that would regulate the permitted uses, density, height, and other aspects. Under either Option, the zone would be designated on the City of Del Mar's zoning map as WDMSP. Section 5 of the Specific Plan for both Options includes the development regulations that would govern the project site, and Sections 6 include the design standards that would ensure the quality and character envisioned for the development.

This EIR was prepared in accordance with CEQA (California Public Resources Code, Section 21000 et seq.), the CEQA Guidelines (14 California Code of Regulations (CCR) 15000 et seq.), and the City's environmental review procedures. The City is the lead agency for the EIR and for processing of the proposed project. According to Section 21002.1(a) of the CEQA statute, "The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided." CEQA also establishes mechanisms whereby the public and decision makers can be informed about the nature of the project being proposed, and the extent and types of impacts that the project and its alternatives would have on the environment if they were to be implemented. This EIR was prepared to comply with all criteria, standards, and procedures of the CEQA Guidelines (14 CCR 15000 et seq.).

This EIR provides decision makers, public agencies, and the public with detailed information about the potential for significant adverse environmental impacts to occur as a result of Option A or Option B.

Responsible agencies can use this EIR to fulfill their legal authority associated with permits issued for the proposed project. The analysis and findings in this document reflect the independent judgment of the City.

ES.2.1 Project Description

A density of 20 to 25 dwelling units per acre is defined as an objective for this site in the City of Del Mar Housing Element, because it is currently vacant and large enough to accommodate such a density (City of Del Mar 2013). There are no other large lot opportunities within the City to meet the inventory requirements of the Regional Housing Needs Assessment (RHNA). Due to the fact that a density of 20 to 25 dwelling units per acre is associated with multi-family residential, it is reasonable to assume that future multi-family units on this site could include affordable housing units, as mandated by the State.

Option A

Option A would include 48 residential units, seven of which would be affordable, on 103,282 square feet (approximately 2.37 acres) of gross land area for a maximum density of 20.5 dwelling units per acre. The proposed 20.5 dwelling-units-per-acre density is at the very low end of the City of Del Mar Community Plan Housing Element's prescribed density range.

Option A would provide for a residential building footprint of 62,941 square feet and a total lot coverage of approximately 45%. The lot coverage calculation for Option A does not include the parking structure floor area (non-habitable building area). Option A proposes a floor area ratio of 0.65 based on 63,541 square feet of floor area (habitable building area) on net land area of 103,237 square feet.

The proposed structures would be situated on the site to provide a minimum 10-foot setback from the adjacent residentially zoned properties. The design considers no additional setback required where the structures would be adjacent to the public right-of-way along Jimmy Durante Boulevard and San Dieguito Drive. The residential units provided would be a mix of studio, one-bedroom, two-bedroom, and three-bedroom units.

Option B

Under Option B, the project design has been modified to address input received during various community workshops on the project. The Specific Plan for Option B has been modified along with revised design plans to incorporate changes in response to concerns raised.

This option includes modifications to the building placement on the site, which was of particular concern as viewed from Jimmy Durante Boulevard. The changes to the buildings that front on this street include modifications to the setbacks on the first and second floors, adding building separation between the units as well as reconfiguring the pool area to eliminate the masonry columns and trellis at the corner of San Dieguito Drive and Jimmy Durante Blvd, replacing them with additional trees and landscaping. The open areas internal to the site have been enlarged. The parking provided on site has also been increased to be above standard requirements, based on concerns that there was no on-street parking in the immediate area. The result of all these changes is that the total unit count would be reduced by 10, to 38 housing units.

Option B would include 38 residential units, six of which would be affordable, on 103,282 square feet (approximately 2.37 acres) of gross land area for a maximum density of 16.1 dwelling units per acre. The proposed 16.1 dwelling-units-per-acre density is below the City of Del Mar Community Plan Housing Element's prescribed density range. However, the City is required to be in substantial compliance with the statutory requirements of the housing element law and Option B's 16.1 dwelling-units-per-acre density would constitute substantial compliance.

Option B would provide for a building footprint of 60,660 square feet and a total lot coverage of approximately 45%. Similar to Option A, the lot coverage calculation for Option B does not include the parking structure floor area (non-habitable building area). Option B proposes a floor area ratio of 0.62 based on 61,860 square feet of floor area (habitable building area) on net land area of 103,237 square feet.

The proposed structures would be situated on the site to provide a minimum 15-foot setback from the adjacent residentially zoned properties. The design considers no additional setback required where the structures would be adjacent to the public right-of-way along Jimmy Durante Boulevard. However, unlike Option A, Option B would provide an additional 10-foot setback adjacent to the public right-of-way along San Dieguito Drive. The residential units provided would be a mix of studio, one-bedroom, two-bedroom, and three-bedroom units.

ES.3 STATEMENT OF PROJECT OBJECTIVES

The WDMSP Option A includes the following objectives as stated by the project's applicant:

1. Promote a quality multifamily residential community consistent with the goals and policies of the Del Mar Community Plan.
2. Establish an appropriate land use designation which serves the housing needs of current and future residents to achieve a density of 20 to 25 units per acre.
3. Provide a range of affordable housing units within the project to help meet the City of Del Mar's goals for such units.
4. Preserve natural and previously undisturbed bluffs within the Site and protect and preserve on-site wetlands.
5. Establish development standards and design regulations to achieve the multifamily density specified by the Housing Element while addressing the physical site constraints including drainage and flood protection, and providing for visually attractive landscaping, architecture, and site amenities.
6. Create a multi-family residential development with pedestrian linkage and walkability to trails, parks, beaches, businesses, and restaurants that serve the local community.
7. Provide parking for all the residential units that screens automobiles from view from the public right of way, minimizes lighting impacts, provides secure off-street parking, and serves to provide a podium building level safely above the Base Flood Elevation for residential units while minimizing impacts and disturbance to ground water.
8. Provide residential units through the condominium subdivision process with units constructed to for-sale standards. As part of the condominium process, a Homeowners' Association will be established with responsibility to manage common areas and

implement covenants, conditions, and restrictions (CC&Rs) for the development. CC&Rs will be developed to regulate potential impacts, including, but not limited to, those from noise, light and glare, parking, short-term vacation rentals, and landscaping.

9. Establish a site and building design that enhances its location at one of the important entryways into the City of Del Mar.

The WDMSP Option B includes all the same project objectives as Option A, with the exception of number two, which would be revised under Option B to read as follows:

2. Establish an appropriate land use designation which serves the housing needs of current and future citizens to achieve a density that will support affordable housing goals for the community.

The specific plan process was selected to provide customized regulations that can accommodate the housing density at this site while establishing certainty for the community regarding development parameters, limitations for the planned use, and specific extraordinary public benefits otherwise not afforded by a zoning change.

ES.4 ISSUES OF CONCERN / AREAS OF CONTROVERSY

Based on the scope of the proposed project as described in the NOP, the following issues were determined to be potentially significant and are addressed in Chapter 4, Environmental Analysis, of this EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Land Use and Planning
- Noise
- Population and Housing
- Traffic and Circulation
- Greenhouse Gas Emissions
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Public Services
- Utilities, and Service Systems
- Recreation

ES.5 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

The proposed project would not result in significant unavoidable adverse impacts. All impacts would be reduced to below a level of significance.

ES.6 PROPOSED PROJECT ALETERNATIVES SUMMARY

ES.6.1 Alternatives Considered but Rejected

Alternative Locations

In accordance with CEQA Guidelines 15126.6(f)(2), an EIR may consider an alternative location for the proposed project, but is only required to do so if significant project effects would be avoided or substantially lessened by moving the project to another site. The City of Del Mar is substantially built-out and there is no other feasible site available within the City that would accommodate a project of the size proposed. The proposed project site would be an infill development project that would fulfill the objectives for the site as identified in the City of Del Mar Community Plan Housing Element 2013-2021 and certified by CA-HCD by establishing an appropriate land use designation which serves the housing needs of current and future residents. There are no other sites available in the immediate project vicinity which are large enough, have compatible General Plan designations/zoning, and which would avoid significant impacts.

ES.6.2 Alternatives Identified and Analyzed

Pursuant to CEQA Guidelines 15126.6, an analysis of alternatives is presented in this EIR document to provide decision makers with a range of reasonable alternatives to be considered. The Guidelines state that an EIR shall describe a reasonable range of alternatives that would avoid or substantially lessen any significant effects of the project, but need not consider every conceivable alternative. The discussion in this EIR focuses on five alternatives: the No Project No Build Alternative, Housing Element Residential Rezone Alternative, Riverview Office Alternative, North Commercial Zone Max FAR Alternative, and a Senior Housing Alternative..

The five alternatives present a reasonable range of alternatives to the proposed Options, and they are directed at avoiding or lessening environmental impacts of the Options as identified in this EIR. Together, or in combination, this range of alternatives addresses all of the significant impacts identified in the environmental analysis. The analysis of alternatives in this section focuses on effects found to be significant through the environmental analysis as discussed in this EIR. The following discussion provides the rationale for and characteristics of each of the alternatives addressed in this section, an analysis of the environmental effects associated with the proposed Options in comparison with each alternative, and the rationale for the proposed Options over the identified alternatives. An overall comparison of impacts with proposed alternative impacts can be seen in Table 8-1.

The site located is in the North Commercial (NC) Zone, and the Bluff, Slope and Canyon ("BSC") Overlay, Lagoon Overlay, and Floodplain Overlay Zones. The site is included in the City of Del Mar Community Plan Housing Element 2013-2021 as a site for Residential Zoning

Designation. The Housing Element was adopted by City Council on May 20, 2013 and Certified by the CA-HCD on June 6, 2013.

On the basis of the North Commercial Zone, as designated by the DMMC and the Community Plan, each of the alternatives will be assessed with regard to its land use compatibility with the site's applicable zoning.

According to CEQA Guidelines Section 15126.6(e), a No Project Alternative is required to be included in the range of alternatives. An EIR need not consider an alternative whose effects cannot be reasonably identified, whose implementation is remote or speculative, or one that would not achieve most of the basic project objectives. Finally, the Environmentally Superior Alternative shall be identified and if it is the No Project Alternative, the next Environmentally Superior Alternative shall be identified.

No Project No Build Alternative

Under the No Project No Build Alternative, the applicant would not undertake any reconstruction and the existing dirt lot would remain. The site would continue to operate as a seasonal Del Mar Fairgrounds and Racetrack paid parking lot. The No Project No Build Alternative would result in no impact or reduced impacts to the environmental resource areas considered within this EIR, compared to the Option A and Option B. However, the continued use of the project site as an intermittent parking lot would not be consistent with the existing North Commercial zoning designation, nor the proposed residential designation as identified in the Housing Element. No affordable housing units would be assigned, and no off-site improvements to the right of way would be undertaken.

Housing Element Residential Rezone Alternative

Under this alternative, rather than proposing a specific plan for the project site, the property would be rezoned from commercial to residential. In addition to a rezone, this alternative would require a Community Plan Amendment and LCPA to create a new land use category. Under this alternative, the project site would qualify for the State Housing Density Bonus. The concept is that when a developer includes designated affordable units in their project, they are eligible for an increase in the number of overall units they can build (the density bonus). The bonus units are above the density otherwise allowed for the property per the local zoning designation. Based on the certified Housing Element, rezone of the project site would allow for 20 dwelling units per acre or greater.

Under this alternative, 48 housing units could be proposed similar to Option A; however, since the property would be rezoned residential and would qualify for the housing density bonus, the developer would be entitled to a 35% increase in total units (17 units). Thus, 65 units could be constructed under this alternative with the application of the housing density bonus. Furthermore,

under a density bonus project, the developer could be entitled to waivers of development standards for height, parking, floor area ratio, and setbacks as necessary to achieve the desired density, subject to a determination of consistency with the City's certified LCP.

Riverview Office Alternative

The project site is the subject of the Riverview Office Project Final Environmental Impact Report (issued on April 25, 2008 - State Clearing House Number 2005061143), and two current discretionary permits (Design Review Board Permit DRB-08-28 and associated Land Conservation Permit LC-08-13). If the Riverview Office Alternative was selected, a 23,120 square foot office project would be developed. Construction would consist of two, irregularly-shaped, one- and two-story commercial office buildings, with associated parking, landscaping, access, and utilities, built on a commercially zoned lot. The office buildings would be no taller than 26 feet at their highest point above the current grade, and would be painted in earth-tones to blend into the surrounding natural habitat. The buildings would constitute 16% of the total area of the project site.

This alternative would be consistent with the existing North Commercial zoning designation, and would have a reduced development footprint compared to Option A and Option B. Additionally, this alternative would avoid slope development. However this alternative would have a greater traffic and circulation impact, and would not satisfy the City of Del Mar Housing Element.

North Commercial Zone Max FAR Alternative

Based on current Community Plan land use designation and zoning for the property, if the North Commercial Zone Max FAR Alternative was selected, an approximately 30,000-square-foot project could be developed. According to the Del Mar Municipal Code, the North Commercial zoning designation allows for an FAR of 30%. Thus, the 103,282-square-foot site would allow for development of a 30,985-square-foot project. Allowable uses on the project site under the North Commercial Zone include, but are not limited to, office space, appliance or automobile repair shops, blacksmith shops, garment manufacturing, physical recreation facilities, wholesale establishments, restaurants, and bars and cocktail lounges.

For comparison purposes, this alternative analysis assumes that the two individual parcels that make up the project site would each be developed with one commercial office space and one ancillary residential unit. Thus the two commercial office spaces and two ancillary residential units would total approximately 30,985 square feet. Similar to the Riverview Office Alternative, construction would consist of two, irregularly-shaped, one- and two-story commercial office buildings, with associated parking, landscaping, access, and utilities, built on both commercially zoned lots; however, this alternative would be slightly larger than the Riverview Office Alternative, because the project would be built to the maximum FAR allowed. The office buildings would be no taller than 26 feet at their highest point, and would be painted in earth-tones to blend into the surrounding natural habitat. The buildings would constitute 30% of the total area of both parcels.

This alternative would be consistent with the existing North Commercial zoning designation, and would have a reduced development footprint compared to Option A and Option B. However, this alternative would have a greater traffic and circulation impact, and would not satisfy the City of Del Mar Housing Element. Furthermore, although this alternative would propose a mix of commercial and residential land use designations, the addition of commercial uses would drastically decrease the amount of proposed residential units, resulting in no affordable housing.

Senior Housing Alternative

The Senior Housing Alternative assumes eight, single-level senior residential units housed in a two-story building with attached garages and twelve, two-story townhouses (non-senior restricted). Forty-nine (49) parking spaces (two for each unit, plus nine visitor spaces) would be provided on site, but would not be undergrounded similar to Options A and B. The site would be raised to 18 feet above sea level, and the buildings would be approximately 26 feet high. The site would need to be rezoned in order to accommodate senior housing as proposed in the alternative.

The Senior Housing Alternative appears similar to the development proposed under Option A and Option B: however due to the decreases in trip generation and parking needs of seniors (ITE Trip Manual), it would result in fewer environmental impacts related to noise, air quality, and biological resources. Seniors are addressed under the Special Needs Groups within the City of Del Mar Community Plan Housing Element. Page 20 of the Housing Element states, the limited income of many senior persons often makes it difficult for them to find affordable housing. Although the Senior Housing Alternative would require the site to be rezoned RM, R2 or RC, this alternative would be consistent with the senior housing needs of the Community Plan Housing Element.

ES.7 PUBLIC REVIEW FOR THE DRAFT EIR

This EIR will be made available to members of the public, agencies, and interested parties for a 45-day public comment period in accordance with Section 15105 of the CEQA Guidelines. Public comment on the EIR is intended to focus "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (14 CCR 15204). The Notice of Completion of the EIR will be filed with the State Clearinghouse as required by Section 15085 of the CEQA Guidelines. In addition, the Notice of Availability of the EIR will be distributed pursuant to Section 15087 of the CEQA Guidelines. Interested parties may provide comments on the EIR in written form. This EIR and all related technical appendices are available for review upon request during the 45-day public comment period at the following locations:

- Temporary City of Del Mar Address
  210 Jimmy Durante Boulevard, Suite #120
  Del Mar, California 92014

- City of Del Mar Public Library
  1309 Camino Del Mar
  Del Mar, California 92014
- City of Del Mar website
  http://www.delmar.ca.us/

Once the 45-day public comment period has concluded, the City will review all public comments on the EIR, provide written responses to comments, and authorize revisions to the EIR text, if necessary. The final Mitigation Monitoring and Reporting Program will be incorporated into the Final EIR. Mitigation measures contained in the EIR consider future monitoring requirements and are written in sufficient detail to address impacts of the proposed Options, referencing the appropriate implementing permits and plans. If one or more significant environmental impacts are determined, written findings for each of those significant effects, accompanied by an overriding justification and rationale for each finding in the form of a statement of overriding considerations, will also be included in the Final EIR, if necessary. The Final EIR will include all comment letters received, final written response to comments, and edits made to the EIR as a result of public review/comment. The findings of fact and statement of overriding considerations will be prepared at the same time as the Final EIR, if necessary.

ES.8 SUMMARY OF POTENTIAL IMPACTS AND MITIGATION

All impacts were found to be less than significant with the exception of the following. Each potentially significant impact identified in the table below is mitigatable and would be reduced to below a level of significance.

Threshold	Impact	Mitigation Measure	Impacts after Mitigation Measure
Aesthetics			
Would the project substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	Due to removal of 13 Torrey pines visual impacts could be potentially significant.	See Mitigation Measure BIO-2.	Less than Significant

Threshold	Impact	Mitigation Measure	Impacts after Mitigation Measure
		Biological Resources	
Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	The proposed project Options would impact 0.34 acre of disturbed southern coastal bluff scrub, which is considered sensitive habitat.	**BIO-1** The loss of 0.34 acre of disturbed southern coastal bluff scrub shall be mitigated at a 3:1 ratio (1.02 acres). Approximately 0.04 acre of southern coastal bluff scrub and 0.15 acre of disturbed southern coastal bluff scrub shall be conserved on site via a Land Conservation Easement. In addition, 0.19 acre of disturbed habitat shall be conserved on site via a Land Conservation Easement and monitored to ensure success. This currently disturbed habitat shall be the 50-foot wetland buffer to the coastal brackish marsh. The disturbed habitat shall be revegetated with southern coastal bluff scrub species that are deemed acceptable by the Fire Marshal, as this area shall also be within the fuel modification zone. The wetland buffer shall be maintained year round by the HOA. Any shrubs and trees shall be annually maintained to be free of dead material. Any trees planted ore recruited will be maintained so that their crown cover will be more than 30 feet from any structure. Tree crowns will be separated by twenty (20) feet and maintained to keep a separation of six feet between the ground fuels (shrubs and ground covers) and the lower limbs. All trees must be maintained to the current ANSI A300 standards and Fire Marshal requirements. With the exception of the removal of dead material, the above maintenance requirements shall not apply to native wetland species, which shall be avoided. The remaining 0.64 acre of required mitigation of southern coastal bluff scrub shall be mitigated at the Manchester Avenue Conservation Bank by purchasing 0.7 acre of Tier I habitat. Although this is not in-kind habitat mitigation, the tier level is the same and the bank is located within the Multiple Species Conservation Plan area.	Less than Significant
Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by	The proposed project would cause adverse impacts to two sensitive plant species on the proposed project site: 13 Torrey pine trees would be lost and approximately 40 Del Mar Mesa (or common) sand asters would be impacted.	**BIO-2**: According to the Multiple Species Conservation Plan, the only naturally occurring population of Torrey pines occurs at Torrey Pines State Preserve. As such, the Torrey pines on site are considered planted and are not naturally occurring. However, the Torrey pine is considered a significant visual resource in the Community Plan and therefore, for the loss or relocation of the 13 Torrey pine trees, the project proponent shall submit a Tree Removal Permit to the Design Review Board and City Council with the appropriate processing fee according to the City of Del Mar's Municipal Code Section	Less than Significant

Threshold	Impact	Mitigation Measure	Impacts after Mitigation Measure
the California Department of Fish and Game or U.S. Fish and Wildlife Service?		23.50.080. To mitigate for the impact to these 13 trees, the project proponent shall relocate five healthy Torrey pines on site; remove and replant two Torrey pines on site or pay a fee to the City of Del Mar's Tree Mitigation Fund in accordance with the City's Municipal Code Sections 23.50.080(C-10), 23.50.030(D)(2), and 23.50.090(A)(2); and the remaining six qualify for exemption and removal and the applicant is required to submit a Notice of Intent in accordance with the City's Municipal Code Sections 23.50.040.	
		BIO-3: For the impacts to the 40 Del Mar Mesa Sand Asters, we recommend transplanting these individuals from the impact area to a preserved area on site within the Disturbed Southern Coastal Bluff Scrub or within the Disturbed Habitat to be enhanced to Southern Coastal Bluff Scrub within the 50-foot wetland buffer. A monitoring program shall be implemented for 2 years to monitor the survivability of the individual Sand Asters. If the Sand Asters do not survive the transplant, new container plants will be replanted, grown from the seeds previously collected from the Sand Asters that did not survive at a 3:1 ratio (120 plants).	Less than Significant
		BIO-4: In order to reduce potential indirect impacts to the roots of the Torrey pine tree located on the adjacent property during installation of the eastern retaining wall, the contractor shall be required to minimize grading on the uphill side of the retaining wall. This can be done by using an "L-type" or spread footing for the retaining wall. In addition, a qualified arborist shall be required to monitor excavation during installation of the retaining wall in this location and provide direction on root pruning if roots are encountered.	Less than Significant
	If sensitive bird species (California gnatcatcher or the four "low" potential species) are nesting on site, impacts to sensitive bird communities could be significant.	**BIO-5**: Although no avian nests were observed on the proposed project site, the clearing and grading of trees and shrubs shall occur outside of the avian breeding season of January 1 through August 31 (which includes raptors). This prohibition is necessary to preclude the potential for damage to nests and nesting birds, which would be a violation of the Migratory Bird Treaty Act. If clearing and grading during the avian breeding season is proposed, then a focused nest survey shall be conducted by a qualified biologist 72 hours prior to the vegetation removal. If active nests are discovered during the nest survey, then those nests shall be avoided until the young have fledged. The qualified biologist shall recommend appropriate nest setback distances based on the species of bird,	Less than Significant

Threshold	Impact	Mitigation Measure	Impacts after Mitigation Measure
		the topography between the nest and the proposed disturbance activity, and the surrounding vegetation.	
	If breeding California gnatcatchers are in areas adjacent to the proposed project site, their reproductive activities could be adversely impacted by construction-related noise. Therefore, indirect impacts to nesting birds due to construction-related noise may occur as a result of the proposed project.	**BIO-6**: If project-related work is to occur during the breeding season for California gnatcatcher (February 15 through August 31), then pre-construction protocol-level surveys for California gnatcatcher shall be performed to determine the status of breeding California gnatcatchers on site and within 500 feet of the site. If a nesting California gnatcatcher pair is detected on site or within 500 feet of the site, then noise attenuation measures shall be implemented to ensure that ambient noise levels are equal to or less than 60 decibels at the nest. In addition, nest monitoring by an individual holding a Section 10(a) U.S. Fish and Wildlife Service recovery permit for California gnatcatcher shall be conducted to ensure that the nesting California gnatcatchers remain undisturbed by construction.	Less than Significant
	Increased public use and edge effects would create new impacts to the coastal brackish marsh on site.	**BIO-7**: Although the on-site wetland is proposed to be preserved, and a 50-foot buffer is proposed between the wetland and the development, the project proponent shall erect a permanent fence with signage preventing human and pet access along the edge of the wetland buffer. Fencing along the edge of the wetland buffer shall be provided to define the area and discourage access, while maintaining openness and views into the area. Similar to the San Dieguito River Trail fencing, fencing along the wetland buffer shall consist of natural round wood posts and rails to be consistent.	Less than Significant
	Whenever new vegetation is planted, such as the proposed residential landscaping and the proposed created wetland buffer habitat on site, there is a potential that exotic invasive species could be planted that could invade adjacent native habitats.	**BIO-8**: The landscaping and/or revegetation plan for the proposed project shall not include any invasive plant species listed on the California Invasive Plant Council's Invasive Plant Inventory Database. In addition, the plants chosen shall not require intensive irrigation and shall meet the Del Mar Municipal Code Water-Efficient Landscaping Ordinance. To ensure the protection of the on-site preservation areas from invasive plants, the landscaping and revegetation plans for the areas adjacent to the preservation areas shall be submitted to the California Department of Fish and Wildlife for its approval 60 days prior to entitlement permit issuance.	Less than Significant
Cultural and Paleontological Resources			
Would the project substantially impact archaeological resources?	There is potential for previously unknown archaeological resources to be discovered on site during excavation activities of the construction phase.	**CUL-1**: Prior to the start of any ground disturbing activity, an archaeological monitor shall be retained to monitor ground-disturbing activities associated with Option A or Option B, including but not limited to grading, excavation, brush clearance, and grubbing. The archaeological monitor shall conduct preconstruction cultural resources	Less than Significant

Threshold	Impact	Mitigation Measure	Impacts after Mitigation Measure
		worker sensitivity training to bring awareness to personnel of actions to be taken in the event of a cultural resources discovery. The duration and timing of monitoring shall be determined by the qualified archaeologist in consultation with the City. Initially, all ground-disturbing activities associated with Option A or Option B shall be monitored. However, the qualified archaeologist, based on observations of soil stratigraphy or other factors, and in consultation with the City, may reduce the level of monitoring as warranted. In the event that archeological resources are accidently discovered or unearthed during project subsurface activities, all earth-disturbing work within a 100-meter radius shall be temporarily suspended or redirected until the certified archaeologist has identified and evaluated the nature and significance of the find, in compliance with CEQA Guidelines 15064.5(f). If the artifact that is accidentally discovered or unearthed is of Native American origin, the certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources shall be consulted for identification and evaluation. Construction activities shall be redirected to other work areas until the archaeologist determines that work can resume in the vicinity of the find.	
Would the project substantially impact paleontological resources?	There is a potential for inadvertent discovery of paleontological resources, which could cause a potentially significant impact.	**CUL-2:** A qualified paleontologist (an individual with a MS or Ph.D. in paleontology or geology that is familiar with paleontological procedures and techniques, who is knowledgeable in the geology and paleontology of San Diego County, and who has worked as a paleontological mitigation project supervisor in the county for a least one year) shall attend the pre-construction meeting to consult with the grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues. A paleontological monitor (an individual who has experience in the collection and salvage of fossil materials, working under the direction of a qualified paleontologist) shall be on site on a full time basis during the original cutting of previously undisturbed deposits of high paleontological resource potential (Bay Point Formation and Delmar Formation) to inspect exposures for contained fossils. Grading activities in previously undisturbed deposits of moderate paleontological resource potential (Torrey Sandstone) shall be monitored on a part-time basis. In the event that paleontological resources are accidentally discovered or unearthed during project subsurface activities, all earth disturbing work within a 100-meter radius shall be temporarily suspended or	Less than Significant

Threshold	Impact	Mitigation Measure	Impacts after Mitigation Measure
		redirected until a certified paleontologist has recovered, identified, and/or evaluated the nature and significance of the find, in compliance with CEQA Guidelines 15064.5(f). After the find has been appropriately mitigated, work in the area may resume. During the monitoring and recovery phases of the mitigation program, the qualified paleontologist and/or the paleontological monitor shall routinely collect stratigraphic data (e.g., lithology, vertical thickness, lateral extent of strata, nature of upper and lower contacts, and taphonomic character of exposed strata). Collection of such data is critical for providing a stratigraphic context for any recovered fossils. Fossil remains collected during monitoring and salvage shall be cleaned (removal of extraneous enclosing sedimentary rock material), repaired (consolidation of fragile fossils and gluing together broken pieces), sorted (separating fossils of the different species), and cataloged (scientific identification of species, assignment of inventory tracking numbers, and recording of these numbers in a computerized collection database) as part of the mitigation program. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited (as a donation) in a scientific institution with permanent paleontological collections such as the San Diego Natural History Museum. Donation of the fossils shall be accompanied by financial support for preparation, curation and initial specimen storage, if this work has not already been completed. A final summary report shall be completed that outlines the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.	
Would the project disturb any human remains?	Human remains may be unexpectedly unearthed during construction activities.	**CUL-3**: In the event that human remains are accidentally discovered or unearthed during Option A or Option B subsurface activities, all earth disturbing work within a 100-meter radius of what, the project site or the human remains shall be temporarily suspended or redirected until a forensic expert has identified and evaluated the nature and significance of the find, in compliance with CEQA Guidelines 15064.5(f). If human remains of Native American origin are accidentally discovered or unearthed, CEQA Guidelines provide for agreements with Native Americans, identified by the Native American Heritage Commission, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens. After the find has been appropriately mitigated, as determined by a qualified archaeologist work in the area may resume.	Less than Significant

Threshold	Impact	Mitigation Measure	Impacts after Mitigation Measure
		Geology and Soils	
Would the project expose people of structures to substantial adverse effects? Would the project be located on a geologic unit or soil that is unstable, or that would become unstable due to landslide, lateral spreading, subsidence, liquefaction or collapse? Would the project be located on unstable soils?	The proposed project site has the potential for significant geologic impacts due to static settlement, liquefaction, and possible lateral spread.	**GEO-1**: Prior to the issuance of a building permit, the project applicant shall retain a City-approved geotechnical engineer to perform a detailed site specific subsurface report of preliminary geotechnical investigation, consistent with the California Building Code. The California Building Code (which incorporates the Uniform Building Code) is contained in the California Code of Regulations, Title 24, Part 2, which is a portion of the California Building Standards Code, and includes design and construction requirements related to life safety and structural safety. The geotechnical study shall include subsurface investigation, laboratory testing and additional deep explorations using borings and/or cone penetrometer tests across the alluviated portions of the proposed project site to further define the alluvium profile and quantitatively address the potential for soil liquefaction and lateral spreading across the site. The subsurface geotechnical study shall also include recommendations for the proposed construction and grading such as remedial grading, ground improvement techniques, special foundation design and other recommendations that will ensure that the construction of the building will not result in substantial liquefaction, subsidence, or seismic-related ground failure due to lateral spread, and will implement any necessary measures required to comply with existing building codes and regulation, including Del Mar Municipal Code Section 23.12 and 23.32.	Less than Significant
		Noise	
Would the project generate noise levels in excess of standards established in the general plan or noise ordinance, or applicable standards or other agencies?	Because the proposed project would exceed the 75 dBA construction noise standards established in the City of Del Mar's Noise Control Ordinance, impacts would be potentially significant.	**NOI-1**: Prior to initiation of construction of Option A or Option B, the City of Del Mar shall approve a construction noise mitigation program to include the following: • Temporary sound barriers/shielding shall be installed to shield non-mobile equipment in the vicinity of nearby residences, or, alternatively, to shield at the site's boundaries (i.e., the southern, southeastern and western sides, where adjacent residences are closest). The top of the noise barrier shall be 10 feet above the existing grade, measured from the interior side of the barrier from the finished surface elevations of the western parking lot. The barrier may be constructed of any a material with a minimum weight of 2 pounds per square foot. Noise barriers must not have any gaps or perforations and may be constructed of, but are not limited to, 5/8-inch plywood, 5/8-inch oriented strand board, or hay bales. • Construction equipment shall be properly outfitted and maintained with feasible noise-reduction devices (e.g., functioning mufflers and silencers, tightly closed	Less than Significant

Threshold	Impact	Mitigation Measure	Impacts after Mitigation Measure
		access panels) to minimize construction-generated noise. • Stationary noise sources such as generators or pumps shall be located as far away from the nearest (southerly and westerly) noise-sensitive land uses (residences) as feasible and shall be required to comply with the DMMC Noise Ordinance. • Laydown and construction vehicle staging areas shall be located away from the nearest (southerly and westerly) noise-sensitive land uses (residences) if feasible. • Residential areas that will be subject to construction noise shall be informed 1 week before the start of each construction phase and made aware of the overall schedule of construction. Effectiveness of these is mitigation measures would vary from several decibels (which in general is a relatively small change) to ten or more decibels (which subjectively would be perceived as a substantial change), depending upon the specific equipment and the original condition of that equipment, the specific locations of the noise sources and the receivers, etc. Installation of a noise barrier, for example, would vary in effectiveness depending upon the degree to which the line-of-sight between the source and receiver is broken, and typically ranges from 5 to 10 dB. Installation of more effective silencers could range from several decibels to well over 10 decibels. Reduction of idling equipment could reduce overall noise levels from barely any reduction to several decibels. Cumulatively, however, these is measures would result in marked decreases in the noise from construction. With incorporation of mitigation, short-term construction impacts associated with exposure of persons to or generation of noise levels in excess of established standards would be less than significant.	

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CHAPTER 1
INTRODUCTION

This chapter of the environmental impact report (EIR) describes the purpose, scope, and legislative authority of the EIR, the intent of the California Environmental Quality Act (CEQA) and other pertinent environmental rules and regulations, and the environmental review process. This chapter also includes the structure, required contents, and relationship of the EIR to other potential responsible or trustee agencies.

1.1 PROJECT BACKGROUND IN RELATION TO THE CITY'S HOUSING ELEMENT FOR 2013-2021

The City of Del Mar Community Plan Housing Element for 2013–2021 was adopted by the Del Mar City Council on May 20, 2013, and certified by the California Department of Housing and Community Development (CA-HCD) on June 6, 2013. Housing program 2-G of the certified Housing Element indicated that within 12 months of City Council adoption of the 2013-2021 Housing Element, the City would begin the legislative process of assigning a new land use designation to the project site to allow residential development of the properties at a density of 20-25 du/ac. with such density allowance to include a requirement for a percentage of the residential units to be available, long-term, at affordable rates.

On October 28, 2013, just over five months after the City Council adoption of the 2013-2021 Housing Element, the City received an application from the owners of the project site to rezone the property in accordance with Housing program 2-G, via a specific plan. The application was deemed incomplete by the City on December 18, 2013. On July 21, 2014, at the request of the project/specific plan applicants, the City Council determined the specific plan process was the appropriate mechanism for the processing of the land use modification request and an accompanying multi-family housing project. The specific plan application was revised and resubmitted to the City on December 18, 2014. Upon review by the City, the application was again deemed incomplete.

Over the next year, additional required project materials, including a specific plan document prepared in accordance with the provisions and requirements set forth in California Government Code Sections 65450-65457, were submitted and reviewed for completeness by the City of Del Mar. On December 23, 2015, specific plan application SP14-001 was deemed complete. As depicted above, efforts on behalf of the site owners to enact a change to the property's land use designations have been continuous and in conformance with the City's obligations set forth in program 2-G of the Housing Element.

1.2 HISTORY OF PROJECT CHANGES

During preparation of this Draft EIR, and as part of the City Council-approved process for the project review, the applicant conducted a number of community workshops for input on the proposed project. The comments provided in those meetings identified some key design concerns and suggested modifications. Community concerns focused on density, desire for additional guest parking, streetscape appearance issues including bulk and mass, Desire to have power lines undergrounded, and more trees/landscaping along the street. Therefore, the proposed project will consist of two options (Option A and Option B), which have both been analyzed at a project level. The community's concerns have been addressed by incorporating changes into a revised project design that is presented herein as Option B (see Table 3-1 in Section 3.0 Project Description for a side-by-side comparison of the two Options). The environmental analysis of potentially significant effects of Option B is provided at a level of detail equivalent to the originally proposed project (referred to herein as Option A) to allow the reviewing bodies and decision makers the opportunity to select Option B if it is ultimately the preferred choice for development of the site.

1.3 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The City of Del Mar (City) prepared this EIR to provide the public and responsible agencies with information about the potential adverse effects on the environment associated with the proposed options for implementation of the Watermark Del Mar Specific Plan (WDMSP Option A and Option B), as submitted by Watermark DM, L.P. Separate Specific Plans were prepared for Option A and Option B, and can be found in Appendix A. The Specific Plans for both Options are intended to create a regulatory framework to govern development of the subject property as a privately developed high-quality multi-family residential development with the provision of some affordable housing units, in a manner that implements the goals of the Del Mar Community Plan and its Housing Element.

The project is situated on 2.37 acres (Assessor's Parcel Numbers 299-100-47 and 299-100-48) on the southern corner of the intersection of Jimmy Durante Boulevard and San Dieguito Drive. The existing site is vacant and is currently used for paid fairground, race track, and event parking. The site presently has a commercial land use designation in the North Commercial Zone, which allows a variety of commercial uses. There are also three overlay designations applicable to some or all of the property: Bluff, Slope, and Canyon Overlay; Floodplain Overlay; and Lagoon Overlay Zone.

As the current zone or Community Plan does not allow for multi-family residential, a Specific Plan is proposed. The project proposes a multi-family residential development consisting of two options: Option A would include 48 residential units built over the partially subterranean parking garage, and Option B would include 38 residential units built over the partially subterranean parking garage.

The Option A and Option B Specific Plan documents provide a description of the proposed land use and infrastructure requirements, and describe guidelines and standards for site development (see Chapter 6 in both WDMSPs). As a regulatory document, the Option A and Option B Specific Plans create new zoning for the project site that would regulate the permitted uses, density, height, and other development criteria for the site. Under either Option, the zone would be designated on the City's zoning map as WDMSP. Section 5 of the WDMSP for both Options includes the development regulations that would govern the project site, and Section 6 includes the design standards that would ensure the quality and character envisioned for the development.

This EIR was prepared in accordance with CEQA (California Public Resources Code, Section 21000 et seq.), the CEQA Guidelines (14 California Code of Regulations (CCR) 15000 et seq.), and the City's environmental review procedures. The City is the lead agency for the EIR and for processing of the project. According to Section 21002.1(a) of the CEQA statute, "The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided." CEQA also establishes mechanisms whereby the public and decision makers can be informed about the nature of the project being proposed, and the extent and types of impacts that the project and its alternatives would have on the environment if they were to be implemented. This EIR was prepared to comply with all criteria, standards, and procedures of the CEQA Guidelines (14 CCR 15000 et seq.).

This EIR provides decision makers, public agencies, and the public with detailed information about the potential for significant adverse environmental impacts to occur as a result of the project.

Responsible agencies can use this EIR to fulfill their legal authority associated with permits issued for the project. The analysis and findings in this document reflect the independent judgment of the City.

1.4 SCOPE OF THE ENVIRONMENTAL IMPACT REPORT

Pursuant to Section 15161 of the CEQA Guidelines, this document was prepared as a "project EIR" and is focused "primarily on the changes in the environment that would result from the development" (i.e., development of the Specific Plans). Where environmental impacts were determined to be potentially significant, this EIR presents mitigation measures directed at reducing those adverse environmental effects. Developing mitigation measures provides the lead agency with ways to substantially lessen or avoid significant effects of a project on the environment, to the degree feasible. Alternatives to the Options are presented to evaluate whether there are alternative development scenarios that could further minimize or avoid significant impacts associated with Option A or Option B.

1.5 ENVIRONMENTAL PROCEDURES

1.5.1 California Environmental Quality Act Compliance

The California Public Resources Code (Section 21000 et seq.) requires preparation and certification of an EIR for any project that a lead agency determines may have a significant effect on the environment. This EIR was prepared in compliance with all criteria, standards, and procedures of the CEQA Guidelines (14 CCR 15000 et seq.).

1.5.2 Notice of Preparation and Public Scoping

CEQA establishes mechanisms whereby the public and decision makers can be informed about the nature of a proposed project and the extent and types of impacts that the project and its alternatives would have on the environment. Pursuant to Section 15082 of the CEQA Guidelines, the City circulated a Notice of Preparation (NOP) dated March 12, 2015, to interested agencies, organizations, and parties. The NOP was also sent to the State Clearinghouse at the California Governor's Office of Planning and Research and posted in the *San Diego Union Tribune*. The State Clearinghouse assigned a state identification number (SCH no. 2015031044) to this EIR. The City determined to make the NOP available for public review and comment pursuant to California Code of Regulations, Title 14, Section 15082(b). The public review period was extended for an additional 30 days beginning on March 30, 2015. Therefore, the comment period for the NOP began on March 12, 2015, and ended on April 29, 2015.

The NOP is intended to encourage interagency communication regarding the proposed project so that agencies, organizations, and individuals are afforded an opportunity to respond with comments and/or questions regarding the scope and content of the EIR. A public scoping meeting was duly noticed and held on Thursday, March 26, 2015, at 6 p.m. in the Del Mar City Hall Annex (then) located at 235 11th Street, Del Mar, California. The purpose of that meeting was to provide the public and governmental agencies with information on the proposed project and the CEQA process, and to give attendees an opportunity to identify environmental issues that should be considered in the EIR. Attendees were invited to mail or email their comment letters to the City by no later than 4:30 p.m. on Wednesday April 29, 2015.

Comments received during the NOP public scoping period were considered during preparation of this EIR. The NOP and comments on the NOP are included in Appendix B to this EIR. Eighteen comment letters were received in response to the NOP and public scoping meeting. Comments covered a variety of topics, including increases in traffic and overflow of parking, impacts to neighborhood character and aesthetics, increases in density and noise, impacts to biological resources, impacts from stormwater runoff, and cumulative impacts associated with the Del Mar Fairgrounds.

Based on the scope of the project as described in the NOP, the following issues were determined to be potentially significant and are addressed in Chapter 4, Environmental Analysis, of this EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural and Paleontological Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Traffic and Circulation
- Public Services
- Utilities and Service Systems
- Recreation

1.5.3 Overview of the Environmental Impact Report Process

This EIR will be made available to members of the public, agencies, and interested parties for a 45-day public comment period in accordance with Section 15105 of the CEQA Guidelines. Public comment on the EIR is intended to focus "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (14 CCR 15204). The Notice of Completion of the EIR will be filed with the State Clearinghouse as required by Section 15085 of the CEQA Guidelines. In addition, the Notice of Availability of the EIR will be distributed pursuant to Section 15087 of the CEQA Guidelines. Interested parties may provide comments on the EIR in written form. This EIR and all related technical appendices are available for review upon request during the 45-day public comment period at the following locations:

- City of Del Mar
  Planning and Community Development Department
  2010 Jimmy Durante Boulevard, Suite 120
  Del Mar, California 92014
- City of Del Mar Public Library
  1309 Camino Del Mar
  Del Mar, California 92014
- City of Del Mar website
  http://www.delmar.ca.us/

Once the 45-day public comment period has concluded, the City will review all public comments on the EIR, provide written responses to comments, and authorize revisions to the EIR text, if necessary. The final Mitigation Monitoring and Reporting Program will be incorporated into the Final EIR. Mitigation measures contained in the EIR consider future monitoring requirements and are written in sufficient detail to address impacts of the project, referencing the appropriate implementing permits and plans. If one or more significant environmental impacts are determined, written findings for each of those significant effects, accompanied by an overriding justification and rationale for each finding in the form of a statement of overriding considerations, will also be included in the Final EIR, if necessary. The Final EIR will include all comment letters received, final written response to comments, and edits made to the EIR as a result of public review/comment. The findings of fact and statement of overriding considerations will be prepared at the same time as the Final EIR, if necessary.

1.6 ORGANIZATION OF THE ENVIRONMENTAL IMPACT REPORT

An executive summary of this EIR is provided at the beginning of this document. The summary includes the conclusions of the environmental analysis and a comparative summary of the project options with the alternatives analyzed in this EIR. Chapter 1, Introduction, introduces Option A and Option B in light of the required environmental review procedures. Chapter 2, Environmental Setting, describes the location and physical environmental setting. Chapter 3, Project Description, provides a description of Option A and Option B, the purpose and objectives, and required discretionary approvals. Chapter 4 consists of the environmental analysis, which examines Option A and Option B's potentially significant environmental issues. Chapter 5 addresses effects found not to be significant. Chapter 6 addresses other required CEQA topics. Chapter 7, Cumulative Effects, addresses cumulative impacts. Chapter 8, Alternatives, addresses a reasonable range of project alternatives. Chapter 9 includes the project-specific Mitigation Monitoring and Reporting Program. The remaining EIR sections and appendices are provided as set forth in the table of contents.

CHAPTER 2
ENVIRONMENTAL SETTING

2.1 INTRODUCTION

This chapter provides a description of the existing site conditions, surrounding land uses, and the land use planning context relevant to the Watermark Del Mar Specific Plan (WDMSP) proposed Option A and Option B. This chapter also provides an overview of the environmental resources present on and around the proposed project site.

2.2 EXISTING SITE CONDITIONS

The existing site is vacant, totals approximately 103,282 square feet (2.37 acres), and is currently used for paid county fair and horse race event parking, as a grandfathered, limited use. The site presently has a commercial land use designation as North Commercial Zone, which allows for a variety of commercial uses. There are also three overlay zone designations applicable to some or all of the property: the Bluff, Slope, and Canyon Overlay; Floodplain Overlay; and Lagoon Overlay Zone (refer to **Table 2-1**, Property within Specific Overlay Zones, for specific boundaries). Based on the Riverview Office Project, which was previously approved for development on the project site (State Clearinghouse No. 2005061143), current entitlements on the property include, Design Review Board Permit (DRB-04-32), and Land Conservation Permit (LC-04-13).

Table 2-1
Property within Specific Overlay Zones

APN	Bluff, Slope, and Canyon Overlay	Lagoon Overlay	Floodplain Overlay
299-100-47	Yes	No	Yes*
299-100-48	Yes	Yes	Yes

APN = Assessor's Parcel Number

* This parcel is not shown on the map of the Floodplain Overlay Zone on the zoning map or Local Coastal Program map, but portions of the property fall within floodplain areas per the most recent Flood Insurance Rate Map, and, therefore, are subject to compliance with the overlay zone policies; a Floodplain Development Permit would be required.

The northern, western, and northwestern portions of the project site consist of relatively flat terrain with minimal vegetation. The southwestern portion consists of a graded (not natural) plateau area and the southern edge of the property consists of historically graded bluff slopes (see **Figure 2-1**). The remaining portions of the proposed project site, generally the southern and southeastern portions, consist of a steep slope (bluff) upward and are heavily vegetated. At the base of the bluff, the southeastern portion of the proposed project site also consists of a wetlands area.

2.3 SURROUNDING LAND USES

The proposed project site is bounded to the north by the intersection of Jimmy Durante Boulevard and San Dieguito Drive. San Dieguito Drive adjoins the site to the east-northeast, beyond which is a vacant lot and various facilities, including Del Mar Blue Print, Rose Towing, Del Mar Automotive, and other businesses. To the south, southeast and southwest are residences, and to the west and northwest, Jimmy Durante Boulevard adjoins the site with a vacant lot and various businesses beyond. To the south and southwest are residences. Residences to the south and southwest are accessed via Heather Lane by way of Jimmy Durante Boulevard. The residences surrounding the project site to the south and southwest consist of large single-family homes. The Del Mar Community Plan designates the residential area as "Low Density." The residences to the southwest are at about the same elevation as the project site; however, the residences to the south are higher in elevation atop a bluff.

Other notable land uses in the proposed project area include the San Dieguito River, located north-northeast of the proposed project site beyond properties on the opposite side of San Dieguito Drive; the Del Mar Fairgrounds property farther north; and the railroad tracks to the west, beyond commercially developed properties along Jimmy Durante Boulevard. Diagonally across the intersection of Jimmy Durante Boulevard and San Dieguito Drive (northwest corner) is a linear park (Riverpath Del Mar) with an improved trail segment adjacent to the San Dieguito River (see **Figure 3-2**).

2.4 NATURAL RESOURCES IN PROPOSED PROJECT AREA

Five vegetative communities were identified on the proposed project site. Three of these vegetation communities, coastal brackish marsh, southern coastal bluff scrub, and disturbed southern coastal bluff scrub, are deemed sensitive by local, state, and federal agencies. The non-native vegetation and disturbed habitat areas are not considered to be sensitive vegetation communities. Additionally, three sensitive plant species were identified within the proposed project area: Torrey Pines (*Pinus torreyana*), Del Mar Mesa (or common) sand asters (*Corethrogyne filaginifolia* var. *linifolia*), and southwestern spiny rush (*Juncus acutus* var. *leopoldii*).

Within the project area, northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) is the only sensitive wildlife species identified with a "high" occurrence potential. However, this species is not a listed species under the California or federal Endangered Species Act.

One sensitive wildlife species, California gnatcatcher (*Polioptila californica*), was observed on the proposed project site during a biological survey in 2012. No California gnatcatchers were observed during the protocol survey between October 2016 and February 2017 (see Section 4.3, Biological Resources). The southern coastal bluff scrub that is habitat for California gnatcatcher occurs off the proposed project site to the south, forming a strand of habitat (combined with the bluff scrub on site) of approximately 1 acre.

The proposed project site is located along San Dieguito Lagoon in the Lagoon Overlay Zone of the City of Del Mar's Local Coastal Program. The purpose of the Lagoon Overlay Zone is to protect the wetland resources of San Dieguito Lagoon. Coastal brackish marsh (a wetlands community similar to coastal salt marshes, but brackish from freshwater input) is located on the southeast portion of the proposed project site. The coastal brackish marsh is degraded and has a general lack of ecological significance. This wetland currently occupies 0.10 acre of the project site and does not serve as a wildlife corridor. Findings from the field visit assessments on natural resources in the proposed project area are described in detail within Section 4.3, Biological Resources, of this EIR.

2.5 EXISTING TOPOGRAPHY AND SOILS

The northern and western portions of the proposed project site are characterized by relatively level areas along the adjacent roadways. A graded, level pad area exists within the south-central portion of the site. The southern and eastern portions of the site are characterized by moderately to steeply sloping hillsides that ascend to the southern and eastern perimeters of the site. Along the southeastern portion of the property boundary, bluff slopes have been historically graded and disturbed. An unimproved roadway/bench has been cut into the ascending hillside within the southeast portion of the site. On-site elevations range from approximately 12 feet near the northeast corner of the site to 63 feet along the western portion of the site's southern perimeter (see **Figure 3-4**).

The proposed project site is located in the Coastal Plains Physiographic Province of San Diego County. Based on the subsurface exploration completed for the project site and analysis of readily available geologic literature, it was determined that the site is underlain by Tertiary-age sedimentary deposits of the Delmar Formation, and Torrey sandstone, Quaternary-age alluvial, talus, old paralic deposits, and a relatively thin and irregular veneer of fill soil.

2.6 CLIMATE

Del Mar is located immediately east of the Pacific Ocean, and, similar to the rest of San Diego County's coastal areas, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. Mean annual temperature is 63°F. The average annual precipitation is 10 inches; rain falls primarily from November to April. Winter low temperatures average approximately 45°F, and summer high temperatures average approximately 71°F. The average relative humidity is 69% and is based on the yearly average humidity at Lindbergh Field (WRCC 2015).

2.7 ACCESS

Access to the proposed project site is provided from the intersection of Jimmy Durante Boulevard and San Dieguito Drive. Pedestrian access is not currently prohibited or prevented. The proposed project site is approximately 0.76 mile west of Interstate 5 and 0.32 mile east of Camino Del Mar.

2.8 REFERENCES

WRCC (Western Regional Climate Center). 2015. "Period of Record Monthly Climate Summary: 07/07/1939 to 01/19/2015." Accessed January 29, 2015. http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7740.

Key

Current Property Line

N

No scale.

Sources and Notes: Both Jimmy Durante Blvd. and San Dieguito Drive, including the bridge, have been realigned since this 1973 photo. The current property boundary reflected on this exhibit was obtained by georeferencing the historical imagery (San Diego County, 1973, Flight 31, photograph 29) to current imagery (Nearmap aerial photo imagery flown June 13, 2017) and civil engineering CAD drawings with site boundary and topography (Sowards and Brown Engineering, rev. June 22, 2017) using three control points on building structures that have remained in place and first order polynomial transformation. The spatial relationship between the historical imagery and property line is accurate within these calibration parameters.

DUDEK

SOURCE: County of San Diego (2017)

FIGURE 2-1
Historic Aerial 1973

Watermark Del Mar Specific Plan EIR

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CHAPTER 3
PROJECT DESCRIPTION

3.1 INTRODUCTION

The purpose of this project description is to describe the two options being proposed for the Watermark Del Mar Specific Plan (WDMSP) Option A and Option B in a way that is meaningful to the public, reviewing agencies, and decision makers. As described in Section 15124 of the California Environmental Quality Act Guidelines (14 California Code of Regulations (CCR) 15000 et seq.), a complete project description must contain the following information, but is not required to supply extensive detail beyond that needed for evaluation and review of the environmental impact: (1) the location and boundaries of the proposed project on a regional and detailed map; (2) a statement of objectives sought by the proposed project; (3) and a general description of the project's technical and environmental characteristics. The Specific Plans for Option A and Option B can be found as **Appendix A1 and A2** to this report.

3.2 PROJECT LOCATION

The project site is approximately 0.76 mile west of Interstate 5 and 0.32 mile east of Camino Del Mar in the city of Del Mar, California. The site is located on the southern corner of the intersection of Jimmy Durante Boulevard and San Dieguito Drive (see **Figures 3-1** and **3-2**). The site consists of two parcels: Assessor's Parcel Numbers 299-100-47 and 299-100-48. The site is vacant and totals approximately 103,282 square feet (2.37 acres). The site is generally bounded to the north by the intersection of Jimmy Durante Boulevard and San Dieguito Drive. San Dieguito Drive adjoins the site to the east-northeast, beyond which is a vacant lot and various facilities, including Del Mar Blue Print, Rose Towing, Del Mar Automotive, and other businesses. To the west and northwest, Jimmy Durante Boulevard adjoins the site with a vacant lot and various businesses. To the south and southwest are residences. Residences to the south and southwest are accessed via Heather Lane by way of Jimmy Durante Boulevard. The residences surrounding the project site to the south and southwest consist of large single-family homes. The Del Mar Community Plan designates the residential area as "Low Density." The residences to the southwest are at about the same elevation as the project site; however, the residences to the south are higher in elevation atop a bluff. The site immediately south of the project site is currently under construction.

Other notable land uses in the project area include the San Dieguito River, located north-northeast of the project site beyond properties on the opposite side of San Dieguito Drive; the Del Mar Fairgrounds property farther north of the river; and the railroad tracks to the west, beyond commercially developed properties along Jimmy Durante Boulevard. Diagonally across the intersection of Jimmy Durante Boulevard and San Dieguito Drive (northwest corner) is a linear park (Riverpath Del Mar) with an improved trail segment adjacent to the San Dieguito River. The Riverpath Del Mar continues easterly along the River on properties owned by City and non-profit agencies, providing open space access.

The site is in the North Commercial Zone; Bluff, Slope, and Canyon Overlay Zone; Lagoon Overlay Zone; and Floodplain Overlay Zone (see **Figure 3-3**). The site is included in the City of Del Mar Community Plan Housing Element 2013–2021 as a site for consideration of rezoning with a Residential zoning designation. The Housing Element was adopted by the City Council on May 20, 2013, and certified by the California Department of Housing and Community Development (CA-HCD) on June 6, 2013. A density of 20 to 25 dwelling units per acre is defined as an objective for this site in the Housing Element, because it is currently vacant and large enough to accommodate such a density (City of Del Mar 2013). A density of 20 to 25 dwelling units per acre was specifically designated for affordable housing opportunities as mandated by the State. The project proposes including affordable housing units to help the City meet the State mandate (see Section 3.5.2, Affordable Housing, for additional information).

3.3 PROJECT OBJECTIVES

The WDMSP Option A includes the following objectives as stated by the project's applicant:

1. Promote a quality multifamily residential community consistent with the goals and policies of the Del Mar Community Plan.
2. Establish an appropriate land use designation which serves the housing needs of current and future residents to achieve a density of 20 to 25 units per acre.
3. Provide a range of affordable housing units within the project to help meet the City of Del Mar's goals for such units.
4. Preserve natural and previously undisturbed bluffs within the Site and protect and preserve on-site wetlands.
5. Establish development standards and design regulations to achieve the multifamily density specified by the Housing Element while addressing the physical site constraints including drainage and flood protection, and providing for visually attractive landscaping, architecture, and site amenities.
6. Create a multi-family residential development with pedestrian linkage and walkability to trails, parks, beaches, businesses, and restaurants that serve the local community.
7. Provide parking for all the residential units that screens automobiles from view from the public right of way, minimizes lighting impacts, provides secure off-street parking, and serves to provide a podium building level safely above the Base Flood Elevation for residential units while minimizing impacts and disturbance to ground water.
8. Provide residential units through the condominium subdivision process with units constructed to for-sale standards. As part of the condominium process, a Homeowners' Association will be established with responsibility to manage common areas and implement covenants, conditions, and restrictions (CC&Rs) for the development. CC&Rs

will be developed to regulate potential impacts, including, but not limited to, those from noise, light and glare, parking, short-term vacation rentals, and landscaping.

9. Establish a site and building design that enhances its location at one of the important entryways into the City of Del Mar.

The WDMSP Option B includes all the same project objectives as Option A, with the exception of number two, which would be revised under Option B to read as follows:

2. Establish an appropriate land use designation which serves the housing needs of current and future citizens to achieve a density that will support affordable housing goals for the community.

The specific plan process was selected to provide customized regulations that can accommodate the housing density at this site while establishing certainty for the community regarding development parameters, limitations for the planned use, and specific extraordinary public benefits otherwise not afforded by a zoning change.

3.4 EXISTING CONDITIONS

The proposed project site is currently vacant, and there is no evidence of previous structures or other permanent improvements on site. Based on aerial photographs, prior to 1959, the project site appears to have had leveling and grading along the northern and western portions of the site near San Dieguito Drive and Jimmy Durante Boulevard. Significant grading, potentially involving excavation cuts of up to 15 to 20 feet, occurred between 1959 and 1979 along the southern and southeastern portions of the project site. There is an existing curb cut driveway at Jimmy Durante Boulevard at the west end of the project site. The project site is not paved, but is used seasonally, as it has been for several years, as a paid lot for overflow parking during the summer fair and racetrack events at the Del Mar Fairgrounds. Parking is located on the level portions of the project site, including the graded plateau area. This seasonal parking would continue as an interim use until the property is developed (**Figure 3-4**).

3.5 PROPOSED PROJECT

Separate Specific Plans were prepared for both Option A and Option B and can be found in **Appendix A1 and A2**. The proposed Specific Plans for Option A and Option B are intended to create a regulatory framework to govern development of the project site as a high-quality multi-family residential development. As the current zone or Community Plan do not allow for multi-family residential, a Specific Plan is proposed. The project proposes a multi-family residential development consisting of two options: Option A would include 48 residential units (**Figure 3-5**) built over a partially subterranean parking garage, and Option B would include 38 residential units built over a partially subterranean parking garage (**Figure 3-6**). For a side-by-side comparison of Option A and Option B, see **Table 3-1**.

Both Options would include a recreation room, a pool, a spa area, and associated maintenance and administrative facilities. Both Options would provide a secured parking structure partially underground on the 2.37-acre site with a vehicular access point from San Dieguito Drive. Option A would have 108 stalls and Option B would have 100 stalls. Each Option would allow for the continuation of paid parking for Del Mar Fairground events until building permits are issued for the chosen development Option.

The Option A and Option B Specific Plans (**Appendix A**) each provide a description of the proposed land use and infrastructure requirements, and describe guidelines and standards for site development (see Chapter 6 in both Specific Plans). As a regulatory document, the Option A and Option B Specific Plans create new zoning for the project site that would regulate the permitted uses, density, height, and other aspects. Under either Option, the zone would be designated on the City of Del Mar's zoning map as WDMSP. Section 5 of the Specific Plan for both Options includes the development regulations that would govern the project site, and Sections 6 include the design standards that would ensure the quality and character envisioned for the development.

Table 3-1
Comparison of WDMSP Option A and Option B

Project Detail	Option A (48 Units)	Option B (38 Units)	Change
Total Units	48 units	38 units	-10 units
Affordable Units (total/donated)	7 total 4 of which would be donated[1]	6 total 3 of which would be donated[1]	-1 unit
Density	20.5 du/ac	16.1 du/ac	-4.4 du/ac
Maximum Height	2 stories/26 feet above Established Grade	2 stories/26 feet above Established Grade	Same
Floor Area Ratio (FAR) (total site 103,282 sf =2.37 ac)	0.65	0.62	-0.03 FAR
Subterranean Parking (Required and Provided)			
Resident Parking Standard *Required and Provided*	1 space/ST & 1BR unit 2 spaces/2 & 3 BR unit 3 spaces/4 BR unit *96 spaces*	1 space/ST & 1 BR unit 2 spaces/2 & 3 BR unit 3 spaces/4 BR unit *81 spaces*	Same standards. *Required/Provided based on bedroom count per plans.*
Guest Parking Standard *Required and Provided*	0.25 per unit *12 spaces*	0.50 per unit *19 spaces*	Standard doubled (+ 0.25 per unit)
Total Parking *Required and Provided*	 *108 spaces*	 *100 spaces*	-8 spaces Note: 38-unit plan sets minimum total space requirement of 100 spaces
Setbacks (per Specific Plan minimum Standards)			
Setback from Jimmy Durante Blvd	0 feet	0 feet	Same

Table 3-1
Comparison of WDMSP Option A and Option B

Project Detail	Option A (48 Units)	Option B (38 Units)	Change
Setback from San Dieguito Drive	0 feet	10 feet	+ 10 feet
Setback from wetland boundary	50 feet	50 feet	Same
Setback from residential property boundaries (southeast and southwest boundaries)	15 feet	15 feet	Same
Limits of Grading	Limits of site disturbance are the same with both plans.		
Impervious Area	1.40 acres (61,016 square feet)	1.38 acres (60,502 square feet)	-0.02 acres (514 square feet)
Lot Coverage	45%	45%	Same
Trip Generation (8 ADT/unit)	384 ADT	304 ADT	-80 ADT (21% decrease)
Construction Duration (estimated)	103 weeks	105 weeks	+ 2 weeks
Earthwork			
Cut	26,500 CY	28,000 CY	+ 1,500 CY
Fill	2,900 CY	1,500 CY	- 1,400 CY
Export	23,600 CY	26,500 CY	+ 2,900 CY

Notes:
[1] The donated units would be gifted to the City or a City-designated entity, which would likely result in lower-tier affordability qualification.
ADT = average daily traffic
BR = bedroom
CY = cubic yard
du/ac. = dwelling unit per acre
ST = studio

3.5.1 Residential

A density of 20 to 25 dwelling units per acre is defined as an objective for this site in the City of Del Mar Housing Element, because it is currently vacant and large enough to accommodate such a density (City of Del Mar 2013). There are no other large lot opportunities within the City to meet the inventory requirements of the Regional Housing Needs Assessment (RHNA). Due to the fact that a density of 20 to 25 dwelling units per acre is associated with multi-family residential, it is reasonable to assume that future multi-family units on this site could include affordable housing units, as mandated by the State.

Option A

Option A would include 48 residential units on 103,282 square feet (approximately 2.37 acres) of gross land area for a maximum density of 20.5 dwelling units per acre. The proposed 20.5 dwelling-units-per-acre density is at the very low end of the City of Del Mar Community Plan Housing Element's prescribed density range.

Option A would provide for a residential building footprint of 62,941 square feet and a total lot coverage of approximately 45%. The lot coverage calculation for Option A does not include the parking structure floor area (non-habitable building area). Option A proposes a floor area ratio of 0.65 based on 63,541 square feet of floor area (habitable building area) on net land area of 103,237 square feet.

The proposed structures would be situated on the site to provide a minimum 10-foot setback from the adjacent residentially zoned properties. The design considers no additional setback required where the structures would be adjacent to the public right-of-way along Jimmy Durante Boulevard and San Dieguito Drive. The residential units provided would be a mix of studio, one-bedroom, two-bedroom, and three-bedroom units.

Option B

Under Option B, the project design has been modified to address input received during various community workshops on the project. The Specific Plan for Option B has been modified along with revised design plans to incorporate changes in response to concerns raised.

This option includes modifications to the building placement on the site, which was of particular concern as viewed from Jimmy Durante Boulevard. The changes to the buildings that front on this street include modifications to the setbacks on the first and second floors, adding building separation between the units as well as reconfiguring the pool area to eliminate the masonry columns and trellis at the corner of San Dieguito Drive and Jimmy Durante Blvd, replacing them with additional trees and landscaping. The open areas internal to the site have been enlarged. The parking provided on site has also been increased to be above standard requirements, based on concerns that there was no on-street parking in the immediate area. The result of all these changes is that the total unit count would be reduced by 10 to 38 housing units.

Option B would include 38 residential units on 103,282 square feet (approximately 2.37 acres) of gross land area for a maximum density of 16.1 dwelling units per acre. The proposed 16.1 dwelling-units-per-acre density is below the City of Del Mar Community Plan Housing Element's prescribed density range. However, the City is required to be in substantial compliance with the statutory requirements of the housing element law and Option B's 16.1 dwelling-units-per-acre density would constitute substantial compliance.

Option B would provide for a building footprint of 60,660 square feet and a total lot coverage of approximately 45%. Similar to Option A, the lot coverage calculation for Option B does not include the parking structure floor area (non-habitable building area). Option B proposes a floor area ratio of 0.62 based on 61,860 square feet of floor area (habitable building area) on net land area of 103,237 square feet.

The proposed structures would be situated on the site to provide a minimum 15-foot setback from the adjacent residentially zoned properties. The design considers no additional setback required where the structures would be adjacent to the public right-of-way along Jimmy Durante Boulevard. However, unlike Option A, Option B would provide an additional 10-foot setback adjacent to the public right-of-way along San Dieguito Drive. The residential units provided would be a mix of studio, one-bedroom, two-bedroom, and three-bedroom units.

3.5.2 Affordable Housing

The SANDAG 2010–2020 RHNA allocates a responsibility for the City to provide 61 total additional dwelling units, including 4 units appropriate for extremely low income residents, 3 very low income, 5 low income, 15 moderate income, and 34 above moderate income within the City of Del Mar. However, some units have already been constructed and the City incurred a 15-unit penalty from the previous Housing Element Cycle, therefore, the City's total RHNA obligations are 13 extremely-low and very-low income, 9 low income, 20 moderate income, and 19 above-moderate income.

Option A

Option A would account for 79% of the units allocated by the RHNA. As a public benefit, Option A proposes seven affordable dwelling units. The seven affordable units represent a portion (15%) of the proposed 48 new units. The seven affordable dwelling units proposed by Option A would consist of two studio units, one one-bedroom unit, and four two-bedroom units. No three-bedroom units are proposed as affordable housing units. Four of the affordable units under Option A would be gifted to the City or a City-designated entity, which would likely result in lower-tier affordability qualification. Therefore, those units could be provided as low, very-low or extremely-low income units, which would satisfy 18% of the City's low affordable housing needs under Option A. The remaining three units would be for moderate income residents, which would satisfy 15% of the City's moderate affordable housing needs.

Option B

Option B would account for 62% of the units allocated by the RHNA. As a public benefit, Option B proposes six affordable dwelling units. The six affordable units represent a portion (16%) of the proposed 38 new units. The six affordable dwelling units proposed by Option B would consist of two studio units, two one-bedroom unit, and two two-bedroom units. No three-bedroom units are proposed as affordable housing units. Three of the affordable units under Option B would be gifted to the City or a City-designated entity, which would likely result in lower-tier affordability qualification. Therefore, those units could be provided as low, very-low or extremely-low income units, which would satisfy 14% of the City's low affordable housing needs under Option A. The remaining three units would be for moderate income residents, which would satisfy 15% of the City's moderate affordable housing needs.

Affordability

The rental rates or purchase price for all affordable dwelling units required would be calculated in accordance with affordability levels for moderate income households (120% of the Area Median Income [AMI]) as defined by the State of California Department of Housing and Community Development (HCD), and the San Diego County Office of Housing and Community Development for San Diego County, and as adjusted and published annually. All seven of the affordable dwelling units would be subject to the recordation of a deed restriction committing the property owner and any successors-in-interest to limiting rental rates or purchase prices to the affordability rates to families with income levels at 120% of AMI or less for a period of 55 years from the date of issuance of the Certificate of Occupancy for such residential unit(s).

In lieu of a deed restriction required to ensure affordability as provided within the Specific Plans, all or part of the affordable dwelling units may be sold, deeded, or otherwise transferred to the City of Del Mar or to any other managing agency acceptable to the City of Del Mar and remain in full compliance with all codes and provisions for providing the required percentage of affordable dwelling units. Four of the affordable units under Option A and three affordable units under Option B would be gifted to the City or a City-designated entity, which would likely result in lower-tier affordability qualification.

Per Assembly Bill No. 2222 the Planning and Zoning Law requires, when a developer of housing proposes a housing development within the jurisdiction of the local government and the developer requests that the city and county provide the developer with a density bonus and other incentives or concessions for the production of lower income housing units or the donation of land within the development if the developer, among other things, agrees to construct a specified percentage of units for very low, low-, or moderate-income households or qualifying residents. With respect to State Density Bonus Incentives, Watermark Del Mar proposes that, with approval of Option A or Option B, any possible density increase or development incentives specified in the Del Mar Municipal Code would not be applicable to the site.

3.5.3 Circulation

Option A and Option B

Vehicular access to the proposed project site would be provided from a single driveway on San Dieguito Drive. The location of the driveway would be in approximately the same location as the existing driveway currently in use for fairground and racetrack parking. The proposed driveway curb cut would access onto a private drive ramp to enter the secured parking facility for residents and guests. The drive ramp for Option A was designed to provide queuing space for two cars as measured from the access card/key box. The drive ramp for Option B uses a flood wall design and widens the street at entry to provide space for a second car at access card/key box.

Both Options were designed to accommodate both pedestrians and cyclists, with multiple access points for such uses. In addition to the parking structure ramp, an additional pedestrian/cyclist entry point would be provided at a second location on San Dieguito Drive. The central entry way along Jimmy Durante Boulevard would serve as the main pedestrian entry point to the neighborhood with its centralized positioning and entry surrounded by trellis works and landscaping. Two additional pedestrian/cyclist entry points would be provided at each end of the project site along Jimmy Durante Boulevard. The western-most entry point would provide access to the walking route to Del Mar Plaza and the downtown area. The eastern-most pedestrian/cyclist entry would provide access to the San Dieguito Lagoon and riverside strolling opportunities (**Figure 3-5** and **Figure 3-6**).

3.5.4 Parking

Option A and Option B

The parking garage for both Options would be partially subterranean and only one level, with the podium deck level ranging between approximately four and eight feet above street grade. "Podium" construction is a concrete structure that forms the base level of a building, such as a subterranean or first level parking garage. The lid of the structure allows the construction above to be classified as a separate and distinct building type. The parking structure under Option A would be 43,000 square feet and include 108 parking spaces. The parking structure under Option B would be 51,630 square feet and include 100 parking spaces. The reason Option B's parking structure is larger, but has fewer spaces, is due to the additional uses (storage, mechanical equipment, etc.) that would be included within the parking structure.

The parking structure would be accessed via a new curbed driveway at San Dieguito Drive that would lead to a private drive ramp. The existing curb cut driveway at Jimmy Durante Boulevard at the west end of the project site would be eliminated. Access to the parking structure was designed to be controlled by a card key access system located on the private drive ramp to enhance security and control vehicular access to the parking structure. The Specific Plans for both Options A and B state that the parking structure was designed to screen parking areas from view of adjacent properties and public rights-of-way by placing the parking structure partially below ground and, through the use of low decorative walls, earth mounding, and landscaping.

The Del Mar Municipal Code requires studios, one-bedroom, two-bedrooms, and three-bedrooms to have either one garage parking space and one additional onsite space, or two garage parking spaces. For guest parking, the Municipal Code requires one space for every four units or 0.25 space for every one unit. The proposed project would provide one (1) stall for each studio or one-bedroom unit; and two (2) stalls for each two-bedroom or three-bedroom unit. Additionally, Option A would provide guest parking stalls at a ratio of 0.25 stall per unit and Option B would

provide guest parking stalls at a ratio of 0.50 stall per unit. Guest parking spaces would be designated and reserved for guest parking only, and identified through signage as "Guest Parking." Standard parking spaces would account for approximately 70% of the total parking spaces required, and would be a minimum of 9 feet wide by 18 feet deep. All parking spaces under Option B would be standard size. Option A would include compact parking spaces, which would account for up to 10% of the total number of required parking spaces and would be 7.5 feet wide by 15 feet deep and tandem parking spaces (one car parked directly behind another), which would account for up to 20% of the total parking spaces required and would be 9 feet wide by 36 feet deep. All required accessible (disabled) parking spaces would be constructed in a manner required by the most current edition(s) of the State of California Uniform Building Code (Title 24) as amended.

3.5.5 Recreational Amenities

Option A and Option B

Amenities as described in the Specific Plans for both Option A and Option B would include a pool, spa, lounge, and recreation area for use by residents. The pool, spa, and lounge area provide for approximately 2,600 square feet of recreational area under Option A and 1,850 square feet of recreational area under Option B. In addition, there would be a600-square-foot recreation room under Option A and a 1,200-square-foot recreation room under Option B. The single-story building would house the recreation room, which could serve as a gathering point for the neighborhood with a view over the pool, spa, and lounge area.

3.5.6 Utilities

Option A and Option B

Sanitary sewer service would be provided by connecting to an existing sanitary sewer main adjacent to the property at the westernmost portion of the site's Jimmy Durante Boulevard frontage. There is adequate sewer capacity to meet the needs of this project at build out under both Options (see Section 4.14, Utilities).

A private water system would be provided through a point of connection in Jimmy Durante Boulevard, extended to the property to a new on-site water meter assembly, and distributed within the project site for domestic, fire, and landscape irrigation purposes. There is adequate water capacity to meet the needs of this project at build out (see Section 4.14, Utilities).

A new fire hydrant would be provided on Jimmy Durante Boulevard and on San Dieguito Drive.

A private storm drain system would be incorporated into the design to provide stormwater treatment with a proposed bioretention basin prior to connecting to the existing storm drain outlet on San Dieguito Drive.

Electrical lines currently exist along Jimmy Durante Boulevard and San Dieguito Drive, and natural gas lines currently exist to the west and south of the site. Electrical and natural gas service is available to serve the needs of both Options.

3.5.7 Off-Site Improvements

Option A and Option B

Both Options propose a loading area along San Dieguito Drive for use by residents for delivery and unloading of furniture and appliances typically associated with the move-in and move-out of residents. The proposed loading area would be located just south of the proposed parking structure access (dimension approximately from intersection), and would include provisions for a pedestrian ramp and associated pedestrian sidewalk. Both Options propose a new sidewalk from the new roundabout improvements along the property frontage of San Dieguito Drive south to the southeastern property corner.

Sidewalk along the project frontage with Jimmy Durante Boulevard has been recently completed with the pedestrian improvements connecting to the Village, and the roundabout. . Additionally, street frontage improvements would be included as part of both Options. Street frontage improvements along Jimmy Durante include special landscape treatments in the right-of-way to screen the parking garage podium and frontage improvements along San Dieguito Drive include sidewalk improvements and a loading/unloading zone for trucks. Option B also includes lane widening before the entry drive.

3.5.8 Construction and Phasing

Option A and Option B

Construction is anticipated to commence following completion of entitlement efforts and completion of building design and associated permits. Construction is anticipated to last for approximately 24 months for either Option, at which point building occupancy would occur. Construction equipment would include rollers, rubber-tired dozers, scrapers, water trucks, pavers, paving equipment, cranes, forklifts, and tractors/loaders/backhoes. Concrete and delivery trucks would also be used. Construction equipment would be used intermittently depending on the construction phase.

Construction of Option A would involve approximately 26,500 cubic yards of soil cut and 2,900 cubic yards of fill, resulting in 23,600 cubic yards of soil export. Construction of Option B would involve approximately 28,000 cubic yards of soil cut and 1,500 cubic yards of fill, resulting in 26,500 cubic yards of soil export. A more detailed description of the construction schedules for each Option, including information regarding subphases and equipment used during each subphase, is included in **Appendix C**.

Phasing would consist of construction of the parking structure, grading of the disturbed slope, construction of the residential structures over parking structure podium, and construction of the balance of the residential structures. Construction trucks would operate within the limits of the construction hours identified in the City's Noise Ordinance.

3.6 APPROVALS

Discretionary Approvals

The following discretionary approvals are anticipated to be required to implement either Option A or Option B:

- Floodplain Development Permit
- Coastal Development Permit
- Design Review Board Permit
- Land Conservation Permit
- Encroachment Permit
- Tree Removal Permit

Legislative Approvals

The following legislative approvals are anticipated to be required to implement either Option A or Option B:

- Adoption of Specific Plan by Ordinance
- Approval of Community Plan Amendment by Resolution
- Approval of Local Coastal Program Amendment by Resolution (approval of Land Use Plan portion of the Local Coastal Program)
- Approval of Local Coastal Program Amendment by the California Coastal Commission after conclusion of the City's process.

3.7 REFERENCES

City of Del Mar. 2013. City of Del Mar Community Plan Housing Element 2013–2021 (April 30, 2013–April 30, 2021). Adopted by City Council Resolution No. 2013-27 on May 20, 2013. http://www.delmar.ca.us/DocumentCenter/View/257.

State of California. 2014. Department of Housing and Community Development. Division of Housing Policy Development. State Income Limits for 2014. http://www.hcd.ca.gov /hpd/hrc/rep/state/inc2k14.pdf.

SANDAG (San Diego Association of Governments). 2011. Regional Housing Needs Assessment Plan, Fifth Housing Element Cycle, Planning for Housing in the San Diego Region 2010-2020. October 28, 2011.

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SOURCE: ESRI, 2017

FIGURE 3-1
Regional Map

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Watermark Del Mar Specific Plan EIR

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DUDEK

SOURCE: Bing Maps 2017

FIGURE 3-2
Vicinity Map

Watermark Del Mar Specific Plan EIR

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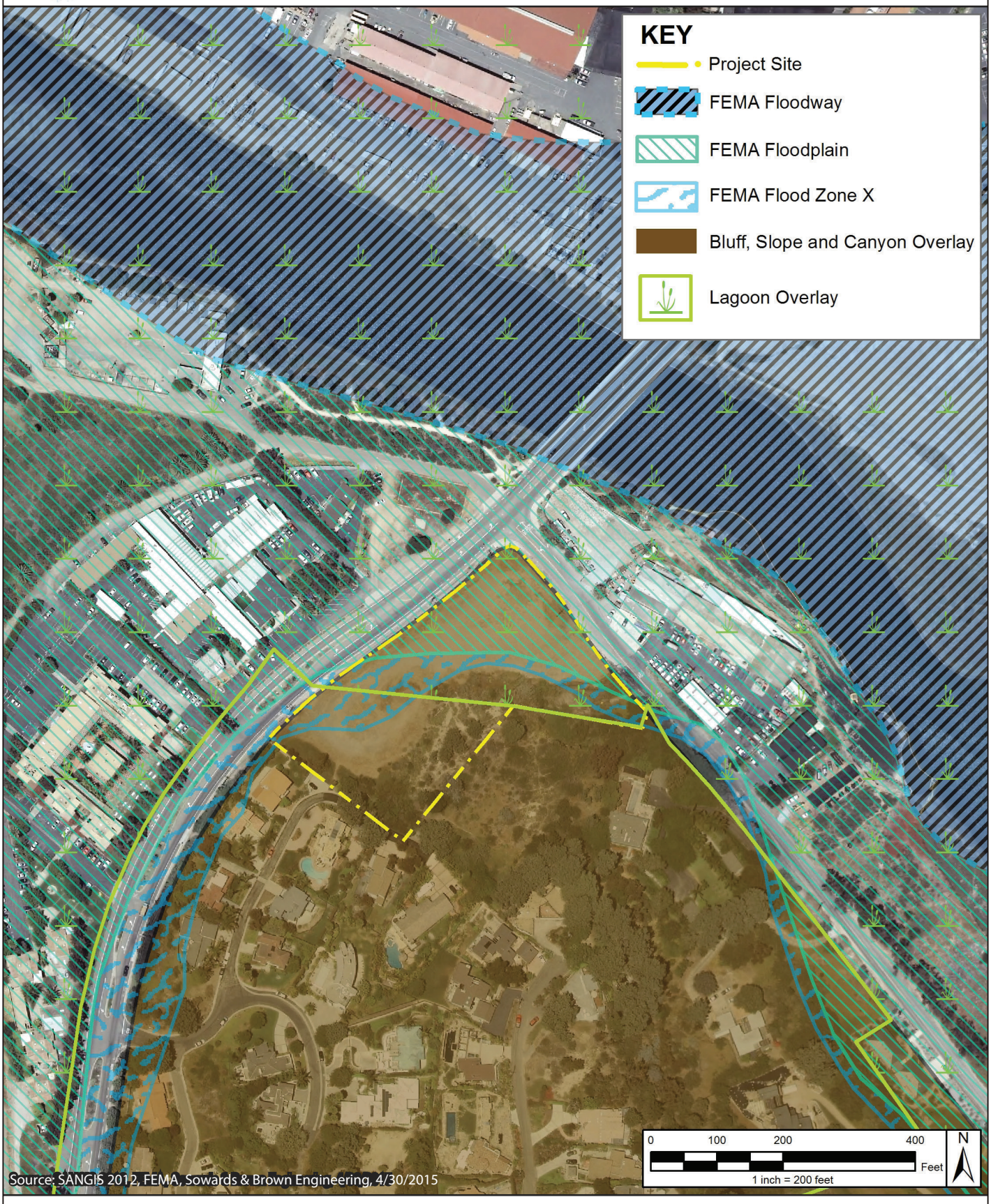

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SOURCE: SANGIS, 2012; FEMA; Sowards & Brown Engineering, 4/30/2015.

Figure 3-3
Existing Overlay Zones On Site

Watermark Del Mar Specific Plan EIR

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SOURCE: SANDAG, 2014

FIGURE 3-4
Existing Site Layout

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Watermark Del Mar Specific Plan EIR

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SOURCE: Benson & Bohl Architects 2017

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FIGURE 3-5
Conceptual Site Plan - Option A (48 Units)

Watermark Del Mar Specific Plan EIR

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20 10 0 20 40 60

SCALE: 1"=20'

SOURCE: Benson & Bohl Architects 2017

FIGURE 3-6

Conceptual Site Plan - Option B (38 Units)

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CHAPTER 4
INTRODUCTION TO ANALYSIS

This section describes the existing conditions and setting; discusses potential significant environmental effects; and identifies feasible mitigation measures to avoid, substantially lessen, or otherwise mitigate the potential significant environmental impacts of the Watermark Del Mar Specific Plan (WDMSP) Option A and Option B. The technical topics addressed in Sections 4.1 through 4.15 of this environmental impact report (EIR) were identified by the City of Del Mar Planning Department through scoping, which occurred through the Notice of Preparation process. Technical studies supporting some or all of the information presented in this section are found in the EIR appendices. Other supporting documents containing supporting information found in this EIR include a number of federal, state, and local regulatory documents. The environmental topics discussed in Chapter 4 of this EIR are as follows:

- 4.1, Aesthetics
- 4.2, Air Quality
- 4.3, Biological Resources
- 4.4, Cultural and Paleontological Resources
- 4.5, Geology and Soils
- 4.6, Greenhouse Gas Emissions
- 4.7, Hazards and Hazardous Materials
- 4.8, Hydrology and Water Quality
- 4.9, Land Use and Planning
- 4.10, Noise
- 4.11, Population and Housing
- 4.12, Traffic and Circulation
- 4.13, Public Services
- 4.14, Utilities and Service Systems
- 4.15, Recreation

Section Content and Organization

These sections contain a description of the existing setting conditions, an evaluation of the direct and indirect environmental effects resulting from implementation of Option A or Option B, presentation of applicable mitigation measures, and identification of whether significant environmental effects as a result of Option A and Option B would remain after application of the mitigation measures. The individual sections of this EIR are presented in the following format:

Introduction and Methodology: This subsection introduces each resource area analyzed and describes the methodology used in assessing the project's impacts, including reference sources and investigation.

Existing Conditions: This subsection discusses the project's existing conditions and setting.

Relevant Plans, Policies, and Ordinances: This subsection consists of identification of applicable federal, state, regional, and local plans, policies, and ordinances that apply to the technical area of discussion.

Thresholds of Significance: This subsection outlines the California Environmental Quality Act (CEQA) Guidelines Appendix G significance criteria used in assessing impacts for a particular environmental category.

Impacts Analysis: This subsection discusses the impacts of Option A or Option B based on the description of the CEQA Guidelines significance criteria used in assessing impacts for the specific environmental topic.

Mitigation Measures: This subsection identifies the mitigation measures recommended in the EIR to avoid, substantially lessen, or otherwise mitigate the identified potential significant effects of Option A or Option B.

Level of Significance after Mitigation: This subsection presents the final analysis of the level of significance of any potential significant impacts resulting from Option A or Option B after mitigation.

Environmental Assessment Methodology

Pursuant to CEQA Guidelines Section 15125a, the environmental setting used to determine the impacts associated with Option A or Option B and the alternatives to these Options is based on the environmental conditions that existed in the project area at the time the Notice of Preparation was distributed. This EIR evaluates the potential direct and indirect impacts that would be caused by Option A or Option B if approved and implemented. The impacts identified were compared to the significance criteria established within Appendix G of the CEQA Guidelines. Based on these criteria, impacts were classified according to the following significance categories: no impact, less-than-significant impact, less than significant with mitigation incorporated, or potentially significant impact.

For each significant impact identified, where feasible, mitigation measures were incorporated that would reduce significant impacts to a less-than-significant level or avoid the impact. Mitigation measures are presented for consideration by decision makers as possible conditions of project approval. Project design features were also incorporated into Option A and Option B to avoid or reduce impacts from construction and operation.

Terminology Used in the Analysis

No Impact: Implementation of Option A or Option B would not apply to the significance criteria, and would not create an impact in that category. No mitigation is required.

Less-than-significant impact: Implementation of Option A or Option B would cause no substantial change in the physical condition of the environment. No mitigation would be required for project effects found to be less than significant.

Less than significant with mitigation incorporated: Implementation of Option A or Option B would cause a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by either Option; however, with mitigation measures incorporated, impacts would be reduced from a potentially significant impact to a less-than-significant impact.

Potentially significant impact: Implementation of Option A or Option B would cause a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by either Option that could result in a significant impact. Mitigation is required for effects found to be potentially significant.

Significant and unavoidable impact: Implementation of the Option A or Option B would cause a significant and unavoidable impact that would result in a substantial change in the environment that cannot feasibly be avoided or mitigated to a less-than-significant level.

Significant Determination: A significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by Option A or Option B.

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4.1 AESTHETICS

This section evaluates the potential changes to the existing aesthetic and visual characteristics of the project site and vicinity that could result from development of the Watermark Del Mar Specific Plan (WDMSP) Option A and Option B. The analysis focuses on the change in visual character, effects on views from scenic roads, visual compatibility with surrounding uses, and potential daytime or nighttime views that potentially could be disturbed by light and glare generated by Option A and Option B. The analysis is based on a review of existing resources; proposed visual simulations; and applicable laws, regulations, and guidelines.

4.1.1 Introduction and Methodology

4.1.1.1 Methods of Visual Resource Analysis

"Aesthetics" refers to visual qualities within a given field of view and may include such considerations as size, shape, color, texture, and general composition, as well as the relationships between these elements. Aesthetic features often consist of unique or prominent natural or created attributes or several small features that, when viewed together, create a whole that is visually interesting or appealing.

When viewing the same landscape, people may have different responses to that landscape and any proposed visual changes, based upon their values, familiarity, concern, or expectations for that landscape and its scenic quality. Because each person's attachment to and value for a particular landscape is unique, visual changes to that landscape inherently affect viewers differently. However, generalizations can be made about viewer sensitivity to scenic quality and visual changes.

Visual Quality

Visual quality is affected by the aesthetic characteristics of a particular area. Such aesthetic elements may include physical characteristics and the perception of the viewer. Physical characteristics influencing the visual quality of an area may include such features as topography, landform, natural vegetation, water bodies, visual diversity, and visible coloring.

Areas with high visual quality may offer physical characteristics such as varying vertical relief; established natural vegetation with visually pleasing form, color, texture, or pattern; water features; or other elements that create a visually unified landscape. Particular views with high visual quality may include those with distinct focal points or patterns, enhanced or existing natural scenery, compatibility with the character of the surrounding landscape, and/or a unique visual setting within the surrounding area.

Moderate visual quality is generally considered to be represented by views that are interesting but not be visually exceptional with regard to landforms or other physical characteristics. Such views may consist of dominant types of vegetation, water features, colors within the landscape, or other elements that visually unify a particular view or landscape. Contributing factors may include a varied composition that includes visual patterns created by landscape elements, enhancement of views from adjacent scenery, and/or a visual setting that is distinguishable from views within the surrounding area.

Low visual quality may be represented by areas with limited or no existing landforms or changes in topography, sparse or indiscernible vegetation types due to density, absence of water features, monotonous color palettes, or limited visual elements of varying visual interest. Visual quality may be considered to be low if views are varied but visually disconnected, lack perceivable visual patterns, are adjacent to views that devalue the existing scenic quality, or do not generally represent a visual setting that is common and/or valued within the surrounding area.

Viewer Response

Viewer response is composed of two elements: viewer sensitivity and viewer exposure. These elements combine to form a method of predicting how the viewers might react to visual changes brought about by a project. The concepts of viewer sensitivity and viewer exposure are described in the following paragraphs.

Viewer Sensitivity

Visual sensitivity is described in qualitative terms of high, medium, or low, and is based on the number of users and attitudes toward changes to the visual environment. Factors considered include the number and types of viewers potentially affected, viewing distances, and documented public concerns about visual changes.

Viewer Exposure

In addition to the visual factors described previously, the visual resources analysis considered viewer exposure. The elements of viewer exposure help to define viewer perceptions resulting from a dynamic experience with the landscape and related visual resources. Viewer exposure varies depending on the angle of view (i.e., normal, inferior, or superior viewing angles), view distance (i.e., foreground, middle ground, and background), relationship to sun angle (e.g., backlighting vs. front or side lighting), the extent of visibility (i.e., whether views are panoramic or limited by vegetation, topography, or other land uses), and viewer screening conditions (e.g., whether the project facilities would be skylined on ridgelines, backscreened by topography and/or vegetation, or screened by structures or vegetation in the foreground). Viewer exposure also considers the duration of view based on viewer activity (e.g., travel, residential use, and

recreation), and often relates to speed of travel (i.e., pedestrian, vehicular, or stationary). Viewer exposure is considered long term for residents, short term for travelers along roadways, and moderate for users of public trails.

Viewer Volume

Viewer volume is the number of potential viewers from any given point. Viewer volume can be defined by the average daily traffic on a roadway, the number of residents in a development, consumers at a large commercial center, or the users of a recreational area. Although viewer volume does not directly translate to viewer sensitivity, it can influence this factor by taking into consideration the amount of potential viewers at a given observation point.

4.1.2 Existing Conditions

4.1.2.1 Overview

The project site is located in the City of Del Mar, a small residential community located on the coastal fringe of the San Diego region, approximately 20 miles north of downtown San Diego, approximately 1 mile west of Interstate 5, approximately 2 miles south of the City of Solana Beach, and approximately 0.2 mile from the Pacific Ocean. The City is bounded by the beach for approximately 2.5 miles and extends inland 1 mile at its widest point. The City contains approximately 1,100 acres of land situated in a unique natural setting, and is the southern-most of six small beach communities on the northern coast of the San Diego region. For much of the City's western boundary, steep cliffs rise abruptly from a sandy ocean beach to heights of approximately 75 feet. From the cliffs, the land rises to nearly 400 feet above sea level. To the north, Del Mar is crossed by the San Dieguito River. Over time, the San Dieguito River has eroded the cliffs to form a broad, flat, marshy floodplain. Crest Canyon extends south from the San Dieguito River and forms much of the eastern boundary of the City. Del Mar's southern boundary, located by the Torrey Pines Estuary of Los Penasquitos Creek, is marked by a deep gorge that cuts into the coastal bluffs. Torrey Pines State Reserve, noted for its presence of the rarest pine in North America, Torrey pine (*Pinus torreyana*), also adjoins Del Mar at its southern boundary (City of Del Mar 1976).

The project site is located in the northern portion of the City. Landforms in this area include a large bluff in the eastern portion of the proposed project site and the San Dieguito Lagoon and River to the north and east, respectively. The Community Plan for Del Mar considers the bluffs to be unique landforms that provide visual relief and diversity within Del Mar, and indicates that efforts should be made to preserve these features whenever possible, particularly at the north and south ends of the City's hill areas (City of Del Mar 1976).

Land uses near the project site consist of single-family residences to the south and southwest, which are comprised of large two-story structures, with private driveways, front and back yards, varied in architectural styles, high quality materials, and neutral color tones. The commercial development to the west of Jimmy Durante Boulevard consists of one and two-story low slung buildings, fronted by landscaping, business signage and surface parking. These commercial structures are neutral in color and vary in architectural design. The commercial and semi-industrial developments to the north of San Dieguito Drive consist of various facilities, including Del Mar Blue Print, Rose Towing, Viewpoint Brewing Company, and Del Mar Automotive. These businesses are comprised of a variety of building façade materials such as concrete and brick, as well as sheet-metal warehouses. Concrete and asphalt surface parking fronts these businesses, and metal chain-link fencing as well as a sheet-metal storage structure separates these business lots from the streetscape.

4.1.2.2 Visual Character of the Project Site

The project site is located within the northern portion of the City. The project site is currently a vacant dirt lot, except for a terraced cut/fill pad in the northern portion of the site. The majority of the project site has been highly disturbed by human activities, and is currently subject to use as a seasonal paid lot for overflow parking during the summer fair and racetrack events at the Del Mar Fairgrounds. These disturbances have resulted in severely limited natural vegetation growth.

Portions of bluffs on site have been previously graded and were once highly disturbed (see **Figure 2-1**). It appears from historic aerials that the entire site was previously graded and the southwestern portion was used as a borrow pit. A more recent aerial (**Figure 3-3**, Existing Site Layout) shows how the manufactured slopes/bluff area has revegetated since the heavy disturbance that occurred in the late sixties and early seventies. A steep area of exposed bluff face at the northeast corner of the property provides the most notable feature of the sloped area.

No scenic rock outcroppings or historic buildings exist on site; however, 13 Torrey pine trees exist on site within the bluff area. The Torrey pine is indigenous to this region and has become an iconic and protected tree by the City of Del Mar. The Torrey pine tree is considered a significant visual resource under the Community Plan. With the exception of the slopes and bluff, the site lacks visual quality.

4.1.2.3 Project Viewshed

A viewshed is a useful analytic tool to aid in the identification of views and viewers that could be affected by development of a project site, and comprises all of the surface areas visible from an observer's viewpoint. The limits of a viewshed are defined as the visual limits of the views located from a project site, and a viewshed typically includes the locations of viewers likely to be

affected by visual changes brought about by project features. The viewshed was determined in the previously certified Riverview Office Project EIR for the project site, through field analysis, and through analysis of aerial and topographic maps (see additional detail in Chapter 2, Environmental Setting). The viewshed boundary consists of the following approximate distances surrounding the project site: 900 feet to the north, 0.8 mile to the northeast, 0.75 mile to the east, immediately adjacent to the south, and 300 feet to the west (**Figure 4.1-1**, Viewshed Boundary). The viewshed boundary is where the most direct views of the project site exist. Views of the project site from a distance greater than 0.8 mile are generally blocked or limited by existing terrain, elevations, view angles, landforms, or development.

The northwest areas of the project site and surrounding areas to the west and north are flat. The topography gradually rises up to a bluff in the central and eastern portions of the project site and continues off site up to the crest of the hillside. The viewshed primarily consists of immediate roadway corridors, businesses directly west across Jimmy Durante Boulevard and directly northeast across San Dieguito Drive, lagoon trails across from the fairgrounds to the north, and adjacent residential development to the south, specifically on Heather Lane.

Viewer Groups

Sensitive viewpoints generally include surrounding residences, recreational areas, and designated scenic roads. The following descriptions identify sensitive viewers within the area. The responses of the sensitive viewers to visual changes resulting from construction of either Option were inferred from a variety of factors, including view exposures, the type of viewer, the duration of view, and the viewer's activities. View exposure incorporates a consideration of the viewing distance and angle.

Residential Groups

Residential groups are considered stationary, sensitive visual receptors. Two single-family residential units are located directly south of the project site, and another single-family residence is located atop the bluff to the east that overlooks the project site (currently under construction but substantially complete). The Community Plan indicates that the project site is an area of outstanding topography, and that views from the south are afforded across the project site (City of Del Mar 1976). However, the immediate views from these residences across the project site currently consist of a graded area void of vegetation, a manufactured slope, and top of the natural bluff. The foreground view includes a created plateau that steps down to the larger level area of the project site. Distant views include the Del Mar Fairgrounds and background hills with residential development.

Motorists (Mobile Groups)

Motorists, or mobile viewers, are observers on a road/highway that are afforded temporary views to a project area. There are two existing roadways adjacent to the project site. The Community Plan designates six principal roadways within Del Mar which serve as scenic corridors, including Turf Road, which is now Jimmy Durante Boulevard, which is within the project site's vicinity. As stated under the Transportation section of the Community Plan (page 45), persons proceeding south along Jimmy Durante Boulevard are able to view the San Dieguito River Valley area at a close range as well as Crest Canyon and the rugged north bluffs and slopes of the Del Mar hills in the distance (City of Del Mar 1976). Jimmy Durante Boulevard is located directly west of the project site and runs north/south past the project site for approximately 453 feet. The speed limit on Jimmy Durante Boulevard is 40 miles per hour (mph), which means traveling motorists would have a view of the project site for approximately eight seconds. People proceeding both northbound and southbound on this road are able to view the San Dieguito River Valley at close range, as well as Crest Canyon, the rugged north bluffs, and the distant slopes of the Del Mar hills. Existing views of the project site along Jimmy Durante Boulevard primarily consist of a vacant, graded lot ascending gently toward a vegetated bluff and residences beyond. Minimal vegetation and rocks surround the perimeter of the project site, allowing direct views of the project site from the Jimmy Durante Boulevard/San Dieguito Drive intersection. Overhead utility lines are also predominant features along the east side of Jimmy Durante Boulevard.

San Dieguito Drive runs west–east (northeast) adjacent to the project site, intersecting Jimmy Durante Boulevard at the most northern point of the project site. This intersection acts as a northern "gateway" into the more developed portions of the City to the south, and providing connectivity across the San Dieguito River with the Del Mar Fairgrounds and the neighboring City of Solana Beach to the north. Motorists on San Dieguito Drive are afforded approximately 245 feet of temporary views of the project site, between the most northeastern corner and the most northern corner of the project site. The speed limit on San Dieguito Drive is 25 mph, which means traveling motorists would have a view of the project site for approximately seven seconds.

With the recent installation of a roundabout at the intersection of Jimmy Durante Boulevard and San Dieguito Drive, motorists would have views of the project site for varying durations depending on the number of vehicles entering or within the roundabout.

Recreationalists and Pedestrian Groups

Designated bike lanes run in both directions on Jimmy Durante Boulevard, and cyclist would be afforded direct temporary views of the project site. Pedestrians using the sidewalk on the east side of Jimmy Durante Boulevard would also be afforded direct views of the project site. Trail linkage to the Del Mar Inlet Trail and the Coast to Crest Trail could allow potential temporary

indirect views of the project site to hikers, pedestrians, and other such recreationalists north of the project site. Pedestrians along the trail linkage are afforded approximately 528 feet of temporary views of the project site, which means pedestrians would have a view of the project site for approximately two minutes.

Existing Visual Resources

Existing visual resources consist of the following:

- Bluffs (within the proposed project site and immediately east)
- Pacific Ocean (0.3 mile west of the proposed project site)
- San Dieguito River (0.05 mile north of the proposed project site)
- Del Mar Fairgrounds (0.15 mile north of the proposed project site)

Key Observation Point Locations

Key views, or key observation points (KOPs), were selected based on the most probable sensitive viewer groups that may be affected by the Options. KOPs can be established from stationary viewing sources, such as homes, business, and parks, or from mobile points, such as roadways, bike paths, and sidewalks, so long as the viewer impact can be quantified based on time of exposure. Visual changes or impacts caused by construction of the Options were evaluated by viewing the existing visual character of the landscape from each key view and assessing the degree to which each would change following build-out of either Option.

The location of KOPs from which to assess the anticipated aesthetic impacts of both Options were identified based on locations surrounding the property that afforded views of the project site. The KOPs consider multiple viewing angles and distances that would illustrate potential visual changes resulting from both Options. **Figure 4.1-2**, KOP Location Map, shows an aerial image from which the KOPs were taken in the area surrounding the project site. Existing KOPs are described below.

KOP 1

KOP 1 represents the view from the San Dieguito River level at the southern-most boundary of the Del Mar Fairgrounds (**Figure 4.1-3**, KOP 1 Existing Conditions). From this KOP, the San Dieguito River and its south bank are immediately visible in the foreground, as is the bridge portion of Jimmy Durante Boulevard that crosses over the San Dieguito River running north–south. From this KOP, the viewer cannot see the ground level of the proposed project site due to existing vegetation and the bridge; however, the mixed shades of green vegetated slopes and portions of rugged bluff on the proposed project site are visible in the middle ground. Overhead

utility lines are also apparent within the middle ground. The viewer can see prominent views of the west and north elevations of the large single family residence that sits atop the bluff, through existing trees, and the second story of the residence at the southern boundary of the project site. This large single family residence substantially contrasts the existing vegetation due to its angular light colored structure and large glass window panes. Existing vegetation that makes up the foreground and middle ground of this KOP include disturbed native coastal grasses along the river bank, coastal brackish marsh wetland, southern coastal bluff scrub, disturbed southern coastal bluff scrub, and non-native vegetation and palm trees, all of which are varying shades of green. Due to the bluff, existing landscaping, and an upward elevation from this KOP, background views are not available. Viewer groups that would most likely be afforded these views include recreationalists and pedestrians.

KOP 2

KOP 2 represents the view of the project site from the trailhead across Jimmy Durante Boulevard at the intersection of Jimmy Durante Boulevard and San Dieguito Drive (**Figure 4.1-4**, KOP 2 Existing Conditions). This KOP is approximately 130 feet northwest of the project site. Existing foreground views primarily consist of the low-profile roundabout and associated signage along with the dirt trail head, scattered shrubs, decorative rocks, and wooden trail signage. The middle ground consists of Jimmy Durante Boulevard, the most western point of San Dieguito Drive, street signage, and overhead utility lines. Past the roadway, the viewer can see the entirety of the project site, which consists of flat, graded land ascending into disturbed slopes and steep coastal bluffs. The majority of the proposed project site is disturbed habitat, but the remainder of the proposed project site is occupied by the small coastal brackish marsh wetland in the eastern part of the site, non-native vegetation in the southwestern section of the site, southern coastal bluff scrub in the southeast corner of the site, and disturbed southern coastal bluff scrub along the southern edge of the site. Partial views of two residences can be seen past the southern portion of the project site, through existing landscaping and overhead utility lines. Similar to KOP 1 above, the prominent façade of the large single family residence atop the bluff consisting of large glass windows and a light colored, angular structure is highly visible. The tall wooden utility poles add stark vertical lines that contrast to an otherwise horizontal and sloping backdrop. Existing vegetation and landscaping, as well as the bluff, block any distant background views from this KOP.

KOP 3

KOP 3 represents the view available from the west side of scenic roadway, Jimmy Durante Boulevard looking east to the proposed project site (**Figure 4.1-5**, KOP 3 Existing Conditions). Viewer groups that would be afforded these views include mobile viewers heading both southbound and northbound on Jimmy Durante Boulevard, pedestrians and cyclists, and

potentially commercial businesses adjacent to the proposed project site on the west side of Jimmy Durante Boulevard. In the immediate foreground, the viewer can see Jimmy Durante Boulevard, which includes thin street medians minimally landscaped with drought-tolerant plants, and the eastern sidewalk of Jimmy Durante Boulevard, which parallels the proposed project boundary. The visible proposed project site boundary is dressed with large rocks and sparse brush and grasses along the perimeter, with visible utility lines directly overhead. In the middle ground are the central and northern flat, dirt portions of the proposed project site, as well as the created plateau in the central/southern portion of the site that ascends into the eastern slopes and bluff portion of the proposed project site. The slopes consist of dark green vegetation, including protected Torrey pine trees; and ascend into rugged tan-colored bluff formation which continue upward to scattered dark, dense trees at the bluff top. The disturbed, dirt lot portion of the project site lacks visual quality and cohesiveness, in contrast to the vegetated slope and bluff.

Similar to KOPs 1 and 2, prominent views are available of the large single family residence atop the bluff, through the dense scattered pine trees due to the contrast between the existing vegetation and exterior light color finish of the residence. The northern middle ground of KOP 3 consists of white, low-rise commercial structures with sand-colored roof tops to the north/northeast of the proposed project site, backed by additional overhead utility lines running east/west. Background views are not afforded past the bluff, but, in the northeast distance of this KOP past the commercial structures, broken views of dark rolling hills with scattered residences can be seen.

KOP 4

KOP 4 represents the views available for motorists driving westbound along San Dieguito Drive (**Figure 4.1-6**, KOP 4 Existing Conditions). The project site is not visible until motorists reach this point traveling westbound, as views of the project site are blocked by existing hillside vegetation and landscaping, as well as the steep bluff areas and hillside residences east of the project site and to the south of San Dieguito Drive. In the immediate foreground, the viewer can see the San Dieguito Drive streetscape and coarse roadside gravel off to the south shoulder, leading up to a vegetated slope. In the middle ground, the viewer can see a small portion of the existing graded dirt lot on the proposed project site (as described previously, this lot is used as is paid county fair and horse race event parking), past the vegetated slope and large rocks that surround the perimeter of the project site. San Dieguito Drive continues to run west to the most northern boundary of the proposed project site. Five overhead utility poles and associated lines are visible in the middleground. The background of KOP 4 consists of a variety of scattered tall trees that differ in hues of greens and browns, with distant views of scattered road signage, low-level landscaping, and shielded commercial buildings past the proposed project site looking west. Due to tall trees, existing structures, and elevation, views of the San Dieguito River and the ocean are not afforded from this KOP.

KOP 5

KOP 5 represents the view from Coast to Crest Trail along the northern bank of the San Dieguito River (**Figure 4.1-7**, KOP 5 Existing Conditions). From this KOP, the San Dieguito River and its south bank are immediately visible in the foreground. The middleground view consists of the commercial and semi-industrial developments to the north of San Dieguito Drive which are comprised of a variety of building façade materials such as concrete and brick, as well as sheet-metal warehouses. A small section of the bridge portion of Jimmy Durante Boulevard that crosses over the San Dieguito River running north–south is visible to the west. From this KOP, the viewer cannot see the ground level of the proposed project site due to existing vegetation and commercial land uses; however, the mixed shades of green vegetated slopes and portions of rugged bluff on the proposed project site are visible in the middle ground. Overhead utility lines are also apparent within the middle ground. The viewer can see unobstructed views of the backside of the large single family residence that sits atop the bluff. Similar to the existing commercial development north of San Dieguito Drive, this large single family residence substantially contrasts the existing vegetation due to its angular light colored structure and large glass window panes. Existing vegetation that makes up the foreground and middle ground of this KOP include disturbed native coastal grasses along the river bank, coastal brackish marsh wetland, southern coastal bluff scrub, disturbed southern coastal bluff scrub, and non-native vegetation and palm trees, all of which are varying shades of green. Viewer groups that would most likely be afforded these views include recreationalists and pedestrians.

Views from Residential Street

Existing views of the project site are afforded from Heather Lane, located immediately southwest of the project site. The existing view from the northern bend of Heather Lane consists of the existing vacant project site, which is set at a lower elevation in the foreground. Past the project site, the cross section of Jimmy Durante Boulevard and San Dieguito Drive is visible, along with existing vegetation and electrical lines. Existing foreground and middle ground vegetation shields views of the San Dieguito lagoon from this view. The background view is comprised of scattered views of the Del Mar Fairground buildings, as well as distant, blurred views of residences north of the Del Mar Fairgrounds atop a hill in Solana Beach; these views are limited due to existing landscaping.

4.1.3 Relevant Plans, Policies, and Ordinances

Federal

There are no federal regulations related to aesthetics that are applicable to the proposed Options.

State

California Scenic Highway Program

The California Scenic Highway Program was created in 1963 with the intent to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The state laws that govern the California Scenic Highway Program are Sections 260 through 263 of the Streets and Highways Code. A highway may be designated "scenic" based on the natural landscape visible by travelers, the scenic quality of the landscape, and the extent to which development intrudes on the views of the highway. The California Scenic Highway Program includes both officially designated scenic highways and highways that are eligible for designation. It is the responsibility of local jurisdictions to apply for scenic highway approval, which requires the adoption of a corridor protection program (Caltrans 2008). No roadways within the project area are designated "scenic" under California's scenic roadway classification system.

California Coastal Act

Under the California Coastal Act of 1976, scenic and visual qualities of coastal areas are considered and protected as a visual resource. One of the primary objectives of the California Coastal Act is the protection of scenic and visual resources, particularly as viewed from public places. Section 30251 requires that development be sited and designed to protect views to and along the ocean and other scenic coastal areas. New development must minimize the alteration of natural landforms. This policy also requires that development be sited and designed to be visually compatible with the character of surrounding areas. Where feasible, development should include measures to restore and enhance visual quality in visually degraded areas.

Local

City of Del Mar Community Plan

The Del Mar Community Plan, first adopted in 1976, identifies recommendations for the protection and preservation of the environment and addresses the nine planning topics as required by state law: land use, open space, circulation, housing, seismic safety, scenic highways, safety, noise, and conservation. The Del Mar Community Plan is described as a statement of City policy for the future of the community, and is to be used as a point of reference for all official and administrative decisions. It is the document that ensures that all public efforts are consistent and coordinated for a better community in the future (City of Del Mar 1976). The Del Mar Community Plan is intended to be the document that sets forth the guidelines under which all development takes place. All ordinances established to guide development must conform to and be consistent with the Community Plan (City of Del Mar 1976).

Under the Transportation section of the City's Community Plan (page 45), it is stated that nearly all of the streets serving internal circulation have an informal "country road" feeling due to the lack of sidewalks, curbs, and gutters, and the growth of private landscaping along the edges of the pavement. This aspect of street design is felt by the community to be a positive aesthetic feature worthy of preservation. There are six principal roadways within Del Mar which serve as designated scenic corridors. Turf Road, which is now Jimmy Durante Boulevard, is one of the six "scenic roadways" (City of Del Mar 1976). Jimmy Durante Boulevard is located adjacent to the proposed project site to the west, and runs north/south. From this roadway, persons proceeding south are able to view the San Dieguito River Valley area at close range as well as Crest Canyon and the rugged north bluffs and slopes of the Del Mar hills in the distance (City of Del Mar 1976).

The Community Plan includes goals, policies, and objectives related to protection of visual resources in the City. These policies are analyzed in the City of Del Mar Local Coastal Program Land Use Plan, Goal IV-C, which aims to preserve existing views and view corridors from public vantage points to the maximum extent possible without preventing reasonable use of private property. Additionally, the Community Plan goals and policies related to both Options are outlined below:

Goal 1: Establish without delay a comprehensive program to preserve and acquire permanent open space sufficient to meet the long-range needs of the community, preserve and enhance natural resources, and protect areas and people susceptible to seismic and flooding hazards

Policy F-5: Establish special controls to protect the natural environment in areas of bluffs, slopes, and canyons having special conservation sensitivity.

Goal 2: Minimize the impact of the automobile on the character of Del Mar and emphasize a more pedestrian-oriented environment, safer sidewalks, landscaped buffer zones, and alternate means of transportation.

Policy A-3: Provide a continuous north-south bicycle network through the City.

Policy B-1: Encourage the development of an improved intersection design at Via de la Valle, Stevens Street, Turf Road and Jimmy Durante Boulevard.

Goal 3: Preserve and enhance Del Mar's special residential character and small town atmosphere with its harmonious blending of buildings and landscape in proximity to a beautiful shoreline.

Policy A-1: Enact appropriate land use controls consistent with the Community Development Plan.

Policy A-2: Limit excessive scale and bulk by establishing a maximum floor area to lot ratio in multiple family neighborhoods.

Policy A-3: Limit building height to two stories in all residential areas, prohibit three story facades, and encourage single-story development in areas where two-story construction would be disruptive to neighborhood character and scale of development.

Policy B-1: Strengthen height controls to protect scenic vistas from both private and public areas. Construction in areas of view sensitivity should require design approval to insure protection, in an equitable manner, of the right to view scenic vistas from both near and far.

Policy F-1: Encourage harmonious development which is in scale with the character of existing development.

Policy F-2: Initiate a tree planting and maintenance program along major City streets.

Policy G-1: Avoid development of areas particularly susceptible to erosion and sediment loss (e.g., steep slopes) and/or establish development guidance that identifies these areas and protects them from erosion and sediment loss. It is general policy to limit grading permits or prohibit grading in those areas susceptible to erosion from October 1st through April 30th without the implementation of erosion control measures.

Policy G-2: Prevent undue erosion by retaining stormwater flows and peak flows to creek channels by implementing low impact development design features that include maximum pervious surfaces, minimize natural drainage disturbances, and reduce not directly connected impervious surfaces. Regulate development near watercourses to reduce erosion and pollution and to provide open natural areas.

Policy G-4: Promote site development that limits impact on and protects the natural integrity of topography, drainage systems, and water bodies.

City of Del Mar Municipal Code

Design Review Ordinance

The City of Del Mar Municipal Code (DMMC) Chapter 23.08, Design Review Ordinance, requires all new construction or major remodeling projects within the Plan area to obtain a Design Review Permit (-). The purpose of the City's design review process is to achieve and protect a residential, seaside community which is both beautiful and pleasant in character, by fostering and encouraging good design which encompasses the use of harmonious materials and colors, compatible proportional relationships and appropriate use of landscaping, and to protect the citizens of the City of Del Mar.

Light and Glare

The City of Del Mar Community Plan does not specifically designate any areas within the City as "dark sky" areas. A dark sky area is a place where the darkness of the night sky is relatively free of interference from artificial light. Chapter 23.08, Design Review (Design Review Ordinance/DRO), of the DMMC addresses all lighting policies in relation to neighborhoods and signage. This chapter includes regulatory sections to ensure that the lighting will not adversely affect the lighting or noise quality of the existing neighborhood. The DRO calls for exterior lighting to be functional, subtle, and architecturally integrated with the building's style, materials, and colors. The existing site is currently un-built and does not cause light or glare impacts. The surrounding area contains light sources from residential and commercial land uses and street lighting. The majority of exterior lighting is for walkways, roadways, and security. Taller light structures are found at the Del Mar Fairgrounds; during events, the area is brightly lit when compared to the project site.

Trees, Scenic Views, and Sunlight

Chapter 23.51 of the DMMC, Trees, Scenic Views and Sunlight, seeks to acknowledge the benefits derived from trees, scenic views, and plentiful sunlight, and to balance the goal of maintaining each of them when possible (Del Mar Municipal Code, Section 23.51.010(E)). This chapter further provides a process by which scenic views and sunlight may be restored if unreasonably obstructed by trees and vegetation. A preservable "scenic view" is defined as one with "a view of the ocean, lagoons, canyons, the community and its landscapes and urban forest character, or other scenic vistas, from the Primary Living Area of a residence" (DMMC Section 23.51.020(M)). The "primary living area," which is established on a case-by-case basis, is "that portion of the residence from which a Scenic View is observed most often" by the residential occupants (DMMC Section 23.51.020(J)). The ordinance allows the case-by-case review of whether a pre-existing view has been unreasonably obstructed since the applicant purchased their property or in the last 10 years, whichever is the shorter time period (DMMC Sections 23.51.030 and 23.51.050).

Tree Ordinance

The Tree Ordinance (Chapter 23.50 of the DMMC) provides for the orderly protection of trees, including the following measures:

- In the interest of the public health, safety and welfare, as well as general aesthetics of the community and the importance of the ecology of the area, the City of Del Mar finds it necessary to encourage conservation of trees and the application of management techniques to create a healthy, diverse urban forest, including but not limited to pruning, thinning, trimming, shaping, and selective planting and removal of trees and vegetation within the City of Del Mar on private as well as public property. [Ord. 749]
- The species Torrey pine, the species Monterey Cypress, and all species of trees located within the Central Commercial zone and the environmentally sensitive Open Space Overlay Zone are of particular significance to the City, and should therefore be protected to conserve the environment qualities of the City.

To further enforce this protection, the City of Del Mar prepared a Public Tree Policy Manual in 2004. This manual directs tree preservation in order to preserve the community's unique, village-like atmosphere, which is distinguished by its community forest. Trees species of particular concern include Torrey pines and Monterey cypress, although the manual indicates all trees within the Plan area are considered significant. A Tree Removal Permit is required to remove a Protected Tree, except in certain situations outlined in the Municipal Code Chapter 23.50.050. In the case of public trees, a separate Encroachment Permit from the City is also required (this statement does not apply to the City or its contractors). Through the Design Review process, trees are also required to be protected during construction to prevent tree loss.

Bluff, Slope, and Canyon Overlay Zone

Per Chapter 30.52 of the DMMC (Bluff, Slope, and Canyon Overlay Zone), the term "substantial steep slopes" is defined as:

> "[a]ny areas of slopes with a gradient of 25 percent or greater on a site where the total elevation differential within such slope areas themselves is 20 feet or more, or where such slopes on a site adjoin contiguous slopes of 25 percent grade or greater on adjoining property and together involve an elevation differential of 20 feet or more."

Additionally:

> "'Substantial steep slopes' shall include smaller, isolated pockets of area with less than 25 percent grade when surrounded by contiguous "substantial steep slopes" located either entirely or partially on site."

The WDMSP for Option A and Option B also include Special Regulations – Bluff, Slope and Canyon Overlay Zone (Chapter 5, Section 5.9(K)), that states:

Notwithstanding the applicable provisions of Chapter 30.52 of the DMMC (Bluff, Slope, and Canyon Overlay Zone) for purposes of this Chapter, the terms "natural slope," "steep slope," "substantial slope," "substantial steep slope," and/or "sensitive slope" shall mean slopes that meet all of the following criteria:

a) Have a gradient of 25% or greater;

b) Are part of a continuous landform with a vertical rise of 20 feet or more either on-site or extending off-site;

c) Have not been previously graded or otherwise disturbed; and

d) Contain predominantly native, natural plant species/habitat.

The existence of the above conditions shall be demonstrated to the satisfaction of the Planning Director.

4.1.4 Project Overview

Location and Planning Area

The proposed project site is located in the northern portion of the City of Del Mar (City), south of the intersection of Jimmy Durante Boulevard and San Dieguito Drive. It is located approximately 0.76 mile west of Interstate 5 and 0.32 mile east of Camino Del Mar. The project site consists of two adjacent parcels of land, which are both vacant and unbuilt, totaling approximately 103,282 square feet (2.37 acres) (**Figure 3-2**, Vicinity Map). The proposed conceptual site plan can be seen as **Figure 3-4** within Chapter 3 of this EIR.

Design Guidelines

Both Options would be subject to Chapter 6 of the Specific Plans, Design Guidelines. The design guidelines set forth standards that address the site planning and design elements applicable to the overall proposed project site: create visual interest and variety along the streetscape that maintains an appropriate scale and pattern of development; provide adequate, usable, safe, and high-quality common courtyards and private amenity areas; and promote development of a highly livable residential community (see Appendix A1 and A2 for the Specific Plans for both Options). The following design guideline categories would be incorporated into both Options.

Architectural Character

Both Options would provide a variation in the number and mix of unit sizes, building facades, and rooflines to provide a variety of architectural elements along Jimmy Durante Boulevard. Brick, cultured stone, architectural siding, a neutral color palette, and coastal-craftsman architectural elements that can be found throughout Del Mar would be incorporated into the design to provide for compatibility with Del Mar's established residential character. Proposed architectural elements for the project site can be found in Section 6.3 of the Specific Plans.

Exterior Lighting

Illumination for both Options would be limited to specific areas typically from dusk until dawn, with the exception of necessary security lighting. Lighting would be provided throughout the project site on the exterior of structures, specifically around the residential buildings, podium-level courtyards and walkways, and the pool area. To minimize the potential effects of project lighting and ensure consistency with the lighting policies of the City, lighting fixtures within the project area would be designed and implemented to provide illumination that is appropriate for the level of activity at the project site. Chapter 23.08, Design Review (Design Review Ordinance/DRO), of the DMMC addresses all lighting policies in relation to neighborhoods and signage. This chapter includes regulatory sections to ensure that the lighting will not adversely affect the lighting or noise quality of the existing neighborhood. Lighting would adhere to the minimum City lighting and design standards. Exterior lighting would be consistent with City regulations, and would face downward to minimize the spread of the beam and avoid glare. Parking area lighting would be confined and contained within the enclosed underground parking structure.

Walls and Fences

As described in Section 6.3 of the Specific Plans, walls and fences contribute to the character of the overall appearance of both Options. They would provide for various edge conditions to establish enclosure, delineate project site areas, offer visual and physical privacy, provide for views in and out of the proposed project site, and provide security. The design concept for fences and walls within the proposed project site are described below.

Perimeter retaining walls would be located within the property, facing Jimmy Durante Boulevard and San Dieguito Drive, acting as a component of the planted yard areas between the street and building, or podium setback areas. The perimeter retaining walls would vary in height, but would not exceed 40 inches of visible height.

Perimeter accent walls would include both retaining walls and freestanding walls in areas facing Jimmy Durante Boulevard and San Dieguito Drive, designed to provide textural element and

accents that mark key entries to both Options. This includes walls adjacent to the garage entry drive, the intersection corner, main pedestrian entry, and at the southernmost building on Jimmy Durante Boulevard. These walls would vary in height to account for grade conditions, but would not exceed 48 inches above the podium level.

Private patio fencing would be located on residential patios facing Jimmy Durante Boulevard. Private patio fencing would be either solid or semi-transparent, and 3 to 4 feet in height.

Internal retaining walls would not be visible from the street, and would be included where safety fencing is necessary atop retaining walls due to the grade difference. Internal retaining walls would be 3.5 feet in height, and an open view material would be used.

Cast in Place retaining walls would be utilized for construction of the walls flanking the entry ramp to the garage and would extend to approximately 12 feet in height at the garage gate entry.

Open space fencing would be located at the wetlands and be used as a buffer along San Dieguito Drive to define the area and discourage unauthorized access, while promoting openness and views into the area. A fence design with natural round wood posts and rails would be used for consistency with the San Dieguito River Trail fencing.

Residential property line fencing would be provided along the boundaries within the adjacent southern and eastern residential properties. This fencing would be 5 to 6 feet in height, and would include durable materials such as redwood, wood or steel posts.

Landscaping

The proposed project site is situated at the northwestern edge of the Del Mar coastal hillsides, near the southern edge of the San Dieguito River and Lagoon. A Mediterranean and coastal California plant palette is specified for use throughout the project site to combine drought tolerance with native and/or non-native plants. The Specific Plan documents provide distinct landscape divisions, including street frontage, podium-level courtyards, coastal brackish marsh, and southern coastal bluffs. **Figure 3-5** within Chapter 3 of this EIR shows the landscape plan for the proposed project site.

4.1.5 Thresholds of Significance

The significance criteria used to evaluate aesthetic impacts for both Options are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to aesthetics would occur if either Option would:

a) Have a substantial adverse effect on a scenic vista.

b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

4.1.6 Impacts Analysis

a) Would the project have a substantial adverse effect on a scenic vista?

Implementation of either Option A or Option B would result in a multi-family residential development, associated parking, landscaping, access, utilities, administrative and maintenance facilities, and private recreational amenities on a 2.37-acre site. Both Options would provide a secured parking structure partially underground, with a vehicular access point from San Dieguito Drive; a partially underground parking structure provides aesthetic benefits when compared to a surface lot with highly visible cars and exterior lighting. Walls, fences, and a mixture of native and drought-tolerant grasses, shrubs, and plants as previously described within Section 4.1.1.2 would be implemented throughout and surrounding the project site. The buildings under both Options would be designed to portray a mix of architecture consistent with the established architectural character of Del Mar.

The proposed project site is located in an area with single-family residential development located to the southwest and commercial uses along Jimmy Durante Boulevard and San Dieguito Drive. Balconies and stairways would be visible from some residences and commercial locations, but these viewing areas are not considered scenic vistas. Further, views of the hillside immediately above the proposed project are now dominated by a large, recently constructed single family residence.

Sections IV-26 of the *City of Del Mar Local Coastal Program: Land Use Plan* (City of Del Mar 1993) sets forth the policy that Del Mar must "[r]etain and enhance the views of the San Dieguito Lagoon along Jimmy Durante Boulevard and San Dieguito Drive through the application of scenic view easements and related view preservation restrictions for any development proposals along the sides of such roadways within scenic view corridors." Both Options would result in development greater in scale and mass than what currently exists on site and in the immediately surrounding area, however the development would not block views of the San Dieguito Lagoon and therefore, both Options would not conflict with the Local Coastal Program Land Use Plan protections.

As mentioned numerous times throughout the City Municipal Code and planning documents, the City of Del Mar places very high importance on the preservation of scenic views from both public areas and private residential properties. According to the Del Mar Municipal Code,

Design Review Chapter (23.08.040), primary scenic view means "a view of the ocean, the community, lagoons, canyons, or other scenic vistas from the primary living area of a residence". Primary living area is defined as "that portion of a residence determined [...] to be the main gathering and entertainment room used by residents and guests of the residence." A residence may only be limited to one primary living area (oftentimes a living room, dining room or great room), which, in no case shall be a bedroom, bathroom, storage area, stairwell or hallway.

The residential properties to the southwest of the project site are situated with primary views directed towards the Pacific Ocean to the west, however they are also afforded views across the vacant project site. Notably, these residences are not afforded direct views to the lagoon. Although no views to the lagoon would be obstructed, the views to the east from the residential properties to the southwest would be modified with the addition of either Option. Therefore, impacts would be **less than significant** under both Options.

b) Would the project substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

There are no state scenic highways, rock outcroppings, or historic buildings located within the project vicinity. Therefore, visual impacts related to state scenic highways would be less than significant. However, Jimmy Durante Boulevard, adjacent to the project site, is designated as a scenic roadway in the City of Del Mar Community Plan; and, 13 Torrey pine trees, considered a significant visual resource under the Community Plan exist on site. Thus, impacts to these scenic resources are discussed below.

Existing views for motorists, bicyclists, and pedestrians traveling along Jimmy Durante Boulevard past the project site consist of commercial land uses to the west and the previously graded, undeveloped, and vacant proposed project site to the east. Mobile viewers on Jimmy Durante Boulevard are also afforded views of high bluff areas in the eastern portion of the proposed project site through overhead utility lines that line the street. When traveling northbound on Jimmy Durante Boulevard adjacent to the project site, existing landscaping, infrastructure, and elevation block views of the San Dieguito River and lagoon areas. Roofline views of the Del Mar Fairground facilities can be seen from northbound Jimmy Durante Boulevard. Mobile viewers traveling southbound on the Jimmy Durante Bridge are able to view the San Dieguito River to the west and the San Dieguito Lagoon to the east. Only the western portion of the proposed project site is visible to southbound travelers from the bridge. At the cross-section of Jimmy Durante Boulevard and San Dieguito Drive, the proposed project site becomes completely visible, but no scenic resources are available looking south past the proposed project site.

Both Options would change existing views of the project site. Instead of a vacant, relatively flat site with minimal vegetation and an ascending, created plateau of dirt, the passing motorist would view a multi-family residential development with varied, but neutral, finishes, colors, and materials, past a perimeter wall that shall not exceed 40 inches in height, and native and drought tolerant landscaping. Neither Option A nor Option B would necessitate removal of existing bluffs; however, both Options propose the removal and/or relocation of 13 Torrey pine trees. Of the 13 Torrey pines to be impacted, five would be relocated on site, two would be removed and replanted on site with new specimens, and the remaining six qualify for exemption from the Tree Removal Permit requirement and would be removed without replacement. A Tree Removal Permit, as recommended by the Design Review Board and the City Council, would be required to cut down, remove, destroy, or move a protected tree. When recommending removal of a tree and determining whether or not mitigation measures are necessary, the Design Review Board and City Council should consider factors associated with the species of removed tree, the removal site, the surrounding area and its existing vegetation, and other factors. Upon decision of the City Council, the project applicant would either be required to replant the Torrey pines on site or pay a fee to the City of Del Mar's Tree Mitigation Fund in accordance with the City's Municipal Code Sections 23.50.080(C-10), 23.50.030(D)(2) and 23.50.090(A)(2).

The project site is located in an area that is surrounded by existing urban development, views of the San Dieguito River, Lagoon, and ocean from Jimmy Durante Boulevard would not be affected, and both Options include architectural features and a landscape plan that would contribute to the visual character envisioned along Jimmy Durante Boulevard. Both Options would comply with the City's existing Tree Ordinance regulations and the Specific Plans' implementation strategies. Nonetheless, due to removal or relocation of 13 Torrey pines, visual impacts could be **potentially significant** under both Options and mitigation would be required (MM-**BIO-2**).

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Short Term

Construction of either Option would result in incremental changes to the visual character of the site and surrounding areas. Heavy equipment would be staged on-site, particularly during grading activities. Bulldozers, backhoes, cranes, and cement trucks would likely be used at various times throughout the construction phase of either Option. The presence of this equipment and the grading and construction activities associated with both Options would alter the visual character and quality of the site, and would be visible from surrounding areas. Total construction for either Option would last approximately 24 months, and all equipment would subsequently be removed from the site.

Although the presence of construction activities associated with both Options would alter the visual character and quality of the site, both Options would adhere to all regulations of Title 23 (Building Construction) of the City's Municipal Code, and since the potential impacts on the visual character and quality of the site and surroundings due to construction would not be permanent, short-term impacts would be **less than significant** under both Options.

Long Term

The project site is currently undeveloped, and both Options would result in a permanent change in the visual appearance of the project site. Both Options would change the topography of the site due to site grading, and introduce new landscaping, architectural design, density, and scale of buildings compared to what currently exists. The existing vacant graded parcel would be developed into a multi-family residential community. Development would occur on previously graded areas and disturbed slopes to create a hillside-terraced neighborhood.

As described in Section 4.1.2, Existing Conditions, five KOPs were selected to help describe the change in visual appearance anticipated as a result of both Options. Potential changes to the KOPs are described below and shown on **Figure 4.1-2**.

KOP 1 – San Dieguito River Looking South

Option A

As previously described in Section 4.1.2.3, KOP 1 represents the view from the San Dieguito River level at the southern-most boundary of the Del Mar Fairgrounds. From this KOP, the San Dieguito River and its south bank are immediately visible in the foreground, as is Jimmy Durante Bridge, which crosses over the San Dieguito River running north–south. From this KOP, the viewer would not see the ground level of Option A due to existing vegetation and the bridge. However, the viewer would see the mix of neutrally toned balconies; window frames; and structure materials such as brick, cultured stone, and wood, which would blend into the backdrop slopes and bluff, and see architectural elements similar to those found throughout Del Mar. As seen in **Figure 4.1-3**, the proposed development would implement a neutral theme characterized by a mix of elements that reflect natural materials and colors that blend into the surrounding topography. Buildings would have low to moderate pitched roofs, projecting eaves, wood details, and open porches and balconies. The bluff and the large single family residence would still be visible from KOP 1 with implementation of Option A.

Option A would result in a high visual change when compared to existing conditions. Although Option A would result in a high visual change, it would enhance the visual quality of this view by introducing architecture and landscaping to the existing dirt lot and by undergrounding some of the overhead utility lines. The variations in housing form, neutral colors, and materials are

designed to blend with the existing slope and bluff background, and be consistent with the residential character of Del Mar. Implementation of Option A would enhance rather than degrade the existing site, and impacts to KOP 1 would be **less than significant**.

Option B

Option B would result in fewer multi-family residential dwelling units to be developed on the site when compared to Option A. Option B would also eliminate a pool trellis visible on the northwest corner of the site under Option A. The reduction in density would result in a reduction in building sizes, potentially reducing the apparent bulk and massing when viewed from the different KOPs. As shown on **Figure 4.1-3**, despite these differences between the two Options, the overall visual change to the project site would be substantially similar to that described for Option A.

As described in Section 4.1.4, Option B would be subject to the same architectural guidelines and plant palette as Option A. While the specific architectural features may differ between both Options, the design guidelines contained within the Specific Plans for either Option would result in similar development of the site due to the same requirements for architectural design, exterior lighting, and walls and fences. Option B, similar to Option A, would provide a variation in the number and mix of unit sizes, building facades, and rooflines to provide a variety of architectural elements incorporating coastal-craftsman architectural elements as provided by the guidelines within the Specific Plans for both Option A and Option B. Therefore, Option B would result in similar **less than significant** impacts to KOP 1 as concluded for Option A.

KOP 2 – San Dieguito Drive and Jimmy Durante Boulevard Intersection

Option A

As previously discussed in Section 4.1.2.3, KOP 2 represents the view of the project site from the trailhead across Jimmy Durante Boulevard, at the intersection of Jimmy Durante Boulevard and San Dieguito Drive. This KOP is approximately 130 feet northwest of the project site. Existing views consist of the entirety of the project site, which includes flat, graded land that ascends into disturbed slopes and steep preserved coastal bluff. The majority of the proposed project site is disturbed habitat, but the remainder of the proposed project site is occupied by the small coastal brackish marsh wetland in the eastern part of the site, non-native vegetation in the southwestern section of the site, southern coastal bluff scrub in the southeast corner of the site, and disturbed southern coastal bluff scrub along the southern edge of the site. Partial views of two residences can be seen past the southern portion of the project site, through existing landscaping and overhead utility lines.

As shown in **Figure 4.1-4**, from KOP 2, the viewer would see a low concrete wall (less than 40 inches tall) that would run the perimeter of the project site and be backset by a mixture of native and drought-tolerant grasses, shrubs, and plants. In the most northwest corner of the project site, the open space courtyard area would surround the private pool and provide a setback from the Jimmy Durante Boulevard and San Dieguito Drive cross-section. The recreation area and associated structures would be visible from this view point. The viewer would see the mix of style elements that reflect traditional and natural materials. Proposed buildings are architecturally distinguished by their low to moderate pitched roofs, projecting eaves, and wood details. A combination of materials, textures, and colors would be seen to help articulate the building design and achieve greater variety, visual interest, and richness in the architectural character. The proposed buildings would visually blend with the visible single family residence atop the bluff. Approximately 37% of the views of the preserved bluff and bluff top would still be available from KOP 2 compared to existing conditions.

The architectural and landscape features discussed in detail above would replace and enhance the existing vacant lot. Additionally, the undergrounding of the existing utility lines would enhance the aesthetic quality from this view point. However, the proposed conditions would result in a highly visual change when compared to the existing conditions. Despite this high visual change when compared to existing conditions, the design specifications contained in the Specific Plan coupled with the City's discretionary Design Review Board Permit process will ensure the final development's visual impacts from KOP 2 would be **less than significant** under Option A and no mitigation would be required.

Option B

Similar to the discussion for Option B under KOP 1 above, the overall visual change to the project site for Option B would be substantially similar to that described for Option A (**Figure 4.1-4**). Specific to KOP 2, the removal of the pool and recreation area from the northwest corner of the project site under Option B would reduce the apparent scale of development when compared to Option A. Therefore, for reasons described for KOP 1 above, Option B would result in similar **less than significant** impacts to KOP 2 as concluded for Option A.

KOP 3 – Jimmy Durante Boulevard

Option A

As previously discussed in Section 4.1.2.3, KOP 3 represents the view available from the west side of Jimmy Durante Boulevard looking east to the proposed project site. Existing views consist of the rock and native grass that line the project site perimeter; utility lines directly overhead; the central and northern flat, dirt portions of the proposed project site; and the created plateau in the central/southern portion of the site that ascends into the eastern slopes and bluff.

Minimal shielded views of the residence atop the bluff are available due to scattered pine trees. Commercial land uses to the north/northeast of the proposed project site are also visible from existing KOP 3 conditions. **Figure 4.1-5** depicts the front facades and pedestrian entrance of the proposed residential buildings. The neutral colored perimeter wall, associated wall landscaping, low-lined white fencing, and narrow pedestrian entryway would front the proposed coastal-inspired structures. The four structures visible in KOP 3 would represent the architectural objective of Option A, depicting a mixture of style elements and materials representative of architectural elements found throughout the City. The buildings would be architecturally distinguished by their low to moderate pitched roofs, projecting eaves, wood details, and open porches and balconies. Balconies and windows would be of varying shapes, sizes, and frame colors. Materials such as brick, cultured stone, wood, and neutral seaside-inspired color palette of greys, browns, tans, and whites would be incorporated into the design to blend with similar architectural elements found throughout Del Mar.

In comparison to existing conditions, implementation of Option A would block ground views of existing commercial buildings north of the project site, limited background views of dark hills, and views of the terraced bluff formation. However, all undisturbed bluff areas would be preserved, and views of the single family residence atop the bluff and existing vegetation from KOP 3 would still be available past the low- to medium-scaled rooflines. The proposed buildings would visually blend with the visible single family residence atop the bluff. Architectural, landscaping features, and underground utility lines would improve the unvegetated graded parcel; the design specifications contained in the Specific Plan coupled with the City's discretionary Design Review Board Permit process will ensure the final development's visual impacts from KOP 3 would be **less than significant** under Option A and no mitigation would be required..

Option B

Similar to the discussion for Option B under KOP 1 above, the overall visual change to the project site for Option B would be substantially similar to that described for Option A (**Figure 4.1-5**). Therefore, for reasons described for KOP 1 above, Option B would result in similar **less than significant impacts** to KOP 3 as concluded for Option A.

KOP 4 – San Dieguito Drive Looking West

Option A

As previously described in Section 4.1.2.3, KOP 4 represents the views available for motorists driving westbound along San Dieguito Drive. The project site is not completely visible until motorists reach this point traveling westbound on San Dieguito Drive, as views are blocked by existing vegetation and landscaping, as well as the steep bluff areas and hillside residences to the south of San Dieguito Drive. Existing views from this KOP consist of a small portion of the

graded dirt area of the proposed project site; a portion of the wetland-vegetated slope; the rock-lined perimeter of the dirt lot; overhead utility lines; a variety of scattered trees; and distant views of road signage, landscaping, and commercial buildings past the proposed project site looking west. **Figure 4.1-6** depicts proposed views from westbound San Dieguito Drive as a result of project implementation. The natural vegetation and bluff views to the east of the site would be retained from this viewpoint in the form of a buffer area. The main vehicular entryway to the project site, visible in the foreground of KOP 4, would be accessed via an ingress/egress driveway on San Dieguito Drive, which would connect to a private drive ramp to enter the secured parking facility for residents and guests. The location of the driveway would be in approximately the same location as the existing driveway currently in use for fairground, racetrack, and event parking.

The middleground view would consist of the eastern and northeastern facades of proposed structures. As with KOPs 1 through 3, proposed structures would incorporate a mix of style elements and materials. From KOP 4, architectural materials such as cultured stone walls, wood, and tan and off-white plastered facades would be visible. The color pallet displayed in this KOP would include natural hues of green, tan, grey, brown, and off-white. Additionally, like KOP 3, balconies and windows would be of varying shapes, sizes, and frame colors. The project site would be enhanced with extensive mixture of native and drought-tolerant grasses, shrubs, and plants throughout and surrounding. Additionally, the undergrounding of existing utility lines would provide visual enhancement to the project surroundings. Although implementation of Option A would block views of existing trees and slight views of existing commercial structures to the west, these views are not considered important, as they do not afford views of substantial visual resources. Implementation of Option A would result in high visual change, but it would enhance the overall visual quality of the existing site. No scenic views would be affected as a result of Option A, and impacts related to KOP 4 would be **less than significant**.

Option B

Similar to the discussion for Option B under KOP 1 above, the overall visual change to the project site for Option B would be substantially similar to that described for Option A (**Figure 4.1-6**). Specific to KOP 4, Option B would be set back an additional 10 feet from San Dieguito Drive and would incorporate a smaller driveway entrance when compared to Option A. Therefore, for reasons described for KOP 1 above, Option B would result in similar **less than significant** impacts to KOP 4 as concluded for Option A.

KOP 5 – Coast to Crest Trail Looking Southwest

Option A

As previously described in Section 4.1.2.3, KOP 5 represents the views of recreationalist and pedestrians from Coast to Crest Trail along the northern bank of the San Dieguito River. From this KOP, the San Dieguito River and its south bank are immediately visible in the foreground. The middleground view consists of the commercial and semi-industrial developments to the north of San Dieguito Drive which are comprised of a variety of building façade materials such as concrete and brick, as well as sheet-metal warehouses. As seen in **Figure 4.1-7**, the proposed development would implement a neutral theme characterized by a mix of elements that reflect natural materials and colors that blend into the surrounding topography. Buildings would have low to moderate pitched roofs, projecting eaves, and wood details. The bluff and the large single family residence would still be visible from KOP 5 with implementation of Option A.

The middleground view would consist of the northeastern facades of proposed structures. As with KOPs 1 through 3, proposed structures would incorporate a mix of style elements and materials. From KOP 4, architectural materials such as cultured stone walls, wood, and tan and off-white plastered facades would be visible. From KOP 5, the proposed structures would appear similar in scale and size as the existing visible commercial structures north of San Dieguito Drive and single family residence atop the bluff.

Option A would result in a moderate to high visual change when compared to existing conditions. Although this change would occur, it would blend with the existing surrounding development and would enhance the visual quality of this view by undergrounding some of the overhead utility lines. The variations in housing form, neutral colors, and materials are designed to blend with the existing slope and bluff background, and be consistent with the residential character of Del Mar. Implementation of Option A would enhance rather than degrade the existing site, and impacts to KOP 5 would be **less than significant**.

Option B

Similar to the discussion for Option B under KOP 1 above, the overall visual change to the project site for Option B would be substantially similar to that described for Option A (**Figure 4.1-7**). Therefore, for reasons described for KOP 1 above, Option B would result in similar **less than significant impacts** to KOP 5 as concluded for Option A.

Views from Southwestern Residences

Option A

As stated above, the City of Del Mar places very high importance on the preservation of scenic views from both public areas and private residential properties. According to the Del Mar Municipal Code, Design Review Chapter (23.08.040), primary scenic view means "a view of the ocean, the community, lagoons, canyons or other scenic vistas from the primary living area of a residence." Primary living area is defined as "that portion of a residence determined [...] to be the main gathering and entertainment room used by residents and guests of the residence." A residence may only be limited to one primary living area (oftentimes a living room, dining room or great room), which, in no case shall be a bedroom, bathroom, storage area, stairwell or hallway.

The residential properties to the southwest of the project site are situated with primary views directed towards the Pacific Ocean to the west, however they are also afforded views across the vacant project site. Notably, these residences are not afforded direct views to the lagoon. Although no views to the lagoon would be obstructed, views to the east from the residential properties would be modified with the addition of Option A. Although side facades of existing residential land uses at the southern boundary of the project site would have immediate foreground views of the proposed development, due to the landscape plan and proposed maximum building height of 26 feet from established grade, the massing and structural nature of Option A would not be substantially different in comparison to surrounding developments.

Building or structure height is measured as the greatest vertical dimension computed by using the vertical distance from any point of the roof or structure to the established grade. Where any portion of a habitable structure is built over a podium, such as structured parking, the established grade is 20 feet above mean sea level. This established grade elevation includes a safety factor of two feet above the base flood elevation. Where habitable structures are built on grade within the flood zone, the established grade is 18 feet above mean seal level, which is the base flood elevation of the San Dieguito River. Where habitable structures are built on grade outside the flood zone, the established grade is the existing grade of the site prior to the start of any current or proposed site preparation, grading, or construction.

The differences in the way height is measured would not substantially affect views from adjacent properties. Building heights in some portions of the site, like those closest to the intersection of Jimmy Durante Boulevard and San Dieguito Drive, which would be above the podium and measured at 20 feet above mean sea level, would be higher than if the existing grade was used. However, adjacent to the existing homes, there would be no increase in building height because the existing grade is already at 20 feet above mean sea level.

Based on site reconnaissance, due to existing vegetation screening, elevation changes, and other natural topography and development, views of the lagoon are not afforded from Heather Lane or residences to the southwest. Therefore, as stated above under Threshold A, scenic views to the east from the private residences could be impaired but would be considered **less than significant** under Option A.

Option B

Option B would result in similar impacts to views from southwestern residences. Building height would be measured the same way as Option A and a maximum building height of 26 feet from established grade would still be imposed. For the reasons stated above for Option A, Option B could also impair scenic views to the east from the private residences, but would be considered. **less than significant**

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Short Term

New sources of light and glare may be present on the project site during construction of both Option A and Option B. Sources of light and glare may be related to the delivery of materials, windshields of construction equipment, and other sources. However, construction would be limited to daylight hours between 7:00 a.m. and 7:00 p.m. Due to the temporary nature of these potential nuisances and the fact that the City of Del Mar limits construction to daylight hours, these impacts would be **less than significant** under both Options.

Long Term

Introduction of minimal nighttime lighting would occur due to exterior lighting for safety requirements in proposed outdoor areas such as podium-level courtyards and pedestrian walkways, residential entries, and recreational areas. Lighting would be provided throughout the project site on the exterior of structures, specifically around the residential buildings, podium-level courtyards and walkways, and the pool area. To minimize the potential effects of project lighting and ensure consistency with the lighting policies of the City of Del Mar, all exterior lighting would be designed and incorporated into the building schemes to provide illumination appropriate for the level of activity and to avoid glare and spillover.

As seen in the Site Plan (**Figure 3-5** for Option A and **Figure 3-6** for Option B), future tenants would enter and exit the project site via a northeastern driveway connected to a partially underground parking structure off of San Dieguito Drive. This entrance would not create light or glare impacts to existing homes along the southern boundary of the project site, nor other

surrounding uses, because vehicles entering the parking structure would have their headlights blocked by the existing bluff and proposed structures. Headlights would also not shine onto the wetlands in the southeastern portion of the project site, because headlights would be blocked by the proposed retaining wall lining the driveway. Walls flanking the driveway would be lowest adjacent to San Dieguito Road and may extend to approximately 12 feet high at the garage gate entry. Additionally, implementation of the underground parking would screen automobiles from public and private views, and parking-area lighting would be confined and contained within the enclosed parking structure. Therefore, no lighting impacts would be caused by cars entering and/or exiting the proposed development.

As previously discussed, lighting fixture types, quantities, and locations would be carefully considered to best enhance the residential environment and ensure consistency with the lighting policies of the City. All fixture illumination would be directed downward to minimize the spread of the beam, and all lighting would be hooded or shielded and designed to prevent light spillover. No up-lights would be permitted in any areas of the site. Prior to the approval of any building permit, the project applicant would be required to demonstrate, to the satisfaction of the City Planner, that the proposed design is consistent with the City's design and development guidelines regarding lighting and the control of ambient light sources. Exterior lighting would be of minimum height and intensity, and would be dimmed during nighttime hours for security purposes.

Both Options would be required to obtain a Design Review Board permit and to comply with the Design Review Ordinance that prohibits projects that "adversely affect the lighting of the local neighborhood." On-site lighting would comply with applicable lighting regulations, including the glazing and exterior lighting requirements in the City's Zoning Ordinance. As such, significant impacts from light would not occur at the project site due to indoor lighting, and outdoor lighting. Thus, impacts would be **less than significant** for light and glare under both Options and mitigation would not be required.

4.1.7 Mitigation Measures

Impacts due to the removal or relocation of 13 Torrey pines is mitigated through MM-BIO-2 (see Section 4.3).

4.1.8 References

Caltrans (California Department of Transportation). 2008. *Scenic Highways Guidelines*. October 2008. Accessed January 25, 2015. http://www.dot.ca.gov/hq/LandArch/scenic/guidelines/scenic_hwy_guidelines_04-12-2012.pdf.

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City of Del Mar. 2017. City of Del Mar Municipal Code (DMMC), as amended. Adopted 1959, last amended in 2017. Accessed July 18, 2017.http://www.delmar.ca.us/171/Municipal-Code.

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SOURCE: Kitchell Development Company, 2017; SANDAG, 2014.

FIGURE 4.1-1
Viewshed Boundary

DUDEK

Watermark Del Mar Specific Plan EIR

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SOURCE: Kitchell Development Company, 2017; SANDAG, 2014.

FIGURE 4.1-2

KOP Location Map

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Watermark Del Mar Specific Plan EIR

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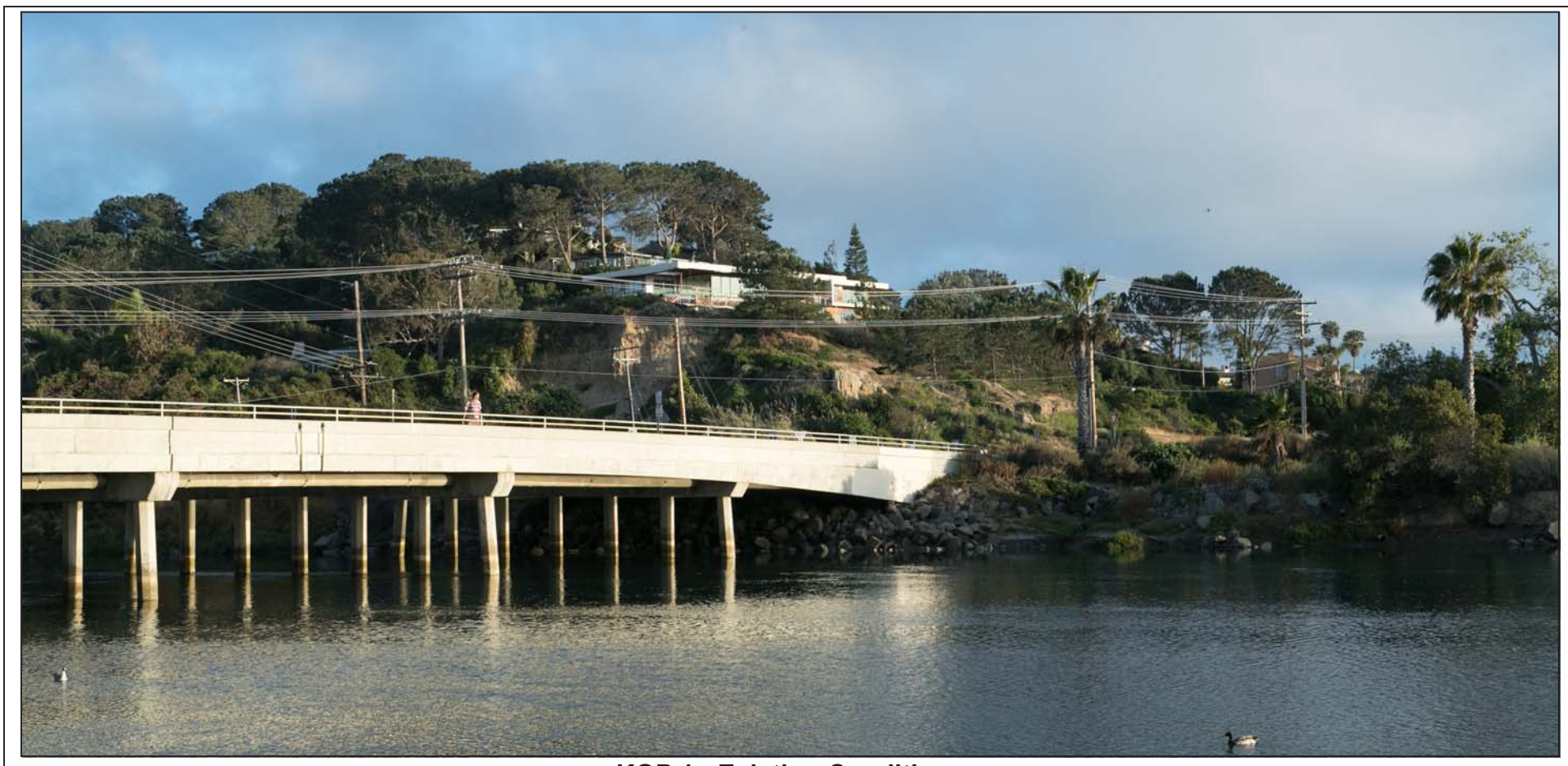
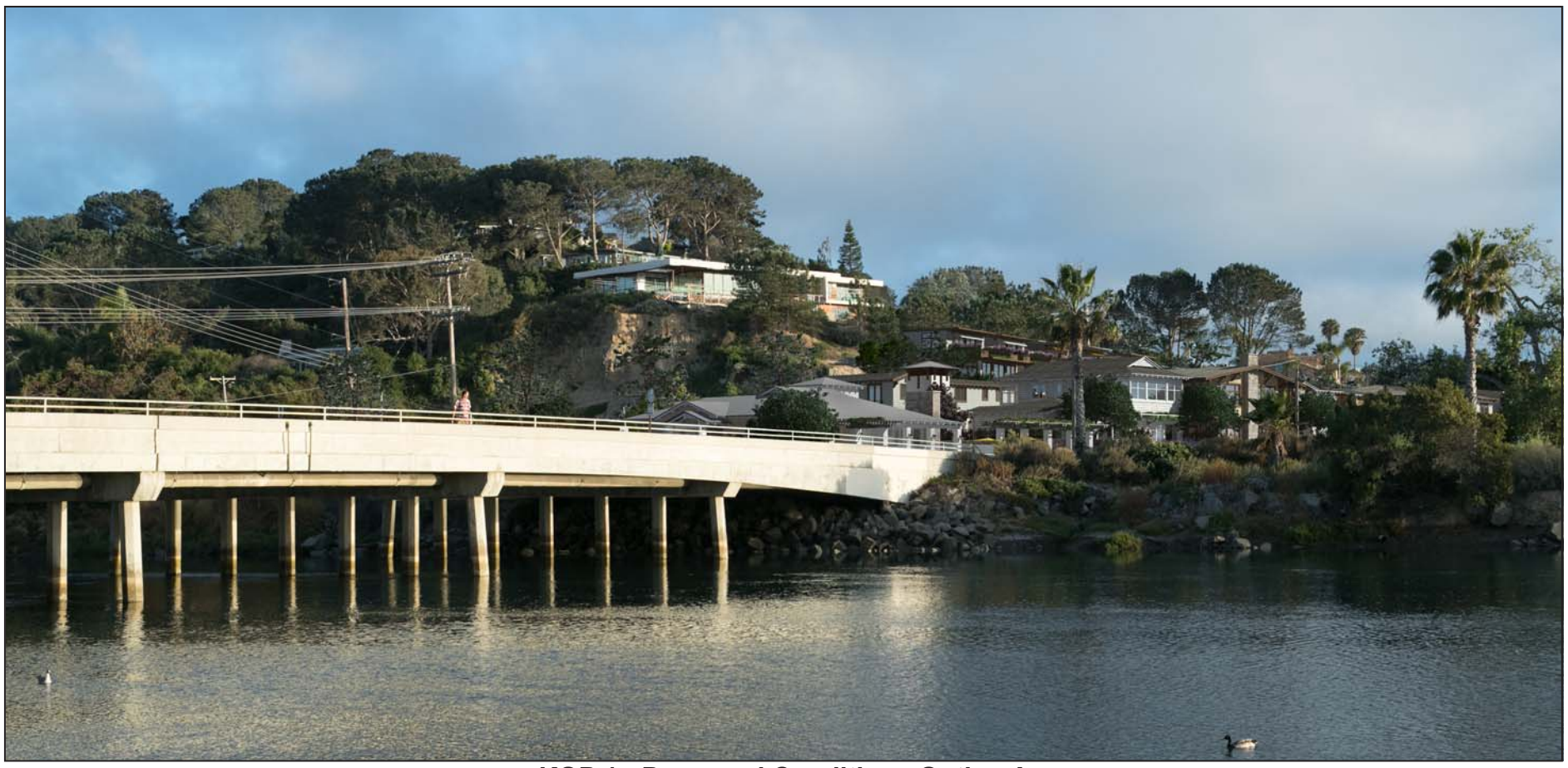
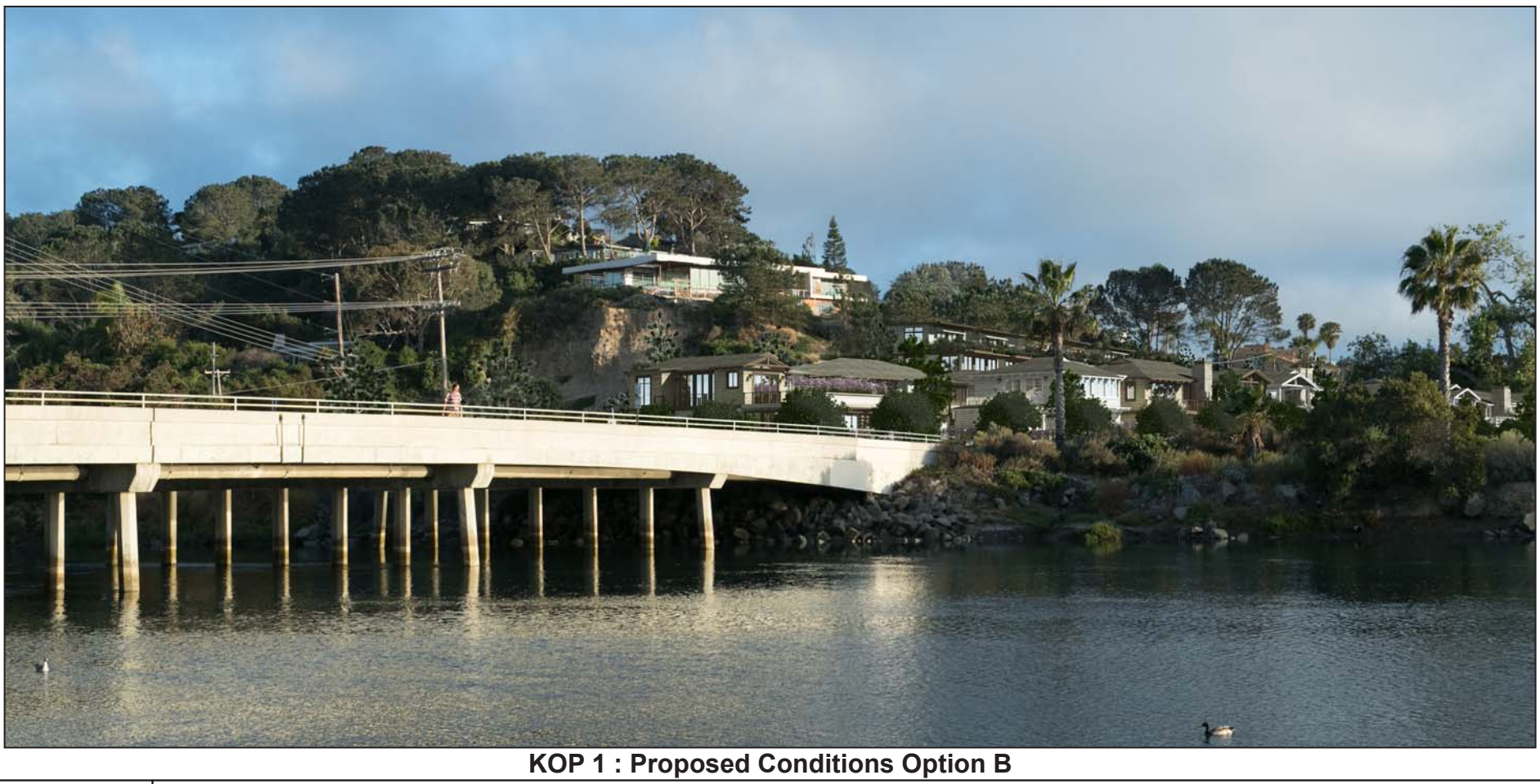


KOP 1 : Existing Conditions



KOP 1 : Proposed Conditions Option A



KOP 1 : Proposed Conditions Option B

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FIGURE 4.1-3

Key Observation Point 1 - San Dieguito River Looking South

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KOP 2 : Existing Conditions

KOP 2 : Proposed Conditions Option A

KOP 2 : Proposed Conditions Option B

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FIGURE 4.1-4

Key Observation Point 2 - San Dieguito Dr. and Jimmy Durante Blvd. Intersection

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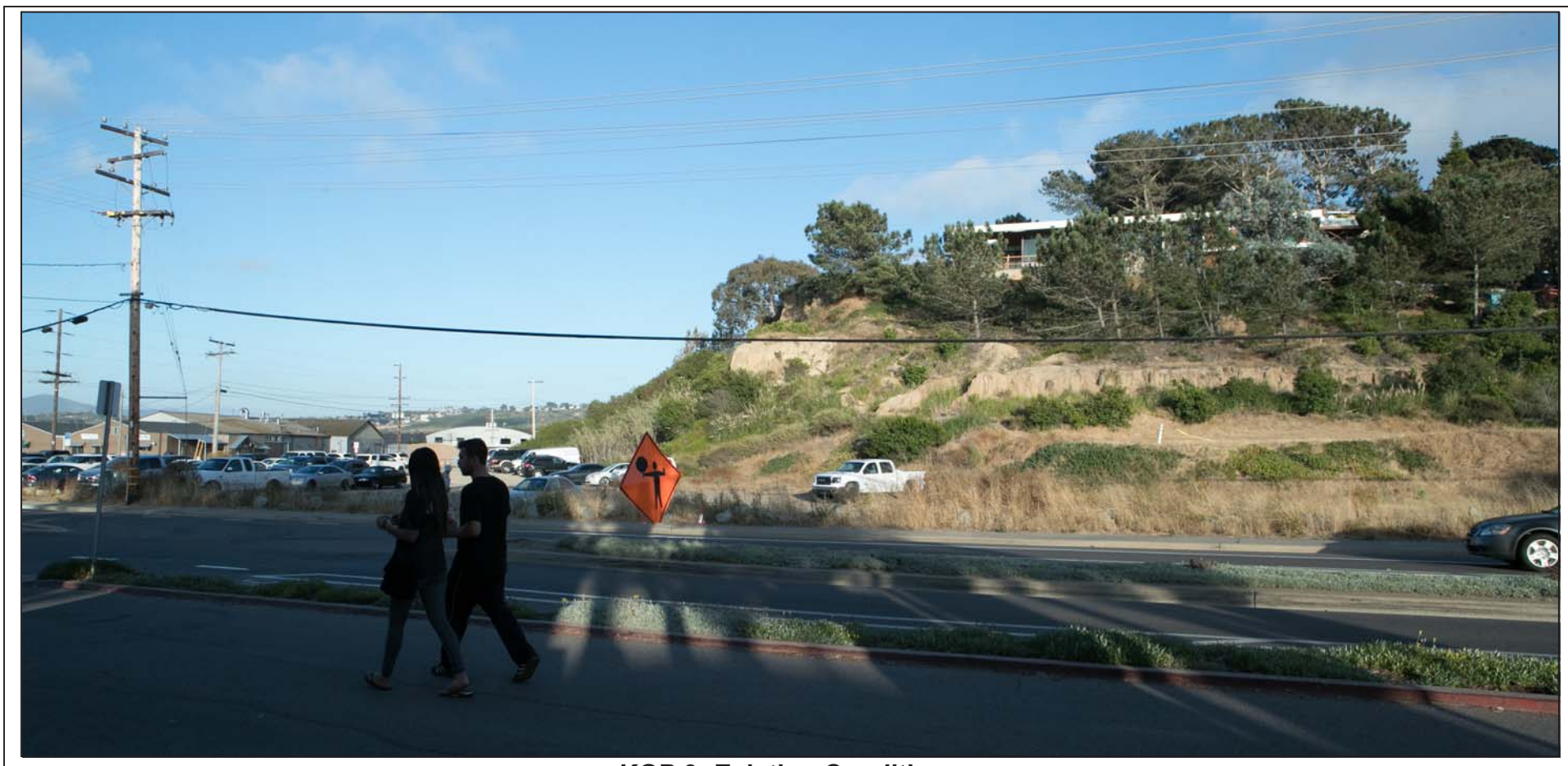

KOP 3: Existing Conditions

KOP 3 : Proposed Conditions Option A

KOP 3 : Proposed Conditions Option B

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FIGURE 4.1-5

Key Observation Point 3 - Jimmy Durante Blvd.

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KOP 4 : Existing Conditions

KOP 4 : Proposed Conditions Option A

KOP 4 : Proposed Conditions Option B

DUDEK

FIGURE 4.1-6

Key Observation Point 4 - San Dieguito Dr. Looking West

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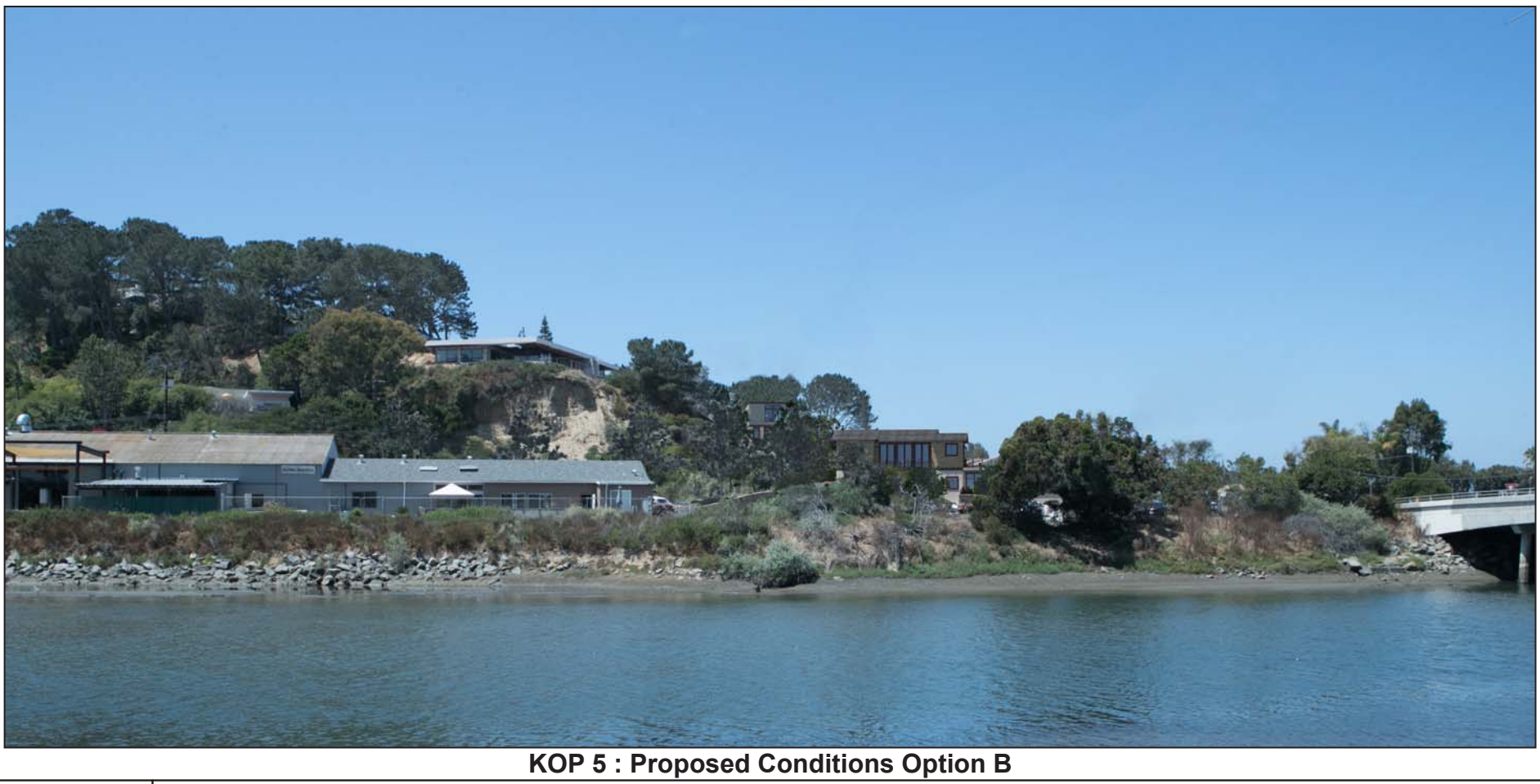
KOP 5 : Existing Conditions

KOP 5 : Proposed Conditions Option A



KOP 5 : Proposed Conditions Option B

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FIGURE 4.1-7

Key Observation Point 5 - San Dieguito River Looking Southwest

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4.2 AIR QUALITY

This section describes the existing air quality setting of the proposed project area; identifies associated regulatory requirements; identifies potential conflicts with an applicable air quality plan or violation of any air quality standards resulting in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard; and identifies potential exposure of sensitive receptors to substantial pollutant concentrations or creation of objectionable odors affecting a substantial number of people related to implementation of the Watermark Del Mar Specific Plan (WDMSP) Option A and Option B. The analysis presented in this section is based on the Air Quality Technical Report for Option A and the Air Quality Technical Memorandum for Option B, included as **Appendix C1** and **C2**, respectively, to this environmental impact report (EIR).

4.2.1 Existing Conditions

This section describes the existing conditions in the project area, and identifies the resources that could be affected by Option A or Option B.

Climate and Topography

The weather of the San Diego region, as in most of Southern California, is influenced by the Pacific Ocean and its semi-permanent high-pressure systems, which result in dry, warm summers and mild, occasionally wet winters. The average temperature ranges (in degrees Fahrenheit (°F)) from the mid-40s to the high 90s. Most of the region's precipitation falls from November to April, with infrequent (approximately 10%) precipitation during the summer. The average seasonal precipitation along the coast is approximately 10 inches; the amount increases with elevation as moist air is lifted over the mountains to the east.

The topography in the San Diego region varies greatly, from beaches on the west to mountains and desert on the east. Along with local meteorology, the topography influences the dispersal and movement of pollutants. The mountains to the east prohibit dispersal of pollutants in that direction and help trap them in inversion layers.

The interaction of ocean, land, and the Pacific High Pressure Zone maintains clear skies for much of the year, and influences the direction of prevailing winds (westerly to northwesterly). Local terrain is often the dominant factor inland, and winds in inland mountainous areas tend to blow through the valleys during the day and down the hills and valleys at night.

Air Pollution Climatology

The project site is located within the San Diego Air Basin (SDAB) and is subject to the San Diego Air Pollution Control District (SDAPCD) guidelines and regulations. The SDAB is one of 15 air basins that geographically divide California. The SDAB is currently classified as a federal nonattainment area for ozone (O_3) and a state nonattainment area for particulate matter less than or equal to10 microns in diameter (PM_{10}), particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$), and O_3.

The SDAB lies in the southwest corner of California and comprises the entire San Diego region, covering 4,260 square miles, and is an area of high air pollution potential. The SDAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The SDAB experiences frequent temperature inversions. Subsidence inversions occur during the warmer months as descending air associated with the Pacific High Pressure Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. Another type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses also can trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce O_3, commonly known as smog.

Light daytime winds, predominately from the west, further aggravate the condition by driving air pollutants inland toward the mountains. During the fall and winter, air quality problems are created due to carbon monoxide (CO) and oxides of nitrogen (NO_x) emissions. CO concentrations are generally higher in the morning and late evening. In the morning, CO levels are elevated due to cold temperatures and the large number of motor vehicles traveling. Higher CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the SDAB are associated with heavy traffic. Nitrogen dioxide (NO_2) levels are also generally higher during fall and winter days.

Under certain conditions, atmospheric oscillation results in the offshore transport of air from the Los Angeles region to San Diego County. This often produces high O_3 concentrations, as measured at air pollutant monitoring stations within the county. The transport of air pollutants from Los Angeles to San Diego has also occurred within the stable layer of the elevated subsidence inversion, where high levels of O_3 are transported.

Sensitive Receptors

Reduced visibility, eye irritation, and adverse health impacts upon people termed "sensitive receptors" are the most serious hazards of existing air quality conditions in the area. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, as identified by the California Air Resources Board (CARB), include children, older adults, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors include residences, schools, playgrounds, child care centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The closest existing sensitive receptors consist of single-family residential development located approximately 50 feet southwest of the project site.

Pollutants and Effects

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O_3, NO_2, CO, sulfur dioxide (SO_2), PM_{10}, $PM_{2.5}$, and lead. These pollutants are discussed below.[1] In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Ozone. O_3 is a colorless gas that is formed in the atmosphere when volatile organic compounds (VOCs) (also referred to as Reactive Organic Compounds), sometimes referred to as reactive organic gases, and NO_x react in the presence of ultraviolet sunlight. O_3 is not a primary pollutant; it is a secondary pollutant formed by complex interactions of two pollutants directly emitted into the atmosphere. The primary sources of VOCs and NO_x, the precursors of O_3, are automobile exhaust and industrial sources. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes.

[1] The descriptions of health effects for each of the criteria air pollutants associated with project construction and operations are based on the Environmental Protection Agency's Six Common Air Pollutants (EPA 2010) and CARB's Glossary of Air Pollutant Terms (CARB 2014a).

Nitrogen Dioxide. Most NO_2, like O_3, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide and atmospheric oxygen. Nitric oxide and NO_2 are collectively referred to as NO_x and are major contributors to O_3 formation. High concentrations of NO_2 can cause breathing difficulties and result in a brownish-red cast to the atmosphere with reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis, and some increase in bronchitis in children (2 and 3 years old) has also been observed at concentrations below 0.3 parts per million by volume (ppm).

Carbon Monoxide. CO is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the project location, automobile exhaust accounts for the majority of CO emissions. CO is a non-reactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February. The highest levels of CO typically occur during colder months when inversion conditions are more frequent. In terms of health, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can be dizziness, fatigue, and impairment of central nervous system functions.

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs, and can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also yellow plant leaves and erode iron and steel.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Fine particulate matter, or $PM_{2.5}$, is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., motor vehicles, power generation, and industrial facilities), residential fireplaces, and wood stoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as oxides of sulfur (SO_x), NO_x, and VOC. Inhalable or coarse particulate matter, or PM_{10}, is approximately 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or

grinding operations; dust stirred up by vehicles traveling on roads; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates, can cause lung damage directly or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport absorbed gases, such as chlorides or ammonium, into the lungs, also causing injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline, paint, ink, ceramics, ammunition, secondary lead smelters, and the manufacturing of batteries. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase-out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phase-out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and, in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with a decline in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth.

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a toxic air contaminant (TAC). Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects.

Noncarcinogenic effects typically affect one or more target organ systems and may be experienced either on short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter. Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars, and off-road diesel engines, including locomotives, marine vessels, and heavy-duty construction equipment, among others.

San Diego Air Basin Attainment Designation

An area is designated in attainment when it is in compliance with the National Ambient Air Quality Standards (NAAQS) and/or California Ambient Air Quality Standards (CAAQS). These standards are set by the U.S. Environmental Protection Agency (EPA) or CARB for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare.

The criteria pollutants of primary concern that are considered in this analysis are O_3, NO_2, CO, SO_2, PM_{10}, and $PM_{2.5}$. Although there are no ambient standards for VOCs or NO_x, they are important as precursors to O_3.

The portion of the SDAB where the project site is located is designated by EPA as an attainment area for the 1997 8-hour NAAQS for O_3 and as a marginal nonattainment area for the 2008 8-hour NAAQS for O_3.The SDAB is designated in attainment for all other criteria pollutants under the NAAQS, with the exception of PM_{10}, which was determined to be unclassifiable.

The SDAB is currently designated as nonattainment for O_3, PM_{10}, and $PM_{2.5}$ under the CAAQS. It is designated as in attainment for the CAAQS for CO, NO_2, SO_2, lead, and sulfates.

Table 4.2-1 summarizes San Diego County's federal and state attainment designations for each of the criteria pollutants.

Table 4.2-1
San Diego Air Basin Attainment Classification

Pollutant	Federal Designation[a]	State Designation[b]
O_3 (1-hour)	Attainment[1]	Nonattainment
O_3 (8-hour – 1997) (8-hour – 2008)	Attainment (Maintenance) Nonattainment (Marginal)	Nonattainment
CO	Unclassifiable/Attainment	Attainment
PM_{10}	Unclassifiable[2]	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
NO_2	Unclassifiable/Attainment	Attainment

Table 4.2-1
San Diego Air Basin Attainment Classification

Pollutant	Federal Designation[a]	State Designation[b]
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No federal standard	Attainment
Hydrogen Sulfide	No federal standard	Unclassified
Visibility-Reducing Particles	No federal standard	Unclassified

a EPA 2014a
b CARB 2014b
1 The federal 1-hour standard of 0.12 parts per million was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.
2 At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

4.2.2 Air Quality Monitoring Data

The SDAPCD operates a network of ambient air monitoring stations throughout San Diego County that measure ambient concentrations of pollutants and determine whether the ambient air quality meets the CAAQS and NAAQS. The SDAPCD monitors air quality conditions at 10 locations throughout the SDAB. Due to its proximity to the site and similar geographic and climactic characteristics, the Camp Pendleton monitoring station concentrations for all pollutants are considered most representative of the project site. However, data for this site was only available for 8-hour O_3 and 1-hour O_3 concentrations. The Escondido – East Valley Parkway monitoring station concentrations were used for the PM_{10}, $PM_{2.5}$, NO_2, and CO because this was the closest station to the project site where these pollutants are monitored. The El Cajon – Redwood Avenue monitoring station is the nearest location to the project site where SO_2 concentrations are monitored.

Ambient concentrations of pollutants from 2009 through 2013 are presented in **Table 4.2-2**, Ambient Air Quality Data. The number of days exceeding the ambient air quality standards is shown in **Table 4.2-3**, Frequency of Air Quality Standard Violations. The state 8-hour O_3 standards were exceeded in 2009, 2010, 2011, and 2012; the state 1-hour O_3 standards were not exceeded from 2009 to 2013. The federal 8-hour O_3 standard was exceeded in 2009, 2010, 2012, and 2013. The state 24-hour PM_{10} standard was exceeded in 2009 and 2013; the state annual PM_{10} standard was exceeded in 2009, 2010, and 2013; and the federal 24-hour $PM_{2.5}$ standard was exceeded in 2009, 2012, and 2013. Air quality within the project region was in compliance with both the CAAQS and NAAQS for NO_2, CO, PM_{10} (NAAQS only), and SO_2 during this monitoring period.

Table 4.2-2
Ambient Air Quality Data (ppm unless otherwise indicated)

Pollutant	Averaging Time	2009	2010	2011	2012	2013	Most Stringent Ambient Air Quality Standard	Monitoring Station
O_3	8-hour	0.076	0.078	0.071	0.081	0.066	0.070	Camp Pendleton
	1-hour	0.090	0.092	0.085	0.092	0.078	0.090	
PM_{10}	Annual	24.6	21.0	18.8	18.1	23.1	20 µg/m^3	Escondido – E Valley Parkway
	24-hour	73.0	42.0	40.0	33.0	80.0	50 µg/m^3	
$PM_{2.5}$	Annual	—	—	10.4	—	10.5	12 µg/m^3	Escondido – E Valley Parkway
	24-hour	78.4	52.2	27.4	70.7	56.3	35 µg/m^3	
NO_2	Annual	0.016	0.014	—	0.013	0.013	0.030	Escondido – E Valley Parkway
	1-hour	0.073	0.064	0.062	0.062	0.061	0.180	
CO	8-hour	3.54	2.46	2.30	3.70	2.60	9.0	Escondido – E Valley Parkway
	1-hour*	4.40	2.80	3.50	4.40	3.20	20	
SO_2	Annual	—	—	0.000	—	—	0.030	El Cajon – Redwood Ave
	24-hour	—	—	0.001	0.001	0.001	0.040	

Sources: CARB 2014c; EPA 2014b
µg/m^3 = micrograms per cubic meter; ppm = parts per million
A new 1-hour NAAQS for NO_2 became effective in April 2010. Data reflect compliance with the 1-hour CAAQS. Data represent maximum values.

Table 4.2-3
Frequency of Air Quality Standard Violations

Monitoring Site	Year	Number of Days Exceeding Standard				
		State 1-Hour O_3	*State 8-Hour O_3*	*National 8-Hour O_3*	*State 24-Hour PM_{10}**	*National 24-Hour $PM_{2.5}$**
Camp Pendleton	2009	0	5	1	5.6 (1)	3.0 (1)
	2010	0	1	1	—	—
	2011	0	2	0	—	—
	2012	0	1	1	—	3.1 (1)
	2013	0	0	1	6 (1)	3.1 (1)

Source: CARB 2014c
* Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and 3 days, respectively. "Number of days exceeding standard" is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had it been monitored every day. The numbers in parentheses are the measured number of samples that exceeded the standard.

4.2.3 Relevant Plans, Policies, and Ordinances

Federal

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. EPA is responsible for implementing most aspects of the Clean Air Act, including setting the NAAQS for major air pollutants, hazardous air pollutant

standards, approval of state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric O_3 protection, and enforcement provisions. NAAQS are established for "criteria pollutants" under the Clean Air Act, which are O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O_3, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a State Implementation Plan that demonstrates how those areas will attain the standards within mandated time frames.

State

The federal Clean Air Act delegates the regulation of air pollution control and enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB established the CAAQS, which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions, and pollution levels must be below these standards before a basin can attain the standard. The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in **Table 4.2-4**, Ambient Air Quality Standards.

Table 4.2-4
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]	National Standards[2]	
		Concentration[3]	*Primary*[3,4]	*Secondary*[3,5]
O_3	1 hour	0.09 ppm (180 μg/m^3)	—	Same as Primary Standard
	8 hour	0.070 ppm (137 μg/m^3)	0.075 ppm (147 μg/m^3)	
CO	1 hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	—
	8 hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	

Table 4.2-4
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]	National Standards[2]	
		Concentration[3]	*Primary*[3,4]	*Secondary*[3,5]
NO_2[6]	1 hour	0.18 ppm (339 μg/m³)	0.100 ppm (188 μg/m³)	Same as Primary Standard
	Annual Arithmetic Mean	0.030 ppm (57 μg/m³)	0.053 ppm (100 μg/m³)	
SO_2[7]	1 hour	0.25 ppm (655 μg/m³)	0.75 ppm (196 μg/m³)	—
	3 hour	—	—	0.5 ppm (1300 μg/m³)
	24 hour	0.04 ppm (105 μg/m³)	0.14 ppm (for certain areas)[7]	
	Annual Arithmetic Mean	—	0.030 ppm (for certain areas)[7]	—
PM_{10}[8]	24 hour	50 μg/m³	150 μg/m³	Same as Primary Standard
	Annual Arithmetic Mean	20 μg/m³	—	
$PM_{2.5}$[8]	24 hour	—	35 μg/m³	Same as Primary Standard
	Annual Arithmetic Mean	12 μg/m³	12.0 μg/m³	15.0 μg/m³
Lead[9,10]	30-Day Average	1.5 μg/m³	—	—
	Calendar Quarter	—	1.5 μg/m³ (for certain areas)[10]	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 μg/m³	
Hydrogen sulfide	1 hour	0.03 ppm (42 μg/m³)	—	—
Vinyl chloride[9]	24 hour	0.01 ppm (26 μg/m³)	—	—
Sulfates	24 hour	25 μg/m3	—	—
Visibility reducing particles[11]	8 hour (10:00 a.m. to 6:00 p.m. PST)	See footnote 11	—	—

ppm= parts per million by volume; μg/m³ = micrograms per cubic meter; mg/m³= milligrams per cubic meter

Source: CARB 2013

1 California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For NO_2 and SO_2, the standard is attained when the 3-year average of the 98th and 99th percentile, respectively, of the daily maximum 1-hour average at each monitor within an area does not exceed the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m³ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr.
Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

5 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

6 To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[7] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[8] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[9] CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[10] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard; the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[11] In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Local

San Diego Air Pollution Control District

Although CARB is responsible for the regulation of mobile emissions sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The proposed project site is located within the SDAB and is subject to SDAPCD guidelines and regulations. In San Diego County, O_3 and particulate matter are the pollutants of main concern, since exceedances of state ambient air quality standards for those pollutants are experienced here in most years. For this reason, the SDAB has been designated as a nonattainment area for the state PM_{10}, $PM_{2.5}$, and O_3 (1-hour and 8-hour) standards. The SDAB is also designated as a federal O_3 maintenance attainment area for the 1997 8-hour NAAQS and a marginal nonattainment area for the 2008 8-hour NAAQS for O_3.

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The Regional Air Quality Strategy (RAQS) for the San Diego Air Basin was initially adopted in 1991, and is updated on a triennial basis (most recently in 2009). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O_3. The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in San Diego County and the cities in the county, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls (SDAPCD 2009a). CARB mobile source emissions projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by San Diego County and the cities in the county as part of development of their general plans.

The Eight-Hour Ozone Attainment Plan for San Diego County indicates that local controls and state programs would allow the region to reach attainment of the federal 8-hour O_3 standard by 2009 (SDAPCD 2007). In this plan, SDAPCD relies on the RAQS to demonstrate how the region will comply with the federal O_3 standard. The RAQS details how the region will manage and reduce O_3 precursors (NO_x and VOCs) by identifying measures and regulations intended to reduce these contaminants. The control measures identified in the RAQS generally focus on stationary sources; however, the emissions inventories and projections in the RAQS address all potential sources, including those under the authority of CARB and EPA. Incentive programs for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS.

In December 2005, the SDAPCD prepared a report titled "Measures to Reduce Particulate Matter in San Diego County" to address implementation of Senate Bill 656 in San Diego County (Senate Bill 656 required additional controls to reduce ambient concentrations of PM_{10} and $PM_{2.5}$). In the report, the SDAPCD evaluates implementation of source-control measures that would reduce particulate matter emissions associated with residential wood combustion.

The SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards in the SDAB. The following rules and regulations would apply to construction of the proposed project:

- **SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance.** Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1969).
- **SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust.** Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site (SDAPCD 2009b).
- **SDAPCD Regulation IV: Prohibitions; Rule 67.0: Architectural Coatings.** Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2001).

4.2.4 Thresholds of Significance

The significance criteria used to evaluate the impacts to air quality from Option A or Option B are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to air quality would occur if the project would:

a) Conflict with or obstruct implementation of the applicable air quality plan.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

c) Result in a cumulatively considerable new increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative threshold emissions which exceed quantitative thresholds for ozone precursors).

d) Expose sensitive receptors to substantial pollutant concentrations.

e) Create objectionable odors affecting a substantial number of people.

San Diego Air Pollution Control District

The City of Del Mar has not adopted numerical thresholds of significance for determining whether air quality impacts are significant. As part of its air quality permitting process, however, the SDAPCD has established thresholds in Rule 20.2, requiring the preparation of Air Quality Impact Assessments for permitted stationary sources. The SDAPCD sets quantitative emissions thresholds below which a stationary source would not have a significant impact on ambient air quality. Air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in **Table 4.2-5**, SDAPCD Air Quality Significance Thresholds, are exceeded.

For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality.

Table 4.2-5
SDAPCD Air Quality Significance Thresholds

Construction Emissions	
Pollutant	*Total Emissions (Pounds per Day)*
Respirable Particulate Matter (PM_{10})	100
Fine Particulate Matter ($PM_{2.5}$)	55
Pollutant	*Total Emissions (Pounds per Day)*
Oxides of Nitrogen (NO_x)	250
Oxides of Sulfur (SO_x)	250

Table 4.2-5
SDAPCD Air Quality Significance Thresholds

Construction Emissions			
Carbon Monoxide (CO)	550		
Volatile Organic Compounds (VOC)	137*		
Operational Emissions			
Pollutant	*Total Emissions*		
	Pounds per Hour	*Pounds per Day*	*Pounds per Year*
Respirable Particulate Matter (PM_{10})	—	100	15
Fine Particulate Matter ($PM_{2.5}$)	—	55	10
Oxides of Nitrogen (NO_x)	25	250	40
Oxides of Sulfur (SO_x)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	—	3.2	0.6
Volatile Organic Compounds (VOC)	—	137*	13.7

Source: SDAPCD 1995, 1998

* VOC threshold based on the significance thresholds recommended by the Monterey Bay Unified Air Pollution Control District for the North Central Coast Air Basin, which has similar federal and state attainment status as the SDAB for O_3.

The thresholds listed in **Table 4.2-5** represent screening-level thresholds that can be used to evaluate whether project-related emissions could cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. In the event that emissions exceed these thresholds, modeling would be required to demonstrate that the project's total air quality impacts result in ground-level concentrations that are below the CAAQS and NAAQS, including appropriate background levels. For nonattainment pollutants, if emissions exceed the thresholds shown in **Table 4.2-5**, the project could have the potential to result in a cumulatively considerable net increase in these pollutants, and, thus, could have a significant impact on ambient air quality.

SDAPCD Rule 51 (Public Nuisance) prohibits emissions of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. A project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

4.2.5 Impacts Analysis

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

The SDAPCD and SANDAG are responsible for developing and implementing a clean air plan to attain and maintain SDAB ambient air quality standards. The RAQS was initially adopted in 1991 and is updated on a triennial basis (most recently in 2009). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O_3. The RAQS

relies on information from CARB and SANDAG. This information includes mobile and area source emissions, as well as projected growth in San Diego County and cities and associated future emissions to determine the strategies necessary to reduce emissions through regulatory controls. CARB mobile source emissions projections and SANDAG growth projections are based on population, vehicle trends, and land-use plans developed by San Diego County and cities as part of development of their general plans.

The RAQS also relies on SANDAG growth projections based on population, vehicle trends, and land-use plans developed by the cities and by San Diego County as part of development of their general plans. As such, a project that proposes development that is consistent with the growth anticipated by local plans is also consistent with the RAQS. However, if a project proposes development that is greater than that anticipated in the local plan and SANDAG's growth projections, the project might be in conflict with the RAQS and may contribute to a potentially significant cumulative impact on air quality. The project site is designated North Commercial (NC) in the City of Del Mar's Community Plan. Allowed uses under the North Commercial (NC) designation include repair shops, blueprinting, manufacturing, restaurants, art/technical studios, offices, and warehouses (City of Del Mar 1985).

Option A and Option B would re-designate the project site as Specific Plan, and the new designation would allow for a 48-unit residential development at a density of approximately 20 dwelling units per acre under Option A, and a 38-unit residential development at a density of approximately 16 dwelling units per acre under Option B. The proposed use would locate a high-density residential development on a lot that borders Low Density Residential (R1-10), Very Low Density Residential (R1-40) to the east, and commercial uses to the north and west. Although both Options would change the designation of the project site from North Commercial (NC) to Specific Plan, allowing for residential uses, the potential criteria emissions from the site would be comparable. Additionally, by adhering to the basic principles of residential development, compact building design, and providing a diverse range of housing options, both Options would be consistent with the SANDAG Regional Comprehensive Plan and the SANDAG 2050 Regional Transportation Plan and Community Sustainability Strategy. Therefore, Option A and Option B are not anticipated to substantially increase criteria pollutant emissions from the project site beyond those considered in the RAQS projects. As such, both Option A and Option B would be consistent with the RAQS and impacts would be **less than significant**.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Construction

Construction of Option A or Option B would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from

on-site construction equipment, as well as from off-site trucks hauling construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, specific type of operation, and (for dust) prevailing weather conditions. Therefore, such emissions levels can only be approximately estimated with a corresponding uncertainty of precise ambient air quality impacts. Fugitive dust (PM_{10} and $PM_{2.5}$) emissions would primarily result from grading and site preparation activities. NO_x and CO emissions would mainly result from the use of construction equipment and motor vehicles.

Emissions from the construction phase of Option A and Option B were estimated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.1 (available online at www.caleemod.com).

For estimating the proposed project's emissions, it was assumed that construction would include the following subphases:

- Site preparation (2 weeks)
- Grading (5 weeks)
- Building construction (75 weeks)
- Trenching (4 weeks)
- Architectural coating (5 weeks)
- Paving (2 weeks)

Total construction of either Option is expected to take approximately 24 months. The subphases listed above would overlap in some instances to meet this construction schedule. This overlap is accounted for in the construction emissions estimates (provided in Attachment A to **Appendix C**). Construction of the proposed project would involve approximately 21,200 cubic yards of soil cut and 2,200 cubic yards of fill, resulting in 19,000 cubic yards of soil export. A more detailed description of the construction schedule, including information regarding subphases and equipment used during each subphase, is included in **Appendix C**.

Construction worker and vendor trip assumptions were assigned to each construction subphase to determine criteria air pollutant emissions from these sources. Construction worker and vendor trips for construction were determined using CalEEMod default worker trip and vendor trip vehicle generation factors.

The construction equipment mix was provided by the project applicant and represents a reasonably conservative estimate of construction activity. Where project-specific construction equipment information was not available, CalEEMod default equipment mixes were used. For the analysis, it

was generally assumed that heavy construction equipment would be operating at the site for approximately 8 hours per day, 5 days per week (22 days per month) during project construction.

The proposed project is subject to SDAPCD Rule 55 – Fugitive Dust Control. This rule requires actions to restrict visible emissions of fugitive dust beyond the property line. Compliance with Rule 55 would limit fugitive dust (PM_{10} and $PM_{2.5}$) that may be generated during grading and construction activities. To account for dust control measures in the calculations, it was assumed that the active sites would be watered at least two times daily, resulting in an approximately 55% reduction of particulate matter. The proposed project is also subject to SDAPCD Rule 67.0 – Architectural Coatings. This rule establishes maximum VOC contents of 100 and 150 grams per liter for flat and non-flat coatings, respectively. CalEEMod default values of 150 grams per liter for non-residential interior coatings and 250 grams per liter for non-residential exterior coatings were replaced with VOC contents of 100 and 150 grams per liter. The proposed parking structure under both Options would not require application of architectural coatings; therefore, CalEEMod default square footages were adjusted to not include application of architectural coatings for the parking structure.

Table 4.2-6 shows the estimated maximum daily construction emissions associated with the construction phases of Option A and **Table 4.2-7** shows the estimated maximum daily construction emissions associated with the construction phases of Option B. Complete details of the emissions calculations are provided in **Appendix C**.

Table 4.2-6
Estimated Maximum Daily Construction Emissions for Option A (pounds per day)

	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Option A Emissions (Summer or Winter)						
2019	2.60	23.38	22.42	0.04	1.87	1.40
2020	1.63	14.12	14.42	0.03	1.23	0.88
2021	24.00	12.81	14.21	0.03	1.11	0.76
Maximum Daily Emissions	**24.00**	**23.38**	**22.42**	**0.04**	**1.87**	**1.40**
Emissions Threshold	*137*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix C

Table 4.2-7
Estimated Maximum Daily Construction Emissions for Option B (pounds per day)

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Option B Emissions (Summer or Winter)						
2019	2.50	22.77	21.57	0.04	1.76	1.35
2020	1.56	13.58	13.74	0.03	1.16	0.84

Table 4.2-7
Estimated Maximum Daily Construction Emissions for Option B (pounds per day)

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
2021	21.15	12.32	15.54	0.03	1.05	0.73
Maximum Daily Emissions	**21.15**	**22.77**	**21.57**	**0.04**	**1.76**	**1.35**
SDAPCD Threshold	*137*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: See Appendix C Attachment A for detailed results.

As shown in **Tables 4.2-6 and 4.2-7**, daily construction emissions would not exceed SDAPCD's significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ under Option A or Option B. Therefore, impacts under both Options would be **less than significant**.

Operation

Following completion of construction activities, both Options would generate VOCs, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions from mobile and stationary sources, including vehicular traffic and area sources (e.g., space heating, water heating, and landscaping).

Both Options would impact air quality through an increase in vehicular traffic generated by project residents and visitors. CalEEMod was used to estimate daily emissions from proposed vehicular sources. CalEEMod default trip-generation rates were adjusted based on weekday trip-generation rates per land use type. The model's default data, including temperature, trip characteristics, variable start information, emissions factors, and trip distances, were conservatively used for the model inputs.

Project-related traffic was assumed to consist of a mixture of vehicles in accordance with the model outputs for the motor vehicle fleet. Emissions factors representing the vehicle mix and emissions for 2022 (first-year full buildout) were used to estimate emissions.

In addition to estimating mobile source emissions, CalEEMod was also used to estimate emissions from the project area stationary sources, which include natural gas appliances, hearths, landscaping, consumer products, and maintenance application of architectural coatings. It was assumed all residential units would be constructed with natural gas fireplaces and no wood-burning devices. Similar to construction-related architectural coating emission estimates, CalEEMod default values of 250 grams per liter for residential and non-residential interior coatings and 250 grams per liter for residential and non-residential exterior coatings were replaced with VOC contents of 50 and 100 grams per liter based on SDAPCD regulations.

Emissions from energy sources, which would include natural gas appliances and space and water heating, were also estimated using CalEEMod. Default values for indoor and outdoor water use, solid waste generation, and natural gas consumption (through Title 24 and non-Title 24 natural gas energy intensities) were used for the proposed project.

Tables 4.2-8 and **4.2-9** present the maximum daily emissions associated with operation of Option A and Option B, respectively, after the phases of construction have been completed. The values shown are the maximum summer and winter daily emissions results from CalEEMod. **Appendix C** provides complete details of the emissions calculations.

Table 4.2-8
Estimated Daily Maximum Operational Emissions for Option A (pounds per day)

Emissions Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Option A Emissions (Summer or Winter)						
Mobile	1.79	0.84	4.31	0.01	0.09	0.09
Energy Sources	0.02	0.17	0.07	0.00	0.01	0.01
Area Sources	0.46	1.95	5.44	0.02	1.70	0.47
Total	**2.27**	**2.96**	**9.82**	**0.03**	**1.80**	**0.57**
Emission Threshold	*137*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix C

Table 4.2-9
Estimated Daily Maximum Operational Emissions for Option B (pounds per day)

Emissions Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Option B Emissions (Summer or Winter)						
Mobile	1.65	0.67	3.42	0.00	0.07	0.07
Energy Sources	0.02	0.13	0.06	0.00	0.01	0.01
Area Sources	0.37	1.54	4.31	0.02	1.35	0.37
Total	**2.04**	**2.34**	**7.79**	**0.02**	**1.43**	**0.45**
Emission Threshold	*137*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix C

As shown in **Tables 4.2-8** and **Table 4.2-9**, daily area source and operational emissions would not exceed the significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ under Option A and Option B. As such, both Option A and Option B's operational impacts on air quality would be **less than significant**.

c) Would the project result in a cumulatively considerable new increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative threshold emissions which exceed quantitative thresholds for ozone precursors)?

Option A or Option B, combined with known and reasonably foreseeable growth in the area, could result in cumulatively considerable emissions of nonattainment criteria air pollutants.

For cumulative impacts from the proposed project, the analysis must specifically evaluate contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the CAAQS and NAAQS. If Option A and Option B do not exceed thresholds and are determined to have less-than-significant project-specific impacts, they may still contribute to a significant cumulative air quality impact if the emissions from either Option—in combination with the emissions from other proposed or reasonably foreseeable future projects—are in excess of established thresholds. However, an Option would only be considered to have a significant cumulative impact if the Option's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

The SDAB has been designated as a federal nonattainment area for O_3 and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. Construction-generated PM_{10} and $PM_{2.5}$ emissions generally result in near-field impacts associated with exposure of nearby sensitive receptor to these emissions. As discussed previously, emissions of the criteria pollutants, including PM_{10} and $PM_{2.5}$, would be below the construction significance levels established by the SDAPCD. Additionally, construction would be short-term, and criteria pollutant emissions sources associated with construction of either Option would be typical to other projects of similar size and scale as Option A and Option B. Construction activities for the proposed project would not result in significant impacts to air quality. Although construction for either Option could potentially occur at the same time and in the same general vicinity as other major construction projects, the construction of Option A or Option B is not anticipated to result in a cumulatively significant impact related to particulate matter emissions, as the other identified cumulative projects are not close enough to the proposed project site to generate cumulatively considerable particulate matter emissions levels. Therefore, impacts under both Options would be **less than significant**.

As stated earlier, the RAQS relies on SANDAG growth projections based on population, vehicle trends, and land use plans developed by the cities and by San Diego County as part of the development of their general plans. The project site is designated North Commercial (NC) in the City of Del Mar's Community Plan. Allowed uses under the North Commercial (NC) designation include repair shops, blueprinting, manufacturing, restaurants, art/technical studios, offices, and warehouses. Although the proposed project would change the designation of the project site from North Commercial (NC) to Specific Plan, allowing for residential land uses; the potential criteria emissions from the site would be relatively comparable. Additionally, by adhering to the basic principles of residential development, compact building design, and providing a diverse range of housing options, Option A and Option B would be consistent with the SANDAG Regional Comprehensive Plan and the SANDAG 2050 Regional Transportation Plan and Community Sustainability Strategy. Therefore, neither Option would result in significant regional growth that is not accounted for within the RAQS; thus, at a regional level, it would be consistent with the underlying growth forecasts in the SIP and RAQS. As a result,

Option A or Option B would not result in a cumulatively considerable contribution to regional O_3 concentrations or other criteria pollutant emissions.

Furthermore, operational emissions generated by Option A and Option B would be below the SDAPCD-established significance thresholds for criteria pollutants, and Option A and Option B's operational emissions would not be regarded as resulting in a cumulatively considerable contribution to the region's air quality. As such, cumulative air quality impacts under both Options would be **less than significant**.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as TACs or hazardous air pollutants (HAPs). State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program and aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal HAPs, and is adopting appropriate control measures for sources of these TACs. The greatest potential for TAC emissions during construction would be diesel particulate emissions from heavy equipment operations and heavy-duty trucks and the associated health impacts to sensitive receptors. The following measures are required by state law to reduce DPM emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-use Off-road Diesel Vehicles (Title 13 California Code of Regulations, Chapter 9, Section 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SDAPCD recommends an incremental cancer risk threshold of 10 in a million (SDAPCD 2014). "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment (OEHHA) risk-assessment methodology. Option A or Option B would not require the extensive operation of heavy-duty construction equipment, which is subject to a CARB Airborne Toxics Control Measure for in-use diesel construction equipment to reduce diesel particulate emissions and would not involve extensive use of diesel trucks, which are also subject to a CARB Airborne Toxics Control Measure.

Maximum daily particulate matter (PM_{10} or $PM_{2.5}$) emissions generated by construction equipment operation and haul-truck trips during construction (exhaust particulate matter, or DPM), combined with fugitive dust generated by equipment operation and vehicle travel, would be well below the SDAPCD significance thresholds for both Options. Moreover, total construction of either Option would last approximately 24 months, after which, project-related TAC emissions would cease. Thus, Option A and Option B would not result in a long-term source of TAC emissions. No residual TAC emissions and corresponding cancer risk are anticipated after construction, and no long-term sources of TAC emissions are anticipated during operation of either Option. Therefore, the exposure of project-related TAC emission impacts to sensitive receptors would be **less than significant**.

Construction and operation of either Option would not result in exceedances of the SDAPCD significance thresholds for any criteria air pollutant. The VOC and NO_x emissions, as described previously, would minimally contribute to regional O_3 concentrations and the associated health effects. In addition to O_3, NO_x emissions would not contribute to potential exceedances of the NAAQS and CAAQS for NO_2. It is not expected the proposed project's operational NO_x emissions would result in exceedances of the NO_2 standards or contribute to the associated health effects. CO tends to be a localized impact associated with congested intersections. Thus, the proposed project's CO emissions would not contribute to significant health effects associated with this pollutant. PM_{10} and $PM_{2.5}$ would not contribute to potential exceedances of the NAAQS and CAAQS for particulate matter and would not obstruct the SDAB from coming into attainment for these pollutants and would not contribute to significant health effects associated with particulates. Refer to Appendix C for detailed discussion regarding potential health effects associated with air quality emissions. Therefore, health impacts associated with criteria air pollutants would be considered **less than significant**.

e) Would the project create objectionable odors affecting a substantial number of people?

Odors generated from vehicles and/or equipment exhaust emissions during construction of the proposed project would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and architectural coatings. Such odors would be temporary and would generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction of either Option would be **less than significant**.

Land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding facilities. Both Options would contain multi-family residential units, recreational uses, and an associated parking structure, and would not result in the creation of a land use that is commonly associated with odors. Therefore, Option A or Option B operations would result in an impact that is considered **less than significant**.

4.2.6 Mitigation Measures

All impacts under both Options would be less than significant, and no mitigation is required.

4.2.7 Level of Significance After Mitigation

No mitigation is required. All impacts under both Options would remain less than significant.

4.2.8 References

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4.3 BIOLOGICAL RESOURCES

This section describes the existing biological resources of the Watermark Del Mar Specific Plan (WDMSP) proposed Option A and Option B site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to Option A and Option B. This section is based on the Report of a Biological Assessment Over APNs 299-100-47 and 299-100-48 (biological assessment) for the project site (Cummings and Associates 2017). The complete biological assessment is attached as **Appendix D** of this environmental impact report (EIR). The biological assessment addresses construction of Option A on the 2.37-acre site within the City of Del Mar.

The proposed project site was previously assessed for biological resources. Specifically, Merkel and Associates prepared a Biological Resources Report in June 2004 and conducted a focused federal protocol California gnatcatcher (*Polioptila californica*) survey in October 2004. Subsequently, Dudek & Associates updated the work done by Merkel & Associates and conducted a focused federal protocol California gnatcatcher survey in November 2005 and prepared an updated Biological Resources Survey Letter Report in January 2006. Cummings and Associates conducted the current biological survey and wetland delineation, and prepared an updated biological report. Cummings and Associates also conducted a focused federal protocol California gnatcatcher survey in April 2017.

This biological assessment describes the existing condition of biological resources within the proposed project site in terms of vegetation, flora, wildlife, and wildlife habitats; quantifies impacts to biological resources that would result from implementation of the proposed project and describes those impacts in terms of biological significance in view of federal, state, and local laws and policies; and recommends mitigation measures for impacts to sensitive biological resources, if necessary.

Four field visits were made to the proposed project site: (1) an initial site assessment on July 2, 2012; (2) general biological field work and a wetland delineation on August 21, 2012; (3) a mitigation assessment on September 27, 2012; and (4) an assessment of the wetland delineation post-completion of another project. The goals of these survey efforts were to identify and delineate the changes in the habitats on site since the 2004 and 2006 surveys, identify and delineate the changes to the previously identified sensitive plant species on site, determine the presence or absence of any other sensitive wildlife or plant species on site, determine if the Vector Control Project along San Dieguito Drive changed the wetland delineation on site.

To meet the above outlined goals, all signs (including track, scat, and others), direct observation, and auditory inputs (such as songs and calls) were used to identify wildlife species present. Plant species were generally identified in the field, with some material being collected for laboratory identification.

One goal of the biological assessment was to determine the presence or absence of sensitive plant species. Prior to initiation of field work, a search was made of the online California Native Plant Society's (CNPS) electronic database to determine those plant species considered sensitive and known to occur within an approximately 10-mile radius of the proposed project site (CNPS 2012). This search produced a list of 69 plant species that was then augmented with six additional plant species generated from a search of the California Natural Diversity Database (Cummings and Associates 2017). An additional plant identified on the proposed project site, but not found in either the CNPS or California Natural Diversity Database (CNDDB) list, was also added. The list of 76 plant species is included in Appendix D of this EIR, along with an annotation as to whether or not the species would be expected given the habitats, soils, and elevations present on the proposed project site.

The biological assessment also identified and delineated the populations of sensitive wildlife species. Prior to the site visits, a list of 60 sensitive wildlife species known to occur within a 10-mile radius of the proposed project site was generated from a search of the CNDDB. The list of 60 sensitive species is also presented in Appendix D of this EIR.

4.3.1 Existing Conditions

The proposed project site encompasses approximately 2.37 acres located at 2100 Jimmy Durante Boulevard within the City of Del Mar. The site is located south of the intersection of Jimmy Durante Boulevard and San Dieguito Drive. The site consists of two adjacent parcels of land that are identified as Assessor's Parcel Numbers (APNs) 299-100-47 and 299-100-48. The site is currently vacant and is intermittently used for paid fairground and race track parking.

The proposed project site is located in two overlay zones as identified in the Del Mar Municipal Code (DMMC): the Lagoon Overlay Zone and the Bluff, Slope, Canyon Overlay Zone. In addition, portions of the site are located in the Floodplain Overlay Zone.

The proposed project site is bounded to the north by the intersection of Jimmy Durante Boulevard and San Dieguito Drive. San Dieguito Drive adjoins the site to the east-northeast, beyond which is a vacant lot and various facilities, including Co's Traffic Control, Del Mar Blue Print, Rose Towing, Del Mar Automotive, and other businesses. To the south and southwest are residences, and to the west and northwest, Jimmy Durante Boulevard adjoins the site with a vacant lot and various businesses beyond. The surrounding residential land uses are primarily large single-family homes provided access via Heather Lane. A new single-family residence is currently under construction on a (previously vacant) site upslope adjacent to and east of the project site.

Wetlands Delineation

Wetlands and jurisdictional waters existing on the proposed project site are regulated by one or both of the following jurisdictions: the U.S. Army Corps of Engineers, which has regulatory authority over the discharge of dredged or fill materials into the waters of the United States; and the California Coastal Commission, which regulates wetlands occurring in the coastal zone through the coastal zone permitting process. Areas under the jurisdiction of the Regional Water Quality Control Board (RWQCB) generally coincide with waters of the United States. However, waters may be under the jurisdiction of the RWQCB as water of the state as provided by the Porter-Cologne Act.

A wetlands delineation was conducted by Merkel biologists on May 3, 2004, in accordance with the U.S. Army Corps of Engineers' 1987 Wetlands Delineation Manual. A coastal brackish marsh wetland was identified in the southeast portion of the proposed project site. The northern edge of this wetland was surveyed again by Cummings and Associates in 2012 to map the changes that occurred within the previous 8 years, and was reassessed in 2014 after completion of the Vector Control Project along San Dieguito Drive (Cummings and Associates 2017). The outermost jurisdictional edge of the wetlands was staked in place for planning purposes by evaluating any one of the three wetland characteristics: hydric soils, a predominance of hydrophytic vegetation, and/or a hydrological regime that results in 2 weeks of saturated, anaerobic growing conditions. Refer to Appendix D for the results of the wetland delineation.

Vegetation and Flora

Vegetation within the bounds of the 2.37-acre proposed project site can be classified into five types. Refer to Appendix D for a map of vegetation and sensitive plant species locations. The majority of the proposed project site is disturbed habitat. The remainder of the proposed project site is occupied by the small coastal brackish marsh wetland in the eastern part of the site, non-native vegetation in the southwestern section of the site, southern coastal bluff scrub in the southeastern corner of the site, and disturbed southern coastal bluff scrub along the southern edge of the site. Each of these types is described below.

Disturbed Habitat

Disturbed habitat refers to areas where persistent mechanical/vehicular disturbance has resulted in severely limited natural vegetation growth. Disturbed habitat typically includes dirt roads, abandoned pads, and other built or created land covers. These areas generally are the result of severe or repeated mechanical perturbation. The vegetation present in disturbed areas is often dominated by non-native species, although some disturbance-adapted natives may occur.

The existing parking lot on the proposed project site is classified as disturbed habitat. This area occupies 1.52 acres and is nearly devoid of vegetation. The few remnant plant species remaining within the parking lot are mostly non-native, with the exception being three or four California buckwheat shrubs (*Eriogonum fasciculatum*).

Coastal Brackish Marsh

Coastal brackish marsh is a wetlands community similar to coastal salt marshes, but brackish from freshwater input. This community usually develops at the interior edges of coastal bays and lagoons, and is dominated by perennial herbaceous monocots.

The coastal brackish marsh on the proposed project site has increased slightly since 2004, but is still very small. The marsh currently occupies only 0.10 acre of the proposed project site. Plants indicative of this habitat include the following:

- Broad-leaved cattail *Typha latifolia*
- Southwestern spiny rush *Juncus acutus* var. *leopoldii*
- Pickleweed *Salicornia pacifica*
- Salty Susan *Jaumea carnosa*
- Salt grass *Distichlis spicata*

Southern Coastal Bluff Scrub

Southern coastal bluff scrub is a vegetation community dominated by low-growing woody and succulent shrubs typically adapted to marine sandstone substrate subjected to moist winds and morning fog. Coastal bluff scrub has been severely depleted in San Diego County due to an increase in coastal development, resulting in the fragmentation of otherwise contiguous blocks of costal bluff scrub habitat.

At present on the proposed project site, the undisturbed southern coastal bluff scrub occurs as a very small patch (0.04 acre) in the extreme southeast corner of the proposed project site. Dominant shrub species within this community are as follows:

- California sage *Artemisia californica*
- California buckwheat *Eriogonum fasciculatum*
- Lemonadeberry *Rhus integrifolia*

The following plant species indicative of this habitat type were noted on site:

- Lady fingers or Fingertips *Dudleya edulis*
- Lance-leaved dudleya *Dudleya lanceolata*

Disturbed Southern Coastal Bluff Scrub

Disturbed southern coastal bluff scrub is similar in species composition to the native southern coastal bluff scrub but contains non-native species. Coastal bluff scrub (including disturbed forms) has been severely depleted in San Diego County due to an increase in coastal development, resulting in the fragmentation of otherwise contiguous blocks of coastal bluff scrub habitat. This plant community (including disturbed forms) is considered sensitive by state and federal resource agencies, most Southern California jurisdictions, and local conservation organizations.

The disturbed southern coastal bluff scrub on the proposed project site occupies approximately 0.49 acre and occurs on the sandstone slopes along the southern part of the site. During the previous biological assessments by Merkel & Associates and Dudek & Associates, the "disturbed" qualifier was assigned to a portion of the scrub habitat that contained an abundance of non-native invasive plants, such as hottentot fig (*Carpobrotus edulis*) and pampas grass (*Cortaderia jubata*), intermixed with native species. However, since the 2004 survey, not only have the non-native exotic plant species spread, but human encroachment has also led to other disturbances such as foot paths and garbage. As such, the amount of disturbed southern coastal bluff scrub has increased since 2004.

Non-Native Vegetation

Non-native vegetation on the proposed project site occurs along the southwestern boundary, adjacent to existing residences. Included in this area is a ground cover of hottentot fig and a "hedge row" of acacia shrubs/trees (*Acacia* sp.).

Sensitive Plant Species

Of the 76 plant species known to occur within a 10-mile radius of the proposed project site according to the CNPS California Rare Plant Rank (CRPR) or the CNDDB, three sensitive plant species were found:

- Torrey pine — *Pinus torreyana*
- Del Mar Mesa (or common) sand aster — *Corethrogyne filaginifolia* var. *linifolia*
- Southwestern spiny rush — *Juncus acutus* var. *leopoldii*

Thirteen Torrey pine trees and approximately 40 Del Mar Mesa (or common) sand asters were observed on the proposed project site.

Of the remaining 73 plant species considered sensitive and known to occur within an approximately 10-mile radius of the proposed project site, 55 would not be anticipated given

their specific habitat, soil, and elevational requirements. However, 10 plant species have a low potential to be found on site, and eight have a medium potential of occurrence on the proposed project site. Those eight medium-potential species are as follows:

- Del Mar manzanita *Arctostaphylos glandulosa* ssp. *crassifolia*
- San Diego sand aster *Corethrogyne filaginifolia* var. *incana*
- Shortleaved dudleya *Dudleya brevifolia*
- Sand-loving wallflower *Erysimum ammophilum*
- Beach goldenaster *Heterotheca sessiliflora* ssp. *sessiliflora*
- Sea Dahlia *Leptosyne maritima*
- Estuary seablite *Suaeda esteroa*
- Woven spored lichen *Texosporium sancti-jacobi*

All eight of the medium-potential species are a shrub, lichen, or perennial herb with some form of aboveground expressions throughout the year, and, as such, these eight species would have been detected, if present, during the four site visits to the proposed project site in 2012 and 2014.

Wildlife

The limited number and kind of wildlife observations made during the four site visits were typical of a site that is largely disturbed with only small patches of native habitat. Because of the high degree of surrounding urban development, wildlife diversity is low, and relatively few species were seen. **Table 4.3-1** lists the wildlife observed on site.

Table 4.3-1
Wildlife Observations on the Proposed Project Site

Amphibians	No amphibians were heard or seen during any of the site visits.
Reptiles	No lizard species were seen during any of the field visits. However, certain common lizard species are probable on site, such as western fence lizard (*Sceloporus occidentalis*) and sideblotched lizard (*Uta stansburiana*). The lack of reptile sightings is probably due to the degree of surrounding development, human encroachment into the patches of native habitats on site, and the lack of connectivity to other wildlands.
Mammals	Due to the small size and limited native habitats on site, mammalian fauna is also extremely limited. The only mammal observed during the four surveys was a single Audubon's cottontail (*Sylvilagus audubonii*) within the disturbed southern coastal bluff scrub.
Birds	Birds were the most visible wildlife resource on the proposed project site. Bird species noted during the field efforts included song sparrow, Anna's hummingbird (*Calypte anna*), house wren (*Troglodytes aedon*), black phoebe (*Sayornis nigricans*), spotted towhee (*Pipilo maculatus*), house finch (*Carpodacus mexicanus*), Virginia rail (*Rallus limicola*), and a California gnatcatcher (for specifics on the California gnatcatcher, see "Sensitive Wildlife Species," below).

Sensitive Wildlife Species

A list of 60 sensitive wildlife species known to occur within a 10-mile radius of the proposed project site was generated from the CNDDB. Of those 60 species, one was found during the field effort, 48 are unlikely on site given the types of habitats and soils present, and 11 have varying levels of potential to occur on site.

Of the 11 "potential" sensitive wildlife species, five have a "low" occurrence potential, five have a "medium" occurrence potential, and one has a "high" occurrence potential. The one species with a "high" occurrence potential is the northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*). The presence or absence of this species could only be determined by a trapping program. However, since the species is not listed under the California or federal Endangered Species Act, there is no requirement for a focused survey.

The following five species have a "medium" potential to occur on the proposed project site:

- Orange-throated whiptail *Aspidoscelis hyperythra*
- Coastal western whiptail *Aspidoscelis tigris stejnegeri*
- San Diego ringneck snake *Diadophis punctatus similis*
- Coast horned lizard *Phrynosoma coronatum*
- Coronado Island skink *Plestiodon skiltonianus interparietalis*

None of the five species with a "medium" occurrence potential are listed species.

The following five species have a "low" potential to occur on the proposed project site:

- Mimic tryonia *Tryonia imitator*
- Cooper's hawk *Accipiter cooperi*
- Rufous-crowned sparrow *Aimophila ruficeps* ssp. *canescens*
- White-tailed kite *Elanus leucurus*
- Belding's savannah sparrow *Passerculus sandwichensis beldingi*

One sensitive wildlife species, California gnatcatcher (*Polioptila californica*), was observed during the August 21, 2012, biological survey visit. During this visit, a single California gnatcatcher was heard off site to the south at 11:15 a.m., and was heard and briefly seen foraging along the southern site boundary on the top of the bluff at 12 noon. These were the only two California gnatcatcher observations made during the 4.5-hour site visit. Only 45 minutes had passed between the two observations, and the observations were located quite close together, but it would only be

speculation whether the two observations were of the same bird or two separate birds. No California gnatcatchers were observed during the protocol survey between October 2016 and February 2017.

Two protocol surveys for California gnatcatcher were previously conducted. Merkel & Associates conducted one in October 2004 and Dudek & Associates conducted one in November 2005. Both of these surveys noted that no state-listed or federally endangered or threatened wildlife species were observed on the proposed project site, including California gnatcatcher, for which the species--specific surveys were conducted. Thus, given the two previous negative protocol surveys for this species; the timing of the sighting in late August; the disturbed 1 acre of southern coastal bluff scrub; the less than high-quality habitat on site and in the vicinity; and the lack of any other sightings, either previous or subsequent to the August 21, 2012, observation, the biological assessment concluded that the observed California gnatcatcher was a dispersing juvenile. No California gnatcatchers were observed during the protocol survey between October 2016 and February 2017.

The southern coastal bluff scrub that is habitat for California gnatcatcher occurs off the proposed project site to the south forming a strand of habitat (combined with the bluff scrub on site) of approximately 1 acre. The typical breeding territory of California gnatcatcher ranges between 2 and 20 acres. Where the habitats are more mesic and have a higher shrub diversity, such as in coastal San Diego County, the territories are on the smaller end of that range.

4.3.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Endangered Species Act

Under the federal Endangered Species Act of 1973 (ESA), the Secretary of the Interior and the Secretary of Commerce jointly have the authority to list a species as threatened or endangered (16 United States Code (U.S.C.) 1533(c)). Pursuant to the requirements of the ESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the planning area, and determine whether the proposed project would have a potentially significant impact on such species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under the ESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 U.S.C. 1536(3)(4)). The United States Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration National Marine Fisheries Service are responsible for implementation of the federal ESA.

USFWS also publishes a list of candidate species. Species on this list receive special attention from federal agencies during environmental review, although they are not protected otherwise under the federal ESA. The candidate species are those for which USFWS has sufficient biological information to support a proposal to list as endangered or threatened.

Magnuson–Stevens Fishery Conservation and Management Act

The Magnuson–Stevens Fishery Conservation and Management Act (Magnuson–Stevens Act) establishes a management system for national marine and estuarine fishery resources. This legislation requires all federal agencies to consult with the National Marine Fisheries Service regarding all actions or proposed actions permitted, funded, or undertaken that may adversely affect essential fish habitat (EFH). EFH is defined as "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." The legislation states that migratory routes to and from anadromous fish spawning grounds are considered EFH. The phrase "adversely affect" refers to the creation of any impact that reduces the quality or quantity of EFH. Federal activities that occur outside EFH but that may, nonetheless, have an impact on EFH waters and substrate must also be considered in the consultation process.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (16 U.S.C. 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the Migratory Bird Treaty Act is extensive; the species are listed in Title 50 of the Code of Federal Regulations, Part 10.13. The regulatory definition of "migratory bird" is broad and includes any mutation or hybrid of a listed species, and also includes any part, egg, or nest of such birds (50 Code of Federal Regulations 10.12). Migratory birds are not necessarily federally listed endangered or threatened birds under the ESA. The Migratory Bird Treaty Act, which is enforced by USFWS, makes it unlawful "by any means or in any manner, to pursue, hunt, take, capture, [or] kill" any migratory bird or attempt such actions, except as permitted by regulation. The applicable regulations prohibit the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations (50 Code of Federal Regulations 21.11).

Clean Water Act

The Clean Water Act was enacted by Congress in 1972 and has been amended several times since its inception. It is the primary federal law regulating water quality in the United States, and forms the basis for several state and local laws throughout the country. Its objective is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. The Clean Water Act prescribes the basic federal laws for regulating discharges of pollutants, and sets minimum water quality standards for all surface waters in the United States. At the federal level,

the Clean Water Act is administered by the U.S. Environmental Protection Agency. At the state and regional levels, the Clean Water Act is administered and enforced by the State Water Resources Control Board and Regional Water Quality Control Boards (RWQCBs). Any project resulting in permanent or temporary fill of jurisdictional waters is subject to provisions of Sections 401 and 404 of the Clean Water Act, Sections 1600 through 1616 of the California Fish and Game Code, and Section 401 of a RWQCB certification or waiver. Acquisition of these permits is a regulatory requirement and is not considered in and of itself mitigation for loss of waters of the United States.

National Pollutant Discharge Elimination System Program

The 1972 amendments to the federal Water Pollution Control Act established the National Pollutant Discharge Elimination System (NPDES) permit program to control discharges of pollutants from point sources (Section 402). The NPDES permit program is the primary federal program that regulates point-source and nonpoint-source discharges to waters of the United States. The State Water Resources Control Board issues both general and individual NPDES permits for certain activities. The NPDES is discussed in detail in Section 4.8, Hydrology and Water Quality, of this EIR.

State

California Endangered Species Act

The California ESA establishes state policy to conserve, protect, restore, and enhance threatened or endangered species and their habitats. Under the California ESA, the California Department of Fish and Wildlife (CDFW) is responsible for maintaining a list of threatened species and endangered species (California Fish and Game Code, Section 2070). CDFW also maintains a list of candidate species, which are species that CDFW has formally noticed as under review for addition to the threatened or endangered species list. CDFW also maintains lists of Species of Special Concern, which serve as watch lists. Pursuant to the requirements of the California ESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the area, and determine whether the proposed project would have a potentially significant impact on such species. CDFW encourages informal consultation on any proposed project that may impact a candidate species.

California Fish and Game Code

Under the California Fish and Game Code, CDFW provides protection from "take" for a variety of species, including fully protected species. "Fully protected" is a legal protective designation administered by CDFW intended to conserve wildlife species that risk extinction within California. Lists have been created for birds, mammals, fish, amphibians, and reptiles.

Birds of prey are protected in California under the Fish and Game Code (Section 3503.5). Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by CDFW. Any loss of fertile eggs or nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Non-raptor native birds receive similar protection under California Fish and Game Code Section 3503. Project impacts to these species would not be considered significant unless the species are known to, or have a high potential to, nest in the area or rely on it for primary foraging.

The Native Plant Protection Act of 1977 (California Fish and Game Code Section 1900 et seq.) gives CDFW authority to designate state endangered, threatened, and rare plants, and provides specific protection measures for identified populations.

CDFW also protects streams, water bodies, and riparian corridors through the Streambed Alteration Agreement process under Sections 1601–1606 of the California Fish and Game Code. The California Fish and Game Code stipulates that it is "unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake" without notifying CDFW, incorporating necessary mitigation, and obtaining a Streambed Alteration Agreement. Through policy, CDFW asserts jurisdiction to the top of banks of all streams, including intermittent and ephemeral streams, extending laterally to the upland edge of adjacent riparian vegetation. CDFW uses the Cowardin system for wetland identification and classification, which typically results in a larger jurisdictional area than federal jurisdiction under the Clean Water Act. Under this system, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year.

California Native Plant Society

CNPS maintains a list of special-status plant species based on collected scientific information. Designation of these species by CNPS does not constitute legal status or protection under federal or state endangered species legislation. CNPS's CRPRs are defined as follows: CRPR 1A (plants presumed extinct), CRPR 1B (plants rare, threatened, or endangered in California and elsewhere), CRPR 2 (plants rare, threatened, or endangered in California, but more numerous elsewhere), CRPR 3 (plants about which more information is needed – a review list), and CRPR 4 (plants of limited distribution – a watch list). In general, substantial adverse effects to plants appearing on CRPR 1A, 1B, or 2 would be considered significant.

California Coastal Act of 1976

CDFW identifies areas for protection of environmentally sensitive habitats. Under the California Coastal Act, protection is provided for these areas in the coastal zone. The California Coastal Act identifies environmentally sensitive habitats as areas in which plant or animal life and/or their habitats are rare or vulnerable due to the special nature or role in an ecosystem that can be easily disturbed or degraded by human activities and developments. The following conservation standard for the coastal zone is applicable to the proposed project:

- **Wetlands and Coastal Waters:** The California Coastal Act prevents the diking, filling, or dredging of coastal waters and wetlands except in limited circumstances, as defined in Section 30233 of the California Coastal Act. Additionally, the biological productivity of water and water quality are protected by Section 30231 of the California Coastal Act.

Section 30240 of the California Coastal Act protects environmentally sensitive habitat areas and allows disruption of that habitat for uses dependent on those resources only.

California Natural Community Conservation Planning Act of 1991

The Natural Community Conservation Planning Act of 1991 provides a framework for state and local government and private interest efforts for the protection of regional biodiversity and the ecosystems upon which they depend. Natural community conservation plans allow for the appropriate, compatible economic activity to occur while ensuring the long-term conservation of multiple species.

Local

City of Del Mar Community Plan

The Del Mar Community Plan sets forth a series of goals, objectives, and policies for the attainment of the community's collective vision of the City of Del Mar. Certain goals, objectives, and policies are related to environmental management and biological resources. Option A and Option B would need to achieve or help implement the goals, objectives, and policies of the Community Plan.

City of Del Mar Local Coastal Program

The California Coastal Act requires each local jurisdiction along the length of California's coastline to prepare and submit for state certification a Local Coastal Plan (LCP) for that portion of its area located within a specified Coastal Zone. The City of Del Mar has an LCP that consists of two parts:

1. **City of Del Mar Local Coastal Plan Land Use Plan**

   The City of Del Mar LCP Land Use Plan (LUP) was certified by the California Coastal Commission on March 18, 1993. The LUP is a compilation of the goals, policies, and

recommendations identified in the Del Mar Community Plan; various policy reports; the San Dieguito Enhancement Programs; and other goals and policies adopted by the City Council to guide the future development of Del Mar. The LUP ensures that all land use and development activities within the City of Del Mar are in conformance with the policies of the California Coastal Act of 1976, as amended. The LCP LUP includes land use designations, allowed uses, and policies intended to preserve sensitive lands, and policies intended to ensure that the sensitive wetland and hillside habitat areas within the City of Del Mar are preserved.

2. City of Del Mar Local Coastal Plan Implementing Ordinances

The City of Del Mar Zoning Code (Title 30 – Zoning, Del Mar Municipal Code) constitutes the Del Mar LCP Implementing Ordinances. The LCP Implementing Ordinances are intended to carry out and implement the provisions of the City of Del Mar's LCP LUP and applicable sections of the California Coastal Act that protect, maintain, and, where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources. The LCP Implementing Ordinances includes specific policies that address issues such as environmentally sensitive habitats, and is an applicable, adopted plan governing the proposed project.

The proposed project site is located in two overlay zones as outlined by the LCP LUP: the Lagoon Overlay Zone (Del Mar Municipal Code Chapter 30.53) and the Bluff, Slope, Canyon Overlay Zone (Del Mar Municipal Code Chapter 30.52). In addition, portions of the site are located in the Floodplain Overlay Zone (Del Mar Municipal Code Chapter 30.56). Projects located in these overlay zones must take into consideration the biological constraints associated with the San Dieguito Lagoon, and must demonstrate adherence to and compliance with the applicable provisions of these overlay zones designed to protect biological resources.

Del Mar Municipal Code Chapter 23.50

Chapter 23.50 of the City of Del Mar's Municipal Code contains a number of codes regarding protected trees. The City of Del Mar Community Plan has as one of its major goals the preservation of natural vegetation, including tree species. The Tree Removal Ordinances identified in Chapter 23.50 identify protected trees, define acceptable reasons for removing protected trees, and define when a Tree Removal Permit is required. The Torrey Pine species is of particular significance to the City, and is therefore protected from removal without City authorization for just cause. A Tree Removal Permit, issued by either the Director of Planning and Community Development or the Design Review Board of the City of Del Mar, is required to cut down, remove, destroy, or move a protected tree. When approving removal of a protected tree and determining whether or not mitigation measures are necessary, the Director or Design

Review Board considers factors associated with the species of removed tree, the removal site, the surrounding area and its existing vegetation, the health of the tree and other factors.

Multiple Species Conservation Plan

Several conservation planning efforts are currently in progress in San Diego County with the long-term goal of establishing a regional habitat reserve system that will protect native habitat lands and their associated biota. The ultimate goals of these plans are the establishment of biological reserve areas in conformance with the California Natural Community Conservation Planning Act, and to contribute to the preserve system already established by the approved Multiple Species Conservation Plan (MSCP) in southwestern San Diego County (County of San Diego 1998). The MSCP Subregional Plan, finalized in August 1998, is a comprehensive, long-term habitat conservation plan that addresses multiple species' habitat needs and the preservation of native vegetation in 12 jurisdictions of southwestern San Diego County. The MCSP Subregional Plan is implemented through local Subarea Plans that are approved or in process. According to the Subregional MSCP Plan (County of San Diego 1996, 1998), the Del Mar Subarea Plan focuses on six areas with significant resources in the mostly built-out city, with the primary consideration being the northern area of the city, which includes a portion of the San Dieguito Lagoon. The City of Del Mar is listed as a jurisdictional entity within the boundaries of the Final MSCP, and is in the process of developing an MSCP Subarea Plan. A draft has been submitted to the resource agencies for review. In the event that the City of Del Mar completes and adopts an MSCP Subarea Plan prior to the proposed project obtaining a grading permit, compliance with the Subarea Plan guidelines on avoidance, mitigation, and species-specific coverage would be required.

4.3.3 Thresholds of Significance

The significance criteria used to evaluate Option A and Option B impacts to biological resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to biological resources would occur if the project would:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

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

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

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.3.4 Impacts Analysis

a) Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

b) Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Direct Effects

Sensitive Vegetation Communities

The biological assessment calculated the acreage of each of the five vegetative communities found on the proposed project site. Three of these vegetation communities, coastal brackish marsh, southern coastal bluff scrub, and disturbed southern coastal bluff scrub, are deemed sensitive by local, state, and federal agencies. The non-native vegetation and disturbed habitat areas are not considered to be sensitive vegetation communities. **Table 4.3-2**, Vegetation Impact Summary, summarizes the acreage of each vegetation community and the acreage of anticipated impacts to these communities.

Table 4.3-2
Vegetation Impact Summary

Vegetative Community	Acreage On Site	Areas Impacted by Options A and B[1]	Area Conserved On Site
Coastal Brackish Marsh	0.10	None	0.10
Southern Coastal Bluff Scrub	0.04	None	0.04
Disturbed Southern Coastal Bluff Scrub	0.49	0.34	0.15
Disturbed Habitat	1.52	1.32	0.20[2]
Non-Native Vegetation	0.25	0.25	None
Totals:	**2.4**	**1.91**	**0.49**

1 Impacts to disturbed habitat were calculated outside of the wetland buffer area even though the limits of proposed construction encroach temporarily during construction into the wetland buffer area. Since this area is currently a barren dirt parking lot, this temporal impact is not relevant and is, therefore, not included in the acre impacts.

2 Approximately 0.01 acre of the 0.20-acre of disturbed habitat includes the gravel associated with the Vector Control Project. This 0.01 acre will not be enhanced to Southern Coastal Bluff Scrub, as the gravel is needed to remain for vector control.

The buildings within the proposed project site under Option A and Option B would be constructed primarily on the non-native vegetation and disturbed habitat areas, with a small portion of the sensitive disturbed southern coastal bluff scrub (approximately 0.34 acre) that functions as suspected dispersal habitat for California gnatcatcher to be impacted by the buildings. Because both Options would impact 0.34 acre of disturbed southern coastal bluff scrub, which is considered sensitive habitat, impacts for both Options would be **potentially significant**, and mitigation **(MM-BIO-1)** would be required**.**

Sensitive Plant Species

The biological assessment found that development on the site would cause adverse impacts to two sensitive plant species: 13 Torrey pine trees and approximately 40 Del Mar Mesa (or common) sand asters would be impacted. Of the 13 Torrey pines to be impacted, five would be relocated on site, two would be removed and replanted on site with new specimens, and the remaining six qualify for exemption Tree Removal Permit requirements and would be removed. In addition, there is one Torrey pine tree located near the eastern boundary of the project site on an adjacent property that has the potential to be indirectly impacted due to placement of the retaining wall along the eastern property line. The location of the retaining wall is within the tree's root zone, and the effects of trenching for the wall's footing could damage the roots and affect the health of the tree. These direct and indirect impacts would be **potentially significant** under both Options**,** and mitigation **(MM-BIO-2, MM-BIO-3, and MM-BIO-4)** would be required.

Sensitive Wildlife Species

The biological assessment found that one sensitive wildlife species with a "high" occurrence potential is northwestern San Diego pocket mouse. This species is not a listed species under the California or federal ESA. If this species were to occur on the proposed project site, its loss would be mitigated through its habitat, not through species-specific means. As such, mitigation for the loss of disturbed southern coastal bluff scrub (see **MM-BIO-1** in Section 4.3.7) is deemed sufficient for any potential loss of this species if it does occur on the proposed project site.

The following five species have a "medium" potential to occur on the proposed project site:

- Orange-throated whiptail *Aspidoscelis hyperythra*
- Coastal western whiptail *Aspidoscelis tigris stejnegeri*
- San Diego ringneck snake *Diadophis punctatus similis*
- Coast horned lizard *Phrynosoma coronatum*
- Coronado Island skink *Plestiodon skiltonianus interparietalis*

None of the five species with a "medium" occurrence potential are listed species. If these species were to occur on the proposed project site, their loss would be mitigated through their habitat, which is disturbed southern coastal bluff scrub (see **MM-BIO-1**).

Five species had a "low" potential to occur on the proposed project site. One of these species is mimic tryonia (*Tryonia imitator*). If mimic tryonia occurs on site, it would be within the coastal brackish marsh that would not be impacted by the proposed project (see Table 4.3-1). Impacts to this sensitive species would not occur and no mitigation would be required.

The following four bird species have a "low" potential to occur on the proposed project site:

- Cooper's hawk *Accipiter cooperi*
- Rufous-crowned sparrow *Aimophila ruficeps* ssp. *canescens*
- White-tailed kite *Elanus leucurus*
- Belding's savannah sparrow *Passerculus sandwichensis beldingi*

As discussed in Section 4.3.1, Existing Conditions, one sensitive wildlife species, California gnatcatcher, was observed during the August 21, 2012, biological field survey of the proposed project site and no California gnatcatchers were observed during the protocol survey between October 2016 and February 2017. Since the buildings associated with Option A and Option B would impact a small portion of the sensitive disturbed southern coastal bluff scrub

(approximately 0.34 acre) that functions as suspected dispersal habitat for California gnatcatcher, impacts would be significant, and mitigation (**MM-BIO-1**) would be required to lessen direct impacts. In addition, in case sensitive bird species (California gnatcatcher or the four "low" potential species) are nesting on site, impacts to sensitive bird communities could be **potentially significant** under both Options, and mitigation **(MM-BIO-5)** would be required.

Indirect Effects

Noise

The 2.37-acre proposed project site is an in-fill lot surrounded by development, including the Del Mar Fairgrounds to the northeast. The site is bounded by Jimmy Durante Boulevard on the northwest and San Dieguito Road along the northeast. In addition, 1.52 acres of the 2.37-acre proposed project site is currently used as a parking lot. Both Options propose an open space 50-foot buffer to be located in the southeast portion of the site. With the current design of Option A and Option B, buildings would act as a noise buffer between Jimmy Durante Boulevard and the proposed open space. However, the proposed project site and surrounding areas supports a diverse assemblage of trees and shrubs, which could serve as potential nesting habitat for resident birds such as California gnatcatcher. Breeding birds can be significantly affected by short-term construction-related noise, which can result in the disruption of foraging, nesting, and reproductive activities. If breeding California gnatcatchers are in areas adjacent to the proposed project site, their reproductive activities could be adversely impacted by construction-related noise. Therefore, indirect impacts to nesting birds due to construction-related noise may occur as a result of Option A and Option B. This potential indirect impact would be **potentially significant** under both Options and mitigation **(MM-BIO-6)** would be required.

Increased Public Use/Edge Effects

Both Options propose that approximately 0.49 acre of open space be preserved on site. This area would consist of coastal brackish marsh, southern coastal bluff scrub habitat, and currently disturbed habitat that would be used to create additional southern coastal bluff scrub habitat to function as a 50-foot buffer to the marsh. According the City of Del Mar's LCP Implementing Ordinances (City of Del Mar 2001) Chapter 30.53.100 B states that a wetland buffer of less than 100 feet in width would be allowed only with concurrence of CDFW and Planning Commission findings, such that physical characteristics at the site are adequate to protect the resources of the adjacent wetlands. This 0.49-acre area is located in the southeastern portion of the site. To the south, this area is bounded by steep slopes that prevent public access. Currently, the disturbed habitat is used as a parking area where people park their cars and can walk right up to the coastal brackish marsh. With implementation of either Option, the disturbed habitat would be converted to southern coastal bluff scrub

habitat, and, with the implementation of MM-BIO-7, would be protected via fencing and signage. As such, either Option would decrease public use and create additional native habitat to buffer the marsh, thereby decreasing the edge effects to the marsh. Therefore, prior to implementation of mitigation **(MM-BIO-7),** impacts would be **potentially significant** under both Options.

Lighting

The proposed project site is an in-fill lot surrounded by development, including the Del Mar Fairgrounds to the northeast. As such, the site is already subject to indirect urban lighting. To keep the new development from increasing this indirect light, the sides of the buildings facing the proposed open space on site would have lighting that is shielded and/or directed away from the open space area. Impacts under both Options would be **less than significant**.

Drainage

Runoff from Option A and Option B is proposed to be directed into a bioswale within the wetland buffer area adjacent to the marsh. The marsh itself would continue to function and flow as it currently does. No runoff from either Option would be directed into the marsh. Impacts under both Options would be **less than significant.**

Construction-Related Runoff and Dust

Standard best management practices would be implemented during construction to minimize runoff and dust, including silt fences and watering during grading. The WDMSP documents require that all the grading and erosion and sedimentation control measures specified in the Bluff, Slope, and Canyon Overlay Zone and the Lagoon Overlay Zone be incorporated into Option A and Option B, and each control measure be documented through conditions of development and applied to the development without modification. Maintenance of all erosion and drainage control measures would also be in accordance with the provisions outlined in the overlay zones and documented in the required agreements. Impacts under both Options would be **less than significant**.

Landscaping and Revegetation Area

The WDMSP documents include landscape design guidelines that establish regulations and general requirements for project landscaping. The specific size and planting specifications of final residential landscaping plans would be reviewed against the guidelines, and the wetland buffer area would be enhanced by the removal of invasive plants and restoration of additional native species. In addition, planting of exotic invasive species that have the potential to invade native habitats is prohibited by the Specific Plans. Despite this, a mitigation measure has been

included to ensure the protection of the on-site preservation areas from invasive plants. Therefore, impacts would be **potentially significant** under both Options**,** and mitigation **(MM-BIO-8)** would be required.

c) Would the proposed project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The proposed project site is located along San Dieguito Lagoon in the Lagoon Overlay Zone of the City of Del Mar's LCP. The purpose of the Lagoon Overlay Zone is to protect the wetland resources of San Dieguito Lagoon. Per Chapter 30.53.100A (Provision of Wetland Buffers) of the City of Del Mar's LCP Implementing Ordinances (City of Del Mar 2001), all new development projects that are located on sites that include or lie in proximity to wetland habitat would include the provision of a continuous wetland buffer of 100 feet. Chapter 30.53.100 B further states that a wetland buffer of less than 100 feet in width would be allowed after considering any recommendations from CDFW and Planning Commission findings. CDFW still concurs with the reduced buffer width.

The proposed project site has a coastal brackish marsh wetland in the southeast portion of the site that contains sensitive plant species (southwestern spiny rush), but otherwise has a low diversity of vegetation species. This wetland currently occupies 0.10 acre of the proposed project site. This wetland is proposed to be avoided and protected in place and buffered from proposed development by replacing the existing unvegetated dirt parking lot with an enhanced 50-foot wetland buffer.

While preparing the prior EIR for the Del Mar Office Building Project, CDFW was asked to evaluate the adequacy of a 50-foot wetland buffer on the proposed project site. CDFW found that the proposed 50-foot buffer was adequate because (1) the wetland on site is a small wetland; (2) it does not serve as a wildlife corridor; (3) while the wetland may be hydraulically connected to the San Dieguito River, it is isolated from it by developed land; and (4) a fence is proposed along the outside perimeter of the buffer. CDFW agreed to the project design with the following conditions: (1) that outdoor lighting be directed away from the wetlands, (2) adequate mitigation be required for residual impacts to sensitive species and habitats, and (3) surface flows from the project site that would ultimately drain into the wetland be treated through on-site best management practices prior to entering the buffer area (CDFG pers. comm. 2004). Option A and Option B were designed to be consistent with these conditions, and with mitigation (see **MM-BIO-8**), would provide a permanent fence and signage that would reduce any potential impacts to the wetland area caused by human access. Prior to implementation of **MM-BIO-8**, impacts under both Options would be **potentially significant.**

d) Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No evidence on the proposed project site demonstrated that it was within an established native resident or migratory wildlife corridor. However, a mitigation measure has been included (**MM-BIO-5**) which would help ensure that migratory birds nesting on the site would be protected so that construction of either Option does not disrupt avian breeding or impede the use of avian nursery sites. Therefore, prior to implementation of **MM-BIO-5** impacts would be **potentially significant**.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The Del Mar Community Plan and LCP sets forth a series of goals, objectives, and policies for the protection of biological resources, and the purpose of the Lagoon Overlay Zone is to protect the wetland resources of San Dieguito Lagoon. Option A and Option B were designed to be consistent with these policies, and would not conflict with any goals, objectives, or policies that protect biological resources.

As discussed under Threshold C, above, Chapter 30.53.100A (Provision of Wetland Buffers) of the City of Del Mar's LCP Implementing Ordinances (City of Del Mar 2001) states that all new development projects that are located on property that includes or lies in proximity to wetland habitat must include the provision of a continuous wetland buffer of 100 feet. Chapter 30.53.100 B further states that a wetland buffer of less than 100 feet in width would be allowed only with the concurrence of CDFW. Option A and Option B were designed to be consistent with the project design conditions outlined by CDFW for the 50-foot buffer, and with implementation of **MM-BIO-8**, would include fencing and signage to limit human access to the wetland area.

Consistent with other policies in the Community Plan and LCP, both Options include regulations regarding the siting and orientation of uses and structures to retain the wetlands. The 50-foot wetland buffer area would be permanently preserved through a Land Conservation Easement to ensure protection of the designated areas. In addition, the design includes an access road (rather than residential units) at the edge of the buffer, providing additional separation between residential uses and the wetland. The footprints of both Options are limited to areas of the site that have been previously graded and disturbed. Where vegetation has regrown in those areas, removal of native vegetation would be limited to the footprint of development.

Landscape design guidelines in the WDMSPs establish regulations and general requirements for Option A and Option B landscaping. Consistent with local policies and ordinances, the landscape design guidelines specify that the site's landscaping use predominantly drought-tolerant plants that require minimal irrigation and maintenance. The specific size and planting specifications on final landscape plans would be reviewed for conformance with the LCP and Lagoon Overlay Zone standards. In addition, the wetland buffer area would be enhanced by removal of invasive plants and restoration of additional native species, including Southern Coastal Bluff Scrub.

Both Options would impact 13 Torrey pine trees. . Of the 13 Torrey pines to be impacted, five would be relocated on site, two would be removed and replanted on site with new specimens, and the remaining six qualify for exemption Tree Removal Permit requirements and would be removed. A Tree Removal Permit, as recommended by the Design Review Board and the City Council, would be required to cut down, remove, destroy, or move a protected tree. When recommending removal of a tree and determining whether or not mitigation measures are necessary, the Design Review Board and City Council should consider factors associated with the species of removed tree, the removal site, the surrounding area and its existing vegetation, and other factors. Upon decision of the City Council, the project applicant would either be required to replant the Torrey pines on site or pay a fee to the City of Del Mar's Tree Mitigation Fund in accordance with the City's Municipal Code Sections 23.50.080(C-10), 23.50.030(D)(2) and 23.50.090(A)(2).

The WDMSP documents regulate that all of the grading and erosion and sedimentation control measures specified in the Lagoon Overlay Zone be incorporated into both Options, and each control measure be documented through conditions of development and applied to the development without modification. In addition, the WDMSP documents regulate that maintenance of all erosion and drainage control measures be in accordance with the provisions outlined in the Lagoon Overlay Zone and be documented in the required agreements.

Thus, design and construction of either Option has taken into consideration the provisions of the City of Del Mar's Community Plan and certified LCP that deal with protecting biological resources. In addition, both Options are compatible with the City of Del Mar's LCP Implementing Ordinances that protect biological resources, and are consistent with the guidelines and requirements that deal with biological resources. Therefore, neither project Option would conflict with local policies or ordinances protecting biological resources and impacts would be **less than significant**.

The proposed project site is not located within an adopted Habitat Conservation Plan; Natural Community Conservation Plan; or other approved local, regional, or state habitat conservation plan area. Several conservation planning efforts are currently in progress in San Diego County, with the long-term goal of establishing a regional habitat reserve system that will protect native habitat lands and their associated biota. The ultimate goals of these plans are the establishment of

biological reserve areas in conformance with the California Natural Community Conservation Planning Act, and to contribute to the preserve system already established by the approved MSCP in southwestern San Diego County. The City of Del Mar is listed as a jurisdictional entity within the boundaries of the Final MSCP Subarea Plan, and it is in the process of developing an MSCP Subarea Plan; a draft has been submitted to the resource agencies for review. In the event that the City of Del Mar completes and adopts an MSCP Subarea Plan prior to obtaining a grading permit, compliance with the Subarea Plan guidelines on avoidance, mitigation, and species-specific coverage would be required. However, because the draft MSCP Subarea Plan is not yet adopted, Option A or Option B cannot conflict with it. Nonetheless, both Options would be consistent with the draft City of Del Mar MSCP Subarea Plan.

The proposed Options are consistent with the draft MSCP Subarea Plan for several reasons. According to the draft MSCP Subarea Plan, the Del Mar Mesa Sand Aster and the Torrey Pine are covered plant species, but Southwestern Spiny Rush is not a covered species; however, no impacts are proposed to this species. In addition, the project site is located outside of the four designated preservation areas identified in Figure 1 of the draft MSCP Subarea Plan. The proposed Options are also consistent with the draft MSCP Subarea Plan because, per the plan, "A wetland buffer of less than 100-feet in width shall be allowed only when, due to physical constrains such as the size and dimensions of the property, such buffer of a lesser width will protect the resources of the adjacent wetlands, based on site-specific factors. Such factors shall include, but not be limited to, the type and size of the development proposed; mitigation measures provided (such as planting of vegetation or construction of fencing); elevation differentials between the proposed development and wetland boundaries; or other similar factors which will serve to contribute to the purposes of a wetland buffer area. Proposals for mitigation measures for wetland buffers less than 100-feet in width shall be referred to representatives of the California Department of Fish and Game for a recommendation. In no event shall the wetland buffer be less than 50 feet in width." Therefore, although the draft MSCP Subarea Plan is not yet adopted, the proposed Options would be consistent.

Furthermore, according to the MSCP, the San Dieguito Lagoon, located to the east of the proposed project site in the City of Del Mar, is part of the MSCP's Biological Core Area 13, an essential preserve area that contains a high concentration of sensitive biological resources that, if lost, could not be replaced or mitigated elsewhere. The proposed project site itself is not part of this Biological Core Area, nor is it part of a Habitat Linkage. As such, completion of either Option would not impede the efforts of the MSCP. Therefore, impacts under both Options would be **less than significant**.

4.3.5 Mitigation Measures

To compensate for the direct impact to sensitive vegetation, the following mitigation measure is required:

MM-BIO-1 The loss of 0.34 acre of disturbed southern coastal bluff scrub shall be mitigated at a 3:1 ratio (1.02 acres). Approximately 0.04 acre of southern coastal bluff scrub and 0.15 acre of disturbed southern coastal bluff scrub shall be conserved on site via a Land Conservation Easement. In addition, 0.19 acre of disturbed habitat shall be conserved on site via a Land Conservation Easement and monitored to ensure success. This currently disturbed habitat shall be the 50-foot wetland buffer to the coastal brackish marsh. The disturbed habitat shall be revegetated with southern coastal bluff scrub species that are deemed acceptable by the Fire Marshal, as this area shall also be within the fuel modification zone. The wetland buffer shall be maintained year round by the HOA. Any shrubs and trees shall be annually maintained to be free of dead material. Any trees planted ore recruited will be maintained so that their crown cover will be more than 30 feet from any structure. Tree crowns will be separated by twenty (20) feet and maintained to keep a separation of six feet between the ground fuels (shrubs and ground covers) and the lower limbs. All trees must be maintained to the current ANSI A300 standards and Fire Marshal requirements. With the exception of the removal of dead material, the above maintenance requirements shall not apply to native wetland species, which shall be avoided.

The remaining 0.64 acre of required mitigation of southern coastal bluff scrub shall be mitigated at the Manchester Avenue Conservation Bank by purchasing 0.7 acre of Tier I habitat. Although this is not in-kind habitat mitigation, the tier level is the same and the bank is located within the Multiple Species Conservation Plan area.

To compensate for the direct impact to sensitive plant species, the following two mitigation measures are required:

MM-BIO-2 According to the Multiple Species Conservation Plan, the only naturally occurring population of Torrey pines occurs at Torrey Pines State Preserve. As such, the Torrey pines on site are considered planted and are not naturally occurring. However, the Torrey pine is considered a significant visual resource in the Community Plan and therefore, for the loss or relocation of the 13 Torrey pine trees, the project proponent shall submit a Tree Removal Permit to the Design Review Board and City Council with the appropriate processing fee

according to the City of Del Mar's Municipal Code Section 23.50.080. To mitigate for the impact to these 13 trees, the project proponent shall relocate five healthy Torrey pines on site; remove and replant two Torrey pines on site or pay a fee to the City of Del Mar's Tree Mitigation Fund in accordance with the City's Municipal Code Sections 23.50.080(C-10), 23.50.030(D)(2), and 23.50.090(A)(2); and the remaining six qualify for exemption and removal and the applicant is required to submit a Notice of Intent in accordance with the City's Municipal Code Sections 23.50.040.

MM-BIO-3 For the impacts to the 40 Del Mar Mesa sand asters, the 40 individual sand asters shall be transplanted from the impact area to a preserved area on site within the disturbed southern coastal bluff scrub or within the disturbed habitat to be enhanced to southern coastal bluff scrub within the 50-foot wetland buffer. A monitoring program shall be implemented for 2 years to monitor the survivability of the individual sand asters. If the sand asters do not survive the transplant, new container plants shall be replanted, grown from the seeds previously collected from the sand asters that did not survive, at a 3:1 ratio (120 plants).

MM-BIO-4 In order to reduce potential indirect impacts to the roots of the Torrey pine tree located on the adjacent property during installation of the eastern retaining wall, the contractor shall be required to minimize grading on the uphill side of the retaining wall. This can be done by using an "L-type" or spread footing for the retaining wall. In addition, a qualified arborist shall be required to monitor excavation during installation of the retaining wall in this location and provide direction on root pruning if roots are encountered.

To avoid direct impact to avian nests, the following mitigation measure is required:

MM-BIO-5 Although no avian nests were observed on the proposed project site, the clearing and grading of trees and shrubs shall occur outside of the avian breeding season of January 1 through August 31 (which includes raptors). This prohibition is necessary to preclude the potential for damage to nests and nesting birds, which would be a violation of the Migratory Bird Treaty Act. If clearing and grading during the avian breeding season is proposed, then a focused nest survey shall be conducted by a qualified biologist 72 hours prior to the vegetation removal. If active nests are discovered during the nest survey, then those nests shall be avoided until the young have fledged. The qualified biologist shall recommend appropriate nest setback distances based on the species of bird, the topography between the nest and the proposed disturbance activity, and the surrounding vegetation.

To avoid the potentially significant indirect impact to breeding birds from construction noise, the following mitigation measure is required:

MM-BIO-6 If project-related work is to occur during the breeding season for California gnatcatcher (February 15 through August 31), then pre-construction protocol-level surveys for California gnatcatcher shall be performed to determine the status of breeding California gnatcatchers on site and within 500 feet of the site. If a nesting California gnatcatcher pair is detected on site or within 500 feet of the site, then noise attenuation measures shall be implemented to ensure that ambient noise levels are equal to or less than 60 decibels at the nest. In addition, nest monitoring by an individual holding a Section 10(a) U.S. Fish and Wildlife Service recovery permit for California gnatcatcher shall be conducted to ensure that the nesting California gnatcatchers remain undisturbed by construction.

To implement the condition for fencing specified by CDFW and to reduce the potentially significant impact to federally protected wetlands, the following mitigation measure is required:

MM-BIO-7 Although the on-site wetland is proposed to be preserved, and a 50-foot buffer is proposed between the wetland and the development, the project proponent shall erect a permanent fence with signage preventing human and pet access along the edge of the wetland buffer. Fencing along the edge of the wetland buffer shall be provided to define the area and discourage access, while maintaining openness and views into the area. Similar to the San Dieguito River Trail fencing, fencing along the wetland buffer shall consist of natural round wood posts and rails to be consistent.

To reduce the potentially significant indirect impact from invasive plant species, the following mitigation measure is required:

MM-BIO-8 The landscaping and/or revegetation plan for the proposed project shall not include any invasive plant species listed on the California Invasive Plant Council's Invasive Plant Inventory Database. In addition, the plants chosen shall not require intensive irrigation and shall meet the Del Mar Municipal Code Water-Efficient Landscaping Ordinance. To ensure the protection of the on-site preservation areas from invasive plants, the landscaping and revegetation plans for the areas adjacent to the preservation areas shall be submitted to the California Department of Fish and Wildlife for its approval 60 days prior to entitlement permit issuance.

4.3.6 Level of Significance After Mitigation

Implementation of either Option could potentially have a direct adverse impact on sensitive vegetation communities, sensitive plant communities, sensitive avian wildlife communities, and federally protected wetlands. Both Options could also have potentially indirect impacts on breeding birds due to construction-related noise and from invasive plant species. With implementation of Mitigation Measures MM-BIO-1 through MM-BIO-8, impacts to biological resources under both Options would be **less than significant**.

4.3.7 References

City of Del Mar. 2001. Zoning Code, Title 30 of the Municipal Code (LCP Implementing Ordinances).

City of Del Mar. 2002. City of Del Mar Municipal Code, Chapter 23.50, Trees. http://www.delmar.ca.us/DocumentCenter/Home/View/432.

CDFG (California Department of Fish and Game). Personal communication (Email) from Elizabeth Lucas to Michael Batter regarding 50-Foot Wetland Buffer. November 9, 2004.

CNPS (California Native Plant Society). 2012. Online Electronic Inventory of Rare and Endangered Vascular Plants of California. http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi.

County of San Diego. 1996. Subregional MSCP Plan. http://www.sandiegocounty.gov/pds/mscp/docs/SCMSCP/FinalMSCPProgramPlan.pdf

County of San Diego. 1998. Multiple Species Conservation Plan (MSCP) in Southwestern San Diego County.

Cummings and Associates. 2017. Biological Assessment over APNs 299-100-47 and 299-100-48. October 4, 2012; revised July 22, 2015, July 24, 2015, and April 2017.

Dudek & Associates. 2006. Biological Resources Survey Letter Report for the Riverview Office Development Project. January 2006.

Merkel & Associates. 2004. Biological Resources Report for the Jefferson Property Project.

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4.4 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section describes the existing cultural resources of the proposed Watermark Del Mar Project (WDMSP) proposed Option A or Option B site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures to reduce or avoid significant impacts.

This section is based on a Cultural Resource Evaluation of the project site, prepared by Affinis (October 2004) and a Paleontological Resource Assessment prepared by Thomas A. Demere of the Department of PaleoServices at the San Diego Natural History Museum (September 2007), for a previous certified environmental impact report (EIR). The technical reports, including complete citations and references, are presented in their entirety in **Appendix E** of this EIR. The Cultural Resource Evaluation analyzes the potential for impacts to occur to any potential cultural resources on site during construction and operation of either Option.

The methodology used to prepare the Cultural Resource Evaluation included an archaeological survey of the proposed project site, conducted on September 17, 2004. During the survey, the archaeologist walked the flat areas of the property and followed the foot paths up the bluff to examine the top of the bluff. The flat areas were walked using a series of parallel transects spaced approximately 10 meters apart. Additionally, records searches were requested from the South Coastal Information Center (SCIC) at San Diego State University and from the San Diego Museum of Man. Records search maps from previous projects in the area were also consulted.

The Cultural Resource Evaluation used the following sources:

- Department of Parks and Recreation Archaeological Site Survey Form, 1976 (Cal:E:4:56).
- Bowman, R.H. 1973. Soil Survey: *San Diego Area*. United States Department of Agriculture.
- Kennedy, M.P. 1975. Western San Diego Metropolitan Area, in *Geology of the San Diego Metropolitan Area, California* by M.P. Kennedy and G.L. Peterson, pp.9-39. California Division of Mines and Geology, Bulletin 200, Sacramento.
- Griner, E.L., and P.R. Pryde. 1976. Climate, Soils and Vegetation, in San Diego: An Introduction to the Region, edited by P.R. Pryde, pp. 29–46. 4th edition, Kendall/Hunt, Dubuque, Iowa.

The methodology used to prepare the Paleontological Resource Assessment included a review of relevant published geologic reports, unpublished paleontological reports, and museum paleontological locality data. This approach was followed in recognition of the direct relationship between paleontological resources and the geologic formations within which they

are entombed. Knowing the geology of a particular area and the fossil productivity of particular formations that occur in that area, it is possible to predict where fossils could be encountered.

A walkover survey of the proposed project site was conducted on September 8, 2007, by San Diego Natural History Museum personnel to determine the paleontological sensitivity of the geologic units that would be affected by either Option and to field-check the results of the literature and records reviews. Field work involved inspection of the site for bedrock outcrops, geologic contacts, and presence or absence of paleontological resources (i.e., fossils).

4.4.1 Existing Conditions

The proposed project site is in the coastal plains of San Diego County, where the climate is characterized as semi-arid and cool. Average annual temperatures range from a low of approximately 44°F to a high of 75°F to 80°F; annual rainfall averages between 9 and 16 inches.

The project site was graded sometime in the past and has artificially steepened slopes along its southern boundary. These slopes are underlain by geologic deposits of Eocene and Pleistocene age. The low-lying areas along the northern boundary are underlain by geologic deposits of Pleistocene age and some artificial fill materials. The older Eocene stratigraphic sequence consists of sedimentary rocks mapped as Delmar Formation and Torrey Sandstones (Kennedy 1975, as cited in Appendix E). The younger Pleistocene stratigraphic sequence consists of strata mapped as Bay Point Formation (Kennedy 1975, as cited in Appendix E).

The project site is located on loamy sand soil. This soil type is a deeply developed soil that forms on alluvium that is weathered from marine sandstone. The soil mapped for the property would not be expected to be in a depositional environment where substantial archaeological deposits could have been buried through natural processes. Most of the project site is graded with little vegetation. The slopes of the project site support scrub vegetation. Torrey pines (*Pinus torreyana*) are noted at the top of the bluff. A wetland area occurs at the northeast edge of the project site.

SCIC had eight sites recorded within 1 mile of the project site. The San Diego Museum of Man had 15 sites, six of which were also among the eight sites recorded at SCIC. Only SCIC had any record of SDI-192, an archaeological point of interest on or near the project site, and that was based on a form filed by an early San Diego area archaeologist. The form did not provide a description of the SDI-192 site, and did little more than indicate the location of the site. Neither SCIC nor the Museum of Man has any indication that the proposed project site has been surveyed for archaeological sites for any cultural resources.

The City of Del Mar Community Plan confirms that several archaeological sites exist within Del Mar. Because vandalism may occur, their specific locations are not identified; however, the following general areas contain sites (City of Del Mar 1976):

- North bluff area west of Camino del Mar
- In the vicinity of Turf Road and Via de la Valle
- On the north slopes of the Del Mar hills above Jimmy Durante Boulevard (project location)
- On the northeast slopes of the Del Mar Hills above San Dieguito Drive
- Torrey Pines Terrace area
- Del Mar Canyon area

4.4.1.1 Cultural Resources Background

An archaeological survey of the proposed project site was conducted on September 17, 2004. Although an archaeological site, CA-SDI-192, was recorded at the location of the subject property, no evidence of any cultural resources were encountered during the 2004 survey of the lot. It is believed that the site was either graded away or was incorrectly mapped.

Prehistory

The traditional view of San Diego prehistory has the San Dieguito complex followed by the La Jolla complex at least 7,000 years ago, possibly as long as 9,000 years ago. The La Jolla complex is part of the Encinitas tradition. The Encinitas tradition is generally recognized by millingstone assemblages in shell middens, often near sloughs and lagoons. "Crude" cobble tools, especially choppers and scrapers, characterize the La Jolla complex. Basin mutates, manos, discoidals, a small number of Pinto series and Elko series points, and flexed burials are also characteristic.

Archaeological fieldwork along the Southern California coast has documented a diverse range of human occupation extending from the early Holocene into the Ethnohistoric period. A variety of regional chronologies, often with overlapping terminology, have been used in coastal Southern California, and they vary from region to region. Today, the prehistory of San Diego County is generally divided into three major temporal periods: Paleo-Indian, Archaic, and Late Prehistoric. These time periods are characterized by patterns in material culture that are thought to represent distinct regional trends in the economic and social organization of prehistoric groups. In addition, particular scholars referring to specific areas use a number of cultural terms synonymously with these temporal labels: San Dieguito for Paleo-Indian, La Jolla for Archaic, and Yuman or Cuyamaca for Late Prehistoric.

San Dieguito Complex

The earliest accepted archaeological manifestation of Native Americans in the San Diego area is the San Dieguito complex, dating to approximately 10,000 years ago. The material culture of the San Dieguito complex consists primarily of scrapers, scraper planes, choppers, large blades, and large projectile points. Crescentic stones were considered to be characteristic of the San Dieguito complex as well. Tools and debitage made of fine-grained green metavolcanic material, locally known as felsite, were found at many sites that Rogers identified as San Dieguito (Dudek 2007). Often these artifacts were heavily patinated. Felsite tools, especially patinated felsite, came to be seen as an indicator of the San Dieguito complex. Sleeping circles, trail shrines, and rock alignments have also been associated with early San Dieguito sites. The San Dieguito complex is chronologically equivalent to other Paleoindian complexes across North America, and sites are sometimes called Paleoindian rather than "San Dieguito" (Dudek 2007).

Late Prehistoric

The Late Prehistoric period is represented by the San Luis Rey complex in northern San Diego County and the Cuyamaca complex in the southern portion of the county. The San Luis Rey complex is the archaeological manifestation of the Shoshonean predecessors of the ethnohistoric Luiseno (named for the San Luis Rey Mission). The Cuyamaca complex represents the Yuman forebears of the Kumeyaay (Diegueno, named for the San Diego Mission). Agua Hedionda is traditionally considered to be the point of separation between Luiseno and Northern Diegueno territories.

Elements of the San Luis Rey complex include small, pressure-flaked projectile points (Cootonwood and Desert Side-notched series); milling implements, including mortars and pestles; Olivella shell beads; ceramic vessels; and pictographs. Of these elements, mortars and pestles, ceramics, and pictographs are not associated with earlier sites. A greater number of quartz projectile points were found at San Luis Rey sites than at Cuyamaca complex sites, which has been interpreted as a cultural preference for quartz. Ceramics were a late development among the Luiseno, probably learned from the Diegueno. The general mortuary pattern at San Luis Rey sites is ungathered cremations.

The Cuyamaca complex is similar to the San Luis Rey complex, differing in the following points:

- Defined cemeteries away from living areas
- Use of grave markers
- Cremations placed in urns
- Use of specially made mortuary offerings
- Cultural preference for side-notched points

- Substantial numbers of scrapers, scraper planes, and related implements in contrast to small numbers of these implements in San Luis Rey sites
- Emphasis placed on use of ceramics; wide range of forms and several specialized items
- Steatite industry
- Substantially higher frequency of milling stone elements compared with San Luis Rey
- Clay-lined hearths

4.4.1.2 Paleontological Resources Background

The proposed project site is underlain by geologic deposits of Eocene and Pleistocene age. The older Eocene stratigraphic sequence consists of sedimentary rocks mapped as Delmar Formation and Torrey Sandstones. The younger Pleistocene stratigraphic sequence consists of strata mapped as Bay Point Formation.

Delmar Formation

The Delmar Formation consists of greenish silty mudstones, brown siltstones, and greenish sandstones, with interbeds of well-cemented oyster-rich shell beds. This formation is overlain by the Torrey Sandstone, and is presumable underlain by Cretaceous sedimentary rocks and pre-Cenozoic crystalline basement rocks. It was deposited in a lagoonal/estuarine setting and preserves marsh flat and tidal channel paleoenvironments. The Delmar Formation is late-early to early-middle Eocene in age, approximately 49 to 50 million years ago.

The Delmar Formation is not clearly exposed on the proposed project site. However, the increase in greenish mudstones toward the base of the steep, near-vertical slopes along the eastern portion of the site suggests that the Delmar Formation likely does occur at or near the level of the graded pad that forms the northern portion of the site.

Fossils from the Delmar Formation consist of well-preserved to poorly preserved remains of estuarine invertebrates (e.g., clams, oysters, and snails) and estuarine vertebrates (e.g., sharks and rays). An important locality at Swami's Point in Encinitas (approximately 6 miles north) has yielded well-preserved skull remains of aquatic reptiles (e.g., crocodile) and terrestrial mammals (e.g., tillodont and early rhinoceros) (Dudek 2007).

Per the site-specific Paleontological Resources Assessment, no recorded paleontological sites are known from the Delmar Formation as potentially exposed in the area of potential effects (APE). The closest observed paleontological sites in this rock unit occur less than 0.5 mile southwest of the APE along Jimmy Durante Boulevard. These sites contain well-preserved fossils of estuarine marine mollusks. Because of these previous records, and following the paleontological guidelines developed by the County of San Diego, the Delmar Formation is assigned a high paleontological resource sensitivity rating.

Torrey Sandstone

Torrey Sandstone consists primarily of yellowish-white, coarse-grained, locally cross-bedded arkosic sandstones. The type area for this rock unit is the seacliffs at Torrey Pines State Reserve (approximately 2.5 miles south of the project site). Portions of the Torrey Sandstone were deposited in an ancient nearshore marine environment, and other parts of the deposit formed within a barrier island/protected lagoon setting. The Torrey Sandstone gradationally overlies the Delmar Formation and is, in turn, overlain by the Ardath Shale and Scripps Formation. Based on its stratigraphic position, the formation is considered to be early-middle Eocene in age, approximately 48 to 49 million years ago.

Torrey Sandstone is exposed in the steep, near vertical slopes along the eastern portion of the site and consists of interbedded strata of light yellow, coarse-grained, massive, bioturbated and cross-bedded sandstones and light olive green, bioturbated sandy mudstone. This interbedded sequence strongly resembles the stratigraphic interval characteristic of the transitional zone between the Torrey Sandstone and Delmar Formation, and is exposed in the sea cliffs of Del Mar and Solana Beach.

Torrey Sandstone has produced important remains of fossil plants and marine invertebrates. The plant remains (mostly leaves) are especially significant. Many are from taxa related to species that today live in brackish-water marsh and/or riparian woodland environments in subtropical and tropical regions of Southeast Asia and in the southeastern United States. Their occurrence in the Torrey Sandstone suggests that the Eocene climate in this area was warmer (20°C mean annual temperature) and wetter (120 to 150 centimeters annual rainfall) than the modern climate.

Invertebrate fossils known from Torrey Sandstone primarily consist of nearshore marine taxa (e.g., clams, oysters, snails, and barnacles). Vertebrate fossil remains are rare and include the teeth of crocodiles, sharks, and rays.

Per the site-specific Paleontological Resources Assessment (Appendix E), no recorded paleontological sites are known from the Torrey Sandstone as exposed in the APE. The closest recorded site in this rock unit occurs approximately 3 miles to the southeast and has produced significant impressions (leaves, stems, and seeds) of fossil plants. During the field survey, well-preserved trace fossils (i.e., burrows) of infaunal marine invertebrates (e.g., burrowing crustaceans and/or annelid worms) were observed in outcrops of the Torrey Sandstone. Because of these previous records, and following the paleontological guidelines developed by the County of San Diego, the Torrey Sandstone is assigned a moderate paleontological resource sensitivity rating.

Bay Point Formation

The coastal plain of San Diego County is characterized by a "stair-step" sequence of elevated marine terraces (uplifted sea floors) and their associated marine and non-marine sedimentary

covers. Generally speaking, these marine terraces and their sedimentary deposits show a direct correlation between elevation and geologic age (i.e., the lowest terraces are the youngest and the highest terraces are the oldest). Various formational names have been used to refer to these marine terrace deposits, including Sweitzer Formation, Lindavista Formation, and Bay Point Formation. The Lindavista Formation is considered by many to be synonymous with the Sweitzer Formation and to only represent deposits on the higher terraces (i.e., elevations higher than 300 feet). In contrast, the Bay Point Formation is generally considered to include marine and non-marine sedimentary deposits (primarily light-brown, fine-grained, sandstones) on the lower terraces (i.e., from near sea level to elevations of approximately 200 feet). The Bay Point Formation also includes Pleistocene non-marine valley-fill deposits exposed along the margins of coastal valleys (e.g., San Luis Rey Valley and San Dieguito Valley).

The Bay Point Formation that is exposed in the graded slopes along the southwestern portion of the site consists of light gray to light brown, poorly sorted, fine- to coarse-grained, compact sandstones. Exposures of this rock unit in the steep, near-vertical slopes along the eastern portion of the project site consist of medium brown to light greenish gray, coarse-grained, massive sandstone with a cobble to small boulder basal conglomerate. It is likely that the sandstones in both areas are part of single stratigraphic units that were deposited along an irregular buttress unconformity and eroded into the underlying Eocene rock units.

The Bay Point Formation has produced large and diverse assemblages of well-preserved marine invertebrate fossils, primarily mollusks. Remains of fossil marine vertebrates (i.e., sharks, rays, and bony fishes) have also been recovered from this rock unit. Recorded collecting sites in the Bay Point Formation include natural exposures (e.g., sea cliffs) and construction-related excavations. The Bay Point Formation has also produced significant assemblages of Pleistocene land mammals from valley-fill deposits. Recovered vertebrate fossils include ground sloth, dire wolf, horse, tapir, camel, deer, mastodon, and mammoth.

Per the site-specific Paleontological Resources Assessment completed for the project site, although no recorded paleontological sites are known from the APE, there are several sites recognized within a 1-mile radius. These include a site in marine terrace deposits in the sea cliffs of southern Solana Beach and several sites in estuarine valley-fill deposits in cut slopes adjacent to the Flower Hill shopping center. The former locality has produced well-preserved fossils of intertidal to subtidal exposed sandy shore mollusks. The latter localities produced well-preserved fossils of intertidal to subtidal estuarine, warm water mollusks.

Because of the previous records, and following the paleontological guidelines developed by the County of San Diego, the Bay Point Formation is assigned a moderate to high paleontological resource sensitivity rating.

4.4.2 Relevant Plans, Policies, and Ordinances

Federal

National Historic Preservation Act

The National Historic Preservation Act (16 U.S.C. 470 et seq.) establishes the nation's policy for historical preservation and sets in place a program for the preservation of historical properties by requiring federal agencies to consider effects to significant cultural resources (e.g., historical properties) prior to undertakings.

Section 106 of the act requires federal agencies to take into account the effects of projects on historical properties (resources included in or eligible for the National Register of Historic Places). It also gives the Advisory Council on Historic Preservation and the State Historic Preservation Office an opportunity to consult. Federal agencies issuing permits for the Options will be required to comply with requirements of the act.

Executive Order 11593, Protection and Enhancement of the Cultural Environment

Executive Order 11593 (36 FR 8921) (1) orders the protection and enhancement of the cultural environment through requiring federal agencies to administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations; (2) initiates measures necessary to direct their policies, plans, and programs in such a way that federally owned sites, structures, and objects of historical, architectural, or archaeological significance are preserved, restored, and maintained for the inspiration and benefit of the people; and (3) in consultation with the Advisory Council on Historic Preservation (16 U.S.C. 4701), institutes procedures to assure that federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures, and objects of historical, architectural, or archaeological significance.

State

California Public Resources Code

Section 5097–5097.6 of the California Public Resources Code identifies that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands, and it provides for criminal sanctions. This section was amended in 1987 to require consultation with the Native American Heritage Commission (NAHC) whenever Native American graves are found. Violations for taking or possessing remains or artifacts are felonies.

California Public Resources Code Section 5097.5 states that "no person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historic feature situated on public lands, except with the express permission of the public agency having jurisdiction over the lands."

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is used in the consideration of historical resources relative to significance for purposes of the California Environmental Quality Act (CEQA). The CRHR includes California State Historical Landmarks, eligible Points of Historical Interest, and resources listed, or formally determined eligible for listing, in the National Register of Historic Places. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts), or that have been identified in a local historical resources inventory, may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA, unless a preponderance of evidence indicates otherwise.

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the CRHR (California Public Resources Code, Section 5024.1; 14 CCR 4852), consisting of the following:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2. It is associated with the lives of persons important to local, California, or national history.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values.
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

California Health and Safety Code

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the county coroner has examined the remains (Section 7050.5b). If the coroner

determines or has reason to believe the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (Section 7050.5c). The NAHC will notify the Most Likely Descendant. With the permission of the landowner, the Most Likely Descendant may inspect the site of discovery. The inspection must be completed within 24 hours of notification of the Most Likely Descendant by the NAHC. The Most Likely Descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

Local

City of Del Mar Community Plan

The City of Del Mar Community Plan establishes goals, objectives, and policies to ensure that natural resources within the City are managed wisely. Objective K under Goal 1 of the Community Plan specifically addresses cultural resources.

Goal 1 Establish without delay a comprehensive program to preserve and acquire permanent open space sufficient to meet the long-range needs of the community, preserve and enhance natural resources and protect areas and people susceptible to seismic and flooding hazards.

Objective K. Require development in areas of archeological significance to be reviewed by the City of Del Mar to insure that such uses do not result in a permanent destruction of any archeological sites or cultural information.

4.4.3 Thresholds of Significance

The following significance criteria are based on Appendix G of the CEQA Guidelines (14 California Code of Regulations 15000 et seq.), and will be used to determine the significance of potential cultural resources impacts. Impacts to cultural resources would be significant if Option A or Option B would:

a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

d) Disturb any human remains, including those interred outside of formal cemeteries.

4.4.4 Impacts Analysis

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?

The proposed project site does not contain any historical resources as defined by CEQA under Public Resources Code Section 21084.1, or as defined in CEQA Guidelines Section 15064.5. Therefore, impacts under both Options would be **less than significant**.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

The SCIC search showed eight sites recorded within 1 mile of the proposed project site. The San Diego Museum of Man had 15 sites recorded, six of which were also among the eight sites recorded at the SCIC. The City of Del Mar Community Plan confirms that several archaeological sites exist within Del Mar.

A cultural resources records search and a cultural resources pedestrian survey were conducted for the proposed project site. SCIC identified one archaeological site (CA-SDI-192) that had been previously recorded on the project site, based on a form filed by an early San Diego-area archaeologist. The form did not provide a description of the CA-SDI-192 site, and did little more than indicate the location of the site. Neither the SCIC nor the Museum of Man has any indication that the proposed project site has been surveyed for archaeological sites for any cultural resource management projects. Additionally, no evidence of CA-SDI-192 or any other cultural resources were found during the cultural resources pedestrian survey of the proposed project site.

The cultural resources evaluation for the proposed project site determined that it is likely that previous site disturbance and grading activities destroyed the archaeological site or that the site was incorrectly mapped. Since no cultural resources were identified to exist on the proposed project site, neither Option A nor Option B would disturb any archaeological resources. However, there is potential for previously unknown archaeological resources to be discovered on site during excavation activities of the construction phase. Therefore, impacts to archaeological resources under Option A and B would be **potentially significant**, and mitigation would be required (see **MM-CUL-1**).

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Although no recorded paleontological sites are known to exist within the proposed project site, there are several sites recognized within a 1-mile radius. The Bay Point Formation sites include

marine terrace deposits exposed in the sea cliffs of southern Solana Beach, and several sites in estuarine valley-fill deposits in cut slopes adjacent to the Flower Hill shopping center. The former locality has produced well-preserved fossils of intertidal to subtidal, exposed sandy shore mollusks. The latter localities produced well-preserved fossils of intertidal to subtidal, estuarine, warm water mollusks. Because of these previous records, and according to the paleontological guidelines developed by the County of San Diego, the Bay Point Formation is assigned a moderate to high paleontological resource sensitivity rating.

No recorded paleontological sites are known for the Torrey Sandstone located on the proposed project site. The closest recorded site in this rock unit occurs approximately 3 miles to the southeast and has produced significant impressions (leaves, stems, and seeds) of fossil plants. During the field survey, well-preserved trace fossils (i.e., burrows) of infaunal marine invertebrates (e.g., burrowing crustaceans and/or annelid worms) were observed in outcrops of the Torrey Sandstone. Because of these previous records, and according to the paleontological guidelines developed by the County of San Diego, Torrey Sandstone is assigned a moderate paleontological resource sensitivity rating.

Finally, no recorded paleontological sites are known to be within the Delmar Formation on the proposed project site. The closest observed paleontological sites in this rock unit occur less than 0.5 mile southwest of the project site along Jimmy Durante Boulevard. These sites contain well-preserved fossils of estuarine marine mollusks. Because of these previous records, and according to the paleontological guidelines developed by the County of San Diego, the Delmar Formation is assigned a high paleontological resource sensitivity rating.

Direct impacts to paleontological resources can occur when earthwork activities, such as mass grading operations, cut into the geological deposits (formations) within which fossils are buried. These direct impacts are in the form of physical destruction of fossil remains. Since fossils are the remains of prehistoric animal and plant life, they are nonrenewable. Such impacts under Option A and Option B would be **potentially significant**, and mitigation would be required (**MM-CUL-2**).

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

No known existing religious or sacred uses, or human remains exist on the proposed project site. Therefore, neither Option A nor Option B would restrict or disturb existing religious or sacred uses within the APE. However, human remains may be unexpectedly unearthed during construction activities. Therefore, impacts under Option A and Option B would be **potentially significant**, and mitigation would be required (**MM-CUL-**3).

4.4.5 Mitigation Measures

MM-CUL-1 Prior to the start of any ground-disturbing activity, an archaeological monitor shall be retained to monitor ground-disturbing activities associated with Option A or Option B, including, but not limited to, grading, excavation, brush clearance, and grubbing. The archaeological monitor shall conduct preconstruction cultural resources worker sensitivity training to bring awareness to personnel of actions to be taken in the event of a cultural resources discovery. The duration and timing of monitoring shall be determined by the qualified archaeologist in consultation with the City. Initially, all ground-disturbing activities associated with Option A or Option B shall be monitored. However, the qualified archaeologist, based on observations of soil stratigraphy or other factors, and in consultation with the City, may reduce the level of monitoring as warranted.

In the event that archaeological resources are accidently discovered or unearthed during subsurface activities, all earth-disturbing work within a 100-meter radius shall be temporarily suspended or redirected until the certified archaeologist has identified and evaluated the nature and significance of the find, in compliance with CEQA Guidelines 15064.5(f). If the artifact that is accidentally discovered or unearthed is of Native American origin, the certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources shall be consulted for identification and evaluation. Construction activities shall be redirected to other work areas until the archaeologist determines that work can resume in the vicinity of the find.

MM-CUL-2 A qualified paleontologist (an individual with an MS or PhD in paleontology or geology who is familiar with paleontological procedures and techniques, who is knowledgeable in the geology and paleontology of San Diego County, and who has worked as a paleontological mitigation project supervisor in the county for a least 1 year) shall attend the pre-construction meeting to consult with the grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues. A paleontological monitor (an individual who has experience in the collection and salvage of fossil materials, working under the direction of a qualified paleontologist) shall be on site on a full-time basis during the original cutting of previously undisturbed deposits of high paleontological resource potential (Bay Point Formation and Delmar Formation) to inspect exposures for contained fossils. Grading activities in previously undisturbed

deposits of moderate paleontological resource potential (Torrey Sandstone) shall be monitored on a part-time basis.

In the event that paleontological resources are discovered or unearthed during project subsurface activities, all earth-disturbing work within a 100-meter radius shall be temporarily suspended or redirected until a certified paleontologist has recovered, identified, and/or evaluated the nature and significance of the find, in compliance with CEQA Guidelines 15064.5(f). After the find has been appropriately mitigated, work in the area may resume.

During the monitoring and recovery phases of the mitigation program, the qualified paleontologist and/or the paleontological monitor shall routinely collect stratigraphic data (e.g., lithology, vertical thickness, lateral extent of strata, nature of upper and lower contacts, and taphonomic character of exposed strata). Collection of such data is critical for providing a stratigraphic context for any recovered fossils. Fossil remains collected during monitoring and salvage shall be cleaned (removal of extraneous enclosing sedimentary rock material), repaired (consolidation of fragile fossils and gluing together broken pieces), sorted (separating fossils of the different species), and cataloged (scientific identification of species, assignment of inventory tracking numbers, and recording of these numbers in a computerized collection database) as part of the mitigation program. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited (as a donation) in a scientific institution with permanent paleontological collections such as the San Diego Natural History Museum. Donation of the fossils shall be accompanied by financial support for preparation, curation, and initial specimen storage, if this work has not already been completed. A final summary report shall be completed that outlines the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

MM-CUL-3 In the event that human remains are discovered or unearthed during Option A or Option B subsurface activities, all earth-disturbing work within a 100-meter radius of what, the project site or the human remains shall be temporarily suspended or redirected until a forensic expert has identified and evaluated the nature and significance of the find, in compliance with CEQA Guidelines 15064.5(f). If human remains of Native American origin are discovered or unearthed, CEQA Guidelines

provide for agreements with Native Americans, identified by the Native American Heritage Commission, to ensure the appropriate and dignified treatment of Native American human remains and any associated grave liens. After the find has been appropriately mitigated, as determined by a qualified archaeologist work in the area may resume.

4.4.6 Level of Significance After Mitigation

With implementation of the proposed mitigation measures, MM-CUL-1 through MM-CUL-3, all potential impacts to archaeological resources, paleontological resources, and human remains would be reduced to **less than significant**. Therefore, neither Option would result in any significant and unavoidable impacts to archaeological and paleontological resources.

4.4.7 References

Affinis. 2004. Cultural Resource Evaluation of the Riverpark Office Project, City of Del Mar, California. October 2004.

Demere, Thomas. 2007. Technical Report Paleontological Resource Assessment, Riverview Offices Project, City of Del Mar, San Diego County, California. September 2007.

City of Del Mar. 1976. *The Community Plan for the City of Del Mar, California*. Amended in 1985.

Dudek. 2007. Certified EIR for the Riverview Office Project. City of Del Mar. November 2007.

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4.5 GEOLOGY AND SOILS

This section describes the existing geological setting of the project site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Watermark Del Mar Specific Plan (WDMSP) Option A or Option B.

The information in the following discussion includes geologic data from the Report of Preliminary Geologic Hazard Evaluation that was prepared for the proposed project site (Christian Wheeler 2012) at 2100 Jimmy Durante Boulevard in Del Mar, California. The purpose of this report was to conduct a reconnaissance of the existing site conditions and evaluate regional and site geology. The complete report, including all citations and reference information, is contained in **Appendix G** of this environmental impact report (EIR).

The methodology used to prepare the Preliminary Geologic Hazard Evaluation included (1) review of the preliminary architectural plans that were used as a base map for the site plan, geotechnical map, and site disturbance map; (2) surface reconnaissance; (3) subsurface exploration; (4) obtaining representative soil samples; (5) laboratory testing; and (6) analysis of the field and laboratory data and review of relevant geologic literature.

4.5.1 Existing Conditions

Site History

The Preliminary Geologic Hazard Evaluation (**Appendix G**) did not find any evidence of previous structures or other permanent improvements on site during the review of documents, topographic maps, and aerial photographs. Review of the photographs and maps indicates that, prior to 1959, the only significant disturbance to the proposed project site was minor leveling and grading along the northern and western portions of the site near San Dieguito Drive and Jimmy Durante Boulevard, respectively. Significant grading, including cuts of up to 15 to 20 feet, occurred between 1959 and 1979 along the southern and southeastern portions of the site.

Site Description

The proposed project site is bounded to the north by the intersection of Jimmy Durante Boulevard and San Dieguito Drive. San Dieguito Drive adjoins the site to the east-northeast, beyond which is a vacant lot and various facilities, including Co's Traffic Control, Del Mar Blue Print, Rose Towing, Del Mar Automotive, and other businesses. To the south and southwest are single-family residences, and to the west and northwest, Jimmy Durante Boulevard adjoins the site with a vacant lot and various office and commercial businesses beyond.

Other notable land uses in the proposed project area include the San Dieguito River, located north-northeast of the proposed project site beyond properties on the opposite side of San Dieguito Drive; the Del Mar Fairgrounds property farther north; and the railroad tracks to the west, beyond commercially developed properties along Jimmy Durante Boulevard. Diagonally across the intersection of Jimmy Durante Boulevard and San Dieguito Drive (northwest corner) is a linear park (Riverpath Del Mar) with an improved trail segment adjacent to the San Dieguito River.

The proposed project site is currently vacant/undeveloped and intermittently used for parking during the fair and racing seasons. Both Options would be an infill development in a suburban area.

Topography

The proposed project site is approximately 2.37 acres and consists of two adjacent parcels. The majority of the site has been graded and disturbed. The topographic relief of the site slopes generally downward to the north toward the San Dieguito River. On-site elevations range from approximately 12 feet above mean seal level (amsl) near the northern corner of the site to 60 feet amsl in the southern portion of the site. There are relatively level areas along the adjacent streets at elevations from 12 to 18 feet amsl. The balance of the site has hillsides that ascend to the southern and eastern perimeters of the site, within which there is a large area with previously disturbed/graded slopes. A level plateau area is located in the south-central portion of the site at an elevation of approximately 25 feet amsl. The hillside continues off site, and the currently partially developed (currently under construction for a new single-family residential unit) portion extends up to an elevation of approximately 100 feet amsl off site. Beyond this are single-family homes terraced into the hillside landform that extend up to an elevation of approximately 300 feet amsl. The proposed project site contains natural and previously undisturbed bluffs, previously disturbed bluffs, and a low wetland area in the southeastern portion of the site.

Geologic Setting and Soil Description

The proposed project site is located in the Coastal Plains Physiographic Province of San Diego County. The subsurface exploration and analysis and the review of readily available geologic literature found that the proposed project site is underlain by Tertiary-age sedimentary deposits of the Delmar Formation and Torrey Sandstone, Quaternary-age alluvial, talus, and old paralic deposits, and a relatively thin and irregular veneer of placed fill soils. These materials are described below in order of increasing age:

- ***Artificial Fill:*** Artificial fill material was encountered near the surface within each of the exploratory borings and test trenches. Typically, the encountered fill was noted to be less than 2 feet in thickness across the explored portions of the site. However, slightly deeper fills were noted within the southern portion of the site. The encountered fill materials generally consisted of light-brown to medium grayish-brown, silty sand, which was

typically dry to damp and loose to medium dense in consistency. The existing fill possesses a "low" expansion index and a low to moderate potential for static settlement. Geotechnical recommendations for site development in this portion of the site include the complete removal and, where necessary to achieve planned site grades, re-compaction of all existing fill soils.

- ***Talus Deposits:*** Quaternary-age talus deposits/debris consisting of granular, colluvial deposits and relatively intact blockfalls flank the base of the slopes along the northeast and central portion of the proposed project site. Where observed in the geotechnical explorations, the talus material was noted to extend to an approximate depth of 8 feet below existing site grades and consist of light-brown silty sand that was moist and loose to medium dense in consistency. During site visits over the summer of 2012, seepage was noted along the ground surface in the area of talus accumulation within the northeast portion of the site. The talus possesses a "low" expansion index and a moderate potential for static sediment. Geotechnical recommendations for site development of this portion of the site include removal or re-compaction of the talus deposits.
- ***Alluvium:*** Quaternary-age alluvial deposits underlie the central and northern portions of the site. Approximately 19 feet, 2 feet, and 35 feet of alluvium were encountered within the geotechnical borings. Alluvium was also encountered within test trenches, which were excavated within the central portion of the site. In general, the alluvium was noted to consist of light-brown to yellowish-brown, silty sands, poorly graded sands, and poorly graded sands with silt. These materials were noted to be generally dry to saturated (below the water table), and loose to medium dense in consistency. Caving of granular alluvial materials was noted along the sidewalls of the test trenches where such materials were encountered.

  The alluvial soils possess a "low" expansion index and moderate to high potentials for static and dynamic settlements. Geotechnical recommendations for site development would not include reliance on such materials in their present condition for bearing support of proposed improvements.
- ***Old Paralic Deposits:*** Quaternary-age old paralic deposits, locally referred to as the Bay Point Formation, underlie the fill and crop out along the ground surface within portions of the southern part of the proposed project site. These materials were observed to generally consist of medium-brown to orangish-brown silty sands that were generally damp to moist and medium dense to dense in consistency. Findings and recommendations for site development would consider these deposits to possess a low to moderate potential for static settlement and, where saturated and in proximity to the underlying alluvium, a moderate potential for dynamic settlement.

- ***Torrey Sandstone:*** Tertiary-age sedimentary deposits of tile Torrey Sandstone crop out along the upper portions of the slope areas of the proposed project site. These materials also underlie old paralic deposits within the southern portion of the proposed project site. Where not previously eroded by wave action or the San Dieguito River, materials of the Torrey Sandstone extend to an approximate elevation of 12 feet across the proposed project site. These materials typically consist of light-brown, silty sand that is generally damp to moist and dense to very dense in consistency. These materials possess low settlement potential and are considered suitable in their present condition to support proposed fill and settlement-sensitive improvements.
- ***Delmar Formation:*** Underlying tile materials of the Torrey Sandstone, talus deposits, and alluvium is Tertiary-age sedimentary deposits of the Delmar Formation. These materials were not observed to crop out along any of the slopes on site, but the upper surface was noted at depths ranging from 1.5 to 35 feet below existing site grades. Such depths correspond to approximate elevations of 11 feet to –22 feet. Where encountered, these deposits generally consisted of olive brown to gray, clayey sand and clayey silt with lesser amounts of silty sand. However, lenses of sandy and silty clay are also commonly encountered within the Delmar Formation. The encountered materials of the Delmar Formation were typically moist to saturated and dense to very dense/hard in consistency. These materials possess low settlement potential and are considered suitable in their present condition to support the proposed development.

Groundwater

Groundwater was encountered in the exploratory borings at approximate depths of 5.5 to 11 feet below existing site grades. These depths correspond to approximate elevations of 1.5 to 7 feet. Additionally, wet to saturated conditions were encountered within the lower portions of the alluvium at approximate elevations of 7 and 9 feet. Due to the proximity of the site to the San Dieguito Lagoon/River, variations in the local groundwater table may be expected with tidal fluctuations. Surface water used to pond along the street area adjacent to San Dieguito Drive, and also along the base of the relatively steep slope along the eastern and northeast portions of the proposed project site. However, in 2014, the City of Del Mar's Department of Public Works executed a project called the San Dieguito Vector Habitat Grading and Drainage Rehabilitation Project, which eliminated the standing water along San Dieguito Drive and at the base of the steep slope.

Tectonic Setting

No faults are known to traverse the proposed project site. Two relatively small faults are exposed along the face of the slope on and adjacent to the eastern portion of the proposed project site; however, these are minor faults that are inactive and are not significant in terms of the potential for ground rupture hazard.

The proposed project site is not located within an Alquist-Priolo Earthquake Fault Zone or within any documented Earthquake Fault Zone. A review of available geologic maps indicates that the closest mapped active fault is the Rose Canyon Fault, located approximately 2.4 miles to the west of the proposed project site. Other active fault zones in the region that could possibly affect the site include the Coronado Bank Fault Zone to the west, the Newport-Inglewood and Palos Verdes Fault Zones to the northwest, and the Elsinore and Earthquake Valley Fault Zones to the northeast.

Landslide Susceptibility

The Relative Landslide Susceptibility and Landslide Distribution Map of the Del Mar Quadrangle prepared by the California Division of Mines and Geology indicates that the site is situated within Relative Landslide Susceptibility Area 3-1. Area 3 is considered to be "generally susceptible" to slope failures. Subarea 3-1 includes slopes considered to be at or near their stability limits due to a combination of slope steepness and material strengths. Although most slopes within Subarea 3-1 are not considered to contain landslides, they are considered subject to failure if adversely modified. The slopes on and adjacent to the proposed project site were found to be composed of relatively dense, Tertiary-age sediments. However, areas of talus exist along the base of these slopes.

Flood Susceptibility

The project site is located within the City of Del Mar's Lagoon Overlay Zone, and development on this site requires a Floodplain Development Permit approved by the City of Del Mar (City) prior to construction. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map identifies flood zones and areas that are susceptible to 100-year and 500-year floods. The most northern portion of the project site is identified by FEMA as an area located within the special flood hazard area subject to inundation by the 1% annual chance flood. The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The northern portion of the proposed project site is located in Zone AE, where base flood elevations have been determined. Additionally, a central portion of the proposed project site is identified by FEMA as Zone X (other flood areas), which includes areas of 0.2% annual flood, areas of 1% chance annual flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood.

Tsunami Susceptibility

According to the San Diego County Multi-Jurisdictional Hazard Mitigation Plan, the lower, relatively flat areas of the proposed project site along Jimmy Durante Boulevard and San Dieguito Drive are located within the limits of the maximum projected tsunami.

4.5.2 Relevant Plans, Policies, and Ordinances

A number of regulatory requirements and/or guidelines related to potential geologic and soils issues are applicable to future development within the proposed project site. Generally, these regulatory requirements and guidelines contain standards and measures to evaluate risk and address potential hazards through design and construction techniques. Specific requirements and guidelines that may be applicable to Option A and Option B are outlined below.

Federal

International Building Code

The International Building Code (IBC) is a model building code developed by the International Code Council that provides the basis for the California Building Code (CBC). The purpose of the IBC is to provide minimum standards for building construction to ensure public safety, health, and welfare. Prior to the creation of the IBC, several different building codes were used; however, by 2000, the IBC had replaced these previous codes. The IBC is updated every 3 years.

U.S. Geological Survey Landslide Hazard Program

The U.S. Geological Survey created the Landslide Hazard Program in the mid-1970s. The program's primary objective is to reduce long-term losses from landslide hazards by improving understanding of the causes of ground failure and suggesting mitigation strategies. The federal government takes the lead role in funding and conducting this research, but the reduction of losses due to geologic hazards is primarily a state and local responsibility. In San Diego County, plans and programs designed for the protection of life and property are coordinated by the Unified San Diego County Emergency Services Organization.

National Flood Insurance Act

The National Flood Insurance Act (1968) established the National Flood Insurance Program, which is based on the minimal requirements for floodplain management and is designed to minimize flood damage within Special Flood Hazard Areas. FEMA is the agency that administrates the National Flood Insurance Program. Special Flood Hazard Areas are defined as areas that have a 1% chance of flooding within a given year. This is also referred to as the 100-year flood. Flood Insurance Rate Maps were developed to identify areas of flood hazards within a community.

Federal Emergency Management Agency

FEMA administers the National Flood Insurance Program to provide subsidized flood insurance to communities that comply with FEMA regulations to limit development in floodplains. The

City is a participant in the National Flood Insurance Program. FEMA also issues Flood Insurance Rate Maps that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones. The design standard for flood protection is established by FEMA. The minimum level of flood protection for new development is the 1-in-100 Annual Exceedance Probability standard. This is defined as a flood having a 1% chance of occurring in any given year.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning (Alquist-Priolo) Act (California Public Resources Code, Sections 2621–2630) was passed into law following the destructive February 9, 1970, San Fernando Earthquake. The Alquist-Priolo Act provides a mechanism for reducing losses from surface fault rupture on a statewide basis. The intent of the Alquist-Priolo Act is to ensure public safety by prohibiting the siting of most structures for human occupancy across traces of active faults that constitute a potential hazard to structures from surface faulting or fault creep. The law requires the state geologist to establish regulatory earthquake fault zones and distribute maps to all affected cities, counties, and state agencies. Local agencies must regulate most projects within the zones. Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that the proposed buildings will not be constructed on active faults.

California Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (California Public Resources Code, Sections 2690–2699.6) addresses earthquake hazards from non-surface fault rupture, including liquefaction, landslides, strong ground shaking, and other earthquake and geologic hazards. The Seismic Hazards Mapping Act also specifies that the lead agency for a project may withhold project permits until geologic or soils investigations are conducted for specific areas and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

National Pollutant Discharge Elimination System Permits

In California, the State Water Resources Control Board and its nine Regional Water Quality Control Boards administer the National Pollutant Discharge Elimination System (NPDES) program. The NPDES permit system was established as part of the federal Clean Water Act to regulate point-source discharges and non-point-source discharges to surface waters of the United States, including the discharge of soils eroded from construction sites.

The NPDES program consists of characterizing receiving water quality, identifying harmful constituents (including siltation), targeting potential sources of pollutants (including excavation

and grading operations), and implementing a comprehensive stormwater management program. Construction and industrial activities typically are regulated under statewide general permits that are issued by the State Water Resources Control Board. Additionally, the State Water Resources Control Board issues waste discharge requirements that also serve as NPDES permits under the authority delegated to the Regional Water Quality Control Boards under the Clean Water Act.

California Building Code/California Residential Code

The 2013 CBC is based on the 2009 IBC, which is a model building code developed by the International Code Council that sets rules specifying the minimum acceptable level of safety for constructed objects, such as buildings, in the United States. In addition, the CBC contains amendments based on the American Society of Civil Engineers/Structural Engineering Institute (ASCE/SEI) Minimum Design Loads for Buildings and Other Structures (ASCE/SEI 7-05). ASCE/SEI 7-05 provides requirements for general structural design, and includes means for determining earthquake and other types of loads (e.g., flood, snow, wind) for inclusion in building codes. The provisions of the CBC apply to the construction, alteration, movement, replacement, and demolition of every building and structure, and any appurtenances connected or attached to such buildings and structures throughout California.

The CBC is part of the California Code of Regulations (CCR), Title 24 Part 2. The California Residential Code (CRC) is part of the CCR, Title 24 Part 2.5. The CBC and CRC are a compilation of three types of building standards from three different origins:

- Building standards that have been adopted by state agencies without change from building standards contained in national model codes.
- Building standards that have been adopted and adapted from the national model code standards to meet California conditions.
- Building standards, authorized by the California legislature, that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns.

The CBC is updated periodically. In 2013, CBC and CRC became effective. The CBC and CRC contain seismic safety standards outlining design and construction requirements. Development projects must show compliance with the CBC and/or CRC through the development review process. Building permits are submitted and reviewed for compliance prior to obtaining construction and building permits.

Local

San Diego County Multi-Jurisdictional Hazard Mitigation Plan

The 2010 San Diego County Multi-Jurisdictional Hazard Mitigation Plan (HAZMIT) was prepared to comply with the Disaster Mitigation Act of 2000 to increase disaster planning funding. It is intended to educate the public, help serve as a decision-making tool, supplement and enhance local policies regarding disaster planning, and improve multi-jurisdiction coordination. The following topics related to geology, soils, and seismicity are addressed in the HAZMIT:

- Earthquake
- Liquefaction
- Rain-induced landslide

The HAZMIT identifies coastal storm/erosion, landslide, and earthquake as three of the top-five hazards in Del Mar due to the potential loss of life, injuries, and damage to property, as well as the significance for disruption of services. The HAZMIT identifies goals for hazard mitigation in Del Mar, including "reducing the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to coastal erosion and geological hazards." Various actions are outlined in the HAZMIT to assist the City in reaching this goal (County of San Diego 2010, as cited in **Appendix G**).

City of Del Mar Municipal Code

The proposed project site is subject to compliance with the following applicable standards of review and review processes contained in the Del Mar Municipal Code (DMMC):

Chapter 23.08, Del Mar Design Review Ordinance. The purpose of this ordinance is to achieve and protect a residential, seaside community that is both beautiful and pleasant in character, by fostering and encouraging good design that encompasses the use of harmonious materials and colors, compatible proportional relationships and appropriate use of landscaping, and to protect the citizens of the City of Del Mar by providing a design review process [Ord. 465, 849].

Chapter 23.33, Land Conservation Ordinance. The purpose of this ordinance is to ensure that development results in minimal disturbances of existing or natural terrain and vegetation and does not create soil erosion, silting of lower slopes, slide damage, flooding problems, severe cutting or scarring [Ord. 434].

In addition, the proposed project site is currently subject to compliance with the applicable provisions in the DMMC of three overlay zones (**Table 4.5-1**): the Bluff, Slope, and Canyon Overlay Zone (DMMC Chapter 30.52); the Floodplain Overlay Zone (DMMC Chapter 30.56); and the Lagoon Overlay Zone (DMMC Chapter 30.53).

Table 4.5-1
Current Zoning

Assessor's Parcel Number	Bluff, Slope, and Canyon Overlay Zone	Lagoon Overlay Zone	Floodplain Overlay Zone
299-100-47	Yes	No	Yes*
299-100-48	Yes	Yes	Yes

* This parcel is not shown on the map of the Floodplain Overlay Zone on the zoning map or Local Coastal Plan map, but portions of the property fall within the floodplain areas per the most recent Flood Inundation Regional Map, and, therefore, are subject to compliance with the overlay zone policies, and a Floodplain Development Permit is required.

The purpose of the Bluff, Slope, and Canyon Overlay Zone is to protect the health, safety, and general welfare, and to control the development of properties within the zone to preserve the scenic sandstone bluffs and related canyons and steep slopes that characterize the area. The Bluff, Slope, and Canyon Overlay Zone is also intended to protect downstream resources from the adverse impacts of erosion and sedimentation. The unique landforms within the zone provide visual relief and diversity within Del Mar, and they define and separate neighborhoods, enhance the overall quality of Del Mar's local coastal environment, and preserve the economic integrity of the visitor-oriented community.

The Floodplain Overlay Zone is composed of those properties located within the 100-year floodplains of the San Dieguito River and the Los Penasquitos Lagoon that have been identified by the Federal Insurance Administration as being subject to periodic inundation due to flooding. The purpose of the regulations is to promote the public health, safety, and general welfare by ensuring that new development is appropriately sited and constructed to avoid hazards to those who will occupy the development, and to avoid damage or hazards to the surrounding area. These regulations are also intended to ensure that development within the Floodplain Overlay Zone will not obstruct flood flow, will be designed to reduce the need for construction of flood control facilities that would be required if unregulated development were to occur, and to minimize the cost of flood insurance to Del Mar residents.

The Lagoon Overlay Zone is composed of properties that are located directly in, or in proximity to, the Los Penasquitos and San Dieguito Lagoons. The purpose of the Lagoon Overlay Zone is to protect the wetland resources of these lagoon areas and their sensitive upland habitats by requiring that all development activities taking place in the zone are designed and implemented in a manner that is consistent with wetland habitat protection and enhancement.

City of Del Mar Uniform Codes for Construction Building Code

The City's Uniform Codes for Construction Building Code (City of Del Mar Municipal Code, Chapter 23.12) is intended to regulate the construction of applicable facilities, and encompasses (and formally adopts) associated elements of the CBC.

As detailed in the DMMC Chapter 23.12, Uniform Codes for Construction (City of Del Mar 2011a, as cited in **Appendix G**):

> All erection, construction, enlargement, alteration, repair, moving, removal, conversion, demolition, occupancy, equipment, use, height, area and maintenance of buildings and structures within the City of Del Mar shall be in conformance with the 2013 California Building Code and the adopted Appendix Chapters, published by the California Building Standards Commission, as well as Title 24 of the CCR.

Chapter 23.32 of the DMMC contains requirements associated with obtaining a grading/excavation permit. Except as otherwise provided, the City issues all excavation and grading permits, and performs related inspections when the grading/excavation permit application conforms to the provisions of the DMMC.

City of Del Mar Grading Ordinance

The City's Grading Ordinance (DMMC, Chapter 23.32) establishes minimum requirements for grading associated with projects. The Grading Ordinance is intended to facilitate appropriate planning, design, and construction of projects in Del Mar while ensuring compatibility with associated physical conditions, environmental resources, and legal/regulatory requirements. The Grading Ordinance requires that a grading permit be obtained prior to grading, including the clearing and grubbing of vegetation. A grading permit is required for all earthwork performed within the City, unless all of the following conditions are met:

1. Excavations or fills are less than 5 feet in depth at the deepest locations.
2. The total quality of excavations or fills is less than 200 cubic yards.
3. Fill is being placed on a surface having an existing slope not steeper than 5 horizontal to 1 vertical.
4. No modifications will be made to the existing drainage patterns.

A Land Conservation Permit is also required by the DMMC for all projects that involve excavations or fills in excess of 18 inches in depth or greater than 25 cubic yards in volume, when such graded areas are not replaced by a structure.

A number of items related to geology and soils are required before a grading permit is issued to demonstrate that the grading work will be carried out in substantial compliance with all City codes and standards and the requirements of the City's Landscape Manual. As detailed in the application for a grading permit, the following items are required:

- A geotechnical investigation.

- An erosion control plan approved by the City will be required for all work to be performed between November 1 and April 15, and must be submitted and approved prior to initiating work.
- Elevations, dimensions, locations, extent, and slopes of all proposed grading shown by contours or other means.
- The quantity of excavation and fill involved.

4.5.3 Thresholds of Significance

The significance criteria used to evaluate impacts to geology and soils from Option A and Option B are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to geology and soils would occur if Option A or Option B would:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of as known fault. Refer to Division of Mines and Geology Special Publication 42.

b) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.

c) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.

d) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides.

e) Result in substantial soil erosion or the loss of topsoil.

f) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

g) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

h) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

4.5.4 Impacts Analysis

a) Would the proposed project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of as known fault? (Refer to Division of Mines and Geology Special Publication 42)?

b) Would the proposed project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

No faults are known to traverse the proposed project site. Two relatively small faults are exposed along the face of the slope on and adjacent to the eastern portion of the proposed project site; however, the Preliminary Geologic Hazard Evaluation (**Appendix G**) found that these are minor faults that are inactive and are not significant in terms of the potential for ground rupture hazard. Therefore, these faults are not a constraint to development and would not require structural setbacks to structures for human occupancy.

The proposed project site is not located within an Alquist-Priolo Earthquake Fault Zone or within any documented Earthquake Fault Zone. A review of available geologic maps indicates that the closest mapped active fault is the Rose Canyon Fault, located approximately 2.4 miles to the west of the proposed project site. Other active fault zones in the region that could possibly affect the site include the Coronado Bank Fault Zone to the west, the Newport-Inglewood and Palos Verdes Fault Zones to the northwest, and the Elsinore and Earthquake Valley Fault Zones to the northeast.

If an earthquake event were to take place emanating from the Rose Canyon fault or any of the other faults, the proposed project site could experience peak ground accelerations; however, any impact from such an earthquake event is considered less than significant because the structural effects of ground shaking at peak ground accelerations due to a design earthquake event would be reduced by building either Option in accordance with standard engineering and the most recent CBC requirements. These requirements would ensure that required structural integrity of the proposed buildings would be met given the earthquake level anticipated in the area. Also, design of the buildings would be in accordance with seismic design criteria developed by the Structural Engineers Association of California, and all building permits would be reviewed prior to permit issuance to ensure compliance with all safety standards, thereby reducing any impact caused by fault rupture of seismic ground shaking in the project vicinity.

Seismic ground shaking caused by a submarine earthquake can produce tsunamis. Historically, the San Diego area has been free of tsunami-related hazards, and tsunamis reaching San Diego have generally been well within the normal tidal range. It is thought that the wide continental

margin off the coast acts to diffuse and reflect the wave energy of remotely generated tsunamis. According to the San Diego County HAZMIT, the lower, relatively flat areas of the proposed project site along Jimmy Durante Boulevard and San Dieguito Road are located within the limits of the maximum projected tsunami runup. However, because the project site is located inland from the ocean and at a proposed elevation of 18 feet, it is unlikely that the property would be subject to inundation due to tsunamis during the life of the proposed structures. According to the Del Mar Quadrangle Tsunami Inundation Map for Emergency Planning by the California Emergency Management Agency, the University of Southern California, and the California Geological Survey, the project site is located just outside the City's tsunami inundation line (State of California 2009, as cited in **Appendix G**). Therefore, the project site would not likely be subject to inundation by tsunami.

Seismic ground shaking could also produce seiches, which are oscillations in large bodies of water such as lakes, harbors, bays, and reservoirs. Due to the geology and configuration of the San Dieguito River/Lagoon, the proposed project site is considered to have a relatively low risk potential for damage caused by seiches.

Some degree of ground shaking due to seismic activity along one of the regionally active faults can be expected over the design life of either Option. However, construction in accordance with the requirements of the most recent edition of the CBC and the local governmental agencies should provide a level of life-safety suitable for either Option. Therefore, impacts resulting from ground rupture of known earthquake faults or seismic ground-shaking events under Option A and Option B would be **less than significant**.

c) Would the proposed project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Seismically induced soil liquefaction is possible in areas where underlying soils are saturated, relatively loose and fine-grained sand or silt. The northern and central portions of the proposed project site that are underlain by Quaternary-age alluvial soils and saturated old paralic deposits are within an area considered susceptible to liquefaction. The proposed project site has shallow ground water that may be affected by a strong earthquake shaking. Additionally, the alluvial materials below the water table contain varying layers of silty sands, poorly-graded sands with silty sands, and poorly-graded sands, all of which are expected to possess consistencies and plasticities conducive to liquefaction. Furthermore, the liquefaction analysis found that most of the alluvium beneath the water table is considered liquefiable in the event of peak ground acceleration. (The full Liquefaction Analysis is included in Appendix G of this EIR.) Thus, the uppermost portions of the alluvium are considered to be potentially liquefiable and could result in seismically induced differential settlement of between 1.75 and 3.5 inches. Because the alluvium and possibly some saturated portions of the older paralic deposits that underlie the proposed project site are

considered subject to soil liquefaction, there is also the possibility of lateral ground spreading that could occur within the area of the proposed project site.

Both Options would be built in accordance with standard engineering and CBC requirements, which would minimize and/or prevent damage related to seismic-related ground failure, including liquefaction. In addition, applications for construction and/or building permits would be reviewed prior to permit issuance to ensure compliance with all required safety standards. However, both Options may still create a potentially significant impact associated with ground failure due to liquefaction, seismically induced settlement, and/or lateral ground spread that could result in the collapse of a structure and/or loss of life; therefore, impacts are under both Options would be **potentially significant,** and mitigation measure **MM-GEO-1** would be required.

d) Would the proposed project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The proposed project site is situated within Relative Landslide Susceptibility Area 3-1. Area 3 is considered to be "generally susceptible" to slope failures and Subarea 3-1 includes slopes considered to be at or near their stability limits due to a combination of slope steepness and material strengths. Although most slopes within Subarea 3-1 are not considered to contain landslides, they are considered subject to failure if adversely modified.

The slopes on and adjacent to the proposed project site were found to be composed of relatively dense, Tertiary-age sediments; however, areas of talus exist along the base of these slopes. On the project site, some small surficial landslides, including moderately sized block falls, have occurred on the north-facing portion of the steep slope in the southeastern portion of the site. A quantitative surficial slope stability analysis (**Appendix G**) that was performed to model the steepest portions of the on-site slopes indicates that, with proper and maintained site drainage and/or irrigation practices, the existing slopes along the east side of the proposed project site are stable. Therefore, implementation of either Option would not expose people or structures to potential substantial adverse effects involving landslides, and impacts from landslides under both Options would be **less than significant**.

e) Would the proposed project result in substantial soil erosion or the loss of topsoil?

Option A and Option B would include excavation, grading, and fill operations, which would have the potential to result in erosion, changes in topography, or unstable soil conditions. However, prior to construction, a Storm Water Pollution Prevention Plan would be prepared to identify best management practices to minimize off-site sediment transport and erosion for the duration of the project. The development permits for Option A and Option B would require submittal of detailed drainage and grading plans as conditions of approval to ensure that no significant impacts would

occur and no unstable soil conditions would occur or be created from changes in topography. The grading plans would be subject to City approval, and would require measures to control erosion and sediment controls that are required by the City Ordinance and other pertinent regulations and conditions. Construction best management practices (BMPs) and post-construction BMPs would also be implemented to reduce erosion consistent with the 2016 BMP Design Manual. In addition, both Options would be constructed in accordance with standard engineering and CBC requirements to prevent damage related to erosion and/or expansive materials. Also, the grading, erosion, and sedimentation control regulations associated with the Lagoon Overlay Zone and the Bluff, Slope, and Canyon Overlay Zone would be applied to both Options.

Upon implementation, Option A or Option B's landscaping would be implemented in accordance with design standards that specify that the proposed project would use low-volume and drip irrigation, with drought-tolerant plant materials to limit the use of irrigation water. These standards would minimize potential erosion impacts from irrigation systems.

As such, Option A and Option B would not result in any significant unavoidable impacts to geology and soils due to substantial soil erosion or the loss of topsoil, and impacts would be **less than significant**.

f) Would the proposed project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

As discussed under Threshold D, above, a quantitative surficial slope stability analysis found that the existing slopes along the east side of the proposed project site are stable. Therefore, impacts from geologic units or soils that result in landslides would be less than significant.

As discussed in Threshold C, above, the alluvium and possibly some saturated portions of the older paralic deposits that underlie the proposed project site are considered subject to soil liquefaction. There is also the possibility of lateral ground spreading that could occur within the area of the proposed project site. Option A and Option B would be constructed in accordance with standard engineering and CBC requirements, and any necessary soils and/or geotechnical reports would be submitted and reviewed prior to the issuance of building permits. Option A and Option B would also be required to comply with local, state, and federally mandated grading and construction requirements, including the NPDES permit and City Grading Ordinance. If applicable, conditions would be placed on Option A or Option B to ensure compliance. However, Option A and Option B still may create a **potentially significant** impact associated with ground failure due to lateral ground spread, and mitigation **(MM-GEO-1)** would be required.

The presence of relatively shallow groundwater across portions of the site may affect the stability of temporary excavations that may be required for utility installations, temporary cut slopes, and remedial grading operations in the alluviated areas. Due to the proximity of the site to the San Dieguito River and the anticipated hydraulic conductivity of the alluvium underlying the site, any proposed de-watering during site construction or grading would need to be designed by a de-watering specialist to handle large volumes of water. Furthermore, rapid or significant de-watering, if required to allow for deep excavations on site, may result in ground subsidence around the de-watering areas. Therefore, Option A and Option B may result in a **potentially significant** impact associated with subsidence, and mitigation **(MM-GEO-1)** would be required.

g) Would the proposed project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

The proposed project site is underlain by Quaternary-age alluvial, talus, old paralic deposits, and a relatively thin and irregular veneer of placed fill soils. Artificial fill material was encountered near the surface and possesses a low expansion index and a low to moderate potential for static settlement. The talus deposits flank the base of the slopes along the northeast and central portion of the proposed project site, and possess a low expansion index and a moderate potential for static settlement. The alluvial soils underlie the central and northern portions of the proposed project site and possess a low expansion index and moderate to high potential for static and dynamic settlement. The existing fill, talus deposits, and alluvial soils on site are considered compressible in their present state under proposed building, structural improvements, and fill loads. Therefore, Option A and Option B may create a **potentially significant** impact associated with expansive soil that may create substantial risks to life or property, and mitigation **(MM-GEO-1)** would be required**.**

h) Would the proposed project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The proposed project site would use the City's sanitary sewer system and would not use septic tanks or other alternative wastewater disposal systems. Therefore, **no impacts** to soils supporting the use of septic tanks or other wastewater disposal systems would occur.

4.5.5 Mitigation Measure

Impacts to geotechnical resources and soils resulting from implementation of Option A or Option B due to potential static settlement, liquefaction, and possible lateral spread during construction and operational are potentially significant; therefore, the following mitigation measure is required to lessen impacts to a level that is less than significant.

MM-GEO-1 Prior to the issuance of a building permit, the project applicant shall retain a City of Del Mar-approved geotechnical engineer to perform a detailed site-specific subsurface report or preliminary geotechnical investigation, consistent with the California Building Code. The California Building Code (which incorporates the International Building Code) is contained in the California Code of Regulations, Title 24, Part 2, which is a portion of the California Building Standards Code, and includes design and construction requirements related to life safety and structural safety. The geotechnical study shall include subsurface investigation, laboratory testing, and additional deep explorations using borings and/or cone penetrometer tests across the alluviated portions of the proposed project site to further define the alluvium profile and quantitatively address the potential for soil liquefaction and lateral spreading across the site. The subsurface geotechnical study shall also include recommendations for the proposed construction and grading such as remedial grading, ground improvement techniques, special foundation design, and other recommendations to ensure that construction of the building does not result in substantial liquefaction, subsidence, or seismic-related ground failure due to lateral spread. In addition, the proposed project shall implement any necessary measures required to comply with existing building codes and regulations, including Del Mar Municipal Code Sections 23.12 and 23.32.

4.5.6 Level of Significance after Mitigation

The proposed project site has the potential for significant geologic impacts due to static settlement, liquefaction, and possible lateral spread. Measure MM-GEO-1 requires that, prior to development of Option A or Option B, a licensed geologist perform additional deep explorations across the proposed project site to further define the alluvium profile and quantitatively address the potential for geologic hazards. The detailed geotechnical investigation would provide site-specific recommendations designed to stop geologic hazards that could significantly impact Option A or Option B. Recommendations could include complete removal of all talus and placed fill soils from all areas of the site to receive settlement-sensitive improvement or structural fill, remedial grading (i.e., removal and re-compaction of near surface soils), ground improvement techniques (such as stone columns), and/or special foundation design (e.g., driven piles, auger-cast piles, or structural mat foundations). The final recommendations from the geotechnical investigation would be included in the building plans for either Option, and would ensure that either Option is developed with a life-safety performance level. Therefore, potentially significant impacts to geotechnical resources and soils resulting from implementation of either Option A or Option B would be **less than significant after mitigation**.

4.5.7 Reference

Christian Wheeler. 2012. *Report of Preliminary Geologic Hazard Evaluation*. Prepared by Christian Wheeler Engineering. September 2012.

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4.6 GREENHOUSE GAS EMISSIONS

This section describes the existing setting of the project site related to greenhouse gas (GHG) emissions and climate change, identifies associated regulatory requirements, and evaluates potential impacts related to implementation of the Watermark Del Mar Specific Plan (WDMSP) Option A and Option B. The analysis presented in this section is based on the Greenhouse Gas Emissions Technical Report for Option A and the Greenhouse Gas Emissions Technical Memorandum for Option B, included as **Appendix F1** and **F2**, respectively, to this environmental impact report (EIR).

4.6.1 Existing Conditions

Climate Change Overview

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2017a).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a threefold process as follows: Short-wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long-wave radiation; and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-20th century and is the most significant driver of observed climate change (IPCC 2013; EPA 2017a). Human influence on the climate system

is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system.

Greenhouse Gases

GHGs include, but are not limited to, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), water vapor, hydrofluorocarbons (HFCs), hydrochlorofluorocarbons (HCFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).[1] Some GHGs, such as CO_2, CH_4, and N_2O, occur naturally and are emitted to the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases, such as HFCs, HCFCs, PFCs, and SF_6, and are associated with certain industrial products and processes. A summary of the most common GHGs and their sources is included in the following text.[2]

Carbon Dioxide. CO_2 is a naturally occurring gas and a by-product of human activities, and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO_2 include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate CO_2 are the combustion of coal, oil, natural gas, and wood.

Methane. CH_4 is a flammable gas and is the main component of natural gas. Methane is produced through anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

Nitrous Oxide. Sources of N_2O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and the use of N_2O as a propellant (such as in rockets, racecars, aerosol sprays).

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1 California Health and Safety Code Section 38505 identifies seven GHGs that CARB monitors and regulates to reduce emissions: CO_2, CH_4, N_2O, SF_6, HFCs, PFCs, and NF_3.
For purposes of CEQA analysis for land use development projects, CalEEMod estimates emissions of CO_2, CH_4, and N_2O.

2 The descriptions of these GHGs are summarized from the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report (1995), IPCC Fourth Assessment Report (2007), CARB's Glossary of Terms Used in GHG Inventories (2017), and EPA's Glossary of Climate Change Terms (2016).

Fluorinated Gases. Fluorinated gases are synthetic, powerful GHGs that are emitted from a variety of industrial processes. Several prevalent fluorinated gases include the following:

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals that are used as alternatives to ozone-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, along with HFCs, to the ozone depleting substances. The two main sources of PFCs are primarily aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.
- **Sulfur Hexafluoride:** SF_6 is a colorless gas that is soluble in alcohol and ether and slightly soluble in water. SF_6 is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.
- **Nitrogen trifluoride:** NF_3 is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

Black Carbon. Black carbon is a component of fine particulate matter, which has been identified as a leading environmental risk factor for premature death. It is produced from the incomplete combustion of fossil fuels and biomass burning, particularly from older diesel engines and forest fires. Black carbon warms the atmosphere by absorbing solar radiation, influences cloud formation, and darkens the surface of snow and ice, which accelerates heat absorption and melting. Black carbon is a short-lived species that varies spatially, which makes it difficult to quantify the global warming potential. Diesel particulate matter emissions are a major source of black carbon and are also toxic area contaminants (TACs) that have been regulated and controlled in California for several decades to protect public health. In relation to declining diesel particulate matter from the California Air Resources Board's (CARB) regulations pertaining to diesel engines, diesel fuels, and burning activities, CARB estimates that annual black carbon emissions in California have reduced by 70% between 1990 and 2010, with 95% control expected by 2020 (CARB 2014).

Water Vapor. The primary source of water vapor is evaporation from the ocean, with additional vapor generated by sublimation (change from solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves. Water vapor is the most important, abundant, and variable GHG in the atmosphere and maintains a climate necessary for life.

Ozone. Tropospheric O_3, which is created by photochemical reactions involving gases both from natural sources and from human activities, acts as a GHG. Stratospheric O_3, which is created by the interaction between solar ultraviolet radiation and molecular oxygen (O_2), plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric O_3, due to chemical reactions that may be enhanced by climate change, results in an increased ground-level flux of ultraviolet-B radiation.

Aerosols. Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

Chlorofluorocarbons. CFCs are synthetic chemicals that have been used as cleaning solvents, refrigerants, and aerosol propellants. CFCs are chemically unreactive in the lower atmosphere (troposphere) and the production of CFCs was prohibited in 1987 due to the chemical destruction of stratospheric O_3.

Hydrochlorofluorocarbons. HCFCs are a large group of compounds, whose structure is very close to that of CFCs—containing hydrogen, fluorine, chlorine, and carbon atoms—but including one or more hydrogen atoms. Like HFCs, HCFCs are used in refrigerants and propellants. HCFCs were also used in place of CFCs for some applications; however, their use in general is being phased out.

Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2016).

The Intergovernmental Panel on Climate Change (IPCC) developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons of CO_2 equivalent (MT CO_2E).

The current version of the California Emissions Estimator Model (CalEEMod) (version 2016.3.1) used in this analysis assumes that the GWP for CH_4 is 25 (so emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the IPCC Fourth Assessment Report (IPCC 2007). The GWP values identified in CalEEMod were applied.

Sources of Greenhouse Gas Emissions

Per the U.S. Environmental Protection Agency's (EPA) *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2015* (EPA 2017), total United States GHG emissions were approximately 6,586.7 million metric tons (MMT) CO_2E in 2015. The primary GHG emitted by human activities in the United States was CO_2, which represented approximately 82.1% of total GHG emissions (5,411.4 MMT CO_2E). The largest source of CO_2, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 93.3% of CO_2 emissions in 2015 (5,049.8 MMT CO_2E). Total United States GHG emissions have increased by 3.5% from 1990 to 2015, and emissions increased from 2014 to 2015 by 2.3% (153.0 MMT CO_2E). Since 1990, United States GHG emissions have increased at an average annual rate of 0.2%; however, overall, net emissions in 2015 were 11.5% below 2005 levels (EPA 2017b).

According to California's 2000–2015 GHG emissions inventory (2017 edition), California emitted 440.36 MMT CO_2E in 2015, including emissions resulting from out-of-state electrical generation (CARB 2017b). The sources of GHG emissions in California include transportation, industry, electric power production from both in-state and out-of-state sources, residential and commercial activities, agriculture, high global-warming potential substances, and recycling and waste. The California GHG emission source categories and their relative contributions in 2015 are presented in **Table 4.6-1**.

Table 4.6-1
GHG Emissions Sources in California

Source Category	Annual GHG Emissions (MMT CO_2E)	Percent of Total
Transportation	164.63	37%
Industrial uses	91.71	21%
Electricity generation[a]	83.67	19%
Residential and commercial uses	37.92	9%
Agriculture	34.65	8%
High global-warming potential substances	19.05	4%
Recycling and waste	8.73	2%
Totals	**440.36**	**100%**

Source: CARB 2017b.
Notes: Emissions reflect the 2015 California GHG inventory.
MMT CO_2E = million metric tons of carbon dioxide equivalent per year
[a] Includes emissions associated with imported electricity, which account for 33.74 MMT CO_2E annually.

During the 2000 to 2015 period, per capita GHG emissions in California have dropped from a peak in 2001 of 14.0 metric tons (MT) per person to 11.3 MT per person in 2015, representing a 19% decrease. In addition, total GHG emissions in 2015 were 1.5 MMT CO_2E less than 2014 emissions (CARB 2017b).

Project Site

The project site is currently vacant and is assumed to have zero GHG emissions.

4.6.2 Relevant Plans, Policies, and Ordinances

Federal

Massachusetts vs. EPA. On April 2, 2007, in *Massachusetts v. EPA*, the Supreme Court directed the U.S. Environmental Protection Agency (EPA) Administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the EPA Administrator is required to follow the language of Section 202(a) of the Clean Air Act. On December 7, 2009, the EPA Administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- The EPA Administrator found that elevated concentrations of the GHGs CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6 in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the "endangerment finding."
- The EPA Administrator further found that the combined emissions of the GHGs CO_2, CH_4, N_2O, and HFCs from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is referred to as the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

Energy Independence and Security Act. On December 19, 2007, President Bush signed the Energy Independence and Security Act of 2007. Among other key measures, the act would do the following, which would aid in the reduction of national GHG emissions:

1. Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
2. Set a target of 35 miles per gallon (mpg) for the combined fleet of cars and light trucks by model year 2020, and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
3. Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

EPA and NHTSA Joint Final Rules for Vehicle Standards. EPA, in conjunction with NHTSA, adopted regulations to reduce GHG emissions and increase the Corporate Average Fuel Economy (CAFE) standards for new passenger cars and light trucks (EPA and NHTSA 2010). Under the first round of regulations promulgated in 2010, new passenger cars, light-duty trucks, and medium-duty passenger vehicles must meet an estimated combined average emissions level of 250 grams of CO_2 per mile in model year 2016, equivalent to 35.5 mpg if the automotive industry were to meet this CO_2 level through fuel economy improvements alone. The CAFE standards for passenger cars and light trucks will be phased in between 2012 and 2016, with the final standards equivalent to 37.8 mpg for passenger cars and 28.8 mpg for light trucks, resulting in an estimated combined average of 34.1 mpg.

In 2011, EPA and NHTSA approved the first-ever program to reduce GHG emissions and increase fuel efficiency for medium- and heavy-duty vehicles (EPA 2011). Effective November 14, 2011, the CO_2 emissions and fuel efficiency standards of this regulation apply to model years 2014–2018 combination tractors (i.e., semi-trucks); heavy-duty pickup trucks and vans; and vocational vehicles, including transit and school buses. This regulation covers vehicles with a gross vehicle weight rating of 8,500 pounds or greater; medium-duty passenger vehicles are covered by the previous regulation for passenger cars and light-duty trucks. In addition, EPA adopted standards to control HFC leakage from air conditioning systems in combination tractors and heavy-duty pickup trucks and vans, as well as CH_4 and N_2O standards for heavy-duty engines, pickup trucks, and vans.

In August 2012, EPA and NHTSA approved a second round of GHG and CAFE standards for model years 2017 and beyond (EPA and NHTSA 2012). These standards will reduce motor vehicle GHG emissions to 163 grams of CO_2 per mile, which is equivalent to 54.5 mpg if this level were achieved solely through improvements in fuel efficiency, for cars and light-duty trucks by model year 2025. A portion of these improvements, however, will likely be made through improvements in air conditioning leakage and through use of alternative refrigerants, which would not contribute to fuel economy. The first phase of the CAFE standards, for model years 2017–2021, are projected to require, on an average industry fleet-wide basis, a range from 40.3 to 41.0 mpg by model year 2021. The second phase of the CAFE program, for model years 2022–2025, includes standards that are not final due to the statutory requirement that NHTSA set average fuel economy standards not more than five model years at a time. The second phase is projected to require, on an average industry fleet-wide basis, a range from 48.7 to 49.7 mpg by model year 2025. The regulations also include targeted incentives to encourage early adoption and introduction into the marketplace of advanced technologies to dramatically improve vehicle performance, including the following:

- Incentives for electric vehicles, plug-in hybrid electric vehicles, and fuel cell vehicles.

- Incentives for hybrid technologies for large pickups and for other technologies that achieve high fuel economy levels on large pickups.
- Incentives for natural gas vehicles.
- Credits for technologies with potential to achieve real-world GHG reductions and fuel economy improvements that are not captured by the standard's test procedures.

U.N. Framework Convention on Climate Change Pledge. On March 31, 2015, the State Department submitted the U.S. target to cut net GHG emissions to the United Nations Framework Convention on Climate Change (UNFCCC). The submission, referred to as an Intended Nationally Determined Contribution (INDC), is a formal statement of the U.S. target, announced in China last year, to reduce our emissions by 26%–28% below 2005 levels by 2025, and to make best efforts to reduce by 28% (U.S. State Department 2015).

The target reflects a planning process that examined opportunities under existing regulatory authorities to reduce emissions in 2025 of all GHGs from all sources in every economic sector. Several U.S. laws, as well as existing and proposed regulations thereunder, are relevant to the implementation of the U.S. target, including the Clean Air Act (42 U.S.C. 7401 et seq.), the Energy Policy Act (42 U.S.C. 13201 et seq.), and the Energy Independence and Security Act (42 U.S.C. 17001 et seq.).

Clean Power Plan and New Source Performance Standards for Electric Generating Units. On October 23, 2015, EPA published a final rule (effective December 22, 2015) establishing the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (80 FR 64510–64660), also known as the Clean Power Plan. These guidelines prescribe how states must develop plans to reduce GHG emissions from existing fossil-fuel-fired electric generating units. The guidelines establish CO_2 emission performance rates representing the best system of emission reduction for two subcategories of existing fossil-fuel-fired electric generating units: (1) fossil-fuel-fired electric utility steam-generating units, and (2) stationary combustion turbines. Concurrently, EPA published a final rule (effective October 23, 2015) establishing Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (80 FR 64661–65120). The rule prescribes CO_2 emission standards for newly constructed, modified, and reconstructed affected fossil-fuel-fired electric utility generating units. Implementation of the Clean Power Plan has been stayed by the U.S. Supreme Court pending resolution of several lawsuits. . Additionally, in March 2017, President Trump directed the EPA Administrator to review the Clean Power Plan in order to determine whether it is consistent with current executive policies concerning GHG emissions, climate change and energy.

State of California

State Climate Change Targets

Executive Order (EO) S-3-05. EO S-3-05 (June 2005) established the following statewide goals: GHG emissions should be reduced to 2000 levels by 2010, GHG emissions should be reduced to 1990 levels by 2020, and GHG emissions should be reduced to 80% below 1990 levels by 2050.

Assembly Bill (AB) 32 and CARB's Climate Change Scoping Plan. In furtherance of the goals established in EO S-3-05, the Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020.

Under AB 32, CARB is responsible for and is recognized as having the expertise to carry out and develop the programs and requirements necessary to achieve the GHG emissions reduction mandate of AB 32. Under AB 32, CARB must adopt regulations requiring the reporting and verification of statewide GHG emissions from specified sources. This program is used to monitor and enforce compliance with established standards. CARB also is required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 relatedly authorized CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.

In 2007, CARB approved a limit on the statewide GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 MMT CO_2E). CARB's adoption of this limit is in accordance with Health and Safety Code Section 38550.

Further, in 2008, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (*Scoping Plan*) in accordance with Health and Safety Code Section 38561. The *Scoping Plan* establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction features by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. The key elements of the Scoping Plan include the following (CARB 2008):

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
2. Achieving a statewide renewable energy mix of 33%

3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions
4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets
5. Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation

In the *Scoping Plan*, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5% from the otherwise projected 2020 emissions level; i.e., those emissions that would occur in 2020, absent GHG-reducing laws and regulations (referred to as "Business-As-Usual" [BAU]). For purposes of calculating this percent reduction, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards.

In the 2011 Final Supplement to the *Scoping Plan's* Functional Equivalent Document, CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG reduction regulations. Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7% (down from 28.5%) from the BAU conditions. When the 2020 emissions level projection also was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009–2016) and the Renewable Portfolio Standard (12% to 20%), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16% (down from 28.5%) from the BAU conditions.

More recently, in 2014, CARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework* (*First Update*). The stated purpose of the *First Update* is to "highlight California's success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050." The *First Update* found that California is on track to meet the 2020 emissions reduction mandate established by AB 32, and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80% below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals.

In conjunction with the *First Update*, CARB identified "six key focus areas comprising major components of the state's economy to evaluate and describe the larger transformative actions that will be needed to meet the state's more expansive emission reduction needs by 2050." Those six areas are: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture; (4) water; (5) waste management; and, (6) natural and working lands. The *First Update* identifies key recommended actions for each sector that will facilitate achievement of EO S-3-05's 2050 reduction goal.

Based on CARB's research efforts presented in the *First Update*, it has a "strong sense of the mix of technologies needed to reduce emissions through 2050." Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and, the rapid market penetration of efficient and clean energy technologies.

As part of the *First Update*, CARB recalculated the state's 1990 emissions level using more recent global warming potentials identified by the IPCC. Using the recalculated 1990 emissions level (431 MMT CO_2E) and the revised 2020 emissions level projection identified in the 2011 Final Supplement, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 15% (instead of 28.5% or 16%) from the BAU conditions.

On January 20, 2017, CARB released The *2017 Climate Change Scoping Plan Update (Second Update)* for public review and comment (CARB 2017a). This update proposes CARB's strategy for achieving the state's 2030 GHG target as established in Senate Bill (SB) 32 (discussed below), including continuing the Cap-and-Trade Program through 2030, and includes a new approach to reduce GHGs from refineries by 20%. The *Second Update* incorporates approaches to cutting short-lived climate pollutants (SLCPs) under the Short-Lived Climate Pollutant Reduction Strategy (a planning document that was adopted by CARB in March 2017), and acknowledges the need for reducing emissions in agriculture and highlights the work underway to ensure that California's natural and working lands increasingly sequester carbon. During development of the *Second Update*, CARB held a number of public workshops in the Natural and Working Lands, Agriculture, Energy and Transportation sectors to inform development of the 2030 Scoping Plan Update (CARB 2016a). When discussing project-level GHG emissions reduction actions and thresholds, the *Second Update* states "achieving no net increase in GHG emissions is the correct overall objective, but it may not be appropriate or feasible for every development project. An inability to mitigate a project's GHG emissions to zero does not necessarily imply a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA." It is expected that the *Second Update* will be considered by CARB's Governing Board in late June 2017.

EO B-30-15. EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing statewide GHG emissions to 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing statewide GHG emissions to 80 percent below 1990 levels by 2050 as set forth in S-3-05. To facilitate achievement of this goal, EO B-30-15 calls for an update to CARB's Scoping Plan to express the 2030 target in terms of MMT CO_2E. The EO also calls for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets. Sector-specific agencies in transportation, energy, water, and forestry were required to prepare GHG reduction plans by September 2015, followed by a report on action taken in relation to these plans in June 2016. EO B-30-15 does not require local agencies to take any action to meet the new interim GHG reduction target.

SB 32 and AB 197. SB 32 and AB 197 (enacted in 2016) are companion bills that set a new statewide GHG reduction targets; make changes to CARB's membership, and increase legislative oversight of CARB's climate change-based activities; and expand dissemination of GHG and other air quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the Legislature to CARB as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and, requires CARB to identify specific information for GHG emissions reduction measures when updating the scoping plan.

SB 605 and SB 1383. SB 605 (2014) requires CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants in the state; and SB 1383 (2016) requires CARB to approve and implement that strategy by January 1, 2018. SB 1383 also establishes specific targets for the reduction of SLCPs (40 percent below 2013 levels by 2030 for methane and HFCs, and 50 percent below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as mentioned above, CARB adopted its *Short-Lived Climate Pollutant Reduction Strategy* (*SLCP Reduction Strategy*) in March 2017. The *SLCP Reduction Strategy* establishes a framework for the statewide reduction of emissions of black carbon, methane and fluorinated gases.

Building Energy

Title 24, Part 6. Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically establishes Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. The California Energy Commission (CEC) is required by law to adopt standards every 3 years that are cost effective for homeowners over the 30-year lifespan of a building. These standards are updated to consider and incorporate new energy efficient technologies and construction methods. As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2013 Title 24 standards became effective on July 1, 2014. Buildings constructed in accordance with the 2013 standards were estimated to use 25% less energy for lighting, heating, cooling, ventilation, and water heating than the 2008 standards (CEC 2012).

The 2016 Title 24 standards are the currently applicable building energy efficiency standards, and became effective on January 1, 2017. The 2015 Title 24 standards will further reduce energy used and associated GHG emissions. In general, single-family homes built to the 2016 standards are anticipated to use about 28% less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards, and nonresidential buildings built to the 2016 standards will use an estimated 5% less energy than those built to the 2013 standards (CEC 2015).

Option A and Option B would be required to comply with 2016 Title 24 standards because its building construction phase would commence after January 1, 2017. This analysis does not quantify the increased energy efficiency and corresponding GHG emissions savings associated with the more stringent 2016 Title 24 standards, which results in a conservative assessment of GHG emission savings because the 2016 Title 24 standards have been documented to reduce energy usage (e.g., for lighting, heating, cooling, ventilation, and water heating) and associated GHG emissions. Instead, the GHG emissions from Option A and Option B estimates conservatively are in accordance with CalEEMod's default assumption that the 2013 Title 24 standards are the operative standards. This "pool" of required 2016 Title 24 GHG savings, while not quantified for Option A and Option B, nonetheless will occur and represent GHG additional reductions beyond those required by the recommended mitigation measures.

Title 24, Part 11. In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen, and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code

requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and state-owned buildings and schools and hospitals. The CALGreen 2016 standards became effective on January 1, 2017. The mandatory standards require the following (24 CCR Part 11):

4. Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings
5. Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance
6. 65 percent of construction and demolition waste must be diverted from landfills
7. Mandatory inspections of energy systems to ensure optimal working efficiency
8. Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations

Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards

The CALGreen standards also include voluntary efficiency measures that are provided at two separate tiers and implemented at the discretion of local agencies and applicants. CALGreen's Tier 1 standards call for a 15% improvement in energy requirements; stricter water conservation, 65% diversion of construction and demolition waste, 10% recycled content in building materials, 20% permeable paving, 20% cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30% improvement in energy requirements, stricter water conservation, 75% diversion of construction and demolition waste, 15% recycled content in building materials, 30% permeable paving, 25% cement reduction, and cool/solar-reflective roofs.

The California Public Utilities Commission, CEC, and CARB also have a shared, established goal of achieving zero net energy (ZNE) for new construction in California. The key policy timelines include: (1) all new residential construction in California will be ZNE by 2020, and (2) all new commercial construction in California will be ZNE by 2030.[3] As most recently defined by the CEC in its 2015 *Integrated Energy Policy Report*, a zero net energy code building is "one where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building" using the CEC's Time Dependent Valuation metric.

[3] See, e.g., CPUC, California's Zero Net Energy Policies and Initiatives, Sept. 18, 2013, accessed at http://www.cpuc.ca.gov/NR/rdonlyres/C27FC108-A1FD-4D67-AA59- 7EA82011B257/0/3.pdf. It is expected that achievement of the zero net energy goal will occur via revisions to the Title 24 standards.

Title 20. Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. Performance of appliances must be certified through the CEC to demonstrate compliance with standards. New appliances regulated under Title 20 include: refrigerators, refrigerator-freezers and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing for each type of appliance covered under the regulations and appliances must meet the standards for energy performance, energy design, water performance and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

SB 1. SB 1 (2006) established a $3 billion rebate program to support the goal of the state to install rooftop solar energy systems with a generation capacity of 3,000 megawatts through 2016. SB 1 added sections to the Public Resources Code, including Chapter 8.8 (California Solar Initiative), that require building projects applying for ratepayer-funded incentives for photovoltaic systems to meet minimum energy efficiency levels and performance requirements. Section 25780 established that it is a goal of the state to establish a self-sufficient solar industry in which solar energy systems are a viable mainstream option for both homes and businesses within 10 years of adoption, and to place solar energy systems on 50% of new homes within 13 years of adoption. SB 1, also termed "GoSolarCalifornia," was previously titled "Million Solar Roofs."

AB 1470. This bill established the Solar Water Heating and Efficiency Act of 2007. The bill makes findings and declarations of the Legislature relating to the promotion of solar water heating systems and other technologies that reduce natural gas demand. The bill defines several terms for purposes of the act. The bill requires the commission to evaluate the data available from a specified pilot program, and, if it makes a specified determination, to design and implement a program of incentives for the installation of 200,000 solar water heating systems in homes and businesses throughout the state by 2017.

AB 1109. Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general purpose lighting, to reduce electricity consumption 50 percent for indoor residential lighting and 25 percent for indoor commercial lighting.

Mobile Sources

AB 1493. In a response to the transportation sector accounting for more than half of California's CO_2 emissions, AB 1493 was enacted in July 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards will result in a reduction of about 22% in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards will result in a reduction of about 30%.

EO S-1-07. Issued on January 18, 2007, EO S-1-07 sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO_2E grams per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020. The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel, including extraction/feedstock production, processing, transportation, and final consumption, per unit of energy delivered. CARB adopted the implementing regulation in April 2009. The regulation is expected to increase the production of biofuels, including those from alternative sources, such as algae, wood, and agricultural waste.

SB 375. SB 375 (2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 required CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035. Regional metropolitan planning organizations (MPOs) are then responsible for preparing a Sustainable Communities Strategy within their Regional Transportation Plan. The goal of the Sustainable Communities Strategy is to establish a forecasted development pattern for the region that, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets. If a Sustainable Communities Strategy is unable to achieve the GHG reduction target, an MPO must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to Government Code Section 65080(b)(2)(K), a sustainable communities strategy does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

In 2010, CARB adopted the SB 375 targets for the regional MPOs. The targets for SANDAG are a 7% reduction in emissions per capita by 2020 and a 13% reduction by 2035.

SANDAG completed and adopted its *2050 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) in October 2011. In November 2011, CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region.

After SANDAG's 2050 RTP/SCS was adopted, a lawsuit was filed by the Cleveland National Forest Foundation and others. The matter currently is pending before the California Supreme Court (Case No. S223603) for determination of whether an EIR for a regional transportation plan must include an analysis of the plan's consistency with the GHG reduction goals reflected in Executive Order No. S-3-05 to comply with CEQA.

SANDAG recently adopted the next iteration of its RTP/SCS in accordance with statutorily mandated timelines. More specifically, in October 2015, SANDAG adopted *San Diego Forward: The Regional Plan*. Like the 2050 RTP/SCS, this planning document meets CARB's 2020 and 2035 reduction targets for the region (SANDAG 2015). In December 2015, CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region.

Advanced Clean Cars Program. In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2011). To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, has adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34% in 2025. The Zero Emissions Vehicle (ZEV) program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018 to 2025 model years. The Clean Fuels Outlet regulation will ensure that fuels such as electricity and hydrogen are available to meet the fueling needs of the new advanced technology vehicles as they come to the market.

EO B-16-12. EO B-16-12 (2012) directs state entities under the Governor's direction and control to support and facilitate development and distribution ZEVs. This EO also sets a long-term target of reaching 1.5 million zero-emission vehicles on California's roadways by 2025. On a statewide basis, EO B-16-12 also establishes a GHG emissions reduction target from the transportation sector equaling 80% less than 1990 levels by 2050. In furtherance of this EO, the Governor convened an Interagency Working Group on Zero-Emission Vehicles that has published multiple reports regarding the progress made on the penetration of ZEVs in the statewide vehicle fleet.

AB 1236. AB 1236 (2015) as enacted in California's Planning and Zoning Law, requires local land use jurisdictions to approve applications for the installation of electric vehicle charging stations, as defined, through the issuance of specified permits unless there is substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill provides for appeal of that decision to the planning commission, as specified. The bill requires local land use jurisdictions with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that creates an expedited and streamlined permitting process for electric vehicle charging stations, as specified. Prior to this statutory deadline, in August 2016, the County Board of Supervisors adopted Ordinance No. 10437 (N.S.) adding a section to its County Code related to the expedited processing of electric vehicle charging stations permits consistent with AB 1236.

SB 350. In 2015, SB 350 – the Clean Energy and Pollution Reduction Act – was enacted into law. As one of its elements, SB 350 establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see Public Utilities Code section 740.12).

Renewable Energy and Energy Procurement

SB 1078. SB 1078 (2002) established the Renewable Portfolio Standard (RPS) program, which requires an annual increase in renewable generation by the utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20% of their power from renewable sources by 2010.

SB 1368. SB 1368 (2006) requires the CEC to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local publicly owned utilities. These standards must be consistent with the standards adopted by the California Public Utilities Commission (CPUC). This effort will help protect energy customers from financial risks associated with investments in carbon-intensive generation by allowing new capital investments in power plants whose GHG emissions are as low as or lower than new combined-cycle natural gas plants by requiring imported electricity to meet GHG performance standards in California and by requiring that the standards be developed and adopted in a public process.

SB X1 2. SB X1 2 (2011) expanded the RPS by establishing that 20 percent of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years be secured from qualifying renewable energy sources. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. In addition to the retail sellers previously covered by the RPS, SB X1 2 added local, publicly owned electric utilities to the RPS.

SB 350. SB 350 (2015) further expanded the RPS by establishing that 50% of the total electricity sold to retail customers in California per year by December 31, 2030 be secured from qualifying renewable energy sources. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal.

Water

EO B-29-15. In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives have since become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the California Department of Water Resources has modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

Solid Waste

AB 939 and AB 341. In 1989, AB 939, known as the Integrated Waste Management Act (Public Resources Code Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by the year 2000.

AB 341 2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle has conducted multiple workshops and published documents that identify priority strategies that CalRecycle believes would assist the state in reaching the 75 percent goal by 2020.

Increasing the amount of commercial solid waste that is recycled, reused, or composted will reduce GHG emissions primarily by 1) reducing the energy requirements associated with the extraction, harvest, and processing of raw materials and 2) using recyclable materials that require less energy than raw materials to manufacture finished products (CalRecycle 2015). Increased diversion of organic materials (green and food waste) will also reduce GHG emissions (CO_2 and CH_4) resulting from decomposition in landfills by redirecting this material to processes that use the solid waste material to produce vehicle fuels, heat, electricity, or compost.

Other State Regulations and Goals

EO S-13-08. EO Order S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs state agencies to take specified actions to assess and plan for such impacts. The final *2009 California Climate Adaptation Strategy* report was issued in December 2009 (CNRA 2009), and an update, *Safeguarding California: Reducing Climate Risk*, followed in July 2014 (CNRA 2014). To assess the state's vulnerability, the report summarizes key climate change impacts to the state for the following areas: Agriculture, Biodiversity and Habitat, Emergency Management, Energy, Forestry, Ocean and Coastal Ecosystems and Resources, Public Health, Transportation, and Water.

2015 State of the State Address. In January 2015, Governor Brown in his inaugural address and annual report to the Legislature established supplementary goals which would further reduce GHG emissions over the next 15 years. These goals include an increase in California's renewable energy portfolio from 33% to 50%, a reduction in vehicle petroleum use for cars and trucks by up to 50%, measures to double the efficiency of existing buildings, and decreasing emissions associated with heating fuels.

2016 State of the State Address. In his January 2016 address, Governor Brown established a statewide goal to bring per capita GHG emission down to two tons per person, which reflects the goal of the Global Climate Leadership Memorandum of Understanding (Under 2 MOU) to limit global warming to less than two degrees Celsius by 2050. The Under 2 MOU agreement pursues emission reductions of 80% to 95% below 1990 levels by 2050 and/or reach a per capita annual

emissions goal of less than two metric tons by 2050. A total of 135 jurisdictions representing 32 countries and six continents, including California, have signed or endorsed the Under 2 MOU (Under 2 2016).

Local

2050 Regional Transportation Plan

As described above, On October 28, 2011, the SANDAG Board of Directors adopted the 2050 RTP/SCS, which articulates future plans for San Diego's regional transportation system over the next 40 years. The SCS, which is included as part of the RTP, details the regional strategy for reducing GHG emissions to state-mandated levels over time as required by SB 375, including measures encouraging infill development. The San Diego region is the first in California to produce an RTP with a SCS.

Most recently, SANDAG prepared *San Diego Forward: The Regional Plan*, which has united two of SANDAG's major planning efforts into one with the next update of the RTP/SCS and an update of the Regional Comprehensive Plan (RCP) that was adopted in 2004. The updated RTP/SCS was adopted by the SANDAG Board of Directors on October 9, 2015.

City of Del Mar Climate Action Plan

On June 6, 2016, the City of Del Mar has adopted its Climate Action Plan (CAP) to reduce GHG emissions within the City in order to meet the State of California's goal as recommended in the AB 32 Scoping Plan of reducing GHG emissions to 1990 levels by 2020 (City of Del Mar 2016). It should be noted however that the City's CAP is not a certified GHG reduction plan and has not undergone CEQA review. The CAP states that it is an "aspirational document" and is not considered part of the City's General Plan or part of a regulatory program, therefore, information provided herein is provided for informational purposes. Reduction measures included in the CAP will undergo environmental review prior to implementation as necessary.

The CAP provides an update to the City's 2005 GHG inventory and provides GHG inventory projections for business-as-usual (BAU) and "adjusted" 2020 and 2030, which includes reductions from federal and state regulatory measures. In 2012, the City's communitywide GHG emissions totaled 55,855 MT CO_2E. In order to meet the state's long-term goal, the City would have to reduce its GHG emissions by 15% in 2020 to 47,477 MT CO_2E and 50% by 2035 to 27,928 MT CO_2E. As indicated in the CAP, the City's BAU GHG emissions would be 54,822 MT CO_2E in 2020 and 55,314 MT CO_2E in 2035. With reductions, the City is projected to emit 46,028 MT CO_2E in 2020 and 43,048 MT CO_2E in 2035. Thus, the City would need to reduce 15,120 MT CO_2E emissions below the adjusted BAU scenario in 2035 to meet the state-aligned target.

Reduction measures included in the CAP detail how the City can meet the GHG emissions target through implementation of goals, measures, and strategies. Each goal contains one or more proposed policies, programs, or projects indicating the City's commitment toward meeting the goal. The GHG reduction potential by 2020 and 2035 are identified for each goal. Goals are further divided into one or more discrete strategies that the City may take in achieving the goal. Strategies may be added or removed over time, depending on their relevancy, funding availability, and whether the strategies are successful in supporting measures as they are monitored over time. Each measure includes co-benefits which cover areas such as energy efficiency, water conservation, improved air quality, renewable energy and transportation.

City of Del Mar Community Plan

Following are the applicable goals, objectives, and policies from the Community Plan for the City of Del Mar (City of Del Mar 1976). There are no goals or policies in the Community Plan specifically related to GHG emissions.

Goal 1: Establish without delay a comprehensive program to preserve and acquire permanent open space sufficient to meet the long range needs of the community, preserve and enhance natural resources, and protect areas and people susceptible to seismic and flooding hazards.

Objective L: Reduce energy consumption and encourage material recycling.

Policy 1: Encourage the maximum feasible insulation in buildings.

Policy 2: Encourage energy efficient heating, lighting, and ventilation systems and discourage completely air-conditioned buildings in favor of buildings designed to maximize natural temperature regulating conditions (i.e., buildings with windows that open for ventilation).

Policy 3: Encourage an increased degree of energy self-sufficiency through such means as solar heating, particularly for swimming pools.

Policy 4: Establish and publicize a local recycling program for solid waste material.

Objective N: Support gasoline conservation activities such as car-pooling and public transportation.

Goal 2: Minimize the impact of automobiles on the character of Del Mar and emphasize a more pedestrian oriented environment, safer sidewalks, landscaped buffer zones, and alternate means of transportation.

Objective E: Minimize air pollution by encouraging alternatives to the use of the automobile.

Policy 1: Promote the reduction of vehicle-miles-traveled, thereby reducing congestion and reducing air and water pollution.

Policy 2: Educate the public as to the relationship between air pollution and water pollution in the deposition onto streets and other surfaces of airborne contaminants, including metals and fine particulate matter (PM_{10}).

4.6.3 Thresholds of Significance

The significance criteria used to evaluate the impacts to GHGs and climate change from Option A and Option B are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to GHG emissions would occur if Option A and Option B would:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

4.6.4 Impacts Analysis

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction Impacts

GHG emissions would be associated with the construction phase of Option A and Option B through use of construction equipment and vehicle trips. Emissions of GHGs were estimated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.1 (available online at www.caleemod.com).

For the purposes of estimating the emissions from Option A and Option B, it was assumed that construction would include the following subphases:

- Site preparation – 2 weeks
- Grading – 5 weeks
- Trenching – 4 weeks
- Building construction – 74 weeks

- Paving – 3 weeks
- Application of architectural coatings – 5 weeks

Total construction is expected to take approximately 2 years. The subphases listed above would overlap in some instances to meet this construction schedule. This overlap is accounted for in the construction emissions estimates, which are provided in **Appendix F** of this EIR. Construction of Option A would involve approximately 26,500 cubic yards of soil cut and 2,900 cubic yards of fill, resulting in 23,600 cubic yards of soil export. Construction of Option B would involve approximately 28,000 cubic yards of soil cut and 1,500 cubic yards of fill, resulting in 26,500 cubic yards of soil export. A more detailed description of the construction schedule, including information regarding subphases and equipment used during each subphase, is included in **Appendix F** of this EIR.

Construction worker and vendor trip assumptions were assigned to each construction subphase to determine criteria air pollutant emissions from these sources. Construction worker and vendor trips for construction were determined using CalEEMod default worker trip and vendor trip vehicle generation factors. Construction phasing would consist of parking structure construction, disturbed slope grading, residential structures over parking structure podium construction, and construction of the balance of the residential structures. Construction activities would take place within the limits of the construction hours identified in the City of Del Mar's Noise Regulations (City of Del Mar 1997).

The construction equipment mix was provided by the applicant and represents a reasonably conservative estimate of construction activity. Where project-specific construction equipment information was not available, CalEEMod default equipment mixes were used. For this analysis, it was generally assumed that heavy construction equipment would be operating at the site for approximately 8 hours per day, 5 days per week (22 days per month), during construction.

Table 4.6-2 shows the estimated annual GHG construction emissions associated with Option A and Option B. The estimated GHG emissions generated during the construction of Option A would result in approximately 510 MT CO_2E and Option B would be approximately 501 MT CO_2E.

Estimated annualized project-generated construction emissions would be approximately 17 MT CO_2E over a 30-year project life. However, since there is no established GHG threshold for construction, the evaluation of significance is discussed in the operational emissions analysis below. Per guidance from the South Coast Air Quality Management District (SCAQMD 2008), construction emissions are amortized over a 30-year period to account for the contribution of construction emissions over the lifetime of a project.

Table 4.6-2
Estimated Annual Construction Greenhouse Gas Emissions for Option A and Option B

Year	CO_2	CH_4	N_2O	CO_2E
	metric tons per year			
Option A (48 units) Estimated Emissions				
2019	87.82	0.02	0.00	88.30
2020	318.17	0.04	0.00	319.16
2021	102.08	0.01	0.00	102.38
Total Emissions	**508.07**	**0.07**	**0.00**	**509.84**
Option B (38 units) Estimated Emissions				
2019	83.74	0.02	0.00	84.22
2020	305.69	0.04	0.00	306.60
2021	110.03	0.01	0.00	110.34
Total Emissions	**499.46**	**0.01**	**0.00**	**501.16**

Source: Appendix F
CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2E = carbon dioxide equivalent

Operational Impacts

Operation of Option A and Option B would result in GHG emissions from vehicular traffic, area sources (e.g., natural gas combustion and landscaping), electrical generation, water supply, and solid waste as described below.

Area Sources

In addition to estimating mobile source emissions, CalEEMod was also used to estimate emissions from project area sources, including natural gas combustion for hearths and appliances, and landscape maintenance. Natural gas usage for Option A and Option B was based upon the CalEEMod default usage rates. Because the design of Option A and Option B does not include wood burning fireplaces, the default CalEEMod hearth data was updated to reflect no wood burning fireplaces. The CalEEMod default value for wood burning fireplaces and no fireplaces were allocated into the natural gas fireplaces input.

Electricity

Emissions from energy sources, which include natural gas appliances and space and water heating, were also estimated using CalEEMod. Default values for indoor and outdoor water use, solid waste generation, and natural gas consumption (through Title 24 and non-Title 24 natural gas energy intensities) were used for both Options. Option A and Option B are expected to meet the 2016 Title 24 standards, which requires that new residential development are required to achieve a 28% energy savings compared with 2013 Title 24 standards (CEC 2015).

As previously discussed, RPS requires energy providers to derive 33% of their electricity from qualified renewable sources by 2020. Therefore, the emissions factors for SDG&E was adjusted to take into account the procurement of renewable energy by SDG&E to meet the required 33% RPS procurement by 2020. Notably, utilization of the 2020 RPS value of 33% in CalEEMod is conservative for purposes of estimating the GHG emissions from both Options because SDG&E already achieved 35.2% in 2015 and the buildout year of 2022, a more restrictive RPS value would apply as SDG&E attempts to achieve the SB 350 requirement to achieve 50% RPS by 2030.

Vehicular Traffic

Option A and Option B would impact air quality through an increase in vehicular traffic generated by project residents and visitors. CalEEMod was utilized to estimate daily emissions from proposed vehicular sources (refer to Appendix A). CalEEMod default data, including temperature, trip characteristics, variable start information, vehicle mix, and emissions factors, were conservatively used for the model inputs. Emission factors representing the vehicle mix and emissions for 2022 (first year full buildout) were used to estimate emissions.

Solid Waste

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, transportation of waste, and disposal. Solid waste generation rates were estimated from CalEEMod Model, and GHG emissions from solid waste management were estimated using the model, assuming landfilling of solid waste with flaring. CalEEMod includes landfills with landfill gas flaring based on California default conditions. Municipal landfills within the San Diego region are required to utilize landfill gas collection systems as specified under SDAPCD Rule 59.1 and/or federal Clean Air Act regulation 40 CFR Part 60, Subpart WWW. Landfill gas is either flared or used in combustion turbines for electricity generation.

Consistent with the state's diversion rate goals set forth in AB 341, which requires that jurisdictions to achieve a 75% diversion rate by 2020, the City is aiming to exceed state requirements with CAP goals for waste diversion of 80% by 2020.

Water Supply and Wastewater

Water supplied to Option A and Option B requires the use of electricity. Accordingly, the supply, conveyance, treatment, and distribution of water would indirectly result in GHG emissions through use of electricity. Both Options would meet a 20% reduction in indoor water use is required per CALGreen and 25% reduction in outdoor water use is required per EO B-29-15.

Table 4.6-3 shows the operational GHG emissions associated with Option A and Option B.

Table 4.6-3
Estimated Annual Operational GHG Emissions for Option A and Option B

Emission Source	CO_2	CH_4	N_2O	CO_2E
	metric tons per year			
Option A (48 units) Estimated Emissions				
Area	38.39	0.00	0.00	38.63
Energy	162.14	0.01	0.00	162.94
Mobile	303.96	0.02	0.00	304.35
Waste	1.65	0.10	0.00	4.08
Water	13.77	0.09	0.00	16.60
Amortized Construction Emissions	—	—	—	16.99
Total Emissions	**519.91**	**0.22**	**0.00**	**543.59**
Option B (38 units) Estimated Emissions				
Area	30.39	0.00	0.00	30.58
Energy	152.67	0.01	0.00	153.42
Mobile	240.64	0.01	0.00	240.95
Waste	1.42	0.08	0.00	3.51
Water	11.02	0.07	0.01	13.29
Amortized Construction Emissions	—	—	—	16.71
Total Emissions	**436.14**	**0.17**	**0.01**	**458.46**

Source: Appendix F
Notes: These estimates reflect compliance with 2016 Title 24 standards requiring residential to be 28% more efficient than 2013 standards, compliance with CALGreen and EO B-29-15 (20% indoor and 25% outdoor reduction in water consumption), and compliance with City's goal of 80% waste diverted.
CH_4 = methane; CO_2 = carbon dioxide; CO_2E = carbon dioxide equivalent; N_2O = nitrous oxide

As shown in Table 4.6-3, estimated annual project-generated GHG emissions in addition to amortized construction emissions would be approximately 544 MT CO_2E per year for Option A and approximately 458 MT CO_2E for Option B. Emissions from both Option A and Option B would be below the CAPCOA's 900 MT CO_2E screening threshold. As such, impacts would be **less than significant**.

b) Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As previously discussed, the City's CAP is not a qualified CAP, therefore consistency is provided for informational purposes only. The City's CAP is a long-range plan to reduce GHG emissions from communitywide activities within the City and would also prepare the City from the impending effects of climate change. The City is committed to reducing its GHG emissions by 15% below 2012 levels by 2020 and 50% below 2012 levels by 2035, consistent with AB 32 and the State's GHG emission reduction goals. In order to reduce citywide GHG emissions,

the CAP identifies a series of reduction measures or strategies, which will guide the City in several key focus areas (energy and buildings, water and waste, transportation, and urban tree planting). A project that would implement any of the CAP reduction measures applicable to residential development would assist in achieving attainment of the CAP's goals for the City as a whole and therefore would not conflict with the CAP.

Accordingly, the GHG emissions from both Option A and Option B are less than the 900 MT CO_2E screening threshold, which demonstrates compliance with the CAP. Measures applicable to both Options include compliance with green building standards identified in Title 24, reduced indoor and outdoor water consumption, and diversion of construction debris. Both Options would comply with these GHG reduction measures. Other measures outlined within the CAP would not be directly applicable to both Options and are intended for the City to implement. Therefore, Option A and Option B would not conflict with the City's CAP.

In 2014, CARB adopted the First Update to the Climate Change Scoping Plan: Building on the Framework (First Update). The stated purpose of the First Update is to "highlight California's success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050." The First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32, and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80% below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals. In 2017, CARB released the 2017 Climate Change Scoping Plan Update (Scoping Plan Second Update) for public review and comment (CARB 2017c). This update to the scoping plan proposes the CARB's strategy for achieving the state's 2030 GHG target, including continuing the cap-and-trade program through 2030, and includes a new approach to reduce GHGs from refineries by 20 percent.

The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009). Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., LCFS), among others. While state regulatory measures would ultimately reduce GHG emissions associated with Option A and Option B through their effect on these sources, no statewide plan, policy, or regulation would be specifically applicable to reductions in GHG emissions from Option A and Option B.

Regarding consistency with SB 32 (goal of reducing GHG emissions to 40% below 1990 levels by 2030) and EO S-3-05 (goal of reducing GHG emissions to 80% below 1990 levels by 2050), there are no established protocols or thresholds of significance for that future year analysis. However, CARB forecasts that compliance with the current Scoping Plan puts the State on a trajectory of meeting these long-term GHG goals (CARB 2017c). As discussed previously, GHG emissions from Option A and Option B would not exceed the 900 MT CO_2E screening level referenced in the CAPCOA white paper, therefore, Option A and Option B would not conflict with the state's trajectory toward future GHG reductions. Additionally, because the specific path to compliance for the state with regards to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional reductions in GHG emissions from Option A and Option B would be speculative and cannot be identified at this time. With respect to future GHG targets under SB 32 and Executive Order S-3-05, CARB has also made clear its legal interpretation that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet the reduction targets in 2030 and in 2050; this legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the state on its trajectory toward meeting these future GHG targets.

At the regional level, SANDAG's RTP/SCS has been adopted for the purpose of reducing GHG emissions attributable to passenger vehicles in the San Diego region. CARB has recognized that the approved RTP/SCS is consistent with SB 375 (CARB 2015). SANDAG recently adopted the next iteration of its RTP/SCS in accordance with statutorily-mandated timelines. More specifically, in October 2015, SANDAG adopted *San Diego Forward: The Regional Plan*. Like the 2050 RTP/SCS, this planning document meets CARB's 2020 and 2035 reduction targets for the region. While the RTP/SCS does not regulate land use or supersede the exercise of land use authority by SANDAG's member jurisdictions (i.e., the City), the RTP/SCS is a relevant regional reference document for purposes of evaluating the intersection of land use and transportation patterns and the corresponding GHG emissions. The RTP/SCS is not directly applicable to Option A and Option B because the underlying purpose of the RTP/SCS is to provide direction and guidance on future regional growth (i.e., the location of new residential and non-residential land uses) and transportation patterns throughout San Diego County, as stipulated under SB 375. Nevertheless, because Option A and Options B are an infill development project, it supports the overarching intent of the RTP/SCS by avoiding sprawling development patterns.

Based on the preceding considerations, Option A and Option B would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions and impacts would be **less than significant**.

4.6.5 Mitigation Measures

All impacts would be less than significant and no mitigation is required.

4.6.6 Level of Significance After Mitigation

No mitigation is required and all impacts would remain less than significant.

4.6.7 References

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4.7 HAZARDS AND HAZARDOUS MATERIALS

This section describes the existing hazards and hazardous materials setting of the proposed Watermark Del Mar Specific Plan (WDMSP) Option A and Option B, and analyzes impacts related to hazards and hazardous materials. This section is based on the Phase 1 Environmental Site Assessment (ESA) for Assessor's Parcel Numbers 299-100-47 and 299-100-48 (Phase 1 ESA), dated April 2014, and prepared by Kleinfelder Inc. The complete Phase 1 ESA, including all citations and references, is attached as **Appendix J** of this environmental impact report (EIR).

4.7.1 Existing Conditions

General Site Conditions

The proposed project site consists of approximately 2.37 acres of presently vacant land. The northern, eastern, and northwestern portions of the proposed project site consist of relatively flat terrain with little vegetation. The southwestern portion consists of a graded plateau area. The remaining portions of the site, generally the southern and southeastern portions, consist of a steep slope (bluff) and are heavily vegetated.

Site History

Based on a review of available historic maps and aerial photographs, the site appears to historically have been part of a lagoon at the mouth of the San Dieguito River in 1904. Maps and photographs from 1939, 1953, 1966, and 1974 indicate that the site remained vacant throughout that time period (see **Appendix D**). During those years, the northern portion of the site appeared to be flat and unpaved. The remaining areas appeared to be situated on a slope and covered with vegetation. Photographs from 1966 through the mid-70's indicate substantial clearing of vegetation and grading on the western portion of the site. More recently, beyond minor clearing of vegetation, the site has remained relatively physically unchanged through the present. The proposed project site has been used periodically for parking from the nearby Del Mar Fairgrounds since at least 2009.

Site Investigation

Kleinfelder Inc. performed a site reconnaissance on April 14, 2014. The site reconnaissance included a visual inspection of the proposed project site to assist in identifying the presence or likely presence of hazardous substances or petroleum hydrocarbons under conditions that indicate an existing release, a past release, or threat of release into soil, groundwater, or surface water. The report of these findings is the Phase 1 ESA, included as **Appendix J** of this document.

Government Record Search

The Phase 1 ESA included a database search to identify any instances of use, generation, treatment, or disposal of hazardous materials and chemicals, or incidences of the release of such materials that may impact the environment of the proposed project site. The project site was not reported to be listed in any federal or state records of contaminated sites.

Airport Hazards

The closest airport to the proposed project site is McClellan–Palomar Airport, located at 2192 Palomar Airport Road in Carlsbad, California, more than 10 miles north of the project site. The airport, owned and operated by the County of San Diego, is primarily used for private aviation, although there are regularly scheduled commercial flights to Los Angeles International Airport. The McClellan–Palomar Airport Land Use Compatibility Plan was prepared according to Federal Aviation Administration requirements and adopted by the County Regional Airport Authority, acting as the Airport Land Use Commission for the County of San Diego. The McClellan–Palomar Airport Land Use Compatibility Plan provides measures to minimize the public's exposure to excessive noise and safety hazards within areas around the airport, and identifies areas likely to be impacted by noise and flight activity created by aircraft operations at the airport. The proposed project site is not located within the McClellan–Palomar Airport Safety Zone.

Fire Hazards

Calculation of threat from wildfire hazard is based on factors such as fuel loading (vegetation), topography, and climatic conditions, including wind, humidity, and temperature, as well as the proximity of structures and urban development to fire hazards. Wildland fire hazards are most pronounced in rural/urban interface areas, or where urban development is located close to open space areas where vegetation serves as fuel. Generally, the periods of greatest risk for wildland fire are late summer and early fall, when vegetation is at its driest. Human activity, including residential and agricultural burning, careless disposal of cigarettes, campfires, and use of fireworks, can all trigger fires. Natural causes such as lightning strikes may also start fires.

The California Department of Forestry and Fire Prevention (CalFire) identifies areas in California along the urban/wildland interface that are considered to be areas of acute fire hazard. The CalFire Very High Fire Hazard Severity Zones (VHFHZ) Map defines fire hazard as a measure "based on the physical conditions that give a likelihood that an area will burn over a 30- to 50-year period without considering modifications such as fuel reduction." Rather than quantifying a range of fire hazard ranks, CalFire identifies only areas of extreme fire hazard in areas served by local fire protection services; all other areas are labeled as "non-VHFHZ." The VHFHZ Map for Del Mar identifies the proposed project site as non-VHFHZ. The nearest VHFHZ area is approximately 0.25 mile south and east of the proposed project site.

Emergency Response Plan

Emergency services in Del Mar are provided by the City of Del Mar Fire Department and the County of San Diego Sherriff's Department under contract with the City of Del Mar. Large-scale emergency management and disaster response are coordinated under the County of San Diego Emergency Operations Plan (2014). The County Emergency Operations Plan identifies protocol for coordinating resources within the San Diego County Operations Area, which includes city jurisdictions within San Diego County and unincorporated areas.

4.7.2 Relevant Plans, Policies, and Ordinances

Federal Regulations

The Federal Toxic Substances Control Act of 1976 and Resource Conservation and Recovery Act of 1976

The Federal Toxic Substances Control Act of 1976 and the Resource Conservation and Recovery Act established a program administered by the Environmental Protection Agency for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. The Resource Conservation and Recovery Act was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle-to-grave" system of regulating hazardous wastes. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by the Hazardous and Solid Waste Act (EPA 2015a).

The Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as "Superfund," was enacted by Congress on December 11, 1980. This law provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enabled revision of the National Contingency Plan. The National Contingency Plan provides guidelines and procedures to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The National Contingency Plan also established the National Priorities List, which is a list of contaminated sites warranting further investigation by the Environmental Protection Agency. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986 (EPA 2015b).

State Regulations

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) implements and enforces a statewide hazardous materials program that was established by Senate Bill 1802 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs for hazardous materials:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control, and Countermeasure Plans
- Hazardous Waste Generator and On-Site Hazardous Waste Treatment Programs
- California Uniform Fire Code, Hazardous Materials Management Plans, and Hazardous Material Inventory Statements

California Hazardous Waste Control Law

The California Hazardous Waste Control Law is administered by CalEPA to regulate hazardous wastes. Although the Hazardous Waste Control Law is generally more stringent than the Resource Conservation and Recovery Act, until the Environmental Protection Agency approves the California Hazardous Waste Control Program (which is charged with regulating the generation, treatment, storage, and disposal of hazardous waste), both the state and federal laws apply in California. The Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

The California Code of Regulations (CCR) provides the following definition for hazardous waste: waste that may (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness, or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of or otherwise managed (22 CCR 66261.10).

According to Title 22 of the California Code of Regulations, substances having a characteristic of toxicity, ignitability, corrosivity, or reactivity are considered hazardous waste. Hazardous wastes are hazardous substances that no longer have a practical use, such as material that has been abandoned, discarded, spilled, or contaminated, or is being stored prior to proper disposal.

Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability or death. For example, toxic substances can cause eye or skin irritation, disorientation, headache, nausea, allergic reactions, acute poisoning, chronic illness, or other adverse health effects if human exposure exceeds certain levels (the level depends on the substance involved). Carcinogens (substances known to cause cancer) are a special class of toxic substances. Examples of toxic substances include most heavy metals, pesticides, and benzene (a carcinogenic component of gasoline). Ignitable substances (e.g., gasoline, hexane, and natural gas) are hazardous because of their flammable properties. Corrosive substances (e.g., strong acids and bases such as sulfuric (battery) acid or lye) are chemically active and can damage other materials or cause severe burns on contact. Reactive substances (e.g., explosives, pressurized canisters, and pure sodium metal, which reacts violently with water) may cause explosions or generate gases or fumes.

Other types of hazardous materials include radioactive and biohazardous materials. Radioactive materials and wastes contain radioisotopes, which are atoms with unstable nuclei that emit ionizing radiation to increase their stability. Radioactive waste mixed with chemical hazardous waste is referred to as "mixed wastes." Biohazardous materials and wastes include anything derived from living organisms. They may be contaminated with disease-causing agents, such as bacteria or viruses (22 CCR 66261.10).

The Hazardous Materials Release Response Plans and Inventory Law of 1985

This act, also known as the Business Plan Act, requires that any business that handles hazardous materials prepare a business plan that include details, including floor plans, of the facility and business conducted at the site, an inventory of hazardous materials that are handled or stored on the site, an emergency response plan, a training program in safety procedures and emergency response for new employees, and an annual refresher course in the same topics for all employees.

California Accidental Release Prevention Program

Similar to the Federal Risk Management Program, the California Accidental Release Prevention Program includes additional state requirements and an additional list of regulated substances and thresholds. The regulations of the program are contained in CCR, Title 19, Division 2, Chapter 4.5. The intent of the California Accidental Release Prevention Program is to provide first responders with basic information to prevent or mitigate damage to public health, safety, and the environment from the release or threatened release of hazardous materials.

California Department of Toxic Substances Control and California Highway Patrol

The California Department of Toxic Substances Control (DTSC) administers the transportation of hazardous materials throughout the state. Regulations applicable to the transportation of hazardous waste include CCR Title 22, Division 4.5, Chapters 13 and 29, and Division 20, Chapter 6.5, Articles 6.5, 6.6, and 13 of the California Health and Safety Code (DTSC 2007). The DTSC requires that drivers transporting hazardous wastes obtain a certificate of driver training that shows the driver has met the minimum requirements concerning the transport of hazardous materials, including proper labeling and marking procedures, loading/handling processes, incident reporting and emergency procedures, and appropriate driving and parking rules. The California Highway Patrol also requires shippers and carriers to complete hazardous materials employee training before transporting hazardous materials.

California Health and Safety Code

In California, the handling and storage of hazardous materials is regulated by Division 20, Chapter 6.95 of the California Health and Safety Code. Under Sections 25500–25543.3, facilities handling hazardous materials are required to prepare a Hazardous Materials Business Plan. Hazardous Materials Business Plans contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state.

Chapter 6.95 of the Health and Safety Code establishes minimum statewide standards for Hazardous Materials Business Plans. Each business must prepare a Hazardous Materials Business Plan if that business uses, handles, or stores a hazardous material (including hazardous waste) or an extremely hazardous material in disclosable quantities greater than or equal to the following:

- 500 pounds of a solid substance
- 55 gallons of a liquid
- 200 cubic feet of compressed gas
- A hazardous compressed gas in any amount (highly toxic with a threshold limit value of 10 parts per million or less)
- Extremely hazardous substances in threshold-planning quantities

In addition, in the event that a facility stores quantities of specific acutely hazardous materials above the thresholds set forth by the California Health and Safety Code, facilities are also required to prepare a Risk Management Plan and California Accidental Release Plan. The Risk Management Plan and Accidental Release Plan provide information on the potential impact zone of a worst-case release, and require plans and programs designed to minimize the probability of a release and mitigate potential impacts.

California Occupational Safety and Health Administration

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR 337–340). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings.

Safe Drinking Water and Toxic Enforcement Act 1986

Pursuant to the Safe Drinking Water and Toxic Enforcement Act of 1986, California Health Screening Levels were developed by the Office of Environmental Health Hazard Assessment. The act identifies the concentration of hazardous chemicals in soil or soil gas that CalEPA considers to cause cancer or reproductive toxicity. The thresholds of concern are an excess lifetime cancer risk of 1 in 1 million, and a hazard quotient of 1.0 for non-cancer health effects. The California Health Screening Levels are used to screen sites for potential human health concerns where hazardous chemicals have been released into the soil (CalEPA 2010).

Emergency Services Act

Under the Emergency Services Act, California developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an integral part of the plan, which is administered by the Governor's Office of Emergency Services. The Office of Emergency Services coordinates the responses of other agencies, including the Environmental Protection Agency, California Highway Patrol, Regional Water Quality Control Boards, air quality management districts, and county disaster response offices (OES 2015).

Emergency Planning Community Right to Know Act

The Emergency Planning Community Right to Know Act requires facilities to disclose quantities and types of toxic chemicals stored to the state and local emergency planning committees. To avoid multiple reports to various agencies, the California Health and Safety Code requires notification of chemical inventory to the administering agency, which is the DTSC. Notification of chemical inventory is accomplished through completion of the Hazardous Materials Business Plan and inventory (EPA 2016).

Hazardous Materials Worker Safety

Cal/OSHA and the federal Occupational Safety and Health Administration are the agencies responsible for ensuring worker safety by developing and enforcing workplace safety regulations in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR 337–340). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings.

Local Regulations

County of San Diego Department of Environmental Health

The Hazardous Materials Division of the Department of Environmental Health regulates hazardous waste and tiered permitting, underground storage tanks, aboveground petroleum storage and risk management plans, hazardous materials business plans and chemical inventory, risk management plans, and medical waste. The Hazardous Materials Division's goal is "to protect human health and the environment by ensuring that hazardous materials, hazardous waste, medical waste, and underground storage tanks are properly managed" (County of San Diego 2016).

County of San Diego Consolidated Fire Code

The San Diego region is unique within California in having fire protection districts within its boundaries. For the purposes of prescribing regulations in the unincorporated area of San Diego County, the applicable fire code is known as the County Fire Code and includes the Consolidated Fire Code and adopts, by reference, the most current version of the California Fire Code (24 CCR, Part 9). The County Consolidated Fire Code consists of local fire protection district ordinances that modify the fire code portion of the State Building Standards Code, and any San Diego County modification to the fire districts' amendments. The purpose of the County Consolidated Fire Code is to protect public health and safety, which includes permit and inspection requirements for the installation, alteration, and repair of new and existing fire protection systems, and penalties for violations of the County Fire Code. The County Fire Code provides the minimum requirements for access, water supply and distribution, construction type, fire protection systems, and vegetation management. Additionally, the County Fire Code regulates hazardous materials and associated measures to ensure that public health and safety are protected from incidents to hazardous substance release.

California Environmental Protection Agency's Unified Program

In 1993, Senate Bill 1082 gave CalEPA the authority and responsibility to establish a unified hazardous waste and hazardous materials management and regulatory program, commonly referred to as the Unified Program. The purpose of this program is to consolidate and coordinate six hazardous materials and hazardous waste programs and ensure that they are consistently implemented throughout the state. The Unified Program is overseen by CalEPA with support from the DTSC, the Regional Water Quality Control Boards, the Office of Emergency Services, and the State Fire Marshal.

State law requires county and local agencies to implement the Unified Program. The agency in charge of implementing the program is called the Certified Unified Program Agency. The County Department of Environmental Health, Hazardous Materials Division is the designated Certified Unified Program Agency for San Diego County. In addition to the Certified Unified Program Agency, other local agencies help to implement the Unified Program. These agencies are called Participatory Agencies. The Hazardous Materials Division is the Participatory Agency for Del Mar.

San Diego County Multi-Jurisdictional Hazard Mitigation Plan

Long-term prevention, mitigation efforts, and risk-based preparedness for specific hazards within Del Mar are addressed as a part of the 2010 San Diego County Multi-Jurisdictional Hazard Mitigation Plan (HAZMIT), which was finalized in February 2010. The HAZMIT identifies specific risks for San Diego County, and provides methods to help minimize damage from natural and human-caused disasters. The final list of hazards profiled for San Diego County was determined to be wildfire/structure fire, flood, coastal storms/erosion/tsunami, earthquake/liquefaction, rain-induced landslide, dam failure, hazardous materials incidents, nuclear materials release, and terrorism. Currently, the City of Del Mar is in the process of updating its mitigation strategies and action programs within the HAZMIT. The County Office of Emergency Services is responsible for coordinating with local jurisdictions and participating agencies to monitor, evaluate, and update the HAZMIT, as necessary.

4.7.3 Thresholds of Significance

The significance criteria used to evaluate impacts to hazards and hazardous materials from Option A and Option B are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hazards and hazardous materials would occur if either Option would:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.

d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as result, would it create a significant hazard to the public or the environment.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.

f) For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

4.7.4 Impacts Analysis

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Option A and Option B would involve construction of a residential development consisting of 48 or 38 dwelling units, respectively, and ancillary facilities including a recreation room, a pool, a spa area, and associated maintenance and administrative facilities. Construction equipment accessing the site would use hazardous and/or flammable materials including diesel fuel, gasoline, and other oils and lubricants; however, the use, storage, transport, and disposal of these materials would be required to comply with all existing local, state, and federal regulations intended to minimize the risk of hazardous material release. Operation of Option A or Option B would not include any uses that would require the transport, handling, or disposal of hazardous materials, other than typical household and landscaping materials, which are also subject to existing state and federal regulations intended to minimize the risk of hazardous material release. The types and quantities of these common household chemicals would not be substantial and would not pose a health risk to residents of Option A or Option B facilities, or any adjacent uses. Impacts under both Options would be **less than significant**.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction equipment accessing the site would use hazardous and/or flammable materials, including diesel fuel, gasoline, and other oils and lubricants. During construction of either Option, there is the potential for the short-term use of hazardous materials/fuels; however, the use, storage, transport, and disposal of these materials would be required to comply with all existing local, state, and federal regulations governing construction activities, including the California Building Code and Title 23 (Building Construction) of the City of Del Mar Municipal Code. Operation of Option A or Option B would not include any uses that would require the transport, handling, or disposal of hazardous materials, other than typical household and landscaping materials. The types and quantities of these common household chemicals would not be substantial and would not pose a health risk to residents of Option A or Option B, or any adjacent uses. Hazardous materials used during construction and operation of Option A or Option B would be subject to applicable local, state, and federal regulations intended to minimize risk of hazards and hazardous materials release. In addition, the proposed project site is not listed in any Cortese list databases; therefore, it is not expected that grading, excavation, or construction activities would result in the release of hazardous materials associated with contaminated soils or underground tanks. Therefore, Option A or Option B would not result in conditions leading to any reasonably foreseeable upset or accident involving the release of hazardous materials. Impacts under both Options would be **less than significant.**

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The proposed project site is not located within 0.25 mile of any existing or proposed school. The nearest schools to the proposed project site are Winston School of San Diego, located at 215 9th Street, and Del Mar Hills Elementary School, located at 14085 Mango Drive. Both schools are located greater than 1 mile from the proposed project site. Option A and Option B would result in **no impact**.

d) Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as result, would it create a significant hazard to the public or the environment?

Kleinfelder Inc. completed a Phase 1 ESA of the project site in April 2014 (**Appendix J**) that includes a records search for any hazardous materials sites listed under Government Code Section 65962.5. The records search did not identify any on- or off-site listings that would pose a significant hazard to the public or environment. Option A and Option B would, therefore, result in **no impact.**

e) Would the project be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area?

The closest airport to the proposed project site is McClellan–Palomar Airport, located at 2192 Palomar Airport Road in Carlsbad, California, more than 10 miles north of the project site. Option A or Option B would not be located within 2 miles of any airport and would not result in a safety hazard for people residing or working the area as a result of airport operations. Option A and Option B would, therefore, result in **no impact**.

f) Would the project be located within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?

The nearest private airstrip to the project site is the Lyall-Roberts Airport located at Lyall Roberts Orchards, 15524 Highway 76 in Escondido, California, approximately 45 miles from the project site. Option A and Option B would not result in a safety hazard for people residing or working in the area as a result of operations related to any airstrip. Therefore, Option A and Option B would result in **no impact**.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The County of San Diego Emergency Operations Plan, Annex Q: Evacuation, identifies Interstate 5 as a primary regional evacuation route for San Diego County, and identifies Jimmy Durante Boulevard as a primary evacuation route for the community of Del Mar. Jimmy Durante Boulevard connects the community of Del Mar to Interstate 5 by way of Via De La Valle, north of the project site. The proposed project site is located on the southeast corner of the intersection of Jimmy Durante Boulevard and San Dieguito Drive. As indicated in the Option A and Option B floorplans and Section 4.12, Traffic and Circulation, Option A and Option B would be accessed by a single driveway with a curb cut on San Dieguito Drive. Option A and Option B would not result in any substantial changes to San Dieguito Drive that could impede use of that roadway as an evacuation route or physically interfere with the operations outlined in the adopted emergency plan. Impacts under both Options would be **less than significant.**

h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

According to CalFire, urban and suburban areas in proximity to undeveloped wildlands face a greater fire hazard than those in cities and towns. The CalFire VHFHZ Map defines "fire hazard" as a measure "based on the physical conditions that give a likelihood that an area will burn over a 30- to 50-year period without considering modifications such as fuel reduction." Rather than

quantifying a range of fire hazard ranks, CalFire identifies only areas of extreme fire hazard in the VHFHZ map for areas served by local fire protection services, all other areas are labeled as "non-VHFHZ." The VHFHZ Map for the City of Del Mar identifies the project site as non-VHFHZ. The nearest VHFHZ area is approximately 0.25 mile south and east of the proposed project site.

Both Options would be subject to review by the City of Del Mar for compliance with all applicable provisions contained within the California Fire Code and the California Building Code as adopted by the City of Del Mar. Because the project site is not identified by CalFire to be within a VHFHZ, and because both Options would be required to conform to all applicable fire and building code regulations, Option A or Option B would not expose people or structures to substantial risk related to wildland fires, and would result in an impact that is **less than significant** under both Options.

4.7.5 Mitigation Measures

No significant impacts have been identified under either Option; therefore, no mitigation measures are required.

4.7.6 Level of Significance After Mitigation

No significant impacts have been identified under either Option; therefore, no mitigation measures are required.

4.7.7 References

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4.8 HYDROLOGY AND WATER QUALITY

This section provides a summary of the existing hydrologic conditions and water quality on site and in the receiving waters of the proposed Watermark Del Mar Specific Plan (WDMSP) Option A and Option B site. In addition, this section includes regulatory requirements of individual and combined impacts to water resources from implementation of Option A or Option B. Information in this section is based on content within the Community Plan, research of facilities utilized by the City, as well as the reports titled Priority Development Project Storm Water Management Plan (SWMP) for Watermark Del Mar 48 Units and 38 Units, both were prepared by Tory R. Walker Engineering (June 2017). These report can be found in **Appendix H** of this environmental impact report (EIR).

4.8.1 Existing Conditions

4.8.1.1 Watershed

The proposed project site is located within the San Dieguito Hydrological Unit, which is one of the 11 hydrological units established within the San Diego Basin. The San Dieguito Hydrologic Unit is divided into five hydrologic areas, and the project site is within the Solana Beach Hydrologic Area and further classified as the Rancho Santa Fe Hydrologic Subarea. The project site is located adjacent to the San Dieguito Lagoon and Slough, which is fed by the San Dieguito River. The San Dieguito River is one of the largest rivers in San Diego County and flows from its headwaters at Volcan Mountain, north of Julian, to Lake Hodges where it is impeded by a dam. Runoff below the dam, and intermittent overflow of the dam spillway, flows to the San Dieguito Slough and Lagoon, discharging to the Pacific Ocean at the mouth of the lagoon.

The San Dieguito River watershed is a drainage area of approximately 346 square miles. The watershed includes portions of the cities of Del Mar, Escondido, Poway, San Diego, and Solana Beach, and unincorporated San Diego County. The San Dieguito River is approximately 56 miles long, with an average gradient of 0.018. Three tributaries join the San Dieguito River below the dam, and two additional small drainages empty directly into the lagoon basin. San Dieguito River flow is intermittent, and the riverbed upstream of tidal influence is often dry.

On average, coastal areas in San Diego County receive 10 inches of rainfall per year. Higher elevations within the watershed receive up to 30 inches of rainfall on average per year. The majority of the rainfall at higher elevations is intercepted by Lake Sutherland and Lake Hodges Reservoirs during years of average rainfall. In consecutive years of high rainfall, flooding of the San Dieguito River below Lake Hodges may occur (Dudek 2006).

A portion of the project site along the base of the bluff and abutting San Dieguito Drive is coastal brackish marsh. The coastal brackish marsh is discontinuous with the nearby lagoon, and perennial standing water appeared to be sustained by groundwater seepage. Standing water up to a few

inches in depth had previously been observed along the shoulder of the southwest side of San Dieguito Drive (Dudek 2006). The pooled water observed on the shoulder of the southwest side of San Dieguito Drive extended into the south lane and gradually flowed southeast on relatively flat terrain. However, in 2012 the City approved the San Dieguito Vector Habitat Grading and Drainage Rehabilitation Project, which constructed a localized drainage system to capture groundwater and nuisance water on San Dieguito Drive. The pipelines were installed in the southeast portion of San Dieguito Drive within the City's existing road right-of-way.

4.8.1.2 Water Quality and Drainage

Water quality refers to the effect of natural and human activities on the composition of water. Water quality is expressed in terms of measurable physical and chemical qualities that can be degraded by urban runoff, illicit discharges, and even planned water use. It is generally agreed that urban runoff transported by municipal stormwater conveyance systems is one of the principal causes of water quality problems in most urban areas. Stormwater that accumulates on impervious surfaces, such as parking lots, roof tops, and streets, drains directly and indirectly to waters of the United States, as defined by 33 Code of Federal Regulations, Section 328.3.

According to the Water Quality Control Plan for the San Diego Basin, beneficial uses for the San Dieguito Hydrologic Unit include municipal and domestic supply, agricultural supply, and industrial services supply. The beneficial uses for the San Dieguito River are municipal and domestic supply, agricultural supply, industrial service supply, freshwater replenishment, water contact recreation, water non-contact recreation, warm freshwater habitat, cold freshwater habitat, wildlife habitat and spawning, reproduction, and/or early development. The San Dieguito Lagoon and Slough is composed of sub-tidal and intertidal transition between the San Dieguito River and the Pacific Ocean. The lagoon serves as critical wetland habitat, and the beneficial uses are water contact recreation I and II; preservation of biological habitats of special significance; estuarine habitat; wildlife habitat; preservation of rare, threatened, or endangered species; marine habitat; migration of aquatic organisms; and spawning reproduction and/or early development. The Pacific Ocean at the mouth of the San Dieguito River is listed as a 303(d)-impaired water body for elevated coliform bacteria. In the absence of a comprehensive watershed planned effort, large-scale future development may exasperate current water quality problems and create additional beneficial use impairments. The San Dieguito Lagoon is especially sensitive to the effects of pollutants and oxygen depletion due to restricted or intermittent tidal flushing (Project Clean Water 2015).

4.8.1.3 Groundwater

Groundwater is water found below the land surface in aquifers, pore spaces, and unconsolidated sediments, and as soil moisture. Groundwater flows to the surface naturally at springs and seeps, and can pool in depressions on the land surface. It may also be tapped artificially by digging

wells for beneficial uses such as drinking water and irrigation. The depth, or groundwater level, is dependent on numerous factors, but includes type and depth of bedrock and proximity to streams, wetlands, and other water bodies.

The San Dieguito River Valley is underlain by shallow unconsolidated alluvium that has been transported and deposited by the river. The alluvium is of Quaternary age (<1.65 million years before present), and consists of gravel, sand, silt, and clay-size deposits. The river alluvium is underlain by the Tertiary age (1.63–1.65 million years before present) marine and sedimentary rocks known as the Delmar Formation and Torrey Sandstone Formation (Izbicki 1983). The average direction of groundwater flow through the San Dieguito River Valley is to the southwest toward the Pacific Ocean.

A Preliminary Geologic Hazard Evaluation (**Appendix G**) was completed for the proposed project site on September 24, 2012, by Christian Wheeler Engineering. Per the Geologic Hazard Evaluation, groundwater was encountered within the exploratory borings at approximate depths of 5.5 to 11 feet below existing site grades. These depths correspond to approximate elevations of 1.5 to 7 feet (elevations based on Bokal & Sneed 2012, as cited in **Appendix G**). Additionally, wet to saturated conditions were encountered within the lower portions of the alluvium within test trenches (T-4 and T-5) at approximate elevations of 7 and 9 feet, respectively. Due to the proximity of the site to the San Dieguito Lagoon and River, variations in the local groundwater table may be expected with tidal fluctuations. Ponded surface water was also noted several times during the site visits conducted between May and August 2012 along the street, adjacent to San Dieguito Road, and also along the base of the relatively steep slope along the eastern and northeast portions of the project site.

A 25-foot-deep piezometer was installed within the resultant borehole from exploratory boring B-1. **Table 4.8-1** presents the results of the monitoring of the groundwater level in the borehole over an approximately 1-month period.

Table 4.8-1
Piezometer Monitoring Data

Date of Measurement	Surface Elevation (feet)	Measured Depth to Water (feet)	Measured Elevation of Water (feet)
05/29/12	12.0	10.50	1.50
06/07/12	12.0	10.17	1.83
06/15/12	12.0	10.33	1.67
06/21/12	12.0	10.17	1.83
06/28/12	12.0	10.33	1.67

Source: Appendix G

Groundwater quality within the alluvial aquifer is generally poor and has been intruded by seawater and water from marine sedimentary rocks (Izbicki 1983). The project site is situated over an area of this aquifer, which contains sodium chloride and dissolved solids that are in excess of 5,000 milligrams per liter.

4.8.1.4 Flooding and Inundation

According to the City of Del Mar Zoning Map, the project site is not located within the Floodway (FW) Zone (SANDAG 2001). However, the project site is located within the City of Del Mar's Lagoon Overlay Zone, and development on this site would require a Floodplain Development Permit from the City prior to construction. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps identifies flood zones and areas that are susceptible to 100-year and 500-year floods (**Figure 4.8-1**). The most northern portion of the project site is identified by FEMA as an area located within the special flood hazard area subject to inundation by the 1% annual chance flood. The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. This northern portion of the project site is located in Zone AE, where base flood elevations have been determined. Additionally, a central portion of the project site is identified by FEMA as Zone X (other flood areas), which has areas of 0.2% annual flood, areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood (FEMA 2012, Map No. 06073C1307G).

The existing project site drains via overland flow to the curb and gutter located in the adjacent San Dieguito Drive north of the project site. Flows are then intercepted by an existing curb inlet located at the intersection of San Dieguito Drive and Jimmy Durante Boulevard. The curb inlet conveys runoff to an existing storm drain outlet that discharges directly to the San Dieguito Lagoon, located directly north of the project site.

4.8.2 Relevant Plans, Policies, and Ordinances

Local, state, and federal regulations govern discharges associated with construction and post-construction stormwater runoff to protect the water quality of receiving waters. The following is a summary of the regulatory framework established to protect water resources.

Federal

Federal Water Pollution Control Act

The federal Water Pollution Control Act, or Clean Water Act (CWA), serves to restore and maintain the chemical, physical, and biological integrity of the nation's waters. In 1972, the CWA was amended, and the National Pollutant Discharge Elimination System (NPDES) program was created.

Section 303(d) of the CWA requires each state to identify those waters within its boundaries for which the effluent limitations required by Section 301(b)(1)(A) and Section 301(b)(1)(B) are not stringent enough to implement any water quality standard applicable to such waters. The state must establish a priority ranking for such waters, taking into account the severity of the pollution and the uses of such water.

National Pollutant Discharge Elimination System Permit

Discharges must meet the applicable requirements outlined in the CWA and need to meet federal effluent limitations and state water quality standards. The City was issued a Municipal NPDES Permit of February 21, 2001, by the Regional Water Quality Control Board (RWQCB). The permit was jointly issued to the County of San Diego and 17 other cities in the region, and requires the development and implementation of stormwater regulations addressing stormwater pollution issues in planning and construction associated with private and public development projects (City of Del Mar 2011). The Municipal NPDES Permit provides the legal framework to regulate stormwater best management practices (BMPs).

Section 303(d)

Section 303(d) requires that states assess the quality of their waters every 2 years and publish a list of those waters not meeting the water quality standards established for them. Such waters are then identified as being an "impaired water body." Water quality standards are found in the Water Quality Control Plan for the San Diego Basin (Basin Plan) (RWQCB 2011), and include beneficial uses, water quality objectives necessary to protect these uses, and the antidegradation policy. For water bodies placed on the 303(d) List of Water Quality Limited Segments, states are required to develop total maximum daily loads for the pollutants that are causing impairment of the water quality standards. Once a water body is placed on the 303(d) List of Water Quality Limited Segments, it remains on the list until a total maximum daily load is adopted and the water quality standards are attained, or there is sufficient data to demonstrate that water quality standards have been met and delisting from the 303(d) list should take place.

The 2010 CWA 303(d) list classifies the Pacific Ocean Shoreline, San Dieguito Lagoon Mouth, as impaired by enterococcus, total coliform, and fecal coliform. The San Dieguito River is also listed and impaired by enterococcus, fecal coliform, nitrogen, phosphorus, total dissolved solids, and toxicity. The area affected is 0.86 mile at the mouth of the San Dieguito Lagoon. Additionally, the project site is less than 0.5 mile east of the Pacific Ocean.

National Flood Insurance Act

The National Flood Insurance Act (1968) established the National Flood Insurance Program, which is based on the minimal requirements for floodplain management and is designed to minimize flood damage within Special Flood Hazard Areas. FEMA is the agency that

administrates the National Flood Insurance Program. Special Flood Hazard Areas are defined as areas that have a 1% chance of flooding within a given year. This is also referred to as the 100-year flood. Flood Insurance Rate Maps were developed to identify areas of flood hazards within a community.

Federal Emergency Management Agency

FEMA administers the National Flood Insurance Program to provide subsidized flood insurance to communities that comply with FEMA regulations to limit development in floodplains. The City is a participant in the National Flood Insurance Program. FEMA also issues Flood Insurance Rate Maps that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA. The minimum level of flood protection for new development is the 1-in-100 Annual Exceedance Probability standard. This is defined as a flood having a 1% chance of occurring in any given year.

State

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) preserves, enhances, and restores the quality of California's water resources, and ensures their proper allocation and efficient use for the benefit of present and future generations. Wastewater generators must obtain a permit to discharge their wastewater. Pursuant to the federal CWA and California's Porter-Cologne Water Quality Control Act (Porter-Cologne Act), the SWRCB regulates wastewater discharges to surface waters through the NPDES program. Some wastewater discharges are exempt from federal NPDES requirements, but California law may still apply. Under California law, the SWRCB requires waste discharge requirements for some discharges, in addition to those subject to NPDES permits. Permits contain specific requirements that limit the pollutants in discharges. They also require dischargers to monitor their wastewater to ensure that it meets all requirements. Wastewater dischargers must maintain their treatment facilities, and treatment plant operators must be certified. The SWRCB routinely inspects treatment facilities and strictly enforces permit requirements.

California Water Code

California's Porter-Cologne Act (1969), which became Division 7 (Water Quality) of the California Water Code, establishes the responsibilities and authorities of the nine RWQCBs and the SWRCB. Among other things, it directs each regional board to formulate and adopt a water quality control plan—known as a Basin Plan—for all areas within the region. The water quality objectives used for this study are primarily those set forth in the Basin Plan (San Diego

Region 9) adopted by the RWQCB. The Basin Plan defines existing and potential beneficial uses and water quality objectives for coastal waters, groundwater, surface waters, imported surface waters, and reclaimed waters in the basin (RWQCB 2011).

California Coastal Commission

The California Coastal Commission is responsible for protecting water quality in coastal environments, as defined under Sections 30230 and 30231 of the Coastal Act. These water quality provisions provide a broad basis for protecting coastal waters, habitats, and biodiversity associated with new development and redevelopment projects. To meet the objectives of Sections 30230 and 30231, the California Coastal Commission supports a three-pronged approach to water quality management: site design, source control, and treatment control BMPs. In areas where there is no certified Local Coastal Program, new development and redevelopment projects within the Coastal Zone are required to apply for a Coastal Development Permit through the California Coastal Commission prior to construction. As part of the Coastal Development Permit process, projects must demonstrate water quality protection through implementation of site design, source control, and treatment control BMPs. Once the Local Coastal Program is certified, most projects will only be subject to the California Coastal Commission.

As stated in the City of Del Mar's Local Coastal Program Land Use Plan, the policies of the Bluff, Slope, and Canyon Overlay Zone as well as other policies in the Land Use Plan serve to minimize the hazards of erosion and the sedimentation of downstream resources. The steep sloping hillsides and exposed sandstone escarpments within the City are natural elements that contribute to its character and beauty. The application of the policies in the Land Use Plan are intended to preserve these visual resources. The following goals and policies found in the Land Use Plan are applicable to this chapter of the EIR:

<u>Runoff and Erosion Control</u>

Goal III-C Protect resources and property located downstream from hillside and bluff areas from damage due to uncontrolled runoff.

Policy III-10 Minimize damage from runoff from all projects within the City by:

a. Ensuring that storm drains are designed and provided in such a manner to carry the entire amount of intercepted storm runoff estimated to occur during a storm having a return period of 10 years.

b. Ensuring the provision of adequate storm drain inlet capacity for the anticipated storm runoff from developed areas within the identified watersheds of San Dieguito and Los Peñasquitos Lagoons.

c. Ensuring that new development is accompanied by the provision of drainage control measures which control and direct storm flow runoff into existing storm drain systems or into natural drainage courses when approved by the City Engineer and provide new storm drains as necessary to protect from unrestricted flows and runoff.

d. Applying the grading, erosion and sedimentation control regulations of the Lagoon Overlay Zone and the Bluff, Slope and Canyon Overlay Zone of Chapter VI of this Land Use Plan to those projects located within such overlay zones.

In addition, the City shall continue the design and implementation of a comprehensive storm drain system using existing and new measures to assure that the combination of storm drain system capacity and allowable street overflow will adequately carry runoff from a 50-year frequency storm without damaging adjacent property or coastal bluff areas.

Flood Hazards

Goal III-D Minimize risks to life and property associated with flooding and flood waters.

Flood hazards shall be minimized through the application of the following Flood Hazard Regulations. Where these regulations make reference to the Federal Insurance Rate Map (FIRM) or a designation taken from such map, the most recent, approved FIRM shall be used.

Policy III-11 Enhance public safety within the San Dieguito River Floodway by:

a. Prohibiting the construction of permanent structures or the placement of fill on either a temporary or permanent basis within designated floodway (FW) areas.

b. Prohibiting uses in the floodway which would constitute an unreasonable, unnecessary, undesirable, or dangerous impediment to the flow of floodwaters, or which would cause a cumulative increase in the water surface elevation of the base flood of more than one foot at any point.

c. Requiring proposed development to be located so as to eliminate the need for protective devices such as seawalls, riprap, retaining walls, or other flood control devices.

Policy III-12 Ensure that the development of real property which is subject to floodwaters will not obstruct flood flow; will not create a hazard to

life, health, safety, or the general welfare; will reduce the need for the construction of flood control facilities that would be required if unregulated development occurs; and will minimize the cost of flood insurance to Del Mar residents.

The following Floodplain (FP) Overlay Zone policies shall be applied to all applications for a Floodplain Development Permit. A Floodplain Development Permit shall be required for any new construction or substantial improvement to existing structures within the FP Overlay Zone designated on Figure III-F. This overlay zone incorporates floodplain areas designated on the Federal Insurance Rate Map (FIRM) for the area as prepared by the Federal Emergency Management Agency and updated in 1986.

Applications for Floodplain Development Permits shall be reviewed for consistency with the following requirements to be assured that new development will:

a. Be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

b. Be constructed with materials and utility equipment resistant to flood damage;

c. Use methods and practices that minimize flood damage;

d. Have the lowest floor (including basement) of any residential structure elevated to or above the base flood elevation;

e. Have the lowest floor (including basement) of any nonresidential structure elevated to or above the base flood level or, together with attendant utility and sanitary facilities, be flood-proofed below the base flood level to the extent that the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy, as certified by a registered professional engineer or architect;

f. When located in an area of shallow flooding (Zones AO and VO on the community's FIRM), have the lowest floor (including basement) elevated to or above the depth number indicated on the most current FIRM; or if there is no depth number on the most

current FIRM, be elevated at least two feet above the highest adjacent grade. As an alternative, nonresidential structures, together with attendant utility and sanitary facilities, may be flood-proofed to that level as specified in subsection "e" above;

g. When located in Zones AO and AH on the FIRM, have adequate drainage paths around structures situated on sloping ground, to guide floodwaters around and away from said structures;

h. Where a non-residential structure is to be flood-proofed, have the design and methods of construction in accordance with accepted standards of practice for flood-proofing or include the specific elevation in relation to mean sea level to which such structures are flood-proofed;

i. Have all new and replacement water supply and sanitary sewage systems designed to minimize or eliminate infiltration of flood waters into the system and discharges from the system into flood waters;

j. Have on-site waste disposal systems located to avoid impairment to them, or contamination from them, during flooding;

k. Have all electrical, heating, ventilation, plumbing, and air conditioning equipment and other service. facilities designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;

l. Have all fully enclosed areas below the lowest floor that are subject to flooding designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters with designs certified by a registered professional engineer or architect; or have at least two openings no more than one foot above grade with a total net area of at least one square inch per square foot of flooded area.

m. Not require the construction of flood protective works, including, but not limited to, artificial flood channels, revetments or levees.

Policy III-13 The preceding floodplain development standards shall not apply to the undeveloped property known as the "railroad triangle" (APNs 299-071-02, 301-010-11; 301-032-5, 10, 11, 12; as shown on Figure III-G) and the floodplain portions of the southern properties in the Lagoon Overlay Zone. Said floodplain properties or areas may only be developed as follows:

1. The development is capable of withstanding periodic flooding, and does not require the construction of flood protective works, including but not limited to, filling, artificial flood channels, revetments or levees.
2. Existing environmentally sensitive habitat areas will not be disturbed.
3. Increased flood flow velocities will not occur.
4. There will be no adverse water quality impacts to adjacent or downstream wetland areas.

Local

Water Quality Control Plan for the San Diego Basin

The San Diego Basin encompasses approximately 3,900 square miles, including most of San Diego County and portions of southwestern Riverside and Orange Counties. The basin is composed of 11 major Hydrologic Units, 54 Hydrologic Areas, and 147 Hydrologic Subareas (RWQCB 2011), extending from Laguna Beach south to the U.S.–Mexico border. Drainage from higher elevations in the east flows to the west, ultimately into the Pacific Ocean. The RWQCB prepared the Basin Plan, which defines existing and potential beneficial uses and water quality objectives for coastal waters, groundwater, surface waters, imported surface waters, and reclaimed waters in the basin. Water quality objectives seek to protect the most sensitive of the beneficial uses designated for a specific water body. Beneficial uses are defined as "the uses of water necessary for the survival or wellbeing of [people], plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals" (RWQCB 2011).

City of Del Mar's Stormwater Management and Discharge Control Ordinance

The Del Mar Municipal Code Chapter 11.30 requires that all new development and redevelopment activities comply with the stormwater pollution prevention requirements that are site specific and vary based on a project's potential impact on receiving water quality.

City of Del Mar BMP Design Manual

The manual addresses updated on-site post-construction stormwater requirements for Standard Projects and Priority Development Projects (PDPs), and provides updated procedures for planning, preliminary design, selection, and design of permanent stormwater BMPs based on the performance standards presented in the MS4 Permit. The manual provides guidelines for compliance with on-site post-construction stormwater requirements in the MS4 Permit, which apply to both private and public projects.

Construction General Permit

Dischargers whose projects disturb 1 or more acres of soil or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development of a Stormwater Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer.

City of Del Mar Clean Water Program

The City's Clean Water Program goal is to protect the City's most visible and valuable natural resources—lagoons, beaches, and the Pacific Ocean—from potential urban runoff pollution impacts. To accomplish this, Clean Water Program staff work with the community, City staff, and staff from other jurisdictions in San Diego County to ensure that the requirements of the San Diego RWQCB's Regional Municipal Stormwater Permit (Municipal Permit) are met through implementing programs such as education/training, water quality monitoring and assessment, inspections, and enforcement activities.

The City's Clean Water Program must fulfill the requirements of the Municipal Permit. The purpose of the Municipal Permit is to set requirements for the jurisdictions of San Diego County that will lead to improvements in surface water quality, as required under the federal Clean Water Act. This is achieved through implementation of the City's Jurisdictional Urban Runoff Management Plan (JURMP), local ordinances, and enforcement actions (City of Del Mar 2015b).

City of Del Mar JURMP

As part of implementation of the City's Clean Water Program, the City developed and implements its JURMP. The JURMP describes the City's programmatic activities and requirements aimed at preserving and improving water quality conditions in nearby primary water bodies: the San Dieguito and Los Peñasquitos Lagoons and the Pacific Ocean. Specific requirements included in the City's JURMP are in direct response to RWQCB's stormwater permits (City of Del Mar 2015a).

4.8.3 Thresholds of Significance

The following significance criteria are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 California Code of Regulations 15000 et seq.), and will be used to determine the significance of potential hydrology and water quality impacts. Impacts to hydrology and water quality would be significant if Option A or Option B would:

a) Violate any water quality standards or waste discharge requirements.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

f) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

g) Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

h) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam [or sea level rise].

i) Cause inundation by seiche, tsunami, or mudflow.

4.8.4 Impacts Analysis

a) Would the project violate any water quality standards or waste discharge requirements?

Implementation of either Option would result in an increase in stormwater runoff from the site due to the increase in hardscape from its currently natural state. However, a combination of treatment control BMPs would be incorporated to infiltrate, filter, and/or treat runoff from the project footprint to the numeric sizing treatment standards outlined in the City's BMP Design Manual. Since both Options would disturb 1 or more acres of soil, the chosen Option would be

required to obtain coverage under the NPDES General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ, as amended). Construction activity subject to this permit includes clearing, grading, and ground disturbances such as trenching, stockpiling, or excavation. The Construction General Permit requires implementation of a SWPPP. The SWPPP would generally contain a site map showing the construction perimeter, proposed buildings, stormwater collection and discharge points, general pre- and post-construction topography, drainage patterns across the site, and adjacent roadways. The SWPPP must also include an Erosion and Sediment Control Plan with BMPs designed to protect against erosion and stormwater runoff; a visual monitoring program; a chemical monitoring program for "non-visible" pollutants, should the BMPs fail; and a sediment monitoring plan, should the site discharge directly into a water body listed on the 303(d) list for sediment. Section A of the Construction General Permit describes the elements that must be contained in the SWPPP. Incorporation of these policies and the requirements contained within will reduce impacts to water quality. A project must demonstrate compliance with the NPDES Construction General Permit prior to being issued grading and/or building permits.

The SWMP, which was prepared for the proposed development on site, demonstrates compliance with water quality standards and waste discharge requirements once the project site has been developed. Biotreatment BMPs will be utilized on site for water quality treatment. Both Options would implement a series of proprietary biotreatment systems for water quality treatment to treat all pollutants of concern to a satisfactory level of effectiveness. The entire project site proposes to drain into a biofiltration basin, where an overflow structure will be sized to accommodate the post-developed condition peak 100-year flow. The biofiltration basin would be located southwest of the proposed driveway for both Options. The location of the biofiltration basin is within the wetland buffer zone, which is consistent with the Local Coastal Program. The biofiltration basin would be a vegetated surface water system that would filter water through vegetation and soil prior to discharge. Water quality treatment will be achieved through filtration, sedimentation, sorption, biochemical processes, and plant uptake.

Both Options would prevent illicit discharges into the MS4; include storm drain stenciling or signage; and protect trash storage areas from rainfall, runoff, and wind dispersal. Use of project design features such as landscaping, drainage swales, and a biofiltration basin, as well as compliance with NPDES guidelines, would avoid potential water quality impacts associated with either Option. Additionally, both Options would be subject to the City's implementing ordinances and conditions of approval governing grading practices and drainage and erosion control, including the maintenance of drainage and erosion control measures.

Furthermore, conditions for hydromodification exemption as presented in the San Diego RWQCB MS4 Permit, the City of Del Mar BMP Design Manual Sections 1.6 and 6.1, and the San Dieguito River Watershed Management Area Water Quality Improvement Plan, if a project

is directly discharging to an exempt system, then the project can qualify for a hydromodification exemption. As stated in the hydromodification technical memorandum (**Appendix H**), the project site is directly draining to both an exempt system and a tidally influenced lagoon; therefore, development on the project site is exempt from hydromodification management. Furthermore, all runoff generated by the project site in post-developed conditions will receive water quality treatment in accordance with all San Diego RWQCB and City Stormwater Management Requirements. Compliance with terms and conditions of the NPDES permit is required by state law and implementation of the BMPs contained in the SWPPP would reduce impacts to water quality during construction to less-than-significant levels. In addition, adherence with the recommendations outlined in the SWMP will reduce impacts associated with water quality in the post-developed condition. Impacts related to the violation of water quality standards or waste discharge requirements would be **less than significant**.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?

Option A and Option B would both use potable water from the municipal water supply system of the City of Del Mar. The Options would not use groundwater as a source of potable water to serve the site, nor otherwise affect groundwater resources. Because the City does not rely on groundwater as a potable water source, the Options would not cause a substantial reduction in the amount of groundwater otherwise available for public water supplies. In addition, groundwater is too saline to be a drinking water source.

The increase in impermeable surfaces on the project site would result in a reduced quantity of water able to infiltrate and recharge groundwater sources. To minimize this potential reduction in groundwater recharge, the drainage design of both Options would incorporate landscape areas and conserve natural areas, which would continue to allow groundwater recharge. Furthermore, the additional flow attributed to an increase in the impermeable surfaces would be minimal. As such, Option A or Option B would not significantly change groundwater quantities or result in substantial losses to groundwater recharge capability, and impacts under both Options would be **less than significant**.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river in a manner which would result in substantial erosion or siltation on- or off-site?

The existing project site drains via overland flow to the curb and gutter located in the adjacent San Dieguito Drive, north of the project site. Flows are then intercepted by an existing curb inlet

located southeast of the intersection of San Dieguito Drive and Jimmy Durante Boulevard. The curb inlet conveys runoff through an 18-inch pipeline to an existing storm drain outlet that discharges directly to the San Dieguito Lagoon. In post-development conditions, both Options would continue to discharge stormwater runoff to the existing point of discharge in the aforementioned lagoon, and would generally mimic existing drainage patterns. The entire project site would drain stormwater into a biofiltration basin, where an overflow structure would be sized to accommodate the post-developed condition peak 100-year flow. The overflow structure would connect to a pipe that joins into the existing storm drain system at the curb inlet located southeast of the intersection of San Dieguito Drive and Jimmy Durante Boulevard. From that point, flows would be safely conveyed through the existing infrastructure and directly discharge into the San Dieguito River.

All stormwater runoff generated by the project site in post-developed conditions would receive water quality treatment through the biofiltration basin in accordance with all San Diego RWQCB and City stormwater management requirements. Since both Options would disturb 1 or more acres of soil, the chosen Option would be required to obtain coverage under the NPDES General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ, as amended). The SWPPP includes an Erosion and Sediment Control Plan with BMPs designed to protect against erosion and stormwater runoff; a visual monitoring program; a chemical monitoring program for "non-visible" pollutants, should the BMPs fail; and a sediment monitoring plan, should the site discharge directly into a water body listed on the 303(d) list for sediment. A project must demonstrate compliance with the NPDES Construction General Permit prior to being issued grading and/or building permits.

Building permits for the chosen Option would require submittal of detailed drainage and grading plans as conditions of approval to ensure that no significant impacts would occur and no unstable soil conditions would occur or be created from changes in topography. The grading plans would be subject to City approval, and would require measures to control erosion and sediment that are required by the City Ordinance and other pertinent regulations and conditions. In addition, Option A or Option B would be constructed in accordance with standard engineering and California Building Code requirements to prevent damage related to erosion and/or expansive materials. Also, the grading, erosion, and sedimentation control regulations associated with the Lagoon Overlay Zone and the Bluff, Slope, and Canyon Overlay Zone would be applied to Option A and Option B. Compliance with all applicable regulations, recommendations in the SWMP, and approval of grading plans would ensure that both Options would have impacts that are **less than significant**.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

As previously described in Threshold C, in post-development conditions, both Options would continue to discharge stormwater runoff to the existing point of discharge in the aforementioned lagoon, and would generally mimic existing drainage patterns. The entire project site would drain stormwater into a biofiltration basin, where an overflow structure would be sized to accommodate the post-developed condition peak 100-year flow. The overflow structure would connect to a pipe that joins into the existing storm drain system at the curb inlet located southeast of the intersection of San Dieguito Drive and Jimmy Durante Boulevard. From that point, flows would be safely conveyed through the existing infrastructure and directly discharge into the San Dieguito River.

Although both Options would develop the site with new impervious surfaces associated with the proposed residences and hardscape areas, given that the project site is located at the downstream end of the San Dieguito Lagoon, there would be no flooding impact to downstream properties or hydraulic conveyance systems due to the increase in runoff generated by the project site. Therefore, no reduction in post-developed peak flow is required. Furthermore, both Options would implement pertinent regulations and conditions such as the City's Stormwater Management and Discharge Control Ordinance, the City's BMP Design Manual, and the Water Quality Control Plan for the San Diego Basin, and be required to comply with the City's municipal stormwater permit, which would reduce surface runoff from resulting in flooding on or off site. Impacts related to flooding under both Options would be **less than significant**.

e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

As stated above, the entire project site would drain stormwater into a biofiltration basin, where an overflow structure would be sized to accommodate the post-developed condition peak 100-year flow. The overflow structure would connect to a pipe that joins into the existing storm drain system at the curb inlet located southeast of the intersection of San Dieguito Drive and Jimmy Durante Boulevard. From that point, flows would be safely conveyed through the existing infrastructure and directly discharge into the San Dieguito River. Neither Option would contribute runoff water that would exceed the capacity of the existing stormwater drainage system.

The Construction General Permit requires implementation of a SWPPP. The SWPPP must include an Erosion and Sediment Control Plan with BMPs designed to protect against erosion and stormwater runoff; a visual monitoring program; a chemical monitoring program for "non-

visible" pollutants, should the BMPs fail; and a sediment monitoring plan, should the site discharge directly into a water body listed on the 303(d) list for sediment. The SWMP, which was prepared for the proposed development on site, demonstrates compliance with water quality standards and waste discharge requirements once the project site has been developed. Biotreatment BMPs will be utilized on site for water quality treatment. Both Options would implement a series of proprietary biotreatment systems for water quality treatment to treat all pollutants of concern to a satisfactory level of effectiveness. Therefore, Option A and Option B would not provide substantial amounts of polluted runoff during construction or operation and impacts under both Options would be **less than significant**.

f) Would the project otherwise substantially degrade water quality?

Refer to Threshold A.

Compliance with terms and conditions of the NPDES permit is required by state law and implementation of the BMPs contained in the SWPPP would reduce impacts to water quality during construction to less-than-significant levels. In addition, adherence with the recommendations outlined in the SWMP will reduce impacts associated with water quality in the post-developed condition. Impacts under both Options would be **less than significant**.

g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The northern portion of the project site is located within a 100-year flood hazard area and floodplain, and is within the City's Floodplain Overlay Zone. Both Options would include grading activities to raise the elevation of the eastern portion of the site to 1 foot above the base flood elevation of 18 feet above mean sea level. All habitable structures will be located on top of the subterranean parking structure, above the floodplain elevation. The parking garage for both Options have been designed with a barrier surrounding the structure that reaches 18 feet above mean sea level in order to prevent the possibility of flooding during a 100-year storm event. In addition, a sump pump would be installed in the parking garage which would pump water out of the parking garage and into the biofiltration basin once it's triggered by water. The chosen Option would also be required to obtain a Floodplain Development Permit from the City, which would allow the property owner to obtain an Elevation Certificate from FEMA as a condition of approval. The Elevation Certificate verifies that the project site is elevated to above the 100-year base flood elevation. Therefore, Option A or Option B would not expose people or property to water-related hazards such as flooding. The parking garage would be located below the floodplain elevation; however,

flows would be blocked by surrounding berm and the sump pump would remove any water in the event of a flood. Impacts under both Options would be **less than significant**.

i) Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam [or sea level rise]?

The City of Del Mar has prepared a Coastal Hazards, Vulnerability, and Risk Assessment (July 2016) to analyze the potential risks associated with sea level rise. As stated therein, the City of Del Mar is currently vulnerable to river and coastal flooding and erosion, with significant damages in the recent past. With future climate change and sea level rise, the City of Del Mar's current vulnerabilities are projected to increase in both frequency and intensity, resulting in increased damage risk to most of Del Mar.

As it relates to the proposed project site, the potential for the San Dieguito River to flood due to sea level rise poses the greatest risk. In addition, with sea level rise, sediment from both the beach and the watershed is expected to deposit in the lower river channel. Assuming that deposition is not limited by sediment supply, both the river bed profile and flood profiles would increase in elevation with sea level rise, with a rate and amount of deposition equal to the rate and amount of sea level rise. The increase in river bed elevations and flood levels due to sea level rise and channel deposition translates into an increase in the frequency of river flood events.

As illustrated in Figure 40.1 in the Risk Assessment, the project site is located in an area designated as an "Extreme River Flooding" zone. The term "extreme" is used to refer to extensive flooding and damage that presently has a low (i.e., 1%) chance of occurrence, but is projected to increase in frequency in the future. Roads and bridges, including Camino Del Mar, Jimmy Durante Boulevard and bridge, the east ends of North Beach District streets, and San Dieguito Drive, will be highly vulnerable by about 2070.

According to the City's Draft Sea Level Rise Adaptation Plan (September 2016), the adaptation measures for reducing the risk due to flooding of the San Dieguito River include channel dredging, reservoir management, levees with partial retreat, raising structures, and removing structures. Dredging of the river channel bed near its current elevation would maintain the river flood risk near the current risk level. Assuming the dredged material is primarily sand, the dredged material could be placed on the beach to provide nourishment as a beach adaptation measure.

Reservoir management involves utilizing the connection between Lake Hodges Reservoir (which controls 87% of the flows from the San Dieguito River watershed) to the Olivenhain Reservoir. This connection allows water to be pumped back and forth the between the two reservoirs. While the primary purpose of this connection is to improve water storage, the connection could also

provide improved flood management. This type of reservoir management could partially offset the increase in the future frequency of river flooding.

The adaptation measure of using levees with partial retreat, involves levees in combination with partially retreating assets away from the river flood corridor. Retreat would consist of removing structures and restoring developed land to wetlands to expand wetland floodplain habitat, thereby reducing flood levels and providing new habitat that can be designed to be resilient to sea level rise.

Raising the elevations of homes, buildings, and infrastructure above the flood plain levels is another suggested adaptation measure. Raising buildings using pile foundations and/or modifying building design so that the second floor is above the target flood level, while the first floor is used for parking and/or storage, can help reduce flood damage. Raising roads and replacing vulnerable utilities at a higher elevation is also suggested. Lastly, the City can consider removal of public buildings, utilities, and other infrastructure as river flood risks to the public increases.

Overall, although the San Dieguito River is at risk of increased flooding due to sea level rise, the inclusion of adaptation measures as detailed in the City's Sea Level Rise Adaptation Plan will reduce the potential intensity and frequency of occurrences. Furthermore as noted above, the parking garages for both Options have been designed with a barrier surrounding the structure that reaches 18 feet above mean sea level in order to prevent the possibility of flooding. In addition, a sump pump would be installed in the parking garage which would pump water out of the parking garage once it's triggered by water. Therefore, although sea level rise is of concern for the City as a whole and the project site is subject to flooding due to increased flows in the San Dieguito Riber, the proposed Options would not expose people or structures to a significant risk of loss, injury, or death due to flooding or sea level rise. Impacts would be **less than significant**.

j) Would the project result in inundation by seiche, tsunami, or mudflow?

Seiches are periodic oscillations in large bodies of water such as lakes, harbors, bays, and reservoirs. As stated in the Geologic Hazard Evaluation (Appendix G) completed for the proposed project, due to the geology and configuration of the San Dieguito River and Lagoon, the site is considered to have a relatively low risk potential for damage caused by seiches.

According to the San Diego County Hazard Mitigation Plan, the lower, relatively flat areas of the proposed project site along Jimmy Durante Boulevard and San Dieguito Road are located within the limits of the maximum projected tsunami runup (**Appendix G**). However, because the project site is located inland from the ocean and at a proposed elevation of 18 feet, it is unlikely that the property would be subject to inundation due to tsunamis during the life of the proposed structures. According to the Del Mar Quadrangle Tsunami Inundation Map for Emergency Planning by the California Emergency Management Agency, the University of Southern California, and the California Geological Survey, the project site is located just outside the City's

tsunami inundation line (State of California 2009). Therefore, the project site would not likely be subject to inundation by tsunami.

The project site is located within Subarea 3-1 of the U.S. Geological Survey Landslide Hazards Map for the Del Mar Quadrangle, which is defined as an area in which steeper slopes are generally susceptible to landsliding. On the project site, some small surficial landslides, including moderately sized block falls, have occurred on the north-facing portion of the steep slope in the southeastern portion of the site. However, a quantitative surficial slope stability analysis was performed that indicates that, with proper and maintained site drainage and irrigation practices, the existing slopes along the east side of the site would be stable (**Appendix G**). Additionally the site adjacent to the project site was found to have possible landslide potential, which may extend to the extreme southeastern portion of the property. The west edge of the large bedrock landslide that likely exists on the adjacent property to the southeast may encroach into the extreme eastern limits of the site, but that would be beyond the area currently proposed for townhomes under both Options (**Appendix G**). Impacts related to inundation by seiche, tsunami, and mudflow under both Options would be **less than significant**.

4.8.5 Mitigation Measures

With implementation of project design features and BMPs, and compliance with NPDES guidelines and City ordinances, no significant impacts to hydrology and water quality would occur under either Option; therefore, no mitigation measures are required.

4.8.6 Level of Significance After Mitigation

No mitigation measures are required, and impacts would remain less than significant under both Options.

4.8.7 References

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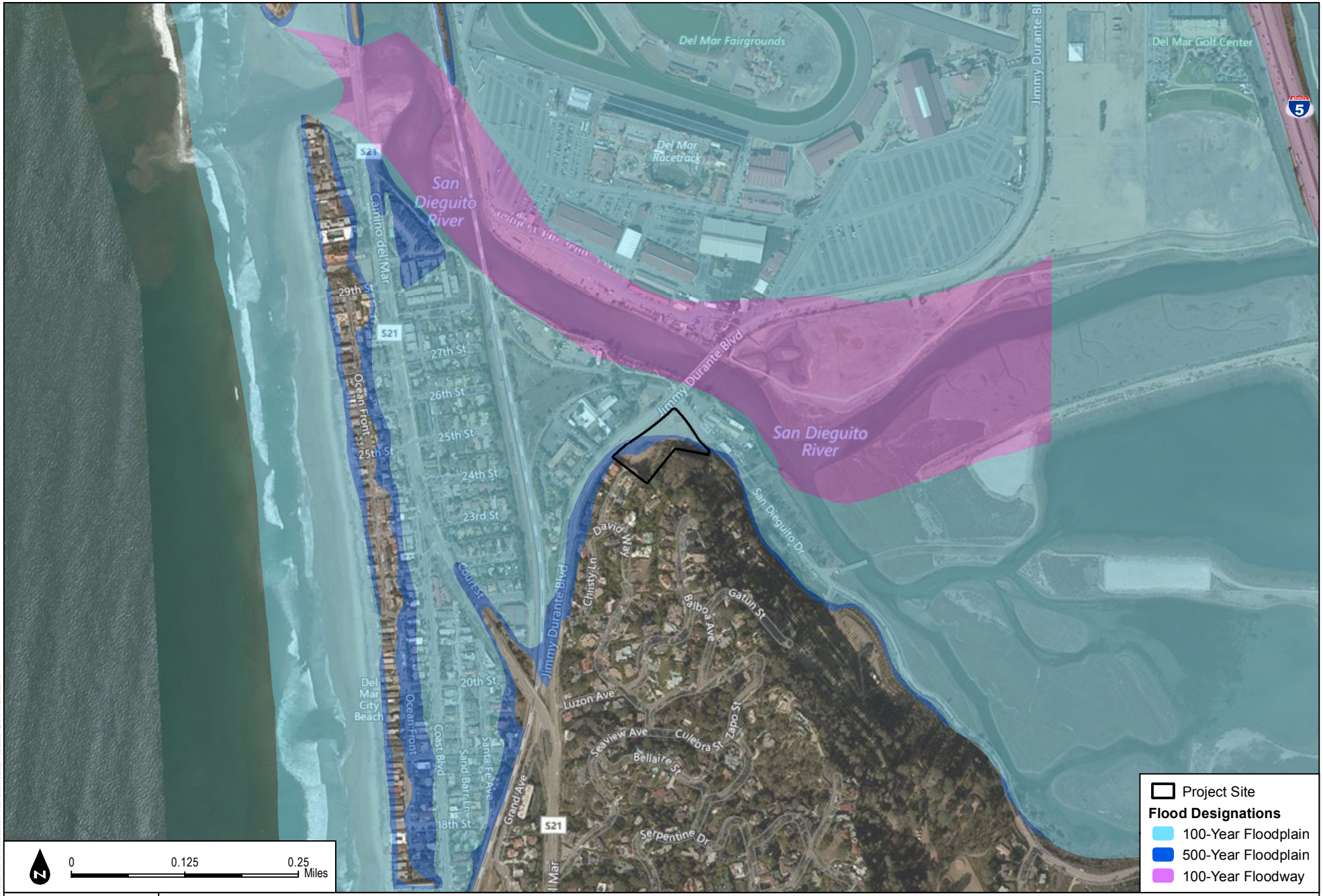

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SOURCE: SanGIS, 2015; Bing Maps, 2017

FIGURE 4.8-1

FEMA Map

Watermark Del Mar Specific Plan EIR

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4.9 LAND USE AND PLANNING

This section describes the existing land use and planning setting of the project site, identifies associated regulatory requirements and evaluates potential impacts related to implementation of the proposed Watermark Del Mar Specific Plan (WDMSP) Option A and Option B. A detailed consistency analysis with the Community Plan can be found in **Appendix M1** and a consistency analysis with the Local Coastal Program Land Use Plan can be found in **Appendix M2**.

4.9.1 Existing Conditions

Project Site

The project site is vacant and totals approximately 103,282 square feet (2.37 acres) that currently contains a dirt lot used for intermittent paid parking limited to fairground and race track seasons. The northwest end of the site is topographically flat and relatively level along the adjacent roadways. The southeast end of the site is moderately sloped and graduates quickly into the steep hillside and exposed bluff that backs the site with a level terrace at the southwest end of the site. The sloping southeast end of the site includes exposed dirt, grass, shrubs and trees.

Surrounding Land Uses

Land uses in the City of Del Mar consist predominantly of single-family residential uses ranging in density from one dwelling unit per net acre to 8.7 dwelling units per net acre (City of Del Mar 1993). Multi-family and higher density residential uses are clustered in four locations designated by the land use classifications Medium Density Mixed (RM)-east, RM-west, RM-central, RM-south, and High Density (R2). Commercial uses are generally clustered around the Village Center on Camino Del Mar or in pockets designated as independent commercial areas. The property immediately to the west of the site, across Jimmy Durante Boulevard is a commercial center within North Commercial district that includes a fitness gym and pet shop among other office uses. Immediately to the south of the site are single-family residential units designated as R1-10 which allows for densities up to 4.3 dwelling units per acre. Immediately to the east of the site is a vacant parcel that contains the steep terrain and hilltop that slope down towards the site and is designated R1-40. To the north of the site, across San Dieguito Drive is a vacant lot that the City leases for parking and the San Dieguito Lagoon which remains undeveloped and is designated as FW (floodway). There are various facilities to the east of the vacant lot, also designated as North Commercial, including Del Mar Blue Print, Rose Towing, Del Mar Automotive, and other businesses. Also in the surrounding area is River Path Del Mar, which is an existing 0.25-mile trail that provides pedestrian access along the San Dieguito River's south edge. There are a number of properties along this river trail that are designated as open space.

Directly north of the San Dieguito Lagoon is the property of The 22nd District Agricultural Association (22nd DAA) which manages and operates the Del Mar Fairgrounds, its nearby equestrian facility, the Horsepark, and the Del Mar Golf Center, on behalf of the State of California. The Del Mar Fairgrounds, including its parking lots, is approximately 340 acres, and the Horsepark is approximately 65 acres (this parking lot and the eastern parking lot are not located in the City of Del Mar). The Fairgrounds and Horsepark are the sites of nearly 350 events each year, including weddings, receptions, equestrian and other animal shows, concerts, craft shows, home shows, and other social and consumer events. Events and activities on the Fairgrounds are produced by either the 22nd DAA, or companies and groups that rent or lease facilities (Del Mar Fairgrounds 2016). The Del Mar Fairgrounds property begins on the north side of Jimmy Durante Bridge, approximately 0.08 mile north of the project site.

Existing Community Plan and Zoning Designations

Land uses in the City of Del Mar are regulated under the City of Del Mar Community Plan and the City of Del Mar Zoning Ordinance. The City of Del Mar adopted the Del Mar Community Plan in 1976 and updated the plan in 1985. The City of Del Mar Zoning Ordinance (Title 30 of the City of Del Mar Municipal Code [DMMC]) reflects the policies and land use designations adopted by the City in the Del Mar Community Plan. The existing Community Plan and zoning designations for the proposed project site are described below. The project site is designated North Commercial (NC) in the City's Community Plan. Allowed uses under the NC designation include repair shops, blueprinting, manufacturing, restaurants, art/technical studios, offices, and warehouses.

The project site is zoned as North Commercial (NC) in the City Zoning ordinance, consistent with the Community Plan designation. Zoning designations in the project vicinity mirror the land use designations described in the Community Plan, and are labeled identically. The Del Mar Zoning Ordinance also includes a series of overlay zones that augment existing zoning designations to address special districts such as historic preservation areas or environmental conditions such as Lagoons and Bluffs. The northern parcel in the project site is in the Lagoon (LG) Overlay Zone, and the entire project site is in the Bluffs, Slope, and Canyon (BSC) Overlay Zone. Both overlays preserve the regulations of the underlying zoning designation but impose additional provisions intended to ensure the protection of the sensitive lagoon and hillside environments. Any project within the Lagoon Overlay Zone is required by ordinance 30.53.050 to obtain a Conditional Use Permit and a Coastal Development Permit prior to commencement of grading or construction.

In addition, all of the northern parcel and portions of the southern parcel fall within the Floodplain (FP) Overlay Zone. The southern parcel is not shown on the FP Overlay Zone map, but portions of the property fall within a Special Flood Hazard (100-year flood) area on the Federal Emergency Management Agency's most recent Flood Insurance Rate Map. Therefore, both parcels are subject to compliance with the FP Overlay Zone policies and are required by ordinance 30.56.050 to obtain a Floodplain Development Permit.

Adjacent Land Use Designations and Zoning

Properties to the immediate north, northwest, and northeast of the project site are designated and zoned as North Commercial (NC) district. Properties directly to the south of the site are designated and zoned as low density residential (R1-10) and properties to the southeast of the site are designated and zoned as very low density (R1-40).

4.9.2 Relevant Plans, Policies, and Ordinances

Federal

There are no federal plans, policies, or ordinances applicable to the land use considerations of the proposed project.

State

California Government Code, Section 65450 et seq.

California Government Code (Sections 65450–65457) governs the content and consistency of specific plans with the adopted general plan of the jurisdiction within which they are located. Specific plans shall include text and a diagram(s) that include the following in detail: (1) the distribution, location, and extent of the uses of land, including open space, within the area covered by the plan; (2) the proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan; (3) standards and criteria by which development will proceed and standards for the conservation, development, and utilization of natural resources, where applicable; and (4) a program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out the above-mentioned details. In addition, a specific plan shall include a statement of the relationship of the specific plan to the general plan.

Senate Bill 375

Senate Bill (SB) 375, also known as the Sustainable Communities and Climate Protection Act of 2008, was passed on September 30, 2008, establishing requirements related greenhouse gas emissions from passenger vehicles. SB 375 requires the California Air Resources Board to set regional emissions reduction targets from passenger vehicles. The metropolitan planning organization for each region must then develop a sustainable communities strategy that integrates transportation, land use, and housing policies to plan for achievement of the emissions target for their region. The San Diego Association of Governments has adopted the state's first sustainable

communities strategy in conjunction with their regional transportation plan, as of October 2011. The sustainable communities strategy demonstrates how development patterns and transportation networks, policies, and programs can work together to achieve greenhouse gas emission reduction targets for cars and light trucks (SANDAG 2011).

California Assembly Bill 1233

Assembly Bill 1233 (AB1233) was signed into law on October 5, 2005. The bill states that a jurisdiction that fails to provide an adequate number of sites to meet the housing need allocated by the regional council of government during the prior planning period must rezone/upzone a sufficient number of sites to reconcile the shortfall within one year of the new housing element cycle.

During the 2003–2012 cycle, 75 units of housing were constructed in the City. All of these units were in the above-moderate income level. The housing need allocated to the City by SANDAG during this period was 25 units, 6 very low income, 4 low income, 5 moderate income, and 10 above moderate income units. The City is required by AB1233 to address the deficit of very low, low and moderate income housing in the 2013–2021 Housing Element cycle.

Local

Regional Comprehensive Plan

The San Diego Association of Governments (SANDAG) Regional Comprehensive Plan (RCP) serves as the long-term planning framework for the San Diego region. It provides a broad context in which local and regional decisions can be made that move the region toward a sustainable future. The RCP is a planning document that encourages local jurisdictions to address the San Diego region's housing, economic, transportation, environmental, and overall quality of life needs. The RCP provides a baseline by which to measure future performance. SANDAG is required to monitor the progress of the RCP using the following annual indicators: urban form and transportation, housing, healthy environments, economic prosperity, public facilities, and borders (SANDAG 2006).

The RCP encourages cities and the County to increase residential and employment concentrations in areas with the best existing and future transit connections, and to preserve important open spaces. Basic principles designed to strengthen land use and transportation integration through an emphasis on pedestrian-friendly design and mixed-use development are summarized as follows:

- Mix compatible uses.
- Take advantage of compact building design.
- Create a range of housing opportunities and choices.

- Create walkable neighborhoods.
- Foster distinctive, attractive communities with a strong sense of place.
- Preserve open space, natural beauty, and critical environmental areas.
- Strengthen and direct development towards existing communities.
- Provide a variety of transportation choices.
- Make development decisions predictable, fair, and cost-effective.
- Encourage community and stakeholder collaboration in development decisions.

2050 Regional Transportation Plan/Sustainable Communities Strategy

The *2050 Regional Transportation Plan/Sustainable Communities Strategy* (2050 RTP/SCS; SANDAG 2011) is a 25-year, long-range transportation plan that focuses on improving the balance between land use and current, as well as future, transportation systems throughout the entire region. RTPs are developed to provide a clear vision of the regional transportation goals, objectives, and strategies. The RTP portion of the 2050 RTP/SCS outlines projects for rail and bus services, highways, local streets, bicycling and walking, movement of goods, and demand management. The RTP looks 40 years ahead and envisions new homes to be situated in environmentally sustainable communities that are more conducive to walking and bicycling and have more access to public transit. The regional transportation network, in conjunction with how local jurisdictions develop land, will provide additional opportunities for walking, biking, getting to work, going to school, shopping, and playing (SANDAG 2011).

The 2050 RTP/SCS includes a sustainable communities strategy (SCS) that integrates land use planning, housing development, and transportation planning. The SCS also addresses how the transportation system is developed in such a way that the region reduces per capita greenhouse gas emissions to state-mandated levels. The SCS includes a land use pattern that accommodates the region's future employment and housing needs and protects sensitive habitats and resource areas.

Regional Housing Needs Assessment

California Government Code Section 65584 requires California councils of government to produce Regional Housing Needs Assessments (RHNAs) on a 10-year cycle. The San Diego County Associated Governments (SANDAG) completed the final draft of the 2010–2020 RHNA for the San Diego area in October 2011. The RHNA allocates a portion of the responsibility from the total regional housing need determined by the State Department of Housing and Community Development to each city or county within the region according to the following objectives:

1. Increasing the housing supply and the mix of housing types, tenure, and affordability in all cities and counties within the region in an equitable manner, which shall result

in all jurisdictions receiving an allocation of units for low-income and very low-income households.

2. Promoting infill development and socioeconomic equity, the protection of environmental and agricultural resources, and the encouragement of efficient development patterns.
3. Promoting an improved intraregional relationship between jobs and housing.
4. Allocating a lower proportion of housing need to an income category when a jurisdiction already has a disproportionately high share of households in that income category, as compared to the countywide distribution of households in that category from the most recent decennial United States census.

The SANDAG 2010–2020 RHNA allocates a responsibility to provide 61 total additional dwelling units, including 4 units appropriate for extremely-low income residents, 3 very-low income, 5 low income, 15 moderate income, and 34 above-moderate income within the City of Del Mar. However, some units have already been constructed and the City incurred a 15-unit penalty from the previous Housing Element Cycle, therefore, the City's total RHNA obligations are 13 extremely-low and very-low income, 9 low income, 20 moderate income, and 19 above-moderate income.

City of Del Mar Community Plan

The City of Del Mar Community Plan (Community Plan) is the primary policy document outlining the goals and policies of the City of Del Mar with regards to the standard general plan elements required by state law. The Plan states that the central purpose of the plan is to "preserve the unique environment, low density character and quality of life within Del Mar." The document is organized into three major sections: Environmental Management, Transportation, and Community Development. The following goals and policies are relevant to the proposed Specific Plan and are contained in the Transportation and Community Development sections of the Community Plan:

- Goal 3: Preserve and enhance Del Mar's special residential character and small town atmosphere with its harmonious blending of buildings and landscape in proximity to a beautiful shoreline.
    - **Objective A:** Maintain a low density residential character and allow only one- and two-story low-mass intensity development in residential areas.
        1. Enact appropriate land use controls consistent with the Community Development Plan.
        2. Limit floor area allowances and require adequate side yards in single family and duplex neighborhoods to conform with the norm of existing development in established neighborhoods of like usage.
        3. Limit excessive scale and bulk by establishing a maximum floor area to lot ratio in multiple family neighborhoods.

4. Limit building height to two stories in all residential areas, prohibit three-story facades, and encourage single-story development in areas where two-story construction would be disruptive to neighborhood character and scale of development.
5. Prevent further massing of closely spaced residential structures along Camino del Mar south of the commercial area by requiring substantially wider side yards.
6. Establish sufficient controls on yard requirements of irregularly shaped lots and lots which lack street frontage to overcome tendency toward overcrowding, loss of privacy to nearby lots, and blockage of views.

- **Objective B:** Insure that future development, whether commercial or residential, does not detract from high-quality vistas and terrain, either by blocking views or disturbing topography, mature trees or native growth.

1. Strengthen height controls to protect scenic vistas from both private and public areas. Construction in areas of view sensitivity should require design approval to insure protection, in an equitable manner, of the right to view scenic vistas from both near and far.
2. Where possible, the creation of new viewpoints should be encouraged from public and commercial spaces.
3. Where possible, encourage the preservation and reclamation of view corridors through the judicious trimming of mature trees and vegetation

- **Objective D:** Insure adequate housing for diverse age and socio-economic groups within the community.

1. Protect existing moderate cost housing from unnecessary redevelopment to more expensive housing by maintaining strict floor area to lot area limitations.
2. Facilitate provision of housing opportunities for senior citizens close to the Village Center with easy access to services, facilities and transit.
3. Regulate subdivisions for Condominiums, Community Apartments, Stock Cooperatives and Condominium Conversions to protect the rights of tenants and potential purchasers and to preserve the quality of the existing residential neighborhoods.

- **Objective E:** Encourage and facilitate provision of lower cost housing for low and moderate income households.

- **Objective F:** Protect and enhance human scale, warmth, charm, interest, texture, pedestrian involvement and landscaping.
    1. Encourage harmonious development which is in scale with the character of existing development.
- **Objective G:** apply watershed protection activities to all new development and redevelopment proposals during the planning, project review, and permitting processes.

City of Del Mar Housing Element 2013–2021

The City of Del Mar 2013–2020 Housing Element (Housing Element): Housing Plan describes the overarching goals of the plan to be:

- Conserve and improve the community's existing affordable housing stock;
- Encourage and support the development of a wide range of housing opportunities for households with a variety of lower income levels; and
- Promote equal and fair housing opportunities.

The Housing Resources Chapter of the Housing Element includes an inventory of potential sites within the City for future residential development pursuant to those goals and the housing needs identified in the RHNA. Subsection 2, Areas with Potential to Accommodate Additional Residential Units, states that the City would pursue a zone code amendment and associated actions to assign a new land use designation for the project site allowing residential development at a density of 20 dwelling units or greater. The parcels at the project site were to be rezoned to permit owner-occupied and rental multi-family residential use by right (without discretionary approval for the use and allowable density). The City has not pursued these zone code amendments to implement the Housing Element due to the submittal of an application by the property owner to rezone the lot through (proposed) adoption of a specific plan. Adoption of the either Option would accomplish these Housing Element goals in lieu of City-initiated amendments. Option B would be below the 20 to 25 dwelling units per acre range specified in the Housing Element, with only 16.1 dwelling units per acre. However, the City is required to be in substantial compliance with the statutory requirements of the housing element law and Option B's 16.1 dwelling-units-per-acre density would constitute substantial compliance.

The new land use classification will include an inclusionary housing requirement that a percentage of the dwelling units developed on the properties be offered for sale or rental at affordable rates.

City of Del Mar Zoning Ordinance

The City of Del Mar Zoning Ordinance (Title 30 of the DMMC [City of Del Mar 2017]) serves as the primary implementation tool of the Community Plan. Whereas the Community Plan is a policy document and sets forth direction for development decisions, the Zoning Ordinance is a regulatory document that establishes specific standards for the use and development of all properties in the City. The Ordinance regulates development intensity using a variety of methods, such as setting limits on building setbacks, yard landscaping standards, and building heights. The Zoning Ordinance also indicates which land uses are permitted in the various zones.

City of Del Mar Affordable Housing Mitigation

Chapter 24.21, under Title 24 of the City's Municipal Code, explains the City's obligation to provide opportunities for housing for a wide range of income levels under state law. Specifically related to the proposed Options, Section 24.21.030 *Affordable Housing Mitigation Requirements for New Condominium, Stock Cooperatives and Community Apartment Units*, states that as a condition of approval of any application for a tentative parcel map or tentative subdivision map for new condominiums, stock cooperatives, or community apartment projects, or a combination thereof, the subdivider shall comply with the affordable housing mitigation requirements identified in **Table 4.9-1**.

Table 4.9-1
Mitigation Requirements – New Condominium Units

Total Number of New Units	Affordable Housing Mitigation Requirement
Two, three, four or five units	Option of either: 1. Affordable Housing Unit Set-aside of one of the new units for rental at below market rate to a low-income households; or 2. Payment of an In-lieu Housing Mitigation Fee for each new unit.
Six, seven, eight or nine units	Affordable Housing Unit Set-aside of one of the new units for rental at a below market rate to a low-income household.
Ten – 19 units	Affordable Unit Set-aside of 20% of the new units for rental at below market rates to low-income households, with a further requirement that one (1) of the set-aside units be reserved for rental at a below market rate to a very low-income household.
20 – 29 units	Affordable Unit Set-aside of 20% of the new units for rental to low-income households, with a further requirement that one (1) of the set-aside units be reserved for rental at a below market rate to a very low-income household and one (1) of the set-aside units be reserved for rental at a below market rate to an extremely low-income household.
30 or more units	Affordable Unit Set-aside of 20% of the converted units for rental to low-income households [1], with a further requirement that two (2) of the set-aside units be reserved for rental at below market rates to a very low-income household and two (2) of the set-aside units reserved for rental at below market rates to an extremely low-income household.

Source: City of Del Mar 2015.

[1] During preparation of this EIR the DMMC Chapter 24.21was updated requiring 20% of new units to be affordable housing units. However, these new higher requirements are not intended to be applicable to the proposed project. The City Council, in approving the ordinance

change to DMMC Chapter 24.21, specifically discussed the applicability of this to the Watermark Del Mar Specific Plan. It was determined that the housing provisions of the Specific Plan would govern for the Watermark Del Mar site. The Watermark Del Mar Specific Plan establishes requirements for affordable housing units that implement the initial agreements discussed with the community, which are less than the 20% established in the recently updated City DMMC Chapter 24.21. The Specific Plan requirements are detailed in the Zoning Regulations Chapter 5, Section 5.9 (I).

City of Del Mar Local Coastal Program

The entirety of the City of Del Mar is located within the California Coastal Zone. The Land Use Plan for the Del Mar Local Coastal Program was certified by the California Coastal Commission in March 1993 and the Implementing Ordinances in September 2001 provided the City of Del Mar permit authority over coastal development within the city.

Land use designations in the Local Coastal Program Land Use Plan are synonymous to the designations adopted by the City's Community Plan and the zoning designations in the Municipal Code. The Implementing Ordinances of the Local Coastal Program consist of Chapters 30.29, 30.50, 30.51, 30.52, 30.53, 30.55, 30.56, 30.61, 30.75, and 30.80 of the Del Mar Zoning Ordinance (Title 30 of the DMMC). Compliance with the zoning code constitutes compliance with the Local Coastal Program.

City of Del Mar Citizen Participation Program:

The City of Del Mar instituted a Citizen Participation Program (CPP) within its Design Review Regulations DMMC Chapter 23.08 in December of 2010 to ensure that applicants for projects requiring the receipt of a Design Review Permit conduct efforts to notify potentially affected parties of proposed developments early in the design phase of a project. The Citizens' Participation Program is also intended to give the applicants and their agents the opportunity to understand and respond to concerns raised about the project's potential impacts on the community. When implementing a CPP, the applicant (or agent) must:

1. Send a notice to owners and residents of nearby properties (located within 300 feet) informing them of a proposed development, along with a project description and an early draft of the plans. A distribution list and map of properties located within 300 feet of the proposed Specific Plan area may be obtained from the City of Del Mar Planning and Community Development Department upon request.
2. Within the above-mentioned notice, invite those same nearby property owners and residents to a meeting, open to all interested parties, to discuss the proposal. The meeting must be set for a convenient time and location. The applicant has the flexibility to coordinate the required meeting either as a single meeting with all interested parties from the distribution list, or as a series of meetings with smaller groups from the distribution list. The notice/invitation must be mailed at least fourteen (14) days prior to the proposed (CPP) meeting date.

3. Within fourteen (14) days following the (CPP) meeting, the project applicants or representative must provide a written response to any concerns raised during the CPP meeting process explaining how the draft project plans would be modified as a result the concerns that neighbors raised at the Citizens' Participation meeting, or if not, the rationale thereof. This information, and any additional comments by the interested neighbors, will be sent to all CPP meeting attendees and will be included in the CPP report submitted to the Director of Planning and Community Development as a requirement of this Code.
4. Prepare a report of the CPP proceedings for the Design Review Board. The required components of the report are listed in a separate section of this guide. The report shall be submitted to the City at the time of Design Review application submittal.

City of Del Mar Climate Action Plan

The City's Sustainability Advisory Board developed a multi-faceted climate action plan and updated the City's GHG Inventory. The Climate Action Plan sets targets for reducing GHG emissions by 2020 and 2035, identifies strategies to meet the targets, formulates a plan for implementation, and discusses ways the City needs to adapt to the effects of climate change already occurring or anticipated to occur, such as sea level rise and water supply shortages (City of Del Mar 2016). The Del Mar Climate Action Plan integrates the City's past and current efforts with future efforts to grow and thrive sustainably.

4.9.3 Thresholds of Significance

The significance criteria used to evaluate the impacts of Option A and Option B to land use and planning are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to land use and planning would occur if Option A or Option B would:

a. Physically divide an established community.
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
c. Conflict with any applicable habitat conservation plan or natural community conservation plan.

4.9.4 Impacts Analysis

a) Would the project physically divide an established community?

The project site is vacant and undeveloped and has been periodically used as paid overflow parking limited to fair and racetrack seasons at the Del Mar Fairgrounds; however, the project site was previously entitled for office use through the Riverview Office project. The proposed Options would involve the construction of a new residential development, consisting of approximately 48 or 38 dwelling units and ancillary community amenities on the 2.37-acre site. The proposed use would locate a high-density residential development on a lot that borders Low Density (R1-10) to the south, Very Low Density (R1-40) to the east, and commercial uses to the north and west and north. The construction of either Option would not result in the demolition of any existing structures, the displacement of any businesses or residences or any substantial alterations to any routes of travel including pedestrian, transit or automobile routes. Option A or Option B would not inhibit movement between any local population centers and any community resources such as commercial centers, public parks, or transit centers. Therefore, Option A or Option B would not physically divide an established community and would result in impacts that are **less than significant**.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Both Options would redesignate the project site as the WDMSP and the new designation would allow for residential development at a density of 20.5 dwelling units per acre under Option A and a density of 16.1 dwelling units per acre under Option B. Both Options would also involve a Community Plan (General Plan) Amendment, Zoning Code Amendment, and Local Coastal Program Amendment to reflect the Specific Plan and ensure consistency across all applicable planning documents. As required in California Government Code Sections 65454 and 65455, the proposed Specific Plan would be consistent with the City's Zoning Code, including Sections 30.29–30.80, which constitute the Del Mar Local Coastal Program's implementing ordinances. Consistency would be achieved either through adherence to the existing LCP ordinances or through amendments to the municipal code.

To implement the Housing Element goal to provide affordable housing opportunities within the City, the Del Mar City Council supported and authorized use of a Specific Plan process for the proposed project site to address and define legislative and discretionary actions and community benefits of a multi-family development. Option A would create a new land use designation and zone that would allow for multi-family residential uses within the 20 to 25 dwelling units per acre range specified in the Housing Element, and would accommodate a variety of product types (such as townhomes and flats) at this density. Option B would also create a new land use designation and zone that would

allow for multi-family residential uses; however, Option B would be below the 20 to 25 dwelling units per acre range specified in the Housing Element, with only 16.1 dwelling units per acre. However, the City is required to be in substantial compliance with the statutory requirements of the housing element law and Option B's 16.1 dwelling-units-per-acre density would constitute substantial compliance. Similar to Option A, Option B would also accommodate a variety of product types (such as townhomes and flats) at this density.

Both Options are consistent with the Community Plan's objective to encourage and facilitate provision of lower cost housing for low and moderate income households. Both Options help the City meet this objective by providing seven affordable housing units, or six affordable housing units. The design guidelines regulate the appearance of the multi-family structures, with a specification that the buildings adjacent to the street have the character of separate structures as found throughout the community, and prohibit a single, large, monolithic building (0.65 floor area ratio under Option A and 0.62 floor area ratio under Option B). The bulk and scale of either Option would be minimized with consideration of the density goals for the site along with the desire to preserve the overall physical characteristics of the site (see **Appendix M1** for consistency with the Community Plan and **Appendix M2** for consistency with the Local Coastal Program Land Use Plan).

The proposed location for the biofiltration basin under both Options would be located within the 50-foot wetland buffer zone. The biofiltration basin would be a vegetated surface water system that would filter water through vegetation and soil prior to discharge. Water quality treatment will be achieved through filtration, sedimentation, sorption, biochemical processes, and plant uptake. Locating the basin within the buffer is consistent with the Local Coastal Program because it would not in any way compromise buffer performance. Surface planting and management would be consistent with traditional buffer construction and management. The biofiltration basin would also prevent uncontrolled runoff from leaving the project site, which would limit the potential for any adverse effects on downstream resources. In addition, the biofiltration basin would assist in providing long-term sediment control from the project site.

In October 2011, SANDAG adopted its RHNA. The RHNA allocates to each city and county a "fair share" of the region's projected housing needs by household income group. The major goal of the RHNA is to assure a fair distribution of housing among cities and counties within the San Diego region, so that every community provides opportunities for a mix of housing for all economic segments. The housing allocation targets are not building requirements, but goals for each community to accommodate housing opportunities through appropriate planning policies and land use regulations. Allocation targets are intended to assure that adequate sites and zoning are made available to address anticipated housing demand during the planning period (City of Del Mar 2013).

As a public benefit, Option A proposes seven affordable dwelling units and Option B proposes six affordable dwelling units. The seven affordable units under Option A represent a portion (15%) of the 48 new units. The six affordable units under Option B represent a portion (16%) of the 38 new units. The RHNA allocated 61 housing units to the City for the 2010–2020 Housing Element Cycle, including 4 units appropriate for extremely-low income residents, 3 very-low income, 5 low income, 15 moderate income, and 34 above-moderate income within the City of Del Mar. However, some units have already been constructed and the City incurred a 15-unit penalty from the previous Housing Element Cycle, therefore, the City's total RHNA obligations are 13 extremely-low and very-low income, 9 low income, 20 moderate income, and 19 above-moderate income (City of Del Mar 2013, Table 36). Therefore, Option A would account for 79% of the units allocated by the RHNA and Option B would account for 62% of the units allocated by the RHNA. For the portion of affordable units being transferred to a the City or a City-designated entity, the option is to provide those units as low, very-low or extremely-low income units, which could satisfy 18% of the City's affordable housing needs under Option A, and 14% of the City's affordable housing needs under Option B. Thus, either Option would be consistent with the City's Housing Element since it would contribute to the City's housing needs and it would help alleviate the City's affordable housing shortage as identified in the RHNA.

During preparation of this EIR, the DMMC Chapter 24.21 was updated requiring 20% of new units to be affordable housing units. However, these new higher requirements are not intended to be applicable to either Option. The City Council, in approving the ordinance change to DMMC Chapter 24.21, specifically discussed the applicability of this to the Specific Plans. It was determined that the housing provisions of the Specific Plan would govern for the Watermark Del Mar site. The Specific Plans establish requirements for affordable housing units that implement the initial agreements discussed with the community, which are less than the 20% established in the recently updated City DMMC Chapter 24.21. The Specific Plan requirements are detailed in the Zoning Regulations Chapter 5, Section 5.9 (I) in both plans. With adoption of either Option and associated Community Plan, Zoning Ordinance, and LCP amendments, neither Option would conflict with any applicable land use policy or regulation adopted with the intent of mitigating an environmental effect. The proposed Options would result in impacts that are **less than significant**.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

The San Diego County Water Authority (SDCWA) has produced a Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP) that incorporates the entire service area of the SDCWA, including the City of Del Mar (SDCWA 2010). This NCCP/HCP pertains exclusively to activities of SDCWA including construction of new facilities, operations and

management of existing facilities, and emergency operations. The provisions of the SDCWA NCCP/HCP do not apply to the proposed project site.

The proposed project site is not located within any other adopted HCP; NCCP; or other approved local, regional, or state habitat conservation plan area. Several conservation planning efforts are currently in progress in San Diego County, with the long-term goal of establishing a regional habitat reserve system that will protect native habitat lands and their associated biota. The ultimate goals of these plans are the establishment of biological reserve areas in conformance with the California Natural Community Conservation Planning Act, and to contribute to the preserve system already established by the approved MSCP in southwestern San Diego County. The City of Del Mar is listed as a jurisdictional entity within the boundaries of the Final MSCP Subarea Plan. The City is in the process of developing an MSCP Subarea Plan and a draft has been submitted to the resource agencies for review. In the event that the City of Del Mar completes and adopts an MSCP Subarea Plan prior to obtaining a grading permit, compliance with the Subarea Plan guidelines on avoidance, mitigation, and species-specific coverage would be required. However, because the Del Mar Subarea Plan is not yet adopted, it cannot conflict with either Option.

According to the MSCP, the San Dieguito Lagoon, located to the northeast of the proposed project site in the City of Del Mar, is part of the MSCP's Biological Core Area 13, an essential preserve area that contains a high concentration of sensitive biological resources that, if lost, could not be replaced or mitigated elsewhere. The proposed project site itself is not part of this Biological Core Area, nor is it part of a Habitat Linkage. As such, completion of either Option would not impede the efforts of the MSCP. Therefore, impacts under both Options would be **less than significant**.

4.9.5 Mitigation Measures

No significant impacts have been identified; therefore, no mitigation measures are required.

4.9.6 Level of Significance After Mitigation

No significant impacts have been identified; therefore, no mitigation measures are required.

4.9.7 References

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4.10 NOISE

This section describes the existing noise setting of the proposed project site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Watermark Del Mar Specific Plan (WDMSP) Option A and Option B. The analysis presented in this section is based on the Noise Technical Report for the Watermark Specific Plan Environmental Impact Report (EIR) prepared by Dudek in October 2015 and the Memorandum for Watermark Del Mar Specific Plan Noise Analysis Results for Option B prepared by Dudek in July 2017 and included as **Appendix I1** and **I2**, respectively, to this EIR.

4.10.1 Existing Conditions

4.10.1.1 Noise Concepts

Noise is generally defined as loud, unexpected, or undesired sound typically associated with human activity. Sound becomes unwanted when it interferes with normal activities, causes actual physical harm, or has adverse effects on health. The definition of noise as unwanted sound implies that it has an adverse effect on people and their environment.

Sound is measured in terms of intensity, which describes the sound's loudness and is measured in decibels (dB); frequency or pitch, measured in cycles per second or hertz; and duration. Sound is composed of various frequencies, but the human ear does not respond to all frequencies, being less sensitive to very low and high frequencies than to medium frequencies that correspond with human speech. Sound-level meters adjust for the weight the human ear gives to certain frequencies, applying a correction to each frequency range to approximate the human ear's sensitivity within each range. This is called "A-weighting" and is commonly used in measurements of community environmental noise. The A-weighted sound level, abbreviated dBA, is determined to be the most appropriate unit of measure for community noise.

The unit of measure for the cumulative effect of community noise is the community noise equivalent level (CNEL), which is the average noise level for a 24-hour period. CNEL is often used to describe the relationship of a continuous noise source, such as traffic, to the desirable ambient noise level (normal and existing noise level). CNEL is adjusted to reflect greater sensitivity to noise during evening and nighttime hours, with a 5 dBA penalty assigned to noise between 7 p.m. and 10 p.m., and a 10 dBA penalty assigned to noise between 10 p.m. and 7 a.m. Due to fluctuations in community noise over time, a single measurement called the equivalent sound level (L_{eq}) is often used to describe the time-varying character of community noise. L_{eq} is the energy-averaged A-weighted sound level during a measured time interval, and it is equal to the level of a continuous, steady sound containing the same total acoustical energy over the averaging time period as the actual time-varying sound.

To respond to the human ear's sensitivity to sound, the range of audible sounds exists on a logarithmic scale that takes into account the large differences in audible sound intensities. On this scale, for example, a 10 dBA increase is typically perceived as a doubling of sound. A sound level of 0 dB is approximately the threshold of human hearing. Normal speech has a sound level of approximately 60 dB. Sound levels louder than approximately 120 dB begin to be felt inside the human ear as discomfort, and eventually as pain at slightly higher levels. The minimum change in the sound level of individual events that an average human ear can detect in the community environment (i.e., outside of a controlled listening room) is approximately 3 dB.

There are three conceptual components to noise: the source, the transmission path, and the receiver. Noise can be reduced by reducing noise at its source; by lengthening or interrupting the transmission path through diversion, absorption, or dissipation; or by protecting the receiver through noise insulation. The most efficient and effective means of abating noise is to reduce noise at its source. Source noise can be controlled through regulation, such as following restrictions outlined in noise ordinances; muffling techniques; or sound proofing. The transmission path can be interrupted through creation of a buffer between the source and the receiver, such as a noise wall, earth embankment, or a building. The receiver can be protected from noise impacts through insulation, building orientation, or shielded areas.

Noise sources can be classified in two forms: point sources, such as individual pieces of stationary or mobile equipment (pumps, heavy construction equipment), and line sources, such as a roadway with a large number of pass-by sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6 dBA for each doubling of distance from the source to the receptor. For example, a 60 dBA noise level measured at 50 feet from a point source would be 54 dBA at 100 feet from the source and 48 dBA at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3 dBA and 4.5 dBA per doubling of distance from the source to the receptor for hard and soft sites, respectively. Typical sound levels generated by various activities are listed in **Table 4.10-1**.

Table 4.10-1
Typical Sound Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawnmower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 miles per hour	— 80 —	Food blender at 3 feet /Garbage disposal at 3 feet
Noisy urban area, daytime/ Gas lawn mower, 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area /Heavy traffic at 300 feet	— 60 —	Normal speech at 3 feet
Quiet urban daytime	— 50 —	Large business office/ Dishwasher next room

Table 4.10-1
Typical Sound Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime	— 30 —	Library
Quiet rural nighttime	— 20 —	Bedroom at night, concert hall (background)
	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2009

Sound levels can also be attenuated by built or natural barriers. Intervening noise barriers, such as a solid wall or berm, typically reduce noise levels by 5 to 10 dBA. Structures can also provide noise reduction by insulating interior spaces from outdoor noise. The exterior-to-interior noise attenuation provided by typical California building structures ranges from 15 to 25 dBA for windows open and closed, respectively. Acoustically designed enclosures and buildings can provide up to approximately 50 dBA of noise reduction, depending on the noise abatement treatments.

Vibration tolerance typically depends on the type of structures that are affected. Structural response to vibration is typically evaluated in terms of peak particle velocity. Peak particle velocity is often used since it is related to the stresses that are experienced by the buildings. Various general standards are contained in the International Standards Organization's standards 3945, 4866, and 7626-1. Limits set by these standards indicate a low probability of structural damage occurring to common structures at a peak particle velocity of 2 inches per second. Older (and non-reinforced) masonry structures have a limit of 0.75 to 1.0 inch per second (Caltrans 2004). The Federal Transit Administration identifies a vibration damage threshold criterion of 0.20 inch per second for non-engineered timber and masonry buildings (i.e., fragile buildings) and 0.12 inch per second for buildings extremely susceptible to vibration (i.e., fragile historic buildings) (FTA 2006).

4.10.1.2 Existing Noise Environment

A sound level survey was conducted on September 22, 2015, to evaluate existing sound levels and assess potential noise impacts on the surrounding area. Short-term sound levels were measured at existing noise-sensitive receptors adjacent to and within the project area, as shown in **Figure 4.10-1**, Noise Measurement Locations. Noise measurements were taken at nearby residences (M-1, M-2) and on the project site (M-3). Noise was measured at three representative locations adjacent to and within the project site. In all cases, the microphone height was 5 feet above the ground and the microphone was equipped with a windscreen.

The major noise source in the project area was vehicle traffic. Other secondary noise sounds included landscaping noise, rustling leaves, birds (from a nearby veterinarian hospital), distant aircraft overflights, and other community noises. The results of the sound level measurements are summarized in **Table 4.10-2**, and measurement data and notes are provided in **Appendix I**. As shown in Table 4.10-2, measured noise levels varied from 54 dBA L_{eq} at M-2 to 62 dBA L_{eq} at M-3 when rounded to whole numbers, as is customary for community noise measurements.

Table 4.10-2
Short-Term Sound Level Measurement Results

Site ID	Measurement Location	Measurement Period			Noise Sources	Measurement Results (dBA)					
		Date	*Start Time (a.m.)*	*Duration (minutes)*		L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}
M-1	2148 Heather Lane, Del Mar, CA 92014	9-22-15	9:42	20	Traffic, landscaping noise, birds, rustling leaves	54.5	70.2	41.5	49.0	53.4	57.2
M-2	2147 Heather Lane, Del Mar, CA 92014	9-22-15	10:17	15	Traffic, landscaping noise, birds, rustling leaves, distant aircraft	53.7	69.9	43.4	45.9	48.7	56.1
M-3	Northeast corner of project site	9-22-15	8:41	20	Traffic, birds, train horn, idling truck	61.8	73.1	44.6	51.1	59.2	65.8

L_{eq} = equivalent continuous sound level (energy-averaged sound level); L_{max} = maximum sound level during the measurement interval; L_{min} = minimum sound level during the measurement interval; L_{90} = sound level exceeded for 90% of the measurement period; L_{50} = sound level exceeded for 50% of the measurement period; L_{10} = sound level exceeded for 10% of the measurement period
Source: Appendix I

4.10.2 Relevant Plans, Policies, and Ordinances

Federal

Noise Control Act

The Noise Control Act of 1972 recognized the role of the federal government in dealing with major commercial noise sources that require uniform treatment. Since Congress has the authority to regulate interstate and foreign commerce, regulation of noise generated by such commerce also falls under congressional authority. The federal government specifically preempts local control of noise from aircraft, railroads, and interstate highways. The U.S. Environmental Protection Agency has identified acceptable noise levels for various land uses to protect the public, with an adequate margin of safety, and to establish noise emissions standards for interstate commerce.

The Department of Housing and Urban Development's standards define day-night average sound levels (L_{dn}) at below 65 dBA for outdoors as acceptable for residential areas. Outdoor levels up to 75 dBA L_{dn} may be made acceptable through the use of insulation in buildings (HUD 2009).

State

California Code of Regulations, Title 24, Noise Insulation Standards

The pertinent California noise regulations are contained in the California Code of Regulations. Title 24, Noise Insulation Standards, establishes the acceptable interior environmental noise level for multi-family dwellings at 45 dBA L_{dn}. This may be extended by local legislative action to include single-family dwellings.

California Code of Regulations, Section 65302(f)

California Code of Regulations, Section 65302(f), requires local land use planning jurisdictions to prepare a general plan. The noise element is a mandatory component of the general plan. It may include general community noise guidelines developed by the California Department of Health Services and specific planning guidelines for noise/land use compatibility developed by the local jurisdiction. The state guidelines also recommend that the local jurisdiction consider adopting a local noise control ordinance. The California Department of Health Services developed guidelines (OPR 2003) for community noise acceptability for use by local agencies. Selected relevant levels are as follows (L_{dn} may be considered nearly equal to CNEL):

- CNEL below 60 dBA – normally acceptable for low-density residential use
- CNEL of 55 to 70 dBA – conditionally acceptable for low-density residential use
- CNEL below 65 dBA – normally acceptable for high-density residential use
- CNEL of 60 to 70 dBA – conditionally acceptable for high-density residential use, transient lodging, churches, and educational and medical facilities
- CNEL below 70 dBA – normally acceptable for playgrounds and neighborhood parks

"Normally acceptable" is defined as satisfactory for the specified land use, assuming that normal conventional construction is used in buildings. "Conditionally acceptable" may require some additional noise attenuation or special study. Under most of these land use categories, overlapping ranges of acceptability and unacceptability are presented, leaving some ambiguity in areas where noise levels fall within the overlapping range.

California Occupational Safety and Health Administration Occupational Noise Exposure Regulations

California additionally regulates noise emissions levels of licensed motor vehicles traveling on public thoroughfares, sets noise emissions limits for certain off-road vehicles and watercraft, and sets required sound levels for light-rail-transit vehicle warning signals.

The extensive state regulations pertaining to worker noise exposure are, for the most part, applicable only to the construction phase of any project,[1] or workers in a central plant and/or a maintenance facility or involved in the use of landscape maintenance equipment or heavy machinery.

Local

City of Del Mar Community Plan

Objective D Reduce the level of noise created by major transportation routes in the community.

Policy 1 Limit the speed of vehicular traffic along City streets, particularly Camino del Mar.

Policy 2 Encourage sound reduction techniques in new buildings within the 65 decibel boundaries adjacent to Camino del Mar and the railroad right-of-way (City of Del Mar 1976).

City of Del Mar Noise Ordinance

9.20.050 Construction Noise

Any person who operates powered construction or landscape equipment and/or who erects, constructs, demolishes, excavates for, alters or repairs any building or structure within the City of Del Mar in such a manner as to cause noise to be received beyond the boundaries of the property on which the construction work is occurring shall comply with the following:

A. No construction work shall be performed on Sundays or City holidays.

B. No construction work shall be performed before 9:00 a.m. or after 7:00 p.m. on Saturday.

[1] For example, the California Occupational Safety and Health Administration Occupational Noise Exposure Regulations (8 California Code of Regulations, General Industrial Safety Orders, Article 105, Control of Noise Exposure, Section 5095, et seq.).

C. No construction work shall be performed before 7:00 a.m. or after 7:00 p.m. on Monday through Friday.

D. Construction activity shall not cause an hourly average sound level greater than 75 decibels on property zoned or used for residential purposes.

E. Exception: A person may perform construction work on the person's own property, provided such construction activity is not carried on for profit or livelihood, between the hours of 10:00 a.m. and 5:00 p.m. on Sundays and City holidays (City of Del Mar 1997).

9.20.090 Public Nuisance Noise

A. It shall be unlawful for any person to make, continue or cause to be made or continued, within the limits of the City of Del Mar, any disturbing, excessive or offensive noise which causes discomfort or annoyance to any reasonable persons of normal sensitivity residing in the area.

B. In the absence of objective measurement by use of a sound level meter, the characteristics and conditions which shall be considered in determining whether a violation of the provisions of this Section exists shall include any or all of the following:

1. The level of the noise;
2. Whether the nature of the noise is usual or unusual;
3. Whether the origin of the noise is natural or unnatural;
4. The level of the ambient noise;
5. The proximity of the noise to sleeping facilities;
6. The nature and zoning of the area from which the noise emanates and the area where it is received;
7. The time of day or night the noise occurs;
8. The duration of the noise; or
9. Whether the noise is recurrent, intermittent or constant.

Pursuant to Del Mar Municipal Code Chapter 9.20.040, the applicable noise limits per zone are as follows:

1. R1-5, R1-5B, R1-10, R1-10B, R-2, R1-14, R1-40, RM-East, RM-West, RM-Central, RM-South, OS Overlay
   a. 7:00 a.m. to 10:00 p.m. – 50 dB
   b. 10:00 p.m to 7:00 a.m – 40 dB

2. NC, RC, CC, PC, BC, VC
    a. 7:00 a.m. to 10:00 p.m. – 60 dB
    b. 10:00 p.m to 7:00 a.m – 50 dB
3. RR
    a. 7:00 a.m. to 10:00 p.m. – 60 dB
    b. 10:00 p.m to 7:00 a.m – 55 dB

4.10.3 Thresholds of Significance

The significance criteria used to evaluate the impacts from Option A and Option B related to noise are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to noise would occur if Option A or Option B would:

a. Result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
b. Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
e. Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and if so, the project would expose people residing or working in the project area to excessive noise levels.
f. Be within the vicinity of a private airstrip, and if so, the project would expose people residing or working in the project area to excessive noise levels.

4.10.4 Impacts Analysis

a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Implementation of Option A and Option B would result in two primary types of potential noise impacts: short-term (i.e., temporary) noise during construction and long-term noise during operation.

Construction Noise

Construction of both Options would generally involve the following sequence for all phases of Option A and Option B: (1) site preparation, (2) site grading, (3) trenching, (4) building construction, (5) paving, and (6) architectural coating. Although specific construction details and equipment fleet specifications are not available at this time, the following are typical types of construction equipment that would be expected:

- Crawler tractors
- Tractors/loaders/backhoes
- Excavators
- Forklifts
- Welders
- Cranes
- Water trucks
- Generator sets
- Paving equipment
- Pavers
- Rollers
- Trenchers
- Pneumatic tools
- Graders
- Air compressors

Construction equipment anticipated for Option A and Option B would include standard equipment that would be employed for any routine construction project of this scale; construction equipment with substantially higher noise-generation characteristics (such as pile drivers, rock drills, blasting equipment) would not be necessary for construction.

Construction noise can be difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time in use, condition of each piece of equipment, and number of pieces of equipment that would actually operate on site at any given time. The range of maximum noise levels for various types of construction equipment at a distance of 50 feet is depicted in **Table 4.10-3**. As distance increases between the equipment and/or distance increases between areas with simultaneous construction activity, dispersion and distance attenuation reduces the effects of separate noise sources added together. In addition, typical operating cycles may involve 2 minutes of full-power operation, followed by 3 or 4 minutes at lower levels. The average noise level during construction activities is generally lower, since maximum noise generation may only occur up to 50% of the time.

Table 4.10-3
Construction Equipment Noise Emissions Levels

Equipment	Typical Sound Level (dBA) 50 Feet from Source
Backhoe	80
Air compressor	81
Generator	81
Compactor	82
Crane, mobile	83
Compactor	82

Table 4.10-3
Construction Equipment Noise Emissions Levels

Equipment	Typical Sound Level (dBA) 50 Feet from Source
Grader	85
Loader	85
Paver	89
Pneumatic tool	85
Truck	88

Source: FTA 2006

The closest off-site existing sensitive receptor to construction of Option A and Option is a single-family residence located approximately 30 feet to the west. Another single-family residence is located greater than 200 feet to the east of the project site. Other single-family residences border the western and southern edges of the site at a greater distance.

Routine noise levels from conventional construction activities (with a typical number of equipment operating on the site) range from 75 to 86 dBA L_{eq} at a distance of 50 feet. Typically, the quietest phase of building site construction for similar projects is that associated with constructing foundations, producing 75 dBA L_{eq} at a distance of 50 feet. Typically, the loudest phases, producing 86 dBA L_{eq} at 50 feet, are those associated with grading and finishing activities. The noise levels from construction operations decrease (or increase) at a rate of approximately 6 dBA per doubling (or halving) of distance from the source. Therefore, at a distance of 30 feet (the approximate distance from the construction area closest to the nearest existing residence), construction noise levels would range from approximately 79 to 90 dBA L_{eq}.

To comply with the City of Del Mar's Noise Control Ordinance, construction activities would be limited to Monday through Friday, 7 a.m. to 7 p.m., and Saturday 9 a.m. to 7 p.m. Because both Options would exceed the 75 dBA construction noise standards established in the City of Del Mar's Noise Control Ordinance, impacts would be **potentially significant**. Implementation of mitigation measure **MM-NOI-1**, which requires construction noise attenuation measures, would reduce potentially significant construction noise impacts below 75 dBA and to a level below significance. Refer also to Section 4.3, Biological Resources, for additional construction noise discussion.

Operational Noise

The main source of noise on the project site is traffic noise. As a result of regional population growth and growth under Option A and Option B, traffic on local arterial streets is expected to increase relative to current conditions. Potential noise effects from vehicular traffic were assessed using the Federal Highway Administration's Traffic Noise Model Version 2.5 (see **Appendix I**). Data used to model noise from vehicular traffic were derived from the project-

specific traffic impact analysis report prepared by Darnell and Associates (**Appendix K** of this EIR). Option A would generate approximately 384 ADT and Option B would generate approximately 304 ADT. Information used in the model included the existing, existing-plus-Option A (or Option B), and cumulative-with-Option A (or Option B) traffic volumes. Noise levels were modeled at representative noise-sensitive receivers. The receivers were modeled at 5 feet above the local ground elevation. Two receptors (M1 and M2) represent existing off-site residences, and one receptor (M3) represents on-site receptors (see Figure 4.10-1).

Table 4.10-4 presents the results of future noise levels compared to the existing noise levels associated with Option A and Option B.

Table 4.10-4
Modeled Traffic Noise Levels with and without Option A or Option B (dBA CNEL)

Modeled Receptor	Receptor Address	Roadway Intersection	Existing	Existing Plus Option A	Existing Plus Option B	Cumulative with Option A	Cumulative with Option B	Maximum Noise Level Increase (dBA)
M1: Single-family residences, west of project site	2148 Heather Lane	Heather Lane	59	59	59	59	59	0
M2: Single-family residences, southwest of project site	2134 David Way	David Way	55	55	55	55	55	0
M3: On-Site receptor	Northeast corner of project site	Jimmy Durante Boulevard and San Dieguito Drive	66	66	66	66	66	0

Source: Appendix I
Note: Traffic noise levels are rounded to the nearest whole numbers.

As Table 4.10-4 shows, Option A and Option B would increase the noise level along these roads by approximately 0 dBA (when rounded to whole numbers) along the roads in the vicinity of the project site. Therefore, there would be no audible or measurable increase in average traffic noise levels. Option A and Option B are not anticipated to result in significant traffic noise increases or cause an exceedance of applicable traffic noise standards. Therefore, the impact from traffic noise associated with Option A and Option B would be less than significant.

Residential land uses are not typically considered a source of substantial noise. Common areas, such as the pool, under both Option A and Option B, would be situated away from nearby sensitive receptors, reducing potential noise from reaching nearby residences. Noise generated from residential uses is generally described as nuisance noise, which is intermittent or temporary neighborhood noise from sources such as amplified music, barking dogs, car alarms, and landscape maintenance equipment that may be disturbing to other residents. The residents would comply with the City of Del Mar's Noise Ordinance as it relates to excessive nuisance noise. Instances of nuisance noise would be addressed on an individual case basis through resident self-policing or through law enforcement. Due to the intermittent and temporary nature of nuisance noise, as well as compliance with the City of Del Mar's Noise Ordinance, impacts under either Option would be **less than significant**.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

The potential for substantial groundborne vibration to occur would be limited to the construction phase of Option A and Option B. Groundborne vibration is a small, rapidly fluctuating motion transmitted through the ground that diminishes fairly rapidly over distance. Anticipated groundborne vibration from heavy equipment operations during construction of both Options was evaluated and compared to relevant vibration impact criteria using the Federal Transit Administration's Transit Noise and Vibration Impact Assessment, which provides vibration impact criteria and recommended methodologies and guidance for assessment of vibration effects (FTA 2006).

At a distance of approximately 20 feet, the vibration level from heavy construction machinery (such as a loaded truck or a drilling rig) would be between approximately 0.106 peak particle velocity in inches per second and 0.124 peak particle velocity in inches per second. Vibration levels of this magnitude would likely be perceptible at nearby residences, but they would be below the Federal Transit Administration's threshold of potential damage for normal structures (0.20 peak particle velocity in inches per second) and would not be considered excessive. Therefore, short-term construction-related vibration impacts under either Option would be **less than significant**.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Long-term operational noise would result from Option A and Option B, including traffic and nuisance noise. Both Options would incrementally increase off-site traffic volumes along adjacent roads, including Jimmy Durante Boulevard and San Dieguito Drive, as well as overall traffic noise in the vicinity of the project site. However, as shown in Table 4.10-4 and discussed above, Option A

and Option B would not result in an audible or measurable increase in average traffic noise levels along local roadways in the vicinity of the site. Additionally, residential land uses are not typically considered sources of substantial noise. Therefore, both Options would not result in a substantial permanent increase in ambient noise levels. Impacts would be **less than significant**.

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Construction would result in temporary increases in ambient noise levels in the vicinity of the project site. As described previously, the closest off-site existing sensitive receptor to construction of Option A and Option B are single-family residences located approximately 60 feet to the south, and approximately 30 feet to the west. Other single-family residences border the western and southern edges of the site at a greater distance. At a distance of 30 feet (the approximate distance from the construction area to the nearest existing residence), construction noise levels would range from approximately 79 to 90 dBA L_{eq}. Because Option A and Option B would exceed the 75 dBA construction noise standards established in the City of Del Mar's Noise Control Ordinance, impacts would be **potentially significant**. However, implementation of mitigation measure **MM-NOI-1**, which requires construction noise attenuation measures, would reduce potentially significant construction noise impacts to a level below significance. See discussion regarding residential nuisance noise under Threshold (a), above.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

McClellan-Palomar Airport is the closest airport to the project site, located more than 10 miles north at 2192 Palomar Airport Road in Carlsbad, California. Option A and Option B would not be located within 2 miles of any airport, and would not expose people residing or working in the project area to excessive noise levels associated with an airport. Both Options would, therefore, result in **no impact** related to airports.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The nearest private airstrip to the proposed project site is the Lyall-Roberts Airport located at Lyall Roberts Orchards, 15524 Highway 76 in Escondido, California, approximately 45 miles from the proposed project site. Option A and Option B would not expose people residing or working in the project area to excessive noise levels associated with any airstrip, and would, therefore, result in **no impact**.

4.10.5 Mitigation Measures

The following mitigation measure would reduce potentially significant construction noise impacts resulting from Option A and Option B to below a level of significance:

MM-NOI-1 Prior to initiation of construction of Option A or Option B, the City of Del Mar shall approve a construction noise mitigation program to include the following:

- Temporary sound barriers/shielding shall be installed to shield non-mobile equipment in the vicinity of nearby residences, or, alternatively, to shield at the site's boundaries (i.e., the southern, southeastern, and western sides, where adjacent residences are closest). The top of the noise barrier shall be 10 feet above the existing grade, measured from the interior side of the barrier from the finished surface elevations of the western parking lot. The barrier may be constructed of any a material with a minimum weight of 2 pounds per square foot. Noise barriers must not have any gaps or perforations and may be constructed of, but are not limited to, 5/8-inch plywood, 5/8-inch oriented strand board, or hay bales.
- Construction equipment shall be properly outfitted and maintained with feasible noise-reduction devices (e.g., functioning mufflers and silencers, tightly closed access panels) to minimize construction-generated noise.
- Stationary noise sources such as generators or pumps shall be located as far away from the nearest (southerly and westerly) noise-sensitive land uses (residences) as feasible and shall be required to comply with the Del Mar Municipal Code Noise Ordinance.
- Laydown and construction vehicle staging areas shall be located away from the nearest (southerly and westerly) noise-sensitive land uses (residences) if feasible.
- Residential areas that will be subject to construction noise shall be informed 1 week before the start of each construction phase and made aware of the overall schedule of construction.

Effectiveness of this mitigation measure would vary from several decibels (which in general is a relatively small change) to 10 or more decibels (which subjectively would be perceived as a substantial change), depending upon the specific equipment and the original condition of that equipment, the specific locations of the noise sources and the receivers, etc. Installation of a noise barrier, for example, would vary in effectiveness depending upon the degree to which the line-of-sight between the source and receiver is broken, and typically ranges from 5 to 10 dB. Installation of more effective silencers could range from several decibels to well over 10 decibels. Reduction of idling equipment could reduce overall noise levels from barely any

reduction to several decibels. Cumulatively, however, this measure would result in marked decreases in the noise from construction. With incorporation of mitigation, short-term construction impacts associated with exposure of persons to or generation of noise levels in excess of established standards would be less than significant.

4.10.6 Level of Significance After Mitigation

Implementation of mitigation measure MM-NOI-1 would reduce potentially significant construction noise impacts resulting from Option A and Option B to less than significant. Operational and airport-related noise impacts would remain less than significant without mitigation for both Option A and Option B.

4.10.7 References

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SOURCE: SANDAG, 2014.

FIGURE 4.10-1

Noise Measurement Locations

DUDEK

Watermark Del Mar Specific Plan EIR

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4.11 POPULATION AND HOUSING

This section describes the existing setting of the proposed project site, identifies associated regulatory requirements, and evaluates potential impacts to population and housing related to implementation of the proposed Watermark Del Mar Specific Plan (WDMSP) Option A and Option B.

4.11.1 Existing Conditions

The proposed project site is vacant and totals approximately 103,282 square feet (2.37 acres). It is undeveloped and intermittently used for paid fairground and racetrack parking. The site has an underlying zoning designation of North Commercial Zone and also has overlay designations of Bluff, Slope, and Canyon; Lagoon; and Floodplain Overlay. The northern, eastern, and northwestern portions of the project site consist of relatively flat terrain with minimal vegetation. The southwestern portion consists of a graded plateau area. The remaining portions of the project site, generally the southern and southeastern portions, consist of a steep slope (bluff) upward which is heavily vegetated and a slope area to its southwest, which was previously graded but has since revegetated. At the base of the referenced bluff, the southeastern portion of the project site contains an isolated area with wetland indicator plant species.

The project site is located within the North Hills District per the City's Community Plan (City of Del Mar 1985). The North Hills District is characterized by mostly low density residential on relatively large lots with moderate-sized single family homes (City of Del Mar 1985). The majority of the Del Mar population is between the ages 18-64 at 65.6% of the residents; those under 18 years and over 65 years of age represent 13.6% and 20.8% of the population, respectively (City of Del Mar 2013). Del Mar has a higher median age (48.6) when compared to most of San Diego County (City of Del Mar 2013). Other population and housing statistics are provided with descriptions of applicable plans in Section 4.11.2.

4.11.2 Relevant Plans, Policies, and Ordinances

State

California Department of Finance

The California Department of Finance Demographic Research Unit is the single official source of demographic data for state planning and budgeting. The Demographic Research Unit manages the State Census Data Center (established in 1979) to serve as the central point for the dissemination and state and local agency and public access of census data in California. The Demographic Research Unit of the Department of Finance provides the most recent population and housing estimates and projections at a city, county, and state level based on census data and

other methodologies such as the housing unit method (new construction, demolitions, and annexations), driver license address change method, and administrative records method. The population and housing estimates and projects are updated regularly for use by federal agencies, state agencies, local agencies, and the public for research and planning purposes.

Regional

San Diego Association of Governments

The San Diego Association of Governments (SANDAG) is a public agency that builds strategic plans guiding the region in land use, growth, economics, and the environment. The SANDAG Regional Comprehensive Plan (RCP) provides a growth management strategy for the region. In accordance with smart growth principles, the overall goal of the RCP is to strengthen the integration of local and regional land use, transportation, and natural resource planning. As stated in the RCP's Regional Housing Element, new housing should be located within already urbanized communities close to jobs and transit "to help conserve open space and rural areas, reinvigorate existing neighborhoods, and lessen long commutes" (SANDAG 2004). In addition to the need for applying smart growth strategies in the location and development of new housing, the RCP's Regional Housing Element includes the goal to provide more housing choices in all price ranges. The RCP states that homes need to be affordable to persons of all income levels and accessible to persons of all ages and abilities.

SANDAG estimates future population, housing, land use, and economic growth throughout San Diego County and its comprising cities, including the City of Del Mar (City). On February 26, 2010 (most recently updated in 2013 and released in 2015), SANDAG accepted the 2050 Regional Growth Forecast to be used for planning purposes. SANDAG growth projections for the region and for the City are outlined in **Table 4.11-1**. The 2050 Regional Growth Forecast is not intended to be an exact formula to determine growth in the region, but can be used as a starting point for regional planning.

Table 4.11-1
Forecasted Growth for the San Diego Region and the City of Del Mar

Jurisdiction	Year				Change 2012–2050	
	2012	*2020*	*2035*	*2050*	*Numeric*	*Percent*
Population						
San Diego Regional	3,143,429	3,435,713	3,853,698	4,068,759	925,330	29%
City of Del Mar	4,194	4,399	4,672	4,732	538	13%
Housing						
San Diego Regional	1,165,818	1,249,684	1,394,783	1,491,935	326,117	28%
City of Del Mar	2,637	2,646	2,653	2,674	37	1%

Table 4.11-1
Forecasted Growth for the San Diego Region and the City of Del Mar

Jurisdiction	Year				Change 2012–2050	
	2012	*2020*	*2035*	*2050*	*Numeric*	*Percent*
Employment						
San Diego Regional	1,450,913	1,624,124	1,769,938	1,911,405	460,492	32%
City of Del Mar	4,521	4,542	4,704	4,726	205	5%

Source: SANDAG 2013

As shown in **Table 4.11-1**, the City is expected to experience a substantially lower growth rate for population and housing when compared to the entire region of San Diego. Also, the City is expected to have a lower growth rate in employment. However, the difference when compared to the San Diego region is not as large as for population and housing.

SANDAG is currently updating the 2050 Regional Growth Forecast, which will be incorporated into a regional plan that merges the planning efforts of the RCP and the Regional Transportation Plan, to be known as San Diego Forward. SANDAG released a draft of the San Diego Forward Plan in April 2015 for public review. This planning effort and associated growth forecasts were adopted on October 9, 2015.

Regional Housing Needs Assessment

Based on a methodology that weighs a number of factors (e.g., projected population growth, employment, commute patterns, and available sites), SANDAG determined quantifiable needs for housing units in the region according to various income categories. In its final Regional Housing Needs Assessment (RHNA) figures, SANDAG allocated 61 housing units to the City for the 2010–2020 Housing Element Cycle, including 4 units appropriate for extremely-low income residents, 3 very-low income, 5 low income, 15 moderate income, and 34 above-moderate income within the City of Del Mar. However, some units have already been constructed and the City incurred a 15-unit penalty from the previous Housing Element Cycle, therefore, the City's total RHNA obligations are 13 extremely-low and very-low income, 9 low income, 20 moderate income, and 19 above-moderate income.

Local

City of Del Mar Housing Element

The most recent City of Del Mar Housing Element was adopted by the City Council on May 20, 2013 by Resolution No. 2013-37 for the period 2013–2021, and later certified by the California Department of Housing and Community Development on June 6, 2013. The Housing Element acknowledges that the City is "virtually built-out, [with] only a limited amount of land

remain[ing] for future residential development" (City of Del Mar 2013). The City's housing stock has experienced minimal growth since 1990, growing by only 1.7% from 1990 to 2010. The proposed project site is specifically identified in the "Sites Inventory" segment of the current Housing Element as a property for potential re-designation to residential land uses at a target density of 20–25 dwelling units per acre (du/ac).

4.11.3 Thresholds of Significance

The significance criteria used to evaluate Option A and Option B impacts to population and housing are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to population and housing would occur if Option A or Option B would:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

c) Displace substantial number of people, necessitating the construction of replacement housing elsewhere.

4.11.4 Impacts Analysis

a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Implementation of Option A would result in development of 48 residential units on existing vacant land within the City, and Option B would result in 38 residential units. Based on a factor of 2.05 persons per dwelling unit, as established by the California Department of Finance for the City of Del Mar, Option A and Option B would directly induce population growth to the area and would potentially add an estimated 99 or 78 people to the area, respectively (Department of Finance 2014). Option A and Option B would not, however, indirectly induce growth in population, as no extension of infrastructure, such as roads or water and wastewater service, is proposed beyond what is required to adequately serve either Option. The SANDAG population growth forecasts rely, in part, on individual jurisdiction's planning documents, such as the City of Del Mar's Community Plan and Zoning Code (Title 30 of Del Mar Municipal Code). As such, because the Options propose a Community Plan Amendment and Zoning Amendment to change the site's designation from commercial uses to residential uses, the estimated population of 99 or 78 people would not have been accounted for in SANDAG's projections, and, therefore, would

exceed the projections described in **Table 4.11-1.** However, the determination of impacts related to population growth hinges on whether the induced growth would be considered substantial.

As shown in **Table 4.11-1**, the City's population is projected to grow from 4,194 people in 2012 to 4,399 people by 2020 (an increase of 205 people). The City is only projected to grow by 538 people by 2050 when utilizing SANDAG's 2050 Regional Growth Forecast. There is not a hardline number or percentage available to determine whether or not the estimated introduction of 99 or 78 people would be considered a substantial increase in population.

SANDAG's 2050 Regional Growth Forecast is intended to be used as a reference point for regional planning and not as a prescribed growth pattern. SANDAG's 2015 Regional Growth Forecast represents one possibility for future growth based on a combination of economic and demographic projections, existing land use plans, and potential land use changes (SANDAG 2013). Further, the project site is specifically identified by the current Housing Element (Appendix B-4 of the Housing Element) as a potential site for re-designation from North Commercial Zone to a residential designation which would accommodate and help meet future growth needs and RHNA requirements as identified in the City's Housing Element. The RHNA allocated 61 housing units to the City for the 2010–2020 Housing Element Cycle, including 4 units appropriate for extremely-low income residents, 3 very-low income, 5 low income, 15 moderate income, and 34 above-moderate income within the City of Del Mar. However, some units have already been constructed and the City incurred a 15-unit penalty from the previous Housing Element Cycle, therefore, the City's total RHNA obligations are 13 extremely-low and very-low income, 9 low income, 20 moderate income, and 19 above-moderate income.

The Housing Element states that the City has adequate sites with existing residential land use designations to accommodate all of the moderate and above-moderate income RHNA units, but that the rezoning of candidate sites holds the greatest potential for the City to meet the RHNA requirement of 22 lower-income units (City of Del Mar 2013). Option A would include seven affordable housing units, and Option B would include six affordable housing units, which would aid the City in achieving a portion of its RHNA obligations. Four of the affordable units under Option A, and three of the affordable units under Option B would be gifted to the City or a City-designated entity, which would likely result in lower-tier affordability qualification. Therefore, those units could be provided as low, very-low or extremely-low income units, which would satisfy 18% of the City's low affordable housing needs under Option A, and 14% under Option B.

Both Options would be consistent with the City's Housing Plan, as outlined in the Housing Element. The Housing Plan has three overall goals (City of Del Mar 2013):

1. Conserve and improve the community's existing affordable housing stock.

2. Encourage and support the development of a wide range of housing opportunities for households with a variety of lower income levels.
3. Promote equal and fair housing opportunities.

The first goal does not apply to either Option as the site is currently vacant. Both Options would be consistent with the second and third goals of the City's Housing Plan by providing new multi-family dwelling units (the City's housing stock is 90% single-family residential) and by designating a portion of those units as affordable housing.

The Housing Plan also includes objectives with related programs for implementation. Program #4.A.1, along with Housing Program 2-G, states that "[w]ithin 12 months of adoption of the Housing Element, the City will apply a new land use designation to two vacant parcels roughly 2.3 acres in size and currently zoned as North Commercial Zone (APNs 299-10-47, 48) to allow residential development by right, at a density of 20–25 [dwelling units per acre]" (City of Del Mar 2013). As such, the City specifically identified the proposed project site as an area to consider for future higher-density residential land uses and resulting direct population growth in its Housing Plan. Option A, which would result in a density of 20–24 dwelling units per acre, and Option B, which would result in a density of 16.1 dwelling units per acre, would aid the City in furthering implementation of its Housing Plan to meet future growth and housing demand within its jurisdiction. Option B would be below the 20-25 dwelling units per acre range specified in the Housing Element, with only 16.1 dwelling units per acre. However, the City is required to be in substantial compliance with the statutory requirements of the housing element law and Option B's 16.1 dwelling-units-per-acre density would constitute substantial compliance.

Although both Options would result in minimal growth unaccounted for by regional growth projections, either Option would aid the City in meeting RHNA obligations and would be consistent with the Housing Element of the City's Community Plan. Therefore, Option A or Option B would not result in substantial population growth, and impacts would be **less than significant.**

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

The proposed project site is currently vacant with no existing housing on site. Therefore, Option A or Option B would not displace any existing housing. **No impact** would occur.

c) Would the project displace substantial number of people, necessitating the construction of replacement housing elsewhere?

The proposed project site is currently vacant with no existing people or housing on site. Therefore, Option A or Option B would not displace any existing people. **No impact** would occur.

4.11.5 Mitigation Measures

No significant impacts have been identified. Therefore, no mitigation is required.

4.11.6 Level of Significance After Mitigation

All impacts would be less than significant without mitigation.

4.11.7 References

City of Del Mar. 2013. *City of Del Mar Community Plan Housing Element 2013–2021*. Adopted May 20, 2013.

California Department of Finance. 2014. E-5 City/County Population and Housing Estimates, January 1, 2014.

SANDAG (San Diego Association of Governments). 2004. Regional Comprehensive Plan's Regional Housing Element. July 2004. http://www.sandag.org/programs/land_use_and_regional_growth/comprehensive_land_use_and_regional_growth_projects/RCP/rcp_final_complete.pdf

SANDAG. 2011. Regional Housing Needs Assessment Plan, Fifth Housing Element Cycle, Planning for Housing in the San Diego Region 2010-2020. October 28, 2011.

SANDAG. 2013. *2050 Regional Growth Forecast*. October 2013.

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4.12 TRAFFIC AND CIRCULATION

This section describes the existing traffic and circulation setting of the proposed Watermark Del Mar Specific Plan (WDMSP) Option A or Option B site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies conditions of approval that would reduce any potentially significant impacts associated with implementation of either Option A or Option B. Information for this analysis is derived from the Traffic Study for the Watermark Del Mar Residential Project, dated August 27, 2015, revised October 21, 2015, by Darnell & Associates Inc. Information was also derived from the Trip Generation Comparison Memo dated May 30, 2017, by Darnell & Associates Inc. The complete report and memo are included as **Appendix K** of this environmental impact report (EIR).

4.12.1 Existing Conditions

The proposed project site is approximately 0.76 mile west of Interstate 5 and 0.32 mile east of Camino Del Mar in Del Mar, California. The site is located on the southern corner of the intersection of Jimmy Durante Boulevard and San Dieguito Drive (see **Figures 3-1** and **3-2**). The site consists of two parcels: Assessor's Parcel Numbers 299-100-47 and 299-100-48. The site is vacant and totals approximately 103,282 square feet (2.37 acres). The site is generally bounded to the north by the intersection of Jimmy Durante Boulevard and San Dieguito Drive. San Dieguito Drive adjoins the site to the east-northeast, beyond which is a vacant lot and various facilities, including Del Mar Blue Print, Rose Towing, Del Mar Automotive, and other businesses. To the south and southwest are residences. To the west and northwest, Jimmy Durante Boulevard adjoins the site with a vacant lot and various businesses beyond.

The existing conditions of the roadway network surrounding the project site are described below and shown in **Figure 4.12-1**.

4.12.1.1 Public Transportation

Public bus service in the City of Del Mar (City) is operated by the North County Transit District (NCTD) and is known as the BREEZE. Bus routes provide access within the City and connective access to other cities, including Vista, Oceanside, Fallbrook, Carlsbad, Encinitas, and Escondido. NCTD currently operates two fixed BREEZE bus service routes that provide access from, to, and within the City. **Table 4.12-1** identifies and summarizes the bus routes that serve the City.

Table 4.12-1
North County Transit District Bus Routes Serving Del Mar

Route	Description	Communities Served
101	La Jolla (UTC) to Oceanside (Transit Center)	Access from Del Mar south to La Jolla and north to Oceanside. Provides access to Coaster Station stops located in Solana Beach, Encinitas, Carlsbad (two stops), and Oceanside. The closest bus stop for Route 101 is located 1.1 miles north of the project site.

Table 4.12-1
North County Transit District Bus Routes Serving Del Mar

Route	Description	Communities Served
308	Solana Beach Town Centre to Escondido Transit Center	Access through Ranch Santa Fe east to Escondido (Transit Center), starting from Solana Beach Town Centre. The closest bus stop for Route3081 is located 3.2 miles east of the project site.

Source: San Diego Metropolitan Transit Service 2014

The NCTD COASTER is a daily commuter train that runs north/south between Oceanside and San Diego, with limited service on weekends and holidays. The Solana Beach NCTD COASTER train stop is located at the Solana Beach Train Station on North Cedros Avenue, approximately 1.6 miles northwest of the proposed project site. The Amtrak Pacific Surfliner also stops at the Solana Beach Train Station, which connects San Luis Obispo to San Diego.

4.12.1.2 Bikeway System

The state Highway Design Manual (Caltrans 2014) identifies three classes of bikeways: Shared Use Paths (Class I), Bike Lanes (Class II), and Bike Route or Signed Shared Roadways (Class III).

Existing Bikeways within Del Mar are as follows (City of San Diego 2002):

- Existing Class II bikeways along Camino Del Mar/Torrey Pines Road and Via de La Valle
- Existing Class III bikeway along Del Mar Heights Road
- Proposed Class I bikeway along the San Dieguito River (Coast-to-Crest Trail) (San Dieguito River Park Office n.d.)
- Proposed Class II bikeway along Carmel Valley Road

4.12.1.3 Pedestrian Corridors

River Path Del Mar is approximately 0.25 mile long and runs along the San Dieguito Lagoon to the north of the project site. River Path Del Mar is an existing trail that is part of the San Dieguito segment of the City's Scenic Loop Trail (a 7-mile hiking trail), and currently provides pedestrian access along the river's south edge between the river mouth and Jimmy Durante Boulevard. The trail offers pedestrian access along the shoreline and views up, down, and across the river. Pending approval, the City is proposing an extension that would advance the River Path east from Jimmy Durante Boulevard to the Old Grand Avenue Bridge and bring the Loop Trail one step closer to a future connection at the Crest Canyon segment (City of Del Mar 2015). In addition, a sidewalk was recently installed (2015) along Jimmy Durante Boulevard between the Del Mar Fairgrounds and the Del Mar Plaza in downtown Del Mar.

4.12.1.4 Existing Roadway Network and Operations

Regional Highway System

Interstate 5: One major freeway provides direct access to the City: Interstate 5, which is east of the City. Interstate 5 is the major north–south interstate highway through California, stretching from the border of Mexico to the border of Canada. It provides interregional travel and ranges from one to six lanes in each direction. The southernmost portion of Interstate 5 terminates at the San Diego/Mexico border.

Existing Roadway Segments

Via de la Valle: Via de la Valle is northeast of Jimmy Durante Boulevard. It is a four-lane major arterial (roadway with a painted median) with a capacity of 45,000 average daily traffic (ADT) at level of service (LOS) E. West of Jimmy Durante Boulevard, Via de la Valle is constructed as a four-lane roadway with a two-way left-turn lane, bike lanes, and permitted parking. This section of Via de la Valle has a capacity of 45,000 ADT at LOS E. The posted speed limit on Via de la Valle is 45 miles per hour.

Camino Del Mar: Camino Del Mar is a two-lane roadway with a raised median and bike lanes, Parking is allowed from Via de la Valle to 23rd Street. This segment of Camino Del Mar has a capacity equivalent to that of a two-lane collector with a continuous left-turn lane, which is 15,000 ADT at LOS E. South of Seaview Avenue, Camino Del Mar is constructed as a four-lane secondary arterial/collector (four-lane undivided roadway) with a capacity of 30,000 ADT at LOS E. The posted speed limit on Camino Del Mar ranges from 25 to 40 miles per hour.

Jimmy Durante Boulevard: Jimmy Durante Boulevard is constructed south of Via de la Valle as a four-lane roadway with a two-way left-turn lane and bike lanes. This section of Jimmy Durante Boulevard has a capacity equivalent to that of a secondary arterial/collector, which is 30,000 ADT at LOS E. South of San Dieguito Drive, Jimmy Durante Boulevard is constructed as a two-lane roadway with a raised median and bike lanes. This section of Jimmy Durante Boulevard has a capacity equivalent to that of a two-lane collector with a median or a continuous left-turn lane, which is 15,000 ADT at LOS E. The posted speed limit on Jimmy Durante Boulevard is 45 miles per hour between Via de la Valle and San Dieguito Drive, and 40 mph south of San Dieguito Drive.

San Dieguito Drive: San Dieguito Drive is constructed as a two-lane undivided road with a painted center line. The capacity of San Dieguito Drive is equivalent to that of a two-lane collector with commercial-industrial fronting, which is 8,000 ADT at LOS E.

Existing Roadway Segments Level of Service

The region's goal for acceptable service standards during daily periods is LOS D for all roadway segments. Street segment analysis is based on the comparison of ADTs to the San Diego Traffic Engineers' Council (SANTEC) and the Institute of Transportation Engineers (ITE) Guidelines for Traffic Impact Studies (TIS) in the San Diego Region (SANTEC/ITE Guidelines), which provides segment capacities for different street classifications based on traffic volumes and roadway characteristics (SANTEC/ITE 2000). **Table 4.12-2** summarizes the existing study area roadway segment operations. As seen in **Table 4.12-2**, all study area segments are currently calculated to operate at an acceptable LOS D or better.

Table 4.12-2
Existing Roadway Segment Level of Service

Street Segment	Classification	Capacity (LOS E)[1]	ADT	V/C Ratio	LOS
Jimmy Durante Boulevard					
South of Via de la Valle	Secondary Arterial	30,000	14,883	0.496	B
North of San Dieguito Drive	Two-Lane Collector (CLTL)	15,000	9,731	0.649	B
South of San Dieguito Drive	Two-Lane Collector (CLTL)	15,000	8,814	0.588	A
San Dieguito Drive					
East of Jimmy Durante Boulevard	Two-Lane Collector (C/I)	8,000	1,225	0.153	A

[1] Capacity is based on the upper limit of LOS E per Table 2 of the San Diego Traffic Engineers' Council (SANTEC) and the Institute of Transportation Engineers (ITE) Guidelines for Traffic impact Studies (TIS) in the San Diego Region (SANTEC/ITE 2000)

LOS = level of service; ADT = average daily traffic; v/c = volume-to-capacity; CLTL = two-lane collector with a continuous left turn lane; C/I = two-lane collector with commercial/industrial fronting

Existing Intersections

Two key study intersections were chosen for analysis:

- Jimmy Durante Boulevard and Via de la Valle (signalized)
- Jimmy Durante Boulevard and San Dieguito Drive (unsignalized)

The intersection of Jimmy Durante Boulevard and Via de la Valle is signalized, and the intersection of Jimmy Durante Boulevard and San Dieguito Drive is currently two-way stop-controlled on San Dieguito Drive.

Existing Intersection Level of Service

The City requires use of the most recent version of the Highway Capacity Manual (HCM) methodology for peak-hour analysis at the relevant proposed project intersections (Transportation Research Board 2000). The HCM values were calculated using lane geometries. The results of the analysis are presented in **Table 4.12-3**.

Table 4.12-3
Existing Intersection HCM Level of Service Summary

Intersection	Critical Movement	AM Peak		PM Peak	
		Delay (sec/veh)	*LOS*	*Delay (sec/veh)*	*LOS*
Jimmy Durante Boulevard at Via de la Valle (Signalized)	Intersection	29.0	C	34.9	C
Jimmy Durante Boulevard (east/west) at San Dieguito Drive (north/south) (Two-Way Stop-Controlled)	Intersection	1.8	A	1.3	A
San Dieguito Drive (north/south) at Project Driveway	One-Way Stop Controlled	Does not Exist			

sec/veh = seconds per vehicle; LOS = level of service

Using the HCM methodology, the LOS at signalized intersections is based on delay variables such as lane configuration, traffic volumes, and signal timings. The LOS at unsignalized intersections is determined by the longest delay time for any single turn move. The move with the longest delay is identified as the Critical Movement. **Table 4.12-3** presents the delay in seconds and the corresponding LOS for each intersection. As can be seen from **Table 4.12-3**, all intersections operate at LOS C or better under existing conditions.

4.12.2 Relevant Plans, Policies, and Ordinances

Federal

Department of Transportation Act of 1966

Section 4(f) of the Department of Transportation Act of 1966 specifies that a transportation project requiring the use of publicly owned parks, recreation areas, historic sites (including those owned privately), wildlife and waterfowl refuges, and many other types of resources can be approved only if there is no feasible and prudent alternative to using that land and if the project is planned to minimize harm to the property.

State

California Department of Transportation

The California Department of Transportation (Caltrans) is the public agency responsible for designing, building, operating, and maintaining California's state highway system, which consists of freeways, highways, expressways, toll roads, and the area between the roadways and property lines. Caltrans is also responsible for permitting and regulating the use of state roadways. Caltrans' construction practices require temporary traffic control planning during any activities that interfere with the normal function of a roadway.

Congestion Management Program

In June 1990, California voters approved Proposition 111, which established a 9% per gallon gas tax, staged over a 5-year period, for funding transportation-related improvements statewide. To be eligible for the revenues associated with Proposition 111, the Congestion Management Program (CMP) legislation (originally Assembly Bill 471, amended by Assembly Bill 1791) requires urbanized counties in California to adopt a CMP. The CMP requires that a traffic impact assessment be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that have direct access to the CMP Highway System. Per the CMP guidelines, this number is based on the desire to analyze any impacts that comprise 3% or more of the existing CMP Highway System's capacity. The CMP Highway System includes specific roadways, including state highways, "smart streets," and CMP arterial monitoring locations/intersections.

Local

Regional Transportation Plan

The Regional Transportation Plan (RTP) is a 25-year plan that focuses on improving the balance between land use and current and future transportation systems throughout the region. RTPs are developed to provide a clear vision of the regional transportation goals, objectives, and strategies. In addition, RTPs must reflect Senate Bill 375 (Steinberg, Statutes of 2008), which targets regional greenhouse gas emissions reductions from passenger vehicles and light-duty trucks through changes in land use and transportation development patterns.

The responsible Regional Transportation Planning Agency in Southern California is the San Diego Association of Governments (SANDAG). Therefore, SANDAG is required to adopt and submit an updated RTP to the California Transportation Commission and Caltrans every 4 or 5 years, depending on air quality attainment within the region. SANDAG, in partnership with local governments, is required by federal law to create an RTP that determines the needs of the transportation system and prioritizes proposed transportation projects.

City of Del Mar Community Plan

The Del Mar Community Plan identifies, evaluates, and makes recommendations regarding the location, capacity, and design of various modes of transportation within and around the community. It also considers the creation of pedestrian walkways, bicycle rights-of-way, public access to the beach, preservation of the existing character of residential streets, and the elimination of unwanted noise created by transportation, and a goal to minimize air pollution. The following goals and policies are identified in the Del Mar Community Plan associated with transportation and circulation (City of Del Mar 1976):

Transportation

Goal 2 Minimize the impact of the automobile on the character of Del Mar and emphasize a more pedestrian-oriented environment, safer sidewalks, landscaped buffer zones, and alternate means of transportation.

Objective A Encourage a pedestrian-oriented non-motorized community by developing a system of bicycle right-of-way and pedestrian paths, and discouraging high-speed traffic along City streets.

Policy 1 Redesign Camino del Mar to improve its appearance as a scenic coastal route and accommodate low-speed vehicular traffic.

Policy 2 Improve the safety of Camino del Mar pedestrian crossings, particularly in the north and south ends of the community.

Policy 3 Provide a continuous north/south bicycle network through the City.

Policy 6 Encourage all unimproved public right-of-way to be used solely for pedestrian movement unless absolutely necessary for vehicular access.

Objective B Facilitate the movement of traffic in a safe and uncongested manner consistent with a pedestrian-oriented community.

Policy 1 Encourage the development of an improved intersection design at Via de la Valle, Stevens Street, Turf Road, and Jimmy Durante Boulevard.

City of Del Mar Local Coastal Program – Land Use Plan

Identified below are a number of polices aimed at providing long term use of beach access ways and the provision of improvements within them is tempered by the need to preserve the fragile

resources within the respective areas and to protect the safety, rights and privacy of residents who live in the area (City of Del Mar 1993).

Goal IV-B Give priority to pedestrian and bicycle traffic as opposed to automobile traffic through application of the following policies, and pursue the increased use of alternate transportation modes to regionally significant areas within Del Mar. Examples of "alternate transportation modes" include bicycle, pedestrian, bus, shuttle service, and railroad.

Policy IV-15 Retain and maintain existing bikeways, including those along Coast Boulevard, Camino del Mar, Jimmy Durante Boulevard, and Via de la Valle.

Policy IV-18 Cooperate with local, state, and federal agencies in developing a system of pedestrian trails and bicycle paths that would link together coastal recreation areas such as the beaches, Crest Canyon, San Dieguito Lagoon, and Los Penasquitos Lagoon.

Policy IV-19 The improvement or establishment of alternative transportation modes shall be designed to ensure protection of sensitive resources and the retention of the small-town scenic qualities of Del Mar.

4.12.3 Level of Service Analysis and Methodologies

AM and PM peak-hour operating conditions for the key study intersections were evaluated using the methodology outlined in Chapter 16 of the HCM (Transportation Research Board 2000) for signalized intersections and the methodology outlined in Chapter 17 of the HCM for unsignalized intersections. Daily operating conditions for the key study roadway segments were analyzed using the volume to capacity (v/c) ratio (see **Appendix K**).

There are various methodologies used to analyze signalized intersections, unsignalized intersections, and street segments. The measure of effectiveness for intersection and segment operations is level of service (LOS), which denotes the operating conditions that occur at a given intersection or on a given roadway segment under the various traffic volume loads. It is a measure used to describe a quantitative analysis, taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. LOS provides an index to the operational qualities of a roadway segment or an intersection. LOS designations range from A through F, with LOS A representing the best operating conditions and LOS F representing the worst. LOS designation is reported differently for signalized and unsignalized intersections, and for roadway segments.

HCM Method of Analysis for Signalized Intersections

AM and PM peak-hour operating conditions for the key signalized study intersections were evaluated using the HCM operations method of analysis (see **Appendix K**). LOS for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometries, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during ideal conditions: in the absence of traffic control, in the absence of geometric delay, in the absence of any incidents, and when there are no other vehicles on the road.

In Chapter 16 of the HCM, only the portion of total delay attributed to the control facility is quantified. This delay is called control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay (Transportation Research Board 2000). In contrast, in previous versions of the HCM (1994 and earlier), delay included only stopped delay.

Specifically, LOS criteria for traffic signals are stated in terms of the average control delay per vehicle. The six qualitative categories of LOS and their corresponding HCM control delay value range for signalized intersections are shown in **Table 4.12-4**.

Table 4.12-4
LOS Criteria for Signalized Intersections (HCM Methodology)

Level of Service (LOS)	Control Delay Per Vehicle (seconds per vehicle)	Level of Service Description
A	≤10.0	This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	>10.1 and ≤20.0	This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.
C	>20.1 and ≤35.0	Average traffic delays. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	>35.1 and ≤55.0	Long traffic delays At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity (v/c) ratios. Many vehicles stop and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

Table 4.12-4
LOS Criteria for Signalized Intersections (HCM Methodology)

Level of Service (LOS)	Control Delay Per Vehicle (seconds per vehicle)	Level of Service Description
E	>55.1 and ≤80.0	Very long traffic delays This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths and high v/c ratios. Individual cycle failures are frequent occurrences.
F	≥80.1	Severe congestion This level, considered to be unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.

Source: Transportation Research Board 2000
HCM = Highway Capacity Manual

HCM Method of Analysis for Unsignalized Intersections

AM and PM peak-hour operating conditions for the key unsignalized study intersections were evaluated using the HCM unsignalized methodology for stop-controlled intersections (see Appendix K). For all-way stop-controlled intersections, this methodology estimates the average control delay for each of the subject movements and determines the LOS for each movement. The overall average control delay is measured in seconds per vehicle, and LOS is then calculated for the entire intersection. The HCM control delay value translates to an LOS estimate, which is a relative measure of the intersection performance.

For one-way and two-way stop-controlled (minor street stop-controlled) intersections, this methodology estimates the worst-side street delay, measured in seconds per vehicle, and determines the LOS for that approach. The HCM delay value translates to an LOS estimate, which is a relative measure of the intersection's performance. The six qualitative categories of LOS are defined in **Table 4.12-5**, along with their corresponding HCM control delay value range.

Table 4.12-5
LOS Criteria for Unsignalized Intersections (HCM Methodology)

Level of Service (LOS)	Highway Capacity Manual (HCM) Delay Value (seconds per vehicle)	Level of Service Description
A	≤10.0	Little or no delay
B	>10.1 and ≤15.0	Short traffic delays
C	>15.1 and ≤25.0	Average traffic delays
D	>25.1 and ≤35.0	Long traffic delays
E	>35.1 and ≤50.0	Very long traffic delays
F	>50.1	Severe congestion

Source: Transportation Research Board 2000

Volume to Capacity Ratio Method of Analysis for Roadway Segments

Daily operating conditions for the key study roadway segments were investigated according to the v/c ratio of each roadway segment. The v/c relationship was used to estimate the LOS of the roadway segment with the volume based on the 24-hour traffic volumes and the capacity based on the City of Del Mar's classification of each roadway. The six qualitative categories of LOS are defined in **Table 4.12-6**, along with the corresponding v/c value range.

Table 4.12-6
LOS Criteria for Roadway Segments (Volume to Capacity Methodology)

Level of Service (LOS)	Volume to Capacity Ratio (V/C)	Level of Service Description
A	≤0.41	**EXCELLENT**. Describes primarily free flow operations at average travel speeds, usually about 90% of the free flow speed for the arterial class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.
B	0.42–0.62	**VERY GOOD**. Represents reasonably unimpeded operations at average travel speeds, usually about 70% of the free flow speed for the arterial class. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tension.
C	0.63–0.79	**GOOD**. Represents stable conditions; however, ability to maneuver and change lanes in mid-block location may be more restricted than in LOS B, and longer queues and/or adverse signal coordination may contribute to lower average travel speeds of about 50% of the average free flow speed for the arterial class. Motorists will experience appreciable tension while driving.
D	0.80–0.92	**FAIR**. Borders on a range in which small increases in flow may cause substantial increases in approach delay and, hence, decreases in arterial speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. Average travel speeds are about 40% of free flow speed.
E	0.93–1.00	**POOR**. Characterized by significant approach delays and average travel speeds of one-third the free flow speed or lower. Such operations are caused by some combination of adverse progression, high signal density, extensive queuing at critical intersections, and inappropriate signal timing.
F	>1.00	**FAILURE**. Characterizes arterial flow at extremely low speeds below one-third to one-quarter of the free flow speed. Intersection congestion is likely at critical signalized locations, with resultant high approach delays. Adverse progression is frequently a contributor to this condition.

Source: Transportation Research Board 2000

4.12.4 Thresholds of Significance

The following significance criteria are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.), and were used to determine the significance of potential transportation and traffic impacts. Impacts to transportation and traffic would be significant if Option A or Option B would:

a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel, and relevant

components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

c) Result in a change in air traffic patterns including either an increase in traffic levels or a change in location that results in substantial safety risks.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

e) Result in inadequate emergency access.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

4.12.5 Impacts Analysis

a) Would the project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel, and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

In considering whether Option A or Option B would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, potential impacts were analyzed relative to the significance criteria for LOS and ADT thresholds used by the City of San Diego and discussed above. This impact analysis was conducted under the following two scenarios: (1) Existing Plus Option A or Option B conditions and (2) Cumulative Projects Plus Option A or Option B conditions. Option A and Option B trip generation, distribution, and assignment are provided below.

1. Option A and Option B Trip Generation

The trip generation potential for Option A and Option B were based on trip generation rates, both daily and peak-hour rates, taken from the (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (SANDAG 1998).

Table 4.12-7 summarizes the trip generation rates and volumes for Option A and Option B. The table shows that Option A would generate 384 average daily trips, 28 morning peak-hour trips, and 36 afternoon peak-hour trips. The density of Option A would be slightly greater than 20

dwelling units per acre and would, therefore, qualify to use six daily trips per dwelling unit, resulting in 288 daily trips, 23 AM peak-hour trips, and 29 PM peak-hour trips. However, to present a worst-case condition and consistency for comparison purposes, the rate of eight trips per dwelling unit was used.

The table shows that Option B would generate 304 average daily trips, 24 morning peak-hour trips, and 30 afternoon peak-hour trips. The density of Option B would be slightly greater than 16 dwelling units per acre and would, therefore, qualify for eight daily trips per dwelling unit.

To present a worst-case condition, the rate of eight trips per dwelling unit was used.

Table 4.12-7
Trip Generation Rates and Calculations Summary

Land Use	Daily Rate	AM Peak Hour Percent of Daily Trips (In:Out Split)				PM Peak Hour Percent of Daily Trips (In:Out Split)		
Residential	8 trips per dwelling unit	8% (2:8)				10% (7:3)		
Project Trip Generation								
Land Use	*Total No. of Dwelling Units*	*Total Daily Trips*	*AM Peak-Hour Trips*			*PM Peak-Hour Trips (In:Out)*		
			Total	*In*	*Out*	*Total*	*In*	*Out*
Option A	48	384	28	6	22	36	12	27
Option B	38	304	24	5	19	30	21	9
Net Change	10	80	*4*	*1*	*3*	*6*	*4*	*2*

Since Option A would generate the most trips, the impact analysis below conservatively assumes the worst-case condition, which would occur under Option A. The reduction of 80 daily vehicles, 4 fewer during the AM peak-hour, and 6 fewer during the PM peak-hour under Option B, would result in the same traffic impacts as presented below for Option A.

2. Option A Trip Distribution and Assignment

Trip distribution for the proposed project site was determined based on existing travel patterns. Existing travel patterns indicate that 64% of the residents would travel to and from the north and 36% would travel to and from the south.

Trip Assignment

New traffic volumes generated by Option A were assigned to the local roadway network using the percentages depicted in **Appendix K**, Figure 5. The Option A-related daily and peak-hour trips are shown in **Appendix K**, Figure 6. The impacts associated with the addition of Option A traffic are discussed in the following section. The Option A-related traffic presented in **Appendix K**, Figure 6 was reviewed to identify the roadways and intersections that, with the addition of Option A, would add 50 or more peak-hour trips as identified in the SANTEC/ITE Guidelines (SANTEC/ITE 2000). Based on this review, the following roadways and intersections were analyzed:

Roadways:

- Jimmy Durante Boulevard:
  - Between Via de la Valle and San Dieguito Drive
  - Between San Dieguito Drive and Camino Del Mar
- San Dieguito Drive:
  - East of Jimmy Durante Boulevard

Intersections:

- Jimmy Durante Boulevard at San Dieguito Drive
- Jimmy Durante Boulevard at Via de la Valle

Existing Plus Option A Traffic Conditions

The existing conditions analysis establishes the basis for the future forecasts for Option A. This analysis was based on existing intersection and roadway segment counts. The existing conditions analysis reflects these counts and existing lane configurations for all analyzed intersections and roadway segments (see Section 4.12.4).

The estimates for Option A-generated traffic volumes were added to the existing conditions traffic to roadway segment and intersection operations under the Existing Plus Option A scenario.

Roadway Segments

Daily traffic on the roadways near the proposed project site was reanalyzed with Option A trips added to the existing traffic volumes. **Table 4.12-8** presents a summary of the roadway segment volumes and associated LOS using the LOS thresholds identified in the SANTEC/ITE

Guidelines for those roads serving the project site (SANTEC/ITE 2000). The Existing Plus Option A daily volumes and peak-hour turn volumes are illustrated in **Appendix K**, Figure 7.

Review of **Table 4.12-8** shows that, with the addition of Option A-generated traffic, all roadway segments would operate at an acceptable LOS B or better, and impacts to roadway segments under Existing Plus Option A conditions would be **less than significant**. Therefore, Option B, which would generate less traffic than Option A, would also have acceptable LOS levels and impacts would also be **less than significant**.

Table 4.12-8
Existing Plus Option A Roadway Segment Operations

Street Segment	Existing Classification	LOS E Capacity[1]	Existing			Existing + Option A			Increase in V/C Ratio	Impact Type[2]
			ADT	*LOS*	*V/C*	*ADT*	*LOS*	*V/C*		
Jimmy Durante Boulevard										
South on Via de la Valle	Secondary Arterial	30,000	14,883	A	.496	15,129	B	.504	.008	None
South on San Dieguito Drive	Two-Lane Collector (CLTL)	15,000	9,731	B	.649	9,977	B	.665	.016	None
North on San Dieguito Drive	Two-Lane Collector (CLTL)	15,000	8,814	A	.588	8,952	A	.597	.009	None
San Dieguito Drive										
East on Jimmy Durante Boulevard	Two-Lane Collector (C/I)	8,000	1,225	A	.153	1,350	A	.169	.016	None

[1] Capacity is based on the upper limit of LOS E per Table 2 of the San Diego Traffic Engineers' Council (SANTEC) and the Institute of Transportation Engineers (ITE) Guidelines for Traffic Impact Studies (TIS) in the San Diego Region (SANTEC/ITE 2000)

[2] Impact is based on SANTEC/ITE Guidelines For Traffic Impact Studies (TIS) in the San Diego Region-February 29, 2000 Draft, applied to segments operating at LOS D, E, or F.

LOS = level of service; ADT = average daily traffic; v/c = volume-to-capacity ratio; CLTL = two-lane collector with a continuous left turn lane; C/I = two-lane collector with commercial/industrial fronting

Intersections

The intersections were reanalyzed using the HCM methodology for signalized and unsignalized intersections with Option A trips added to the existing traffic volumes. The results of the analysis are summarized in **Table 4.12-9**. As can be seen from **Table 4.12-9**, Option A traffic increases the delay at the intersection of Jimmy Durante Boulevard and San Dieguito Drive by 0.3 seconds during the PM peak hour, which is not considered significant according to the SANTEC/ITE Guidelines (SANTEC/ITE 2000). In addition, the intersection continues to operate at LOS A or better with the addition of Option A traffic, and the northbound San Dieguito Drive approach to Jimmy Durante Boulevard operates at LOS C with the addition of Option A traffic. All other intersections continue to operate at LOS B or better with the addition of Option A traffic. Further

review of **Table 4.12-9** shows that Option A increases the delay on the Jimmy Durante Boulevard approaches to San Dieguito Drive in the PM peak hour from LOS B (14.5 seconds per vehicle) to LOS C (15.6 seconds per vehicle), and from LOS D (26.2 seconds per vehicle) to LOS D (27.5 seconds per vehicle). Similar to the roadway segments analyzed, the addition of Option A-generated traffic would have an impact that is **less than significant** on intersection operations under the Existing Plus Option A scenario. Therefore, Option B, which would generate less traffic than Option A, would also have acceptable LOS levels in the AM and PM peak hour period and impacts would also be **less than significant**.

Table 4.12-9
Existing Plus Option A Intersection Operations

Intersection	Control Type	Control Movement	Peak Hour	Existing		Existing + Option A		Increase in Delay (sec/veh)	Impact Type[1]
				Delay	*LOS*	*Delay*	*LOS*		
1. Jimmy Durante Boulevard at Via de la Valle	Signal	Intersection	AM	29.0	C	29.0	C	0.0	None
			PM	34.9	C	35.2	B	0.3	None
2. Jimmy Durante Boulevard (east/west) at San Dieguito Drive (north/south)	Two-Way Stop Controlled	EB	AM	0.3	A	0.3	A	0.0	None
			PM	0.0	A	0.0	A	0.0	None
		WB	AM	0.6	A	0.7	A	0.1	None
			PM	0.6	A	1.0	A	0.4	None
		NB	AM	10.9	B	11.3	B	0.4	None
			PM	14.5	B	15.6	C	1.1	None
		SB	AM	12.7	B	13.0	B	0.3	None
			PM	26.2	D	27.5	D	1.3	None
		Intersection	AM	1.8	A	2.2	A	0.4	None
			PM	1.3	A	1.6	A	0.3	None
3. San Dieguito Drive (north/south) at Project Driveway	One-Way Stop Controlled	EB	AM	N/A	N/A	9.0	A	9.0	None
			PM	N/A	N/A	9.1	A	9.1	None
		Intersection	AM	N/A	N/A	2.0	A	2.0	None
			PM	N/A	N/A	0.9	A	0.9	None

[1] Impact significance is based on SANTEC/ITE Guidelines for Traffic Impact Studies (TIS) in the San Diego Region, applied to intersections operating at LOS D, E, or F

Delay = seconds of delay per vehicles; LOS = level of service; sec/veh = seconds per vehicle; EB = eastbound; WB= westbound; SB= southbound; NB= northbound; N/A = not applicable

Existing Plus Cumulative Projects Plus Option A Conditions

Cumulative Projects

Based on research and discussions with City staff, the following list of cumulative projects was developed:

- **Via de la Valle Townhomes.** 22 townhomes, each with two dwellings, are proposed for a 22-acre site on the north side of Via de la Valle, east of the Flower Hill Promenade in the County of San Diego.
- **Via de la Valle Street Widening.** Via de la Valle is proposed for improvements between San Andres Drive and El Camino Real West in the City of San Diego.
- **22nd District Agricultural Association.** A master plan for the enhancement, renovation, and replacement of the existing Del Mar Fairgrounds is proposed.
- **Rancho Del Mar CCRC.** A 174-unit continuing care retirement community is proposed along Via de la Valle, east of I-5, in the City of San Diego.
- **Solana Highlands Revitalization.** This proposed project would involve demolition of the existing development on the site (which includes 194 multi-family residential units in 16 buildings and three single-family residences) and construction of 260 new multi-family residential units in 24 buildings with amenities and open space area in the City of Solana Beach.
- **River Path Del Mar Extension Project.** An existing trail that is part of the San Dieguito segment currently provides pedestrian access along the San Dieguito River's south edge between the river mouth and Jimmy Durante Boulevard. The extension, which complete, extended the River Path east from Jimmy Durante Boulevard to the Old Grand Avenue Bridge and bring the Loop Trail one step closer to a future connection at the Crest Canyon segment in the City of Del Mar.
- **San Dieguito Drive and Jimmy Durante Boulevard Intersection Improvements.** The City prepared a Draft EIR to analyze several alternatives for improvements to be made at the intersection of Jimmy Durante Boulevard and San Dieguito Drive (State Clearinghouse No. 2015041022). The alternative intersection treatments included Stop Control, Traffic Signal, and a Roundabout. The Draft EIR was circulated for a 45-day public review period between November 30, 2015, and January 15, 2016. The alternative which was identified to result in the least amount of environmental impacts, while improving the flow of traffic at the intersection, was the roundabout alternative. According to the Final EIR, the roundabout is projected to operate with the lowest overall delay for both off-season and fair season scenarios under existing and 2035 conditions.

The Final EIR for the roundabout was approved and certified by the City Council on March 22, 2016, and the roundabout was constructed in early 2017.

The Watermark project was included in the traffic analysis for the intersection improvement project. In order to present a conservative approach, assuming a larger contribution of vehicles from Watermark, both the planned residential use (Option A), and the current use as an alternative parking lot, were considered together.

- **City of Del Mar City Hall/Town Hall Design.** The City has approved the entitlement permits for the City Hall/Town Hall project at Camino del Mar and 11th Streets. Construction began in Fall 2016 and is anticipated to be complete Summer 2018. **Tentative Tract Map (TTM15-001) for the Estates at Del Mar.** This project proposes to subdivide three existing parcels (containing an existing home and guest/caretaker unit) at 929 Border Avenue into five single-family residential lots west of Camino del Mar and one unbuildable parcel east of Camino del Mar. The tentative map is approved by the City, including public environmental review (Mitigated Negative Declaration). The project would result in the (net) addition of three new residential units at the site.

A review of the cumulative projects, as listed in **Appendix K**, concluded that the projects listed would not generate any significant amount of new traffic to study area roadways. However, to be conservative, 5% of the Existing Plus Option A traffic volumes was used to represent cumulative project traffic. The Existing Plus Cumulative Plus Option A traffic conditions are analyzed below.

Roadway Segments

Table 4.12-10 shows that existing roadways would continue to operate at LOS B or better with the addition of cumulative project traffic. Impacts under the Existing Plus Cumulative Projects Plus Option A scenario would be **less than significant**. Therefore, Option B, which would generate less traffic than Option A, would also have acceptable LOS levels and impacts would be **less than significant**.

Table 4.12-10
Existing Plus Cumulative Projects Plus Option A Roadway Segment Operations

Street Segment	Existing Classification	LOS E[1] Capacity	Existing			Existing + Option A				Existing + Option A + Cumulative Conditions				
			ADT	*LOS*	*V/C*	*ADT*	*LOS*	*V/C*	*Increase in V/C Ratio*	*ADT*	*LOS*	*V/C*	*Increase in V/C Ratio*	*Impact Type[2]*
Jimmy Durante Boulevard														
South of Via de la Valle	Secondary Arterial	30,000	14,883	A	.496	15,129	B	.504	.008	15,885	B	.530	.026	None
South of San Dieguito Drive North	Two-Lane Collector (CLTL)	15,000	9,731	B	.649	9,977	B	.665	.016	10,475	B	.698	.033	None
South of San Dieguito Drive South	Two-Lane Collector (CLTL)	15,000	8,814	A	.588	8,952	A	.597	.009	9,339	A	.622	.025	None
San Dieguito Drive														
Corner of Jimmy Durante Boulevard	Two-Lane Collector (C/I)	8,000	1,225	A	.153	1,350	A	.169	.016	1,418	A	.177	.008	None

[1] Capacity is based on the upper limit of LOSE per Table 2 of the San Diego Traffic Engineers' Council (SANTEC) and the Institute of Transportation Engineers (ITE) Guidelines for Traffic Impact Studies (TIS) in the San Diego Region (SANTEC/ITE 2000)

[2] Impact Significance is Based on SANTEC/ITE Guidelines For Traffic Impact Studies (TIS) in the San Diego Region-February 29, 2000 Draft, applied to segments operating at LOS D, E, or F.

LOS = level of service; ADT = average daily traffic; v/c = volume-to-capacity ratio; CLTL = two-lane collector with a continuous left turn lane; C/I = two-lane collector with commercial/industrial fronting

Intersections

Table 4.12-11 shows that each of the intersections analyzed would operate at LOS D or better. Impacts to intersections under the Existing Plus Cumulative Projects Plus Option A scenario would be **less than significant**. Therefore, Option B, which would generate less traffic than Option A, would also have acceptable LOS levels in the AM and PM peak hour period and impacts would be less than significant.

Table 4.12-11
Existing Plus Cumulative Projects Plus Option A Intersection Operations

Intersection	Control Type	Control Movement	Peak Hour	Existing + Option A		Cumulative Plus Option A		Increase in Delay (sec/veh)	Impact Type
				Delay	*LOS*	*Delay*	*LOS*		
1. Jimmy Durante Boulevard at Via de la Valle	Signal	Intersection	AM	29.0	B	31.1	C	2.1	None
			PM	35.2	B	40.2	D	5.0	None
2. Jimmy Durante Boulevard (east/west) at San Dieguito Drive (north/south)	Two-Way Stop Controlled [1]	EB	AM	0.3	A	0.3	A	0.0	None
			PM	0.0	A	0.0	A	0.0	None
		WB	AM	0.7	A	0.7	A	0.0	None
			PM	1.0	A	1.0	A	0.0	None
		NB	AM	11.3	B	11.5	B	0.2	None
			PM	15.6	C	16.2	C	0.6	None
		SB	AM	13.0	B	13.4	B	0.4	None
			PM	27.5	D	30.7	D	3.2	None
		Intersection	AM	2.2	A	2.3	A	0.1	None
			PM	1.6	A	1.7	A	0.1	None
3. San Dieguito Drive (north/south) at Project Driveway	One-Way Stop Controlled	EB	AM	9.0	A	9.0	A	0.0	None
			PM	9.1	A	9.1	A	0.0	None
		Intersection	AM	2.0	A	2.0	A	0.0	None
			PM	0.9	A	0.9	A	0.0	None

Notes: Capacity is based on the upper limit of LOS per Table 2 of the San Diego Traffic Engineers' Council (SANTEC) and the Institute of Transportation Engineers (ITE) (SANTEC/ITE 2000)

[1] The recently approved (March 2016) roundabout at this intersection is analyzed in the following subsection.

Impact Significance is based on SANTEC/ITE Guidelines For Traffic Impact Studies (TIS) in the San Diego Region, applied to segments operating at LOS D, E, or F.

EB = eastbound; WB = westbound; NB = northbound; SB = southbound; LOS = level of service; sec/veh = seconds per vehicle

Intersection Roundabout Plus Project

As identified above, since the roundabout project was the approved alternative for the intersection of Jimmy Durante Boulevard and San Dieguito Drive, and has since been constructed, it was analyzed in combination with Option A. **Table 4.12-12** shows that the roundabout would operate at LOS A in the AM peak period and LOS B in the PM peak hour period with the addition of Option A. These LOS levels are consistent with all applicable plans,

ordinances, and policies. Therefore, Option B, which would generate less traffic than Option A, would also have acceptable LOS levels in the AM and PM peak hour period.

Table 4.12-12
Roundabout Analysis for Jimmy Durante Boulevard at San Dieguito Drive

Roundabout Segment	Level of Service (LOS)							
	Existing Plus Option A				*Cumulative Plus Option A*			
	AM Peak		*PM Peak*		*AM Peak*		*PM Peak*	
	Delay (sec/veh)	*LOS*	*Delay (sec/veh)*	*LOS*	*Delay (sec/veh)*	*LOS*	*Delay (sec/veh)*	*LOS*
Jimmy Durante Boulevard								
Eastbound Approach	5.5	A	12.6	B	5.7	A	13.8	B
Westbound Approach	6.4	A	7.0	A	6.6	A	7.2	A
San Dieguito Drive								
Northbound Approach	4.9	A	7.7	A	5.0	A	8.1	A
Southbound Approach	4.9	A	5.0	A	5.1	A	5.1	A
Intersection	5.9	A	10.3	B	6.0	A	11.1	B

sec/veh = seconds per vehicle

Fair Traffic

Traffic counts during the fair season were included in the City of Del Mar's Amended Traffic Memo, which was included as Appendix C to the Jimmy Durante Boulevard and San Dieguito Drive Intersection Improvements Project EIR (November 2015). In that memo, the Jimmy Durante Boulevard and San Dieguito Drive intersection, operating with a roundabout under the Existing Plus Fair scenario, would maintain an LOS A with the exception of the PM peak hour which would drop to LOS C based on HCM 2010 Capacity Model Delay guidelines. However, the PM peak hour would maintain an LOS A based on the Sidra Standard Capacity Model Delay guidelines (see **Table 4.12-13**). With the addition of Option A's nominal peak hour traffic (less than 50 peak hour trips) during the fair season, it's reasonable to assume that the LOS would not drop to an E or F. Therefore, under an existing plus Option A plus fair traffic scenario impacts would not be significant.

Furthermore, the year 2035 traffic volumes projections in the above referenced memo took into consideration the trips generated by Option A. Thus Option A was included in the 2035 Plus Fair scenario, which resulted in an LOS greater than C during both the AM and PM peak hours based on both (HCM 2010 and Sidra Standard methods) delay guidelines (see **Table 4.12-13**). Therefore, under a 2035 plus Option A plus fair traffic scenario impacts would not be significant.

Table 4.12-13
Fair Traffic with Roundabout at Jimmy Durante Boulevard at San Dieguito Drive

Roundabout Segment	Level of Service (LOS)											
	Existing Plus Fair Traffic						*2035 Plus Option A Plus Fair Traffic*					
	AM Peak		*PM Peak*		*Saturday*		*AM Peak*		*PM Peak*		*Saturday*	
	Delay (sec/ veh)	*LOS*	*Delay (sec/ veh)*	*LOS*	*Delay (sec/ Veh)*	*LOS*	*Delay (sec/ veh)*	*LOS*	*Delay (sec/ veh)*	*LOS*	*Delay (sec/ Veh)*	*LOS*
Roundabout at Jimmy Durante Boulevard and San Dieguito Drive[1]	6.1/5.2	A/A	15.2/7.2	C/A	9.5/6.3	A/A	6.9/5.6	A/A	22.5/23.3	C/C	9.9/7.4	A/A

[1] HCM 2010 Capacity Model Delay/Sidra Standard Capacity Model Delay

Option A and Option B would, therefore, not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system; impacts under Option A or Option B would be **less than significant**.

b) Would the project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The criteria for which a project is subject to the regulations as set forth in the CMP are determined by the trip generation potential for the project. Currently, the ADT threshold is 2,400 vehicles. Option A would generate approximately 384 daily trips. Option B would generate approximately 304 daily trips (see **Table 4.12-7**) and is not subject to CMP guidelines for traffic impact studies; therefore, impacts under Option A and Option B would be **less than significant**.

c) Would the project result in a change in air traffic patterns including either an increase in traffic levels or a change in location that results in substantial safety risks?

The closest airport to the project site is the McClellan–Palomar Airport, located approximately 11 miles northeast of the proposed project site. Option A or Option B would not result in a change in air traffic patterns, nor would it result in substantial safety risks due to location; therefore, there would be **no impact** as a result of either Option.

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Access to the proposed project site would be provided for vehicles from the intersection of Jimmy Durante Boulevard and San Dieguito Drive roughly southeast to a new curb cut and driveway at San Dieguito Drive. The new curb cut would enter into a private drive ramp to a secured underground parking facility. The drive ramp was designed to provide additional length to ensure ample space for queuing for both entering and exiting the facility.

Both Options propose a new sidewalk from the intersection of San Dieguito Drive and Jimmy Durante Boulevard south to the southeastern property corner. Jimmy Durante Boulevard off-site improvements would include the provision of new or replaced sidewalk along Jimmy Durante Boulevard from the intersection of Jimmy Durante Boulevard and San Dieguito Drive to the western property corner. No new public roads would be built as part of either Option that could potentially create a hazard. All roads would operate at acceptable LOS, and would provide adequate access to San Dieguito Drive, Jimmy Durante Boulevard, internal roadways, and other surrounding roadways.

Option A and Option B would include a circulation network that would serve the project site. Option A and Option B driveways were designed to reflect the specific opportunities and constraints within the project site. Option A and Option B would not create a hazard for vehicles, bicycles, or pedestrians entering or exiting the site. Option A or Option B would not include any other project elements that could potentially create a hazard to the public.

On-site circulation was evaluated in terms of vehicle/pedestrian conflicts. Based on review of the preliminary site plans, the overall layouts would not create any unsafe vehicle/pedestrian conflict points. Refer to response 4.12.6(a); Option A or Option B would not increase traffic along Jimmy Durante Boulevard, San Dieguito Drive, or any surrounding streets to what would be considered a significant level. Implementation of the new drive way at San Dieguito Drive, and the new sidewalks between Jimmy Durante Boulevard and San Dieguito Drive, would minimize any potential impacts due to hazardous design features to a level that is **less than significant** under either Option.

e) Would the project result in inadequate emergency access?

Construction Traffic

Construction is anticipated to commence following completion of entitlement efforts and completion of building design and associated permits; it is anticipated to last for approximately 2 years, at which point building occupancy would occur. Construction equipment would include rollers, rubber tired dozers, scrapers, water trucks, pavers, paving equipment, cranes, forklifts, and tractors/loaders/backhoes; concrete and delivery trucks would also be used. Construction equipment would be used intermittently depending on construction phase. Although equipment and worker trips would be added to the current conditions of the project site, adequate emergency access would be provided throughout the project phases.

Although construction of Option A or Option B may result in partial closures to San Dieguito Drive, Jimmy Durante Boulevard, internal roadways, and other surrounding roadways, adequate vehicular and pedestrian access would be maintained throughout construction to ensure that Option A or Option B does not interfere with a potential emergency evacuation.

A traffic control plan would be prepared and made a standard condition of approval that must be approved by the City prior to issuance of a grading permit. Standards for the traffic control plan include ensuring continuity of the movement of motor vehicles, bicycles, and pedestrian traffic (including accessible passage); transit operations; and accessibility to property and utilities per the November 2014 California Manual on Uniform Traffic Control Devices. The plan would include provisions for construction times and control plans for allowance of bicyclists and pedestrians along Jimmy Durante Boulevard and San Dieguito Drive throughout construction. In addition, heightened traffic control regulations would be in place during the fair and racetrack seasons in order to maintain traffic flows, prevent prolonged delays, and provide adequate

emergency access. The plan would also include provisions for the allowance of emergency vehicle passage at all times. Additionally, Option A or Option B would not substantially affect the abilities of fire or police services in any way. Therefore, impacts under both Options would be **less than significant**.

Project Traffic

Option A and Option B would result in residential development within the project site similar to that of existing development in the area. All project traffic would operate at acceptable LOS levels for the region. Operation of Option A or Option B would not impede any roadways that would serve as evacuation routes during an emergency. **No impact** would result under either Option.

f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Internal Circulation

Access into, and out of, the project site would be provided for vehicles from the intersection of Jimmy Durante Boulevard and San Dieguito Drive roughly southeast to a new curb cut and driveway at San Dieguito Drive. The new curb cut would enter into a private drive ramp to the secured parking facility. The drive ramp was designed to provide additional length to ensure ample space for two queuing cars either entering and exiting the facility.

Vehicular access to the proposed project site would be provided from a single driveway on San Dieguito Drive. The location of the driveway would be in approximately the same location as the existing driveway currently in use for intermittent fairground and racetrack parking. By providing appropriate vehicular access to and from the project site, both Options would promote movement of traffic in a safe and uncongested manner, consistent with a pedestrian-oriented community. Thus, both Options would be consistent with Goal 2 Objective B of the City of Del Mar Community Plan (City of Del Mar 1976).

Pedestrian and Cyclist Access

Objective A of the Del Mar Community Plan is to encourage a pedestrian-oriented non-motorized community through a system of bicycle rights-of-way and pedestrian paths (City of Del Mar 1976). By making both Options a pedestrian/cyclist friendly environment with multiple access points for residents, the project would remain consistent with Goal 2 Objective A of the Community Plan. Additionally, both Options would be consistent with Policy IV-19 of the City of Del Mar Local Coastal Program Land Use Plan (City of Del Mar 1993) by establishing alternative transportation modes (i.e., access points for bicycles/pedestrian use) designed to ensure protection of sensitive resources and retention of the small-town, scenic qualities of Del Mar.

Both Options were designed to be pedestrian/cyclist friendly, with multiple access points for cyclists and pedestrians. Pedestrians and cyclists would have a variety of access points to and from the project site. In addition to the access adjacent to the parking structure ramp, an additional pedestrian/cyclist entry point would be provided on San Dieguito Drive. A central pedestrian/cyclist access point is also designed at the center of the site on Jimmy Durante Boulevard. This entry would serve as the main pedestrian entry point to the neighborhood, with its centralized positioning and entry surrounded by trellis work and landscaping. Two additional pedestrian entry points would be provided at each end of the project site along Jimmy Durante Boulevard. The western-most entry point would provide access to the walking route to the Del Mar Plaza and downtown area. The eastern-most pedestrian/cyclist entry would provide access to the San Dieguito Lagoon and riverside strolling/biking opportunities. Additionally, access consistent with the Americans with Disabilities Act would be provided from the public right-of-way into the proposed project site along San Dieguito Drive.

Goal 2 Objective A of the Del Mar Community Plan encourages a pedestrian-oriented non-motorized community by developing a system of bicycle right-of-way and pedestrian paths (City of Del Mar 1976). As stated in the WDMSP (for both Option A and Option B) Goal 6, a goal for both Options is to create a neighborhood with pedestrian linkages and walkability to trails, parks, beaches, businesses, and restaurants. By adhering to this goal and providing new sidewalk improvements along San Dieguito Drive and Jimmy Durante Boulevard, Option A and Option B would be consistent with Goal 2 Objective A of the Del Mar Community Plan. Both Options would also be consistent with Policy IV-19 of the City of Del Mar Local Coastal Program Land Use Plan (City of Del Mar 1993) by establishing alternative transportation modes designed to ensure protection of sensitive resources and retention of the small-town, scenic qualities of Del Mar.

Parking

Both Options' partially underground parking structure would be accessed via a new curbed driveway at San Dieguito Drive that would lead to a private drive ramp. The new curbed driveway would be in approximately the same location as the driveway currently in use for intermittent fairground and racetrack parking. The existing curb cut driveway at Jimmy Durante Boulevard at the west end of the site would be eliminated.

Both Options would provide one stall for each studio and one-bedroom unit, and two stalls for each two-bedroom and three-bedroom unit. Option A would provide guest parking stalls at a ratio of 0.25 stall per unit and Option B would provide guest parking stalls at a ratio of 0.50 stall per unit.

Guest parking spaces would be designated and reserved for guest parking only, and identified through signage as "Guest Parking." Standard parking spaces would account for approximately 70% of the total parking spaces required, and would be a minimum of 9 feet wide by 18 feet deep. All parking spaces under Option B would be standard size. Option A would include compact parking spaces, which would account for up to 10% of the total number of required parking spaces and would be 7.5 feet wide by 15 feet deep and tandem parking spaces (one car parked directly behind another), which would account for up to 20% of the total parking spaces required and would be 9 feet wide by 36 feet deep. All required accessible (disabled) parking spaces would be constructed in a manner required by the most current edition(s) of the State of California Uniform Building Code (Title 24), as amended.

Option A's site plan consists of a parking area located under the buildings that would provide 108 parking spaces, 12 of which would be guest spaces and 96 of which would be resident spaces. Option B's site plan consists of a parking area located under the buildings that would provide 100 parking spaces, 19 of which would be guest spaces and 81 of which would be resident spaces.

There is currently no public transit provided to/from the project site, and neither Option would have any effect on the provision of public transit. Option A and Option B would not conflict with public transit, bicycles, or pedestrian facilities, and would not decrease the performance or safety of these facilities.

Option A and Option B's internal circulation, bikeway system, pedestrian access, and parking plan are consistent with the City of Del Mar Community Plan Transportation Goal's and Policies. For the reasons stated above, impacts under both Option A and Option B would be **less than significant**.

4.12.6 Mitigation Measures

No significant traffic impacts are anticipated as a result of either Option A or Option B; therefore, no mitigation measures are required.

4.12.7 Level of Significance After Mitigation

Option A or Option B would neither conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, nor would either Option conflict with adopted policies, plans, or programs regarding public transit, bicycles, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Option A or Option B would not result in inadequate emergency access, and would not substantially increase hazards due to a design feature. Option A or Option B would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results

in substantial safety risks. Additionally, Option A or Option B would not conflict with an applicable congestion management program. Therefore, all impacts are anticipated to be less than significant. No mitigation measures would be required.

4.12.8 References

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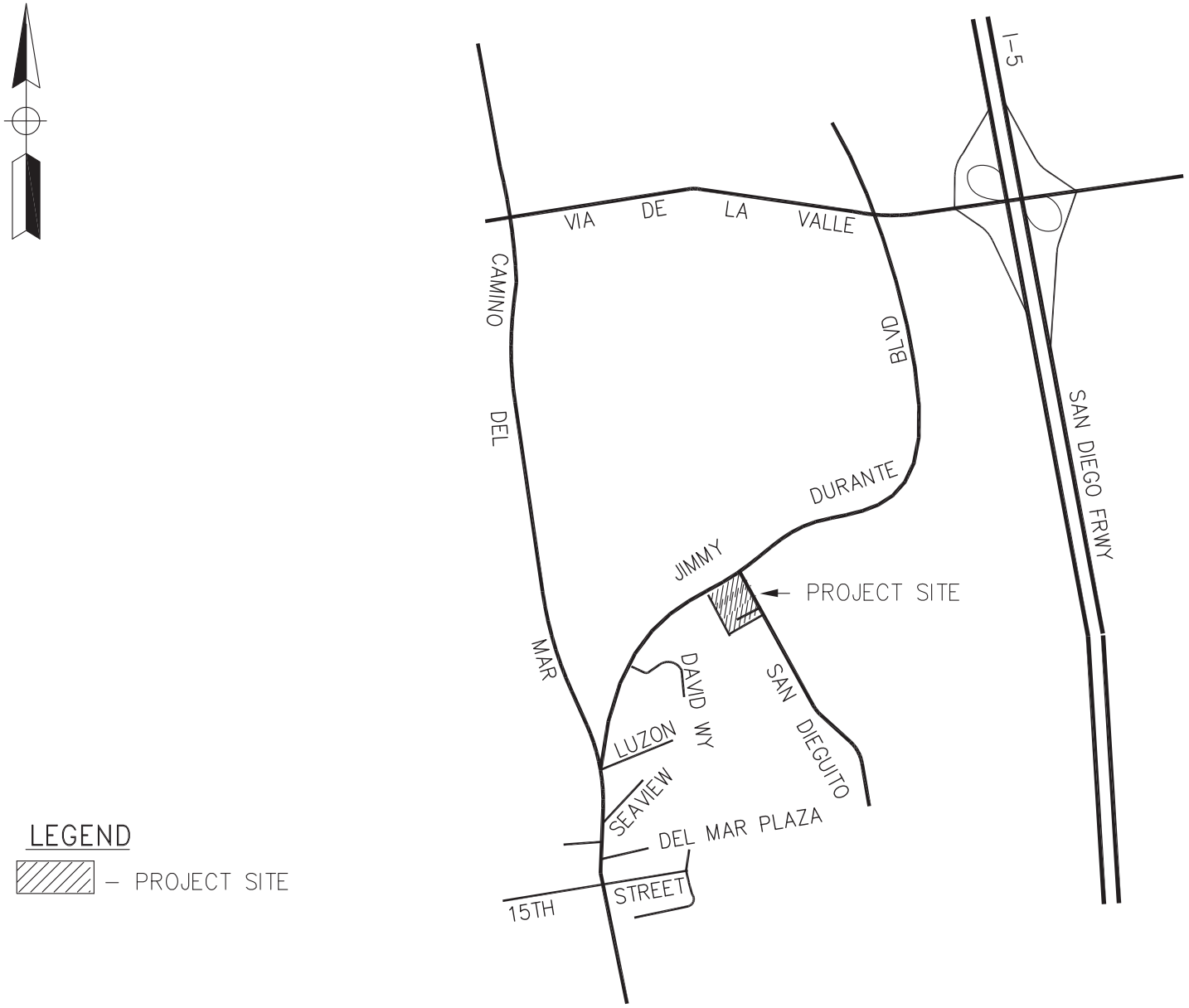

SOURCE: Darnell & Associates, Inc. (2015)

FIGURE 4.12-1
Roadway Network

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4.13 PUBLIC SERVICES

This section discusses the public services necessary to serve the proposed Watermark Del Mar Specific Plan (WDMSP) Option A and Option B, and includes an analysis of potential impacts to fire and police protection services, parks, and school facilities. Potential impacts associated with an increased demand on fire and police facilities were evaluated per correspondence with personnel from the Del Mar Fire Department and the San Diego County Sheriff's Department. Impacts to school facilities were analyzed pursuant to correspondence with school district personnel.

4.13.1 Existing Conditions

4.13.1.1 Fire Protection

Fire protection services are provided throughout the City of Del Mar (City) by the Del Mar Fire Department (Fire Department). Annually, the Fire Department protects nearly 4,161 full-time and part-time residents and more than 3 million fairground visitors. The area served is more than 2.5 square miles with more than 1,600 structures (City of Del Mar 2015).

The Fire Department consists of one fire station located on the Del Mar Fairgrounds at 2200 Jimmy Durante Boulevard (0.3 mile southwest of the project site). The Fire Department is staffed with a combination of full-time and paid-call personnel. Personnel are composed of nine full-time staff (three captains, three fire engineers, and three firefighters) and seven part-time student firefighters/paramedics, totaling 16 staff. At all times there are at least four personnel on duty. The fire station currently has one front-line pumper, one reserve pumper, one front-line rescue unit, and one utility pickup truck. The Fire Department uses an integrated 800 megahertz (MHz) radio system and contracts with the Rancho Santa Fe Regional Dispatch Agency for 24-hour dispatch services. The 800 MHz radio system is also used by Del Mar's Public Works and Lifeguard staff members and the San Diego County Sheriff's Department (City of Del Mar 2015).

The responsibilities of the Fire Department include fire suppression and protection, emergency medical services, vehicle accidents, rescue, and hazardous material incidents. The areas covered include the City and surrounding areas, such as San Diego, Solana Beach, Encinitas, and the Rancho Fire Protection District. The Fire Department contracts with the City of Encinitas for management services (City of Del Mar 2015).

The Fire Department's response time goal, which is calculated from the time an emergency call is placed, is to arrive within 5 minutes 90% of the time. This goal is currently being met by the Fire Department, and the response time to the project site would be approximately 30 seconds. Additionally, the fire flow requirement to the project site is 3,000 gallons per minute.

4.13.1.2 Police Protection

The San Diego County Sheriff's Department (Sheriff's Department) provides law enforcement services through contract for the cities of Del Mar, Encinitas, and Solana Beach. These services are rendered by deputy sheriff and professional staff from the North Coastal Sheriff's Station in Encinitas. The Sheriff's Department provides the above-mentioned cities with a wide range of municipal law enforcement services, including helicopters, a bomb/arson squad, a Special Enforcement Detail team, canine units, modern crime lab facilities, and one of the nation's most modern law enforcement radio communications networks (San Diego County Sheriff's Department 2015). The North Coastal Sheriff's Station includes a number of divisions that provide day-to-day law enforcement:

- **Patrol Division:** Investigation of crimes and apprehension of criminal offenders
- **Traffic Division:** Vehicle Code enforcement and traffic control
- **Investigations Unit:** Detectives responsible for working general crime cases against persons and property
- **COPPS Unit (Community Oriented Policing):** Deputies contracted to provide high-profile law enforcement
- **Crime Prevention Unit:** Public education for crime reduction
- **Community Service Officers:** Parking enforcement, investigations of illegal activities, and public information services
- **Explorer Program:** A volunteer program for teens through the Fire Department

One deputy patrol, one traffic patrol, and one motor patrol per 24 hours are assigned to the City. These personnel are based out of the North Coastal Sheriff's Station, located at 175 North El Camino Real, Encinitas.

4.13.1.3 Schools

The proposed project site is located in the Del Mar Union School District (Del Mar District) and the San Dieguito Union High School District (San Dieguito District). The Del Mar District provides public education for elementary students, grades kindergarten through sixth, within its 15-square-mile attendance area. The Del Mar District maintains and operates eight elementary schools and a preschool program at two of the elementary school locations in the City of Del Mar and in the Carmel Valley area of the City of San Diego: Ashley Falls School, Carmel Del Mar School, Del Mar Heights School, Del Mar Hills School, Ocean Air School, Sage Canyon School, Sycamore Ridge School, and Torrey Hills School. Preschool programs are offered at Ashley Falls School and Sycamore Ridge School.

The San Dieguito District serves students in the cities of Encinitas, Solana Beach, and Del Mar. Unincorporated neighboring areas, such as La Costa, Olivenhain, Rancho Santa Fe, Fairbanks Ranch, and Carmel Valley, are also served. The San Dieguito District includes the following five comprehensive middle schools that serve grades seven and eight: Carmel Valley Middle School, Diegueno Middle School, Earl Warren Middle School, Oak Crest Middle School, and Pacific Trails Middle School. San Dieguito District also includes the following four comprehensive high schools for grades 9 through 12: Canyon Crest Academy, La Costa Canyon High School, San Dieguito High School Academy, and Torrey Pines High School. The San Dieguito District also offers alternative education programs for grades 9–12 at Sunset High School and North Coast Alternative High School. Additionally, the district provides an Adult Education program at the San Dieguito High School Academy. See **Table 4.13-1** for a complete list of schools that serve the City.

Table 4.13-1
Del Mar Union School District and San Dieguito Union High School District Schools

School	Location	Design Capacity	2014–2015 Enrollment	Amount Over Capacity
Elementary Schools				
Ashely Falls	13030 Ashley Falls Drive, San Diego	590	395	–195
Carmel Del Mar	12345 Carmel Park Drive, San Diego	553	537	–16
Del Mar Heights	13555 Boquita Drive, Del Mar	602	452	–150
Del Mar Hills	14085 Mango Drive, Del Mar	460	350	–110
Ocean Air	11444 Canter Heights Drive, San Diego	813	793	–20
Torrey Hills	10830 Calle Mar De Mariposa, San Diego	898	671	–227
Sage Canyon	5290 Harvest Run Drive, San Diego	772	753	–19
Sycamore Ridge	5333 Old Carmel Valley Road, San Diego	575	490	–85
Middle Schools				
Carmel Valley	3800 Mykonos Lane, San Diego	1,331	1,540	209
Diegueno	2150 Village Park Way, Encinitas	1,153	858	–295
Earl Warren	155 Stevens Avenue, Solana Beach	872	719	–153
Oak Crest	675 Balour Drive, Encinitas	987	928	–59
Pacific Trails Middle School	5975 Village Center Loop, San Diego	500	220	–280
High Schools				
Torrey Pines High School	3710 Del Mar Heights Road, San Diego	3,011	2,723	–288
San Dieguito Academy	800 Santa Fe Drive, Encinitas	1,476	1,630	154
La Costa Canyon	1 Maverick Way, Carlsbad	2,717	2007	–710
Canyon Crest Academy	5951 Village Center Loop Road, San Diego	1,812	2000	188
North Coast Alternative	684 Requeza Street, Encinitas	N/A	21	N/A
Sunset High School	684 Requeza Street, Encinitas	217	117	–100
Adult Schools				
Adult Education	710 Encinitas Boulevard, Suite #103, Encinitas	N/A	N/A	N/A

Sources: Del Mar Union School District 2014; San Dieguito Union High School District 2010a; N/A = not applicable

4.13.1.4 Parks

The City's major parks are Powerhouse Community Park and Seagrove Park, located between 15th and 18th Streets on Coast Boulevard. Seagrove Park, at the base of 15th Street, becomes Powerhouse Park, which then stretches northward to 18th Street. Both parks include long turf areas that overlook Del Mar City Beach. There is a playground at the south end of Powerhouse Park, and the Powerhouse Community Center at the north end of the park. The Powerhouse Community Center includes amenities such as a community room, trellis-covered verandas, an outdoor theatre, outdoor rinse showers, and restrooms. Additionally, the City provides tennis courts for public use, located at 21st Street off of Court Street east of Camino Del Mar. Both parks are located less than 1 mile southwest of the proposed project site.

4.13.2 Relevant Plans, Policies, and Ordinances

State

California Fire Code

The California Fire Code and Office of the State Fire Marshall provide regulations and guidance for local agencies in the development and enforcement of fire safety standards. The California Fire Code also establishes minimum requirements to provide a reasonable degree of safety from fire, panic, and explosion.

State Responsibility Area Fire Safe Regulations

The California Department of Forestry and Fire Protection constitutes the basic wildland fire protection standards of the California Board of Forestry and Fire Protection. These standards were prepared and adopted to establish minimum wildfire protection standards in conjunction with building, construction, and development in state responsibility areas. Title 14, Natural Resources, of the California Code of Regulations states that the design and construction of structures, subdivisions, and developments in a state responsibility area must provide basic emergency access and perimeter wildfire protection measures.

Senate Bill 50

Senate Bill 50 was enacted to obtain support from the California Building Industry Association for school bond issues, and prohibits local governments, including school districts, from requiring extra fees or the establishment of Mello-Roos from new development to finance schools. Cities can levy fees for road, sewer, and park improvements as mitigation, but they cannot do the same for schools. This law also does not allow cities to regulate the rate of growth of residential development based on school impacts. The legislation provides that the statutory

fees are the exclusive means of considering and mitigating for school impacts. It not only limits the mitigation that would be imposed, but it also restricts the scope of review and the findings to be adopted for school impacts. Once the statutory fee is paid, the impact is deemed mitigated as a matter of law (California Government Code, Section 65995(b)). Therefore, payment of development fees in compliance with statutory requirements reduces significant impacts to school districts to below a level of significance.

Comprehensive School Safety Plan

It is the intent of the Comprehensive School Safety Plan that all California public schools that offer kindergarten and/or grades 1 through 12 that are inclusive and that are operated by school districts develop a comprehensive school safety plan that addresses the safety concerns identified through a systematic planning process. The schools must work in cooperation with local law enforcement agencies, community leaders, parents, pupils, teachers, administrators, and other persons who may be interested in the prevention of campus crime and violence (California Education Code, Title 1, Section 32280).

Quimby Act

Cities and counties have been authorized since the passage of the 1975 Quimby Act (California Government Code, Section 66477) to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation or maintenance of park facilities. The goal of the Quimby Act is to require developers to help mitigate the impacts of property improvements. The act gives authority for passage of land dedication ordinances only to cities and counties. Special districts must work with cities and/or counties to receive parkland dedication and/or in-lieu fees. The fees must be paid and land conveyed directly to the local public agencies that provide park and recreation services communitywide.

Local

City of Del Mar Uniform Fire Code

Per the City's Municipal Code, Chapter 10.04.010, Adoption of California Fire Code, the 2012 International Fire Code and 2013 California Fire Code, including the appendix to Chapter 4, and Appendices B, H, and I, as published by the International Code Council, serve as the fire code of the City of Del Mar. It regulates and governs the safeguarding of life and property from fire and explosion hazards arising from the storage, handling, and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises, or construction, erection, alteration, repair, moving, removal, conversion, demolition, equipment use, and maintenance of buildings and structures, including providing for the issuance

of permits and collection of fees. South of the project site in the eastern portion of the City, there are a number of properties designated within the Wildland Urban Interface zone; however, the project site is not within this zone.

4.13.3 Thresholds of Significance

The City has adopted threshold criteria that are derived from Appendix G of the CEQA Guidelines. Impacts to public services would be significant if Option A or Option B would result in any of the following:

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

   i. Fire protection

   ii. Police protection

   iii. Schools

   iv. Parks

   v. Other public facilities

4.13.4 Impacts Analysis

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

i. Fire protection?

The proposed project site is located within an existing fire protection service area, and the Del Mar Fire Department is located 0.13 mile away, across the San Dieguito River. The Fire Department determined that existing staff and equipment needs are sufficient to meet the demands of the proposed project. Either Option would result in an incremental increase in the local demand for fire services. Option A and Option B are not expected to generate a significant number of additional emergency calls per year. Potential hazards and medical emergencies can be adequately addressed with the types of equipment already found at the City's fire station. Additionally, the internal circulation network under both Options would provide access to the

project site from major roadways, and would facilitate any necessary community evacuation plans. Response times to the project site are currently being met; therefore, impacts to fire protection services under both Options would be **less than significant**.

ii. Police Protection?

The proposed project site is located within an existing police service area. Both Options would result in an incremental increase in demand on police services when combined with the demand associated with anticipated population growth and other potential development projects within the project vicinity. However, given the scale of the project and because it is infill development, it is not anticipated that Option A or Option B would reduce the response times of the Sheriff's Department or otherwise require the construction of new facilities or the addition of law enforcement personnel. Impacts under both Options would be **less than significant**.

iii. Schools?

Potential impacts to schools serving the project area would be related to the number of students generated by Option A or Option B. The number of students generated from the Options was calculated by taking the number of dwelling units, and multiplying that number by a 0.07 factor for elementary schools and a 0.19 factor for middle and high schools (number factors are based on the history of similar multi-family residential developments), and then dividing that number by the number of grades within the district (Del Mar Union School District 2014; San Dieguito Union High School District 2010a). For Option A, this methodology would result in an additional 3 students per elementary grade, and an additional 9 students per middle and 9 students per high school grade. In total, Option A is expected to generate a total of approximately 21 students. For Option B, this methodology would result in an additional 3 students per elementary grade, and an additional 7 students per middle and 7 students per high school grade. In total, Option B is expected to generate a total of approximately 17 students.

Both Options would be required to pay school impact fees as set forth by the Del Mar and San Dieguito Districts. Both Options would also be required to pay state-mandated school facilities fees, at a total of $0.42 per commercial square-foot, to offset any indirect impacts to students generated by new residents with school-age children who relocate to the districts.

With the addition of 48 units or 38 units, the number of students generated by either Option is not considered substantial. According to the school attendance boundaries for the Del Mar and San Dieguito Districts, the proposed project site is within the boundaries of Del Mar Hills Elementary, Del Mar Heights Elementary, Earl Warren Middle School, Torrey Pines High School, and the option of San Dieguito High School Academy through an open enrollment application process (Del Mar Union School District 2015; San Dieguito Union High School District 2010b). As shown in Table 4.13-1, all schools within the attendance boundary of the

proposed project site are well under capacity. Considering the availability of nearby schools, Option A or Option B would not require the construction of new school facilities, and impacts under both Options would be **less than significant**.

iv. Parks?

Option A and Option B are estimated to add approximately 99 residents and 78 residents, respectively, which would only minimally increase the use of Seagrove and Powerhouse Parks. Construction of either Option would not disrupt or prevent public access to any of the parks within the City on a short-term or long-term horizon because the location of the Options would not interfere with access routes to the park facilities. Furthermore, both Options would include amenities such as a pool, spa area, and recreation room for use by project residents. Due to the minimal population increase and the provided project amenities, implementation of Option A or Option B would not substantially degrade existing park facilities, nor would it necessitate the construction or expansion of facilities. Impacts under both Options would be **less than significant**.

4.13.5 Mitigation Measures

No significant impacts to public services would occur under either Option; therefore, no mitigation measures are required.

4.13.6 Level of Significance After Mitigation

No mitigation measures are required, and impacts would remain less than significant.

4.13.7 References

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4.14 UTILITIES AND SERVICE SYSTEMS

This section describes the existing setting related to utilities and service systems serving the proposed Watermark Del Mar Specific Plan (WDMSP) Project Option A or Option B. Analysis includes impacts to water, wastewater, stormwater, solid waste, and energy from Option A and Option B. Mitigation measures are identified as necessary to reduce or avoid significant impacts of these Options. Information from the City of Del Mar Community Plan and the WDMSP were used in determining the analysis in this report.

4.14.1 Existing Conditions

4.14.1.1 Water

Domestic water supply is provided to the City of Del Mar (City) by the San Diego County Water Authority (SDCWA), which purchases water from the Metropolitan Water District in Los Angeles. The water is a mixture of Colorado River water and water from Northern California.

There is an existing 20-inch-diameter ductile iron water line adjacent to the proposed project site beneath San Dieguito Drive. Additionally, a water line is located along the proposed project site that transitions from 8-inch-diameter ductile iron at the intersection of Jimmy Durante Boulevard and San Dieguito Drive to 8-inch-diameter PVC and the 6-inch-diameter AC southwest along Jimmy Durante Boulevard Strum, pers. comm. 2006).

4.14.1.2 Wastewater

Wastewater treatment for the City of Del Mar is provided by the City, and sewage is directed to the Point Loma Wastewater Treatment Plant. Currently, there is an existing 4-inch-diameter force main sewer line located along San Dieguito Drive and Jimmy Durante Boulevard. Additionally, an 8-inch-diameter line along San Dieguito Drive terminates just southeast of the proposed project site, and another 8-inch-diameter line extends along the southern boundary of the project site (Strum, pers. comm. 2006).

4.14.1.3 Stormwater

An 18-inch-diameter reinforced concrete pipe municipal storm drain extends under San Dieguito Drive adjacent to the project site. Additionally, an 18- to 24-inch-diameter corrugated metal pipe extends across Jimmy Durante Boulevard from the proposed project site (Dudek 2007).

4.14.1.4 Solid Waste and Recycling

Waste Management provides solid waste services for the City by offering curbside trash pickup and optional recycling pickup. Solid waste generated from the proposed project would be

collected by Waste Management, taken to the Palomar Transfer Station, and then to the West Miramar Sanitary Landfill. Currently, the Miramar Landfill has a permitted maximum disposal rate of 8,000 tons per day. Total permitted capacity at the Miramar Landfill is approximately 88 million cubic yards and the landfill has a remaining capacity of 18%, or 15.5 million cubic yards. Based on the maximum permitted disposal rate, the Miramar Landfill is expected to cease operations in August 2025 (Cal Recycle 2017).

4.14.1.5 Energy

Natural Gas

San Diego Gas & Electric (SDG&E) provides natural gas service to the proposed project area. A natural gas line is located along Jimmy Durante Boulevard (Dudek 2007).

Electricity

SDG&E also provides electricity service to the proposed project area. Overhead electrical lines are located along the southeast side of Jimmy Durante Boulevard. Additionally, an overhead electrical line is located along the project site's frontage on the southwest side of San Dieguito Drive (Dudek 2007).

4.14.2 Relevant Plans, Policies, and Ordinances

Federal

Federal Clean Water Act of 1987

The Clean Water Act is the primary federal law that protects the nation's waters, including lakes, rivers, aquifers, and coastal areas. Section 401 of the Clean Water Act requires that any applicant for a federal permit to conduct any activity, including the construction or operation of a facility that may result in the discharge of any pollutant, obtain certification from the state.

Section 303 of the Clean Water Act requires states to identify surface waters that have been impaired. Under Section 303(d), states, territories, and authorized tribes are required to develop a list of water quality segments that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. Section 404 of the Clean Water Act establishes a permit program to regulate the discharge of dredged material into waters of the United States.

National Pollution Discharge Elimination System

Section 402 of the Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of pollutants from point sources. The U.S. Environmental Protection Agency (EPA) has authorized California to administer its NPDES permitting program. The NPDES permitting program prohibits the unauthorized discharge of pollutants from a point source (e.g., pipe, ditch, well) to waters of the United States. The permitting program addresses municipal, commercial, and industrial wastewater discharges and discharges from large animal feeding operations. Permittees must verify compliance with permit requirements by monitoring their effluent, maintaining records, and filing periodic reports. The program is administered at the local level by the Regional Water Quality Control Boards (RWQCBs).

Resource Conservation and Recovery Act of 1976

The Resource Conservation and Recovery Act of 1976 (42 United States Code 6901 et seq.) (RCRA) gives EPA the authority to control hazardous waste from "cradle to grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. The RCRA also sets forth a framework for the management of nonhazardous solid wastes.

The federal Hazardous and Solid Waste Amendments are the 1984 amendments to the RCRA that focus on waste minimization and phasing out land disposal of hazardous waste, and focus on corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

The 1986 amendments to the RCRA enable EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

State

Executive Order B-29-15

On April 1, 2015, Governor Jerry Brown issued Executive Order (EO) B-29-15 mandating statewide reductions in water use for the first time. The EO aims to reduce the amount of water consumed statewide in urban areas by 25% from 2013 levels—roughly 1.3 million acre-feet of water—through demand management and pricing policies, and heightened public awareness about the need to reduce water consumption. The State Water Resources Control Board (SWRCB) is responsible for developing the regulatory framework to implement the EO. On April 18, 2015, SWRCB issued updated proposed regulatory instructions that grouped urban water suppliers into nine tiers, with conservation standards ranging from 8% to 36%.

Water Supply Assessments and Written Verifications

State legislation has improved the link between water supply and land use planning. Senate Bill (SB) 610 (Water Code Section 10910 et seq.) requires the preparation of a water supply assessment (WSA) for projects within cities and counties that propose any of the following:

- Residential developments of more than 500 dwelling units;
- Shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- Hotels, motels, or both, having more than 500 rooms;
- Industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- Mixed-use projects that include one or more of the projects specified in Water Code Section 10912, subdivision (a); or
- Projects that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling-unit project.

SB 610 provides that when environmental review of certain development projects is required, the public water system that is to serve the development must complete a WSA. The WSA evaluates water supplies that are or will be available in normal, single-dry, and multiple-dry years during a 20-year planning horizon, and determines whether such supplies can meet existing and planned future demands, including the demand associated with a proposed project.

Water Code Section 10910(g), specifies the time frame for preparing and submitting a WSA. Specifically, the "governing body" of each public water system must "approve: the WSA at a regular or special meeting and must submit the WSA to the lead agency not later than 90 days from the date on which the request was received. (Water Code Section 10910(g)(1).) In addition, Water Code Section 10910(g)(3) further states that if the water supplier fails to submit the WSA, the lead agency may seek a writ of mandamus to compel the water supplier to comply (Water Code Section 10910, subd. (g)(3)).

After the water supplier provides the WSA to the lead agency, the law requires the lead agency to include the WSA in any California Environmental Quality Act (CEQA) environmental documents, namely the environmental impact report (EIR) the lead agency prepares for the project (Water Code Section 10911, subd. (b)). Section 10911 further provides the lead agency

"may include in any environmental document an evaluation of any information included in" the WSA (Water Code Section 10911, subd. (c)). Further, the lead agency "shall determine, based on the entire record, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses. If the city or county determines that water supplies will not be sufficient, the city or county shall include that determination in its findings for the project" (Water Code Section 10911, subd. (c)).

The WSA's role in the EIR process is akin to that of other informational documents concerning potential environmental impacts, such as traffic or air quality. Like those other documents, the WSA is an advisory and informational document. (See *California Water Impact Network v. Newhall County Water District* (2008) 161 Cal.App.4th 1464.) As such, the SB 610 law makes clear that the lead agency evaluates the information included in the WSA and makes the final determination on the sufficiency of a project's water supply, not the urban water supplier. In addition, the lead agency's evaluation of the WSA necessarily vests in the lead agency the authority to consider, assess, and examine the quality of the information in the WSA. The lead agency also may in evaluating the WSA accept or disagree with the urban water supplier's analysis or may request additional information from the supplier (*California Water Impact Network v. Newhall County Water District* (2008) 161 Cal.App.4th 1464).

SB 221 (Government Code Sections 66455.3 and 66473.7) requires that a city, county, or local agency include a condition to any tentative subdivision map that a sufficient water supply must be available to serve the subdivision. The term "sufficient water supply" is defined as the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year planning horizon that would meet the subdivision project's estimated water demand, and the demand from existing and planned future water uses (including agricultural and industrial uses) within the specified service area.

State Agency Model Integrated Waste Management Act of 1999

Assembly Bill 75 was passed in 1999, and the State Agency Model Integrated Waste Management Act (Chapter 764, Statutes of 1999, Strom-Martin) took effect on January 1, 2000. The State Agency Model Integrated Waste Management Act mandated that state agencies develop and implement an integrated waste management plan. The act also mandated that community service districts providing solid waste services report disposal and diversion information to the city, county, or regional agency in which the community service district is located. Provisions of the act require all state agencies and large state facilities to divert at least 50% of solid waste from landfills after 2004, and that each state agency and large facility submit an annual report to the California Department of Resources Recycling and Recovery summarizing its yearly progress in implementing waste diversion programs.

Assembly Bill 939

Enacted by Assembly Bill 939 and signed into law in 1990, the California Integrated Waste Management Authority established an integrated system of solid waste management whereby each city and county is required to develop and implement plans consistent with the mandated diversion rates of 25% by 1995 and 50% by 2000. Under the California Integrated Waste Management Authority, the County of San Diego must prepare a countywide siting element describing areas to be developed as disposal or waste management facilities (California Public Resources Code, Section 41700).

Assembly Bill 341

Starting July 1, 2012, pursuant to Chapter 476, Statutes of 2011 (Assembly Bill 341, Chesbro), businesses and public entities, including schools and school districts, that generate 4 cubic yards or more waste per week, and multi-family units that generate 5 cubic yards or more are required to recycle if they are not already doing so. The purpose of this law is to reduce greenhouse gas emissions by diverting commercial solid waste to recycling efforts and expand opportunities for additional recycling services and recycling manufacturing facilities in California.

State Water Resources Control Board

The SWRCB preserves, enhances, and restores the quality of California's water resources and ensures proper allocation and efficient use for the benefit of present and future generations. Wastewater generators must obtain a permit to discharge their wastewater. Pursuant to the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act, the SWRCB regulates wastewater discharges to surface waters through the NPDES program. Some wastewater discharges are exempt from federal NPDES requirements, but California law may still apply. Under California law, the SWRCB requires waste discharge requirements for some discharges, in addition to those subject to NPDES permits. Permits contain specific requirements that limit the pollutants in discharges. They also require dischargers to monitor their wastewater to ensure that it meets all requirements. Wastewater dischargers must maintain their treatment facilities, and treatment plant operators must be certified. The SWRCB routinely inspects treatment facilities and strictly enforces permit requirements.

California Senate Bill X7-7

SB X7-7 was enacted in November 2009 to require all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per-capita urban water use by 20% by December 31, 2020 (California Water Code, Section 10608.20). To reach this goal, SB X7-7 requires each urban retail water supplier to report progress in meeting water use targets (California Water Code, Section 10608.40). The law also requires wholesale water suppliers to

support their retail member agencies' efforts to comply with SB X7-7 through a combination of regionally and locally administered active and passive water conservation measures, programs, and policies, as well as the use of recycled water.

California Water Code

California's Porter-Cologne Water Quality Control Act (1969), which became Division 7, Water Quality, of the California Water Code, establishes the responsibilities and authorities of the nine RWQCBs and the SWRCB. It directs each regional board to formulate and adopt a Water Quality Control Plan—known as a Basin Plan—for all areas within the region. The water quality objectives used for the proposed project are primarily those set forth in the adopted Water Quality Control Plan for the San Diego Basin. The Basin Plan defines existing and potential beneficial uses and water quality objectives for coastal waters, groundwater, surface waters, imported surface waters, and reclaimed waters in the basin (RWQCB 2011).

Urban Water Management Plans

Urban Water Management Plans (UWMPs) are prepared by California's urban water suppliers to support their long-term resource planning and ensure adequate water suppliers are available to meet existing and future water demands. Urban water purveyors are required to prepare and update UWMPs every 5 years. The UWMPs address water supply, treatment, reclamation, and water conservation, and contain a Water Shortage Contingency Plan. Local UWMPs are supplemental to the regional plans prepared by the Metropolitan Water District. The City, however, is not required to prepare a UWMP because the City doesn't service 3,000 connections or convey 3,000 acre-feet of water per year.

Recycled Water Policy Resolution No. 2009-0011

The purpose of the Recycled Water Policy is to increase the use of recycled water from municipal wastewater sources that meets the definition in California Water Code, Section 13050(n), in a manner that implements state and federal water quality laws. When used in compliance with the policy, Title 22, and all applicable state and federal water quality laws, the SWRCB strongly supports recycled water as a safe alternative to potable water for approved uses.

Statewide Storm Water Management Plan

The Statewide Storm Water Management Plan (Caltrans 2003) describes a program to reduce the discharge of pollutants associated with the stormwater drainage systems that serve highways and highway-related properties, facilities, and activities. It identifies how the California Department of Transportation will comply with the provisions of the NPDES permit (Order No. 99-06-DWQ) issued by the Storm Water Management Plan on July 15, 1999. The permit requires that

the previous edition of the Statewide Storm Water Management Plan be revised to include or describe procedures for implementing the requirements stated in several provisions of the permit. This Statewide Storm Water Management Plan was revised to show compliance with this requirement, although the format used differs somewhat from the specific chapter designations outlined in the permit.

Title 20 and Title 24, California Code of Regulations

New buildings constructed in California must comply with the standards contained in Title 20, Public Utilities and Energy, and Title 24, Building Standards Code, of the California Code of Regulations. Title 20 contains standards ranging from power plant procedures and siting to energy efficiency standards for appliances to ensuring reliable energy sources are provided and diversified through energy efficiency and renewable energy resources. Title 24 contains energy efficiency standards for residential and nonresidential buildings based on a state mandate to reduce California's energy demand. Specifically, Title 24 addresses a number of energy efficiency measures that impact energy used for lighting, water heating, heating, and air conditioning, including the energy impact of the building envelope such as windows, doors, skylights, wall/floor/ceiling assemblies, attics, and roofs.

The California Energy Commission (CEC) adopted the 2005 changes to the Building and Energy Efficiency Standards to address the state's energy crisis, reduce energy bills, increase energy delivery system reliability, and contribute to an improved economic condition for the state. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The current standards went into effect on July 1, 2014.

CEQA Guidelines, Appendix F

Appendix F of the CEQA Guidelines contains energy conservation measures that promote the efficient use of energy for projects. To ensure that energy impacts are considered in project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The analysis in this section considers the expected energy use of the proposed project, and measures to help reduce energy consumption at a project and program level.

The goal outlined in Appendix F of the CEQA Guidelines is to conserve energy through the wise and efficient use of energy. The means of achieving this goal include the following:

- Decreasing overall per-capita energy consumption
- Decreasing reliance on natural gas and oil
- Increasing reliance on renewable energy sources

Local

City of Del Mar Climate Action Plan

On June 6, 2016, the Del Mar City Council adopted a Climate Action Plan (CAP), which sets targets for reducing greenhouse gas emissions by 2020 and 2035; identifies strategies to meet the targets; formulates a plan for implementation; and discusses ways the City needs to adapt to the effects of climate change already occurring or anticipated to occur, such as sea level rise and water supply shortages. The CAP aims to reduce greenhouse gas emissions by 15% by 2020, and 50% by 2035. The CAP also includes a renewable energy goal of 50% by 2020, and 100% by 2035. The following CAP goals are aimed at reducing water consumption, diverting waste from landfills, and capturing emissions from wastewater treatment:

Goal 9: Reduce Outdoor Water Consumption – The CAP goals are to reduce outdoor water consumption by 20 gallons (6.1 acre-feet) per capita per day by 2020 and 30 gallons (9.2 acre-feet) per capita per day by 2035.

Goal 11: Divert Waste from Landfills and Capture Emissions – The City is aiming to exceed state requirements with CAP goals for waste diversion of 80% by 2020 and 95% by 2035. In addition, the CAP goals also include achieving a landfill gas capture rate of 75% by 2020 and 80% by 2035 to comply with state landfill methane capture regulations.

Goal 12: Capture Emissions from Wastewater Treatment – The CAP goal is to achieve a 98% methane capture rate for wastewater treatment by 2035.

Sanitary Sewer Management Plan

On May 2, 2006, the SWRCB adopted Wastewater Discharge Requirements Order 2006-0003-DWQ. This order mandated all federal and state agencies, municipalities, counties, districts, and other public entities (“enrollees”) that own or operate sanitary sewer systems greater than 1 mile in length that collect and/or convey untreated or partially treated sewer to a publicly owned treatment works facility in California to comply with the terms of the order. Order 2006-0003-DWQ also stated that, to facilitate proper funding and management of sanitary sewer systems, each enrollee must develop and implement a system-specific sewer management plan. To be effective, sewer system management plans must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost/benefit analysis. Additionally, a sewer system management plan must contain a spill response plan that establishes standard procedures for immediate response to a sewer system overflow in a manner designed to minimize water quality impacts and potential nuisance conditions.

The City owns and operates a collection system consisting of approximately 22 miles of sewer mains, 3 miles of force main, and three lift stations; these provide service to approximately 4,500

residents (approximately 1,800 sewer connections). Of the collection system sewer lines, 78% is made up of 6- to 8-inch-diameter pipe, 20% is 9- to 15-inch-diameter pipe, and 2% is 16- to 24-inch-diameter pipe. The City of Del Mar's wastewater is transported to and treated by the City of San Diego. Contract capacity with the City of San Diego for the transportation agreement is 0.800 million gallons per day (mgd). Contract capacity with the City of San Diego for treatment is 0.876 mgd. The City's sewer system management plan identifies how the City complies or implements mandatory elements of the Wastewater Discharge Requirements to reduce sanitary sewer overflows (City of Del Mar 2010).

City of Del Mar, Water Supply

Under the City of Del Mar Municipal Code, Title 21 – Water Supply, provisions are established for the regulation, use, and operation of the water system of the City, as acquired from the Del Mar Utilities. Within Title 21, regulations relating to service connections, water rates and charges, extensions of water mains, backflow, administrative enforcement, water conservation, and emergency water management are addressed, and all projects within the City must be in conformance.

City of Del Mar, Management of Solid Waste

Under Chapter 11.20 of the City of Del Mar's Municipal Code, rules and regulations are adopted for the management of solid waste within the City, and to conform to regulations set forth in Assembly Bill 341. Chapter 11.20 of the City's Municipal Code is taken from the County of San Diego's Municipal Code, including ordinances for construction debris diversion and recycling.

San Diego County Water Authority

The SDCWA purchases water from the Metropolitan Water District of Southern California to meet the potable water demands for the San Diego region. The SDCWA's mission is to provide a safe and reliable supply of water to its 24 member agencies serving the San Diego region. In partnership with the member agencies and stakeholders, the SDCWA meets the region's water supply needs by providing a safe and reliable water supply; diversifying the region's water supply sources; and building, maintaining, and operating critical water facilities in a cost-effective and environmentally sensitive manner (SDCWA 2015).

Regional Energy Strategy

The 2009 Regional Energy Strategy set forth by the San Diego Association of Governments (SANDAG) establishes goals for the San Diego region to be more energy efficient, gives guidelines to increase use of renewable energy sources, and aims to enhance the region's energy infrastructure so that it is able to meet growing energy demands. The Regional Energy Strategy focuses on opportunities and authorities that SANDAG and its member agencies could take advantage of to address energy issues through their authorities in land use planning,

transportation planning and funding, and the building entitlement process. Although the Regional Energy Strategy does not make recommendations for specific energy projects (e.g., power plants or transmission projects), it does assess regional needs for energy resources and infrastructure. The Regional Energy Strategy does not replace the long-term electricity plan that SDG&E develops for the California Public Utilities Commission, but it can inform their decision-making (SANDAG 2009).

4.14.3 Thresholds of Significance

The significance criteria used to evaluate the impacts to utilities and service systems from Option A or Option B are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to utilities and service systems would occur if Option A or Option B would:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.

g) Comply with federal, state, and local statutes and regulations related to solid waste.

4.14.4 Impacts Analysis

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Sanitary sewer service would be provided for Option A or Option B by connecting to an existing sanitary sewer main adjacent to the property at the westernmost portion of the site, fronting Jimmy Durante Boulevard. Both Options sewer service needs would be provided by the City of San Diego. The City of San Diego's Point Loma Wastewater Treatment Plant is operated in

accordance with the applicable wastewater treatment standards set by the RWQCB. The Point Loma Wastewater Treatment Plant treats approximately 175 million gallons of wastewater per day generated in a 450-square-mile area by more than 2.2 million residents. Located on a 40-acre site on the bluffs of Point Loma, the plant has a treatment capacity of 240 mgd. Through a combination of factors, including industrial source control, advanced primary treatment of wastewater, a deep ocean outfall, and comprehensive environmental monitoring, EPA and the RWQCB agreed that the Point Loma Wastewater Treatment Plant fully protects the ocean (City of San Diego 2015).

For residential low rise apartments CalEEMod uses an indoor water use generation rate of 178.5 gallons per dwelling unit per day. For Option A, the proposed 48 dwelling units would result in approximately 8,568 gallons of indoor water used per day. For Option B, the proposed 38 dwelling units would result in approximately 6,783 gallons of indoor water used per day. Conservatively assuming that all indoor water used would become wastewater, it is estimated that Option A would result in 8,568 gallons of wastewater per day and Option B would result in 6,783 gallons of wastewater per day (CalEEMod 2013). City of Del Mar staff has indicated that there is adequate capacity within the wastewater system to serve Option A; therefore, adequate capacity would exist for Option B (Minicilli, pers. comm. 2016). Treatment of effluent from Option A or Option B is anticipated to be routine and is not expected to exceed the wastewater treatment requirements of the RWQCB. Neither Option A nor Option B would require the construction or expansion of any wastewater facilities or exceed applicable wastewater treatment requirements. Adequate wastewater treatment facilities and services are in place to serve future uses at the project site. Impacts under Option A or Option B would be **less than significant**.

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Domestic water supply is provided to the City by the SDCWA, which purchases water from the Metropolitan Water District. The SDCWA would service the proposed project with potable water. Option A and Option B would connect to an existing 20-inch-diameter DI water line that is adjacent to the project site, beneath San Dieguito Drive. Additionally, a water line is located along the project site that transitions from 8-inch-diameter DI at the intersection of Jimmy Durante Boulevard and San Dieguito Drive to 8-inch-diameter PVC and the 6-inch-diameter AC southwest along Jimmy Durante Boulevard. On-site connections would be installed during site development to provide adequate water supplies to Option A or Option B. As indicated by the Del Mar Public Works Department, existing water supply facilities are adequately sized to service either Option (Minicilli, pers. comm. 2016). Therefore, aside from construction of on-site water facilities, existing facilities would adequately service Option A or Option B.

Wastewater treatment for the City of Del Mar is provided by the City of San Diego, and sewage is directed to the Point Loma Wastewater Treatment Plant. City of Del Mar staff has indicated that there is adequate capacity within the wastewater system to serve either Option (Minicilli, pers. comm. 2016). There is an existing 4-inch-diameter force main sewer line located along San Dieguito Drive and Jimmy Durante Boulevard. Additionally, an 8-inch-diameter line along San Dieguito Drive terminates just southeast of the proposed project site, and another 8-inch-diameter line extends along the southern boundary of the project site. As previously stated in Threshold 1, it is estimated that Option A would result in 8,568 gallons of wastewater per day and Option B would result in 6,783 gallons of wastewater per day (CalEEMod 2013). This increase, however, would not exceed the current capacity of the City of San Diego's Point Loma Wastewater Treatment Plant. Implementation of Option A or Option B would not result in the construction of new water or wastewater treatment facilities or the expansion of existing facilities, and impacts under either Option would be **less than significant**.

c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

A private storm drain system would be incorporated into Option A and Option B to provide stormwater treatment for either Option with a proposed bioretention basin prior to connecting to the existing storm drain outlet on San Dieguito Drive. The existing storm drain discharges runoff directly to the adjacent San Dieguito River/Lagoon, which is listed as an exempt system under the Best Management Practice Design Manual (**Appendix H**). Projects that discharge to the San Dieguito River/Lagoon are exempt from hydromodification requirements.

The storm drain conveying flows from the project site to the existing point of discharge is sufficiently sized to accommodate the post-developed-condition peak 100-year flow in accordance with City storm drain sizing criteria, and no change is necessary to accommodate the project. Option A or Option B would not result in the construction or expansion of stormwater drainage facilities, and impacts would be **less than significant**.

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The proposed water lines for both Options would connect to the City's water systems located along Jimmy Durante Boulevard or San Dieguito Drive. As previously described in Threshold 2, the existing water supply facilities of the SDCWA have sufficient capacity to serve the maximum level of development permitted and proposed under each Option at the project site. All necessary infrastructure would be appropriately designed and constructed to serve Option A or Option B. In addition, as indicated by the City's Public Works Department, adequate water

supplies are available to service either Option (Minicilli, pers. comm. 2016). On-site facilities and system designs would ensure that the required fire-flow level of 3,000 gallons per minute would be achieved. Therefore, impacts related to water supplies under Option A and Option B would be **less than significant**.

e) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

As previously described in Threshold 1, the City of San Diego's Point Loma Wastewater Treatment Plant would service Option A or Option B, and is operated in accordance with the applicable wastewater treatment standards set by the RWQCB. The Point Loma Wastewater Treatment Plant treats approximately 175 million gallons of wastewater per day generated in a 450-square-mile area by more than 2.2 million residents, and has a treatment capacity of 240 mgd (City of San Diego 2015). As previously stated in Threshold 1, it is estimated that Option A would result in 8,568 gallons of wastewater per day and Option B would result in 6,783 gallons of wastewater per day (CalEEMod 2013). City of Del Mar staff has indicated that there is adequate capacity within the wastewater system to serve either Option, in addition to the provider's existing commitments (Minicilli, pers. comm. 2016). Treatment of effluent from Option A or Option B is anticipated to be routine and is not expected to exceed the wastewater treatment requirements of the RWQCB or the Point Loma Ocean Outfall. Therefore, impacts under both Options would be **less than significant**.

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Potential impacts relative to waste generation would include construction debris, recycling efforts, and potentially hazardous waste generation. Because the proposed project site is currently vacant and no demolition activities are planned, development of Option A or Option B is not anticipated to result in an exceptionally large amount of construction-related waste. Construction waste would be equivalent to that typically associated with new development, and would not substantially affect the Miramar Landfill serving the project site.

Coast Waste Management would be responsible for hauling construction waste and debris and operational refuse to the Miramar Landfill. Waste Management also provides a recycling program, which would serve either Option. Excess construction materials would be separated on site for reuse/recycling or for proper disposal (e.g., concrete and dirt). During grading and construction, separate bins for recycling construction materials and brush would be provided on site to allow Waste Management ease of transport.

Based on solid waste generation rates indicated by CalRecycle multi-family residential units generate an average of 5.1 tons per unit per day. Therefore, Option A is anticipated to generate approximately 245 pounds of waste per day, or approximately 89,425 pounds per year, and Option B is anticipated to generate approximately 194 pounds of waste per day, or approximately 70,810 pounds per year. The land use designates contained within a General Plan provide landfill capacity planning staff with an estimate of the type of density of land uses reasonably anticipated throughout a landfill's service area. In this case, a commercial land use designation for the project site would have been taken into consideration when planning for landfill capacity. Based on waste generation rates from CalRecycle, if the site were developed with a commercial building and maximum floor area ratio (30,985 square feet) approximately 443 pounds per day, or approximately 174,985 tons per year would be generated.

Either Option would generate far less solid waste than what has been accounted for in land fill capacity planning. Therefore, the Miramar Landfill would have sufficient capacity to accommodate either Option's disposal needs. Potential impacts associated with local landfill capacity under either Option A or Option B would be **less than significant**.

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

The City is required by the California Integrated Waste Management District to divert 50% of its waste stream away from landfills. The City's multi-family residential recycling program, implemented by Waste Management, would enable residents within Option A or Option B to conveniently access recycling mechanisms. This multi-family residential recycling program is used throughout the City and influences the City's diversion rates. Further, Option A and Option B would include on-site bin/storage areas for recyclable items that are too large for curbside recycling receptacles. These on-site bins would provide further opportunities to recycle, thereby reducing the amount of waste disposed of at the Otay Landfill. Anticipated uses in Option A and Option B are typical of urban areas, and would not violate any federal, state, or local statutes or regulations related to solid waste. Impacts under Option A and Option B would be **less than significant**.

4.14.5 Mitigation Measures

No significant impacts to utilities and service systems would occur under either Option; therefore, no mitigation measures are required.

4.14.6 Level of Significance After Mitigation

No mitigation measures are required. Impacts to utilities and service systems resulting from implementation of Option A or Option B would be less than significant.

4.14.7 References

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4.15 RECREATION

This section describes the existing recreation setting of the Watermark Del Mar Specific Plan (WDMSP) proposed Option A and Option B site, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of either Option A or Option B. Information in this section is based in part on the City of Del Mar Community Plan Recreation Element's standards, goals, and policies, which are discussed herein.

4.15.1 Existing Conditions

The proposed project site is located on the southern corner of the intersection of Jimmy Durante Boulevard and San Dieguito Drive. The site consists of two parcels (Assessor's Parcel Numbers 299-100-47 and 299-100-48) that are vacant and total approximately 2.37 acres. The existing proposed project site is vacant and is currently used for limited and intermittent paid fairground and race track parking lot, as it has been for several years.

Parks and Recreational Opportunities

Within the City of Del Mar (City), over 23 acres of public beach lands, the Del Mar Fairgrounds, and Seagrove Park all provide regional recreation opportunities. The City also owns approximately 7 acres of Crest Canyon, which connects with the remainder of Crest Canyon that is owned and maintained by the City of San Diego. This canyon is tributary to the San Dieguito River floodplain and Lagoon, and is part of a regional open space system within the City of San Diego. The San Dieguito Lagoon itself is a natural wetland of statewide importance.

The River Path Del Mar Extension Project began construction in February 2016 and is expected to be completed in May 2016 (City of Del Mar 2016). The River Path Del Mar Extension would provide recreational trail opportunities along the San Dieguito River beginning at the intersection of Jimmy Durante Boulevard and San Dieguito Drive, extending west. These trail improvements would be directly across San Dieguito Drive from the project site. The River Path Del Mar is a portion of the Coast to Crest Trail, which continues north of the San Dieguito River with the San Dieguito Lagoon Boardwalk and the Coast to Crest Trail at San Dieguito Lagoon (San Dieguito River Park 2016). The City does not provide a formal recreation program, however, Del Mar abounds with recreational activities, most of which require no physical facilities, such as, but not limited to, jogging/running, swimming, beach-going, surfing, surf fishing, biking, hiking, volleyball, and tennis (City of Del Mar 1985). The following parks and recreational facilities are located within the City and open to the public.

Powerhouse and Seagrove Community Parks

The City's major coastal parks are Powerhouse Community Park and Seagrove Park, located between 15th and 18th Streets on Coast Boulevard. Seagrove Park, at the base of 15th Street, becomes Powerhouse Park, which then stretches northward to 18th Street. Both parks include long turf areas that overlook Del Mar City Beach, as well as a playground at the south end of Powerhouse Park, and the Powerhouse Community Center at the north end of the park. The Powerhouse Community Center includes amenities such as a community room, trellis-covered verandas, an outdoor theatre, and outdoor rinse showers and restrooms. Additionally, the City provides tennis courts for public use, located at 21st Street off Court Street, east of Camino Del Mar. Both parks are located less than a mile southwest of the proposed project site.

San Dieguito Lagoon

The 150-acre San Dieguito Lagoon is the site of the Southern California Edison Wetlands Restoration Project that began in fall 2006 and was completed on November 7, 2011. This project created 115 acres of wetlands, including a deep water basin, in addition to transitional coastal sage scrub habitat on the surrounding slopes. A number of species that depend on the coastal wetlands have benefited from the newly restored wetlands. The San Dieguito Lagoon is located directly east of the proposed project site.

San Dieguito River

The San Dieguito River is approximately 346 square miles in west-central San Diego County. The river includes portions of the Cities of Del Mar, Escondido, Poway, San Diego, and Solana Beach. The river extends through a diverse array of habitats from its eastern headwaters in the Volcan Mountains to its outlet at the San Dieguito Lagoon and the Pacific Ocean. There are several important natural areas in the river that sustain a number of threatened and endangered species. Among these are the San Dieguito River Park and the 150-acre San Dieguito Lagoon. The San Dieguito River is located north-northeast of the proposed project site on the opposite side of San Dieguito Drive.

San Dieguito River Valley Open Space Park

The San Dieguito River Valley Open Space Park (also known as the San Dieguito River Park) is 55 miles long and 80,000 acres in area and is located in the San Dieguito River Valley. The San Dieguito River Park is run by a Joint Powers Authority (JPA) that was formed by the County of San Diego and the Cities of Del Mar, Escondido, Poway, San Diego, and Solana Beach. The JPA is responsible for creating a natural open space park area in the San Dieguito River Valley and is empowered to acquire, plan, design, improve, operate, and maintain the San Dieguito River Park as a regional open space greenway and park system. The fixed planning area of the San Dieguito

River Park extends along a 55-mile corridor that begins at the mouth of the San Dieguito River in Del Mar, and ends at the desert just east of Volcan Mountain. As part of their mission, the JPA provides compatible recreational opportunities in the planning area, including water related uses that do not damage sensitive lands and are compatible with the river system. The proposed project is located within the San Dieguito River Valley fixed planning area boundary adjacent to the San Dieguito River.

San Dieguito River Park Coastal Trails

One of the recreational opportunities provided in the San Dieguito River Park is a continuous and coordinated system of walking, equestrian, and bicycle trails encompassing the San Dieguito River Valley from the ocean to the inland end of the valley. There are several coastal trails close to the proposed project site along the San Dieguito River and its tributaries. These trails include the River Path Del Mar, the Coast to Crest Trail, the Crest Canyon Trail, and the Scenic Loop Trail.

River Path Del Mar

River Path Del Mar is an existing 0.25-mile trail that provides pedestrian access along the San Dieguito River's south edge between the river mouth and Jimmy Durante Boulevard. The City is currently considering extending this trail to advance the River Path east from Jimmy Durante Boulevard to the Old Grand Avenue Bridge, which will allow a future connection at Crest Canyon. In addition, the proposed extension would implement a portion of a designated future pedestrian accessway along the San Dieguito River and Lagoon as identified in Figure IV-A of the City-certified Local Coastal Program (LCP) Land Use Plan. The proposed extension would be completed by the City in partnership with the San Dieguito River Valley JPA. On March 18, 2015, the City's San Dieguito Lagoon Committee recommended approval of the project's concept and alignments and the City has started to work on recommendations for the project's design elements, including the consideration of picnic tables, bench styles, signage, and vegetation. The River Path is located across Jimmy Durante Boulevard from the proposed project site.

Coast to Crest Trail

The Coast to Crest Trail extends from the ocean at Del Mar to the San Dieguito River's source on Volcan Mountain near Julian. Currently, there are 45 miles of the planned 70 miles of the Coast to Crest Trail completed.

The Boardwalk and the Lagoon Trail are segments of the San Dieguito River Park's Coast to Crest Trail. The Boardwalk is a 1,200-foot-long, 6-foot-wide pedestrian trail that was installed in 2007 just east of the Jimmy Durante Boulevard Bridge. The Boardwalk is located along the northern edge of the San Dieguito River across from the proposed project site. The trail creates an "L" shape that ends in a viewing platform that offers picturesque views of the native flora and

fauna along the river. In accordance with a compromise reached with the California Coastal Commission in 2015, approximately 700 feet of the Boardwalk will be removed to make way for a wetlands restoration project. The remaining 500 to 600 feet of the Boardwalk will remain along with the viewing platform and will connect with a new segment of the Coast to Crest Trail that will run along Jimmy Durante Boulevard. The Lagoon Trail continues from the Boardwalk east, under the freeway, and along the north side of the San Dieguito Lagoon. This area provides visitors with unique vantage points and the closest access to the marsh areas and newly restored wetlands of the San Dieguito Lagoon. This trail is located northeast of the proposed project site

The Southern California Edison Wetlands Restoration Project helped to construct the coastal segment of the Coast to Crest Trail along the San Dieguito River. The trail creates an outer perimeter to help protect sensitive habitat and vegetation inside the nature preserve.

Crest Canyon Trail

The Crest Canyon Trail is located in the Crest Canyon Open Space Park preserve in the western corner of the San Dieguito River Park. The canyon is protected as open space and provides critical upland habitat to complement the wetlands in the San Dieguito Lagoon. Visitors to Crest Canyon can enjoy two gently sloped trails that diverge in the middle of the canyon and meet again near the trailheads. The northern trailhead for Crest Canyon Trail is located to the southeast of the proposed project site at San Dieguito Drive. The entire trail is located in the City of San Diego.

Scenic Loop Trail

The City's Community Plan calls for the creation of the Scenic Loop Trail, which would provide a 7-mile hiking trail around the City's perimeter. The Scenic Loop Trail is divided into seven key trail segments: (1) San Dieguito Trail, stretching from Del Mar Bluffs Preserve to the north of Crest Canyon; (2) North Hills Trail, connecting North Hills residents to the San Dieguito Trail and the Seagrove Park; (3) Beach Bluff Trail, extending from Seagrove Park south to the Del Mar Canyon; (4) Del Mar Canyon Trail; (5) Railroad City Trail, crossing the City's south end and a portion of the City of San Diego to the Torrey Pines Annex State Park; (6) Torrey Pines Annex Trail, extending north toward Crest Canyon; and (7) Crest Canyon Trail, linking back to San Dieguito Trail.

Pedestrian access along the San Dieguito River and Lagoon is envisioned as a component of the City's Scenic Loop Trail. River Path Del Mar, the Boardwalk, and the Lagoon Trail are all part of the San Dieguito segment of the Scenic Loop Trail. As discussed above, the City is currently considering extending the River Path Del Mar trail to advance the River Path east and bring the Scenic Loop Trail one step closer to a future connection at the Crest Canyon segment.

Shores Park Master Plan

The City has embarked on a master planning process for the 5.3-acre Del Mar Shores property that is generally located west of Camino del Mar, south of Ninth Street, and east of Stratford Court. A portion of the property is currently leased to the private Winston School. The City acquired the Shores property from the Del Mar Unified School District in 2008 with the intention of preserving open space and recreational uses, as well as the continued operation of the Winston School. Today, the property, aside from the Winston School lease, is used for informal recreation and as an intermittent dog park. No City recreational programming currently occurs on the site. The former Del Mar Unified School District buildings are used by two Del Mar non-profit organizations. The master planning process for the property will help the City develop a long-range vision to guide the park's development. The master plan will be a blueprint for the future that identifies future facilities and programs, as well as a plan for implementation. Schmidt Design Group has been hired by the City to develop the park master plan.

Del Mar Fairgrounds

The 22nd District Agricultural Association, an agency of the State of California, owns and operates the 300-acre Del Mar Fairgrounds (Fairgrounds). Its staff organizes four major annual events, including the annual San Diego County Fair, and runs Surfside Race Place, the year-round satellite horse racing facility. The Del Mar Thoroughbred Club leases the facilities for its live meet each summer, and hundreds of consumer and trade promoters rent the Fairgrounds facilities for home and garden shows, dog shows, antique fairs, sports shows, music festivals, and other events. The Fairgrounds are north of the proposed project site, across Jimmy Durante Boulevard and the San Dieguito River. For the last several years, the proposed project site has been used as a paid parking lot for the summer fair and racetrack seasons at the Fairgrounds.

4.15.2 Relevant Plans, Policies, and Ordinances

Federal

National Trails System Act

The National Trails System was created in 1968 by the National Trails System Act (16 U.S.C. 1241 et seq.). The National Trails System Act authorized a nationwide system of interstate riding and hiking trails to provide additional outdoor recreation opportunities and to promote the preservation of access to the outdoor areas and historical resources of the nation. The National Trails System established four classes of trails: National Scenic Trails, National Historic Trails, National Recreation Trails, and Connecting or Side Trails. At the state level, the California Department of Parks and Recreation prepared the California Recreational Trails Plan. Federal and state governments adopted this legislation to protect existing trails and to provide for new trails and related facilities.

State

California Department of Parks and Recreation

The California Department of Parks and Recreation manages 280 park units, that protect and preserve an unparalleled collection of culturally and environmentally sensitive structures. The department manages 340 miles of California's scenic coastline, including coastal wetlands, estuaries, beaches, and dune systems, in addition to wilderness areas, terrestrial reserves, and historical structures. It also manages nearly 970 miles of lake and river frontage, 15,000 campsites and 4,500 miles of trails for hiking, biking, and equestrian uses (California Department of Parks and Recreation 2015). The legal charter of the California Department of Parks and Recreation, as required by the California Public Resources Code and the California Code of Regulations, among others, calls for it to administer, protect, provide for recreational opportunity, and develop the State Park System; to interpret the values of the State Park System to the public; to operate the Off-Highway Motor Vehicle Recreation Program; to administer the California Historical Resources Protection Program; and to administer federal and state grants and bonds to local agencies (California Public Resources Code; California Code of Regulations).

Quimby Act

Cities and counties have been authorized since the passage of the 1975 Quimby Act (California Government Code, Section 66477) to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. The goal of the Quimby Act was to require developers to help mitigate the impacts of property improvements. The act gives authority for passage of land dedication ordinances only to cities and counties. Special districts must work with cities and/or counties to receive parkland dedication and/or in-lieu fees. The fees must be paid and land conveyed directly to the local public agencies that provide park and recreational services communitywide.

Landscaping and Lighting Act

The Landscaping and Lighting Act (California Streets and Highways Code, Section 22500 et seq.) enables cities, counties, and special districts to acquire land for parks, recreation, and open space. A local government may also use the assessments to pay for improvements and maintenance to these areas. In addition to local government agencies (i.e., counties and cities), park and recreation facilities may be provided by other public agencies, such as community service districts, park and recreation districts, etc. If so empowered, such an agency may acquire, develop, and operate recreational facilities for the public.

California Coastal Act

The intent of the California Coastal Act (California Public Resources Code, Section 30000 et seq.) is to protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources. The California Coastal Commission regulates land and water use in the coastal zone, and the California Coastal Act includes specific policies that address issues, including visual resources, land/water uses, and shoreline public access and recreation.

California Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act of 1991 provides a framework for state and local government, as well as private-interest, efforts and plans for protection of regional biodiversity and the ecosystems upon which it depends. Natural community conservation plans allow for the appropriate, compatible economic activity to occur while ensuring the long-term conservation of multiple species. As a result of this act, the City is listed as a jurisdictional entity within the boundaries of the County of San Diego's Final Multiple Species Conservation Program (MSCP), and is in the process of developing an MSCP Subarea Plan.

State of California Open Space Standards

State of California planning law provides a structure for the preservation of open space by requiring every city and county in the state to prepare, adopt, and submit to the Secretary of the Resources Agency a "local open-space plan for the comprehensive and long-range preservation and conservation of open-space land within its jurisdiction" (Government Code Section 65560). The following open space categories are identified for preservation:

- *Open space for public health and safety*, including, but not limited to, areas that require special management or regulation due to hazardous or special conditions.
- *Open space for the preservation of natural resources*, including, but not limited to, natural vegetation, fish and wildlife, and water resources.
- *Open space for resource management and production*, including, but not limited to, agricultural and mineral resources, forests, rangeland, and areas required for the recharge of groundwater basins.
- *Open space for outdoor recreation*, including, but not limited to, parks, and recreational facilities, areas that serve as links between major recreation and open space reservations (such as trails, easements, and scenic roadways), and areas of outstanding scenic and cultural value.

- *Open space for the protection of Native American sites*, including, but not limited to, places, features, and objects of historical, cultural, or sacred significance such as Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property (further defined in California Public Resources Code Sections 5097.9 and 5097.993) (City of Carlsbad 2015).

Local

City of Del Mar Community Plan

Open Space Element

The City's Community Plan includes an Open Space Element that highlights five major open space areas in the community that encompass a diversity of topography along nearly all City boundaries, thereby serving to buffer and identify the City as a unique and distinctly separate community. The five major open space areas include:

- The San Dieguito Lagoon and Floodway
- The beaches, bluffs, and accompanying canyons along the ocean
- The bluffs and canyons at the south end of the community
- Crest Canyon
- Bluffs and slopes along the north and northeast edges of the Del Mar hills

The City has a strong commitment to preserve and acquire permanent open space sufficient to meet the long-range needs of the community, preserve and enhance the natural resources, and protect areas and people susceptible to seismic and flooding hazards. An objective outlined in the Open Space Element of the Community Plan is to secure sufficient open space to meet recognized standards for outdoor recreation and education, including land for trails and small neighborhood parks. The Open Space Element outlines ways to achieve this objective by:

- Considering a recreational standard of 15 acres of open space per thousand inhabitants
- Protecting open space areas to satisfy recreational needs or to preserve particularly unique natural features in specific neighborhoods
- Developing a continuous pedestrian loop trail which extends around the perimeter of the City while connecting and passing through areas of natural and scenic value without unnecessarily imposing on residential privacy
- Establishing a Parks and Recreation Commission to administer the parks and scenic preserves and to plan for specific development of open space areas

Scenic Loop Trail

The City's Community Plan calls for the creation of the Scenic Loop Trail, which would provide a 7-mile hiking trail around the City's perimeter. The Scenic Loop Trail is divided into seven key trail segments: (1) San Dieguito Trail, stretching from Del Mar Bluffs Preserve to the north of Crest Canyon; (2) North Hills Trail, connecting North Hills residents to the San Dieguito Trail and the Seagrove Park; (3) Beach Bluff Trail, extending from Seagrove Park south to the Del Mar Canyon; (4) Del Mar Canyon Trail; (5) Railroad City Trail, crossing the City's south end and a portion of the City of San Diego to the Torrey Pines Annex State Park; (6) Torrey Pines Annex Trail, extending north toward Crest Canyon; and (7) Crest Canyon Trail, linking back to San Dieguito Trail. Pedestrian access along the San Dieguito River and Lagoon is envisioned as a component of the City's Scenic Loop Trail.

City of Del Mar Local Coastal Program

The California Coastal Act requires each local jurisdiction along the length of California's coastline to prepare, and submit for state certification, an LCP for that portion of its area located within a specified coastal zone. The City of Del Mar has an LCP that consists of two parts:

1: City of Del Mar LCP Land Use Plan

The City's Land Use Plan was certified by the California Coastal Commission on March 18, 1993. The Land Use Plan is a compilation of the goals, policies, and recommendations identified in the Del Mar Community Plan, various policy reports, the San Dieguito Enhancement Programs, and other goals and policies adopted by the City Council to guide the future development of Del Mar. The Land Use Plan ensures that all land use and development activities in the City will be in conformance with the policies of the California Coastal Act of 1976, as amended. The LCP Land Use Plan includes (1) policies intended to preserve the existing character of the City and its environs; (2) underlying land use designations for all property in the City; (3) hazardous conditions in the City and regulatory policies intended to minimize such hazards; (4) public access components intended to ensure the public's opportunity to get to and enjoy the City's coastal recreational resources; (5) recreation areas in and around the City and policies for improving recreational opportunities; and (6) sensitive lands and policies intended to ensure that the sensitive wetland and hillside habitat areas in the City are preserved.

2: City of Del Mar LCP Implementing Ordinances

The City's Zoning Code (Title 30 of the Municipal Code) constitutes the Del Mar LCP Implementing Ordinances. The LCP Implementing Ordinances are intended to carry out and implement the provisions of the City' LCP Land Use Plan and applicable sections of the California Coastal Act that protect, maintain, and where feasible enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources. The LCP

Implementing Ordinances include specific policies that address issues including visual resources, land/water uses, and shoreline public access and recreation.

City of Del Mar Parks and Recreation Committee

The City's Parks and Recreation Committee provides oversight of the City's parks and open space areas, including Powerhouse and Seagrove Parks, River Path Del Mar, the City tennis courts, and other City-owned grounds. The committee is currently working to improve access within and between the parks and the beach and is assessing a network of pathways to make the City more walkable. The committee actively considers citizens' requests, proactively pursues improvements in the park areas, and works with City staff to solve park deficiencies. The City's Capital Improvement Program does not currently set aside funds for improvements or implementation. Limited maintenance of current facilities is provided in the City's General Fund.

Zoning Ordinance

The Zoning Ordinance (Del Mar Municipal Code, Title 30) implements the Community Plan by regulating the distribution and intensity of land uses, including public facilities. Regulations establish standards for minimum lot size, building height and setback limits, fence heights, parking, and other development parameters within each land use.

Public Access Ordinance

The Public Access Ordinance chapter of the Municipal Code (Chapter 30.61) ensures that physical access is provided to coastal recreation areas for the public without creating a public safety concern, overburdening the City's public improvements, degrading the City's natural resources, or causing substantial adverse impacts to adjacent private properties. This chapter of the Municipal Code includes provisions for required public access and forms a portion of the City's LCP Implementing Ordinances.

4.15.3 Thresholds of Significance

The significance criteria used to evaluate impacts to recreation from Option A and Option B are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.). According to Appendix G of the CEQA Guidelines, a significant impact related to recreation would occur if Option A or Option B would:

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

4.15.4 Impacts Analysis

a) Would the proposed project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Implementation of either Option A or Option B would result in an additional demand for parkland within the Del Mar Community Plan area, given that residential development was not anticipated on the site. Based on a factor of 2.05 persons per dwelling unit, as established by the California Department of Finance for the City, both Options would potentially add an estimated 99 people under Option A and 78 under Option B to the area, which would minimally increase the use of regional parks and other recreational facilities. Adequate public parks and recreational amenities currently exist to serve the population increase resulting from either Option. In addition, the City is in the process of creating a master plan for the Del Mar Shores property, which would create 5.3 acres of additional parkland in the City. Therefore, available parkland plus planned parkland is anticipated to accommodate the population increase caused by either Option A or Option B without resulting in deterioration of facilities. Impacts under Option A and Option B would be **less than significant**.

b) Would the proposed project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Option A is estimated to add approximately 99 residents and Option B is estimated to add 78 residents, which would minimally increase the use of existing recreational facilities.

The proposed project site does not include areas suited for water-oriented recreational activities, oceanfront land, upland areas necessary to support coastal recreational uses, or opportunities for facilities that would increase recreational boating use. The property has existing approvals for general commercial (office) development, which has no higher priority than the proposed residential use.

Although the proposed project site is not directly adjacent to the San Dieguito River shoreline, there are public sidewalks and trail opportunities in the immediate area of the proposed project site. Construction of either Options would not disrupt or prevent public access to any of the recreational facilities in the City on a short-term or long-term horizon because the location of the Options would not interfere with access routes to the recreational facilities. Under either Option, a traffic control plan would be prepared that would include provisions for construction times and control plans for allowance of vehicles, bicyclists, and pedestrians along Jimmy Durante Boulevard and San Dieguito Drive throughout construction. After construction, neither Option would change or affect the existing bikeways along the project frontage of Jimmy Durante

Boulevard. Bicycle amenities, including storage areas for resident bicycles and connection points to the existing public bikeways, are required as identified in each Specific Plan.

In addition, both Options would be designed to provide off-street parking for residents and guests that would not interfere with public access to nearby trails, parks, and beaches. Both Options would also be designed with common areas and a pedestrian circulation system that provides linkages and promotes walkability and cycling to nearby recreational facilities. A variety of pedestrian/cyclist access points would be provided and new sidewalk improvements would be constructed along the San Dieguito Drive frontage from the intersection of San Dieguito Drive and Jimmy Durante Boulevard to the property corner. Additional pedestrian/ cyclist entry points would be provided adjacent to the main parking structure ramp, at a second location on San Dieguito Drive, and at two to three locations along Jimmy Durante Boulevard to provide convenient access to the walking route to the San Dieguito Lagoon and riverside strolling opportunities to the north.

To further ensure that Option A or Option B would not interfere with any existing or potential public access to the trail system surrounding the San Dieguito River, the applicant has made a contribution through a development agreement toward River Path Del Mar. This agreement will enhance public access in the River Path area that exists directly across the street from the proposed project site.

Further, both Options include amenities such as a fitness facility, a pool and spa area, a common area, and a recreation room for use by residents of on-site dwelling units. Due to the minimal population increase that would occur under either Option, construction of circulation elements designed to promote public access to nearby recreation facilities, and the provided recreational amenities, implementation of Option A or Option B would not necessitate the construction or expansion of recreational facilities. Impacts under Option A and Option B would be **less than significant**.

4.15.5 Mitigation Measures

No significant impacts to recreational facilities are anticipated as a result of either Option A or Option B; therefore, no mitigation measures are required.

4.15.6 Level of Significance After Mitigation

The population growth associated with either Option (99 people under Option A or 78 people under Option B) would minimally increase the use of regional parks and other recreational facilities, and the available parkland plus planned parkland is anticipated to accommodate either Option's population increase without resulting in deterioration of facilities. Construction of either Option would not disrupt or prevent public access to any of the recreational facilities in the City in the short term or long term. Further, both Options include circulation elements designed

to promote public access to nearby recreational facilities and recreational amenities for use by residents. Therefore, neither Option A nor Option B necessitate the construction or expansion of recreational facilities, and all impacts are anticipated to be less than significant. No mitigation measures would be required.

4.15.7 References

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CHAPTER 5
EFFECTS NOT FOUND TO BE SIGNIFICANT

Section 15128 of the California Environmental Quality Act (CEQA) Guidelines requires that an environmental impact report (EIR) briefly indicate the reasons that various possible significant effects of a project are determined not to be significant and why each of these effects are not discussed in detail in the EIR. The environmental issues discussed in the following sections are not considered significant, and the reasons for this conclusion are outlined in detail below.

5.1 AGRICULTURAL AND FORESTRY RESOURCES

As outlined by the California Department of Conservation's Farmland Mapping and Monitoring Program, the Watermark Del Mar Specific Plan (WDMSP) proposed Option A and Option B site is designated "other land," surrounded by "urban and built-up land," and does not contain prime farmland, unique farmland, or farmland of local or statewide importance on site or within the general project vicinity (California Department of Conservation 2010). Due to the lack of farmland on site, the Options are designated as non-enrolled land, and are not subject to a Williamson Act Contract (California Department of Conservation 2014).

According the National Resources Conservation Service, soils on site are mapped as Tujunga sand, 0% to 5% slopes; loamy alluvial land-Huerhuero complex, 9% to 50% slopes, severely eroded; and Terrace escarpments (NCRS 2015). These soils do not qualify for a Storie Index Rating of 80 to 100 in the U.S. Department of Agriculture, Soil Conservation Service land use capability classification, which constitutes soil suitability for agricultural resources.

Although the proposed project site does include biological resources, including trees, the site is not zoned for forest or timberland production, and Option A or Option B would not result in any impacts to timberland or forestry resources. Due to the proposed project site's classification as "other land" through the Farmland Mapping and Monitoring Program, the lack of agricultural and/or forest resources on site, the surrounding dense residential development, and the lack of soil for potential agricultural or forestry use, no impacts to agricultural and forestry resources would result from implementation of either Option.

5.2 MINERAL RESOURCES

Per the State of California Department of Conservation, Division of Mines and Geology, the project site is located within Mineral Resource Zone 1 (MRZ-1) in the Del Mar Quadrangle (California Department of Conservation 2011), where adequate information indicates that no significant mineral deposits are present, or where it is determined that little likelihood exists for their presence (California Department of Conservation 1982). In addition, mineral resource extraction on site would be incompatible with the site's current zoning and adjacent residential

land uses. Due to the sensitive noise receptors of the surrounding residential development, and the lack of mineral resources indicated by the MRZ-1 designation, a mining operation is not anticipated on the project site. Therefore, Option A or Option B would not result in impacts to mineral resources.

5.3 REFERENCES

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CHAPTER 6
OTHER CEQA CONSIDERATIONS

6.1 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the California Environmental Quality Act (CEQA) Guidelines mandates that the growth-inducing nature of the Watermark Del Mar Specific Plan (WDMSP) proposed Option A and Option B be discussed. This section of the CEQA Guidelines states that the growth-inducing analysis is intended to address the potential for the project to "foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Furthermore, the CEQA Appendix G Checklist (Population and Housing) mandates that a CEQA document speak to the project's likelihood to induce substantial population growth in an area, either directly (e.g., by proposing new homes or businesses) or indirectly (e.g., through extension of roads or other infrastructure) (14 California Code of Regulations (CCR) 15000 et seq.).

A project may be distinguished as either facilitating planned growth or inducing unplanned growth. Facilitating growth is related to establishment of direct employment, population, or housing. Inducing growth is related to lowering or removing barriers to growth or by creating an amenity or facility that attracts new population/economic activity. For purposes of this environmental impact report (EIR) analysis, a significant growth-inducement impact would occur if Option A or Option B, and all associated infrastructure improvements, were to remove obstacles to growth directly or indirectly such that the induced growth would significantly burden existing community services or the environment, or cause a demand for general plan amendments. This section contains a discussion of the growth-inducing factors related to the Options and as defined under CEQA Guidelines Section 15126.2(d). A project is defined as growth inducing when it directly or indirectly:

1. Fosters population growth
2. Fosters economic growth
3. Includes the construction of additional housing in the surrounding environment
4. Removes obstacles to population growth
5. Taxes existing community service facilities, requiring construction of new facilities that could cause significant environmental effects
6. Encourages or facilitates other activities that could significantly affect the environment, either individually or cumulatively

It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

Both Options would directly contribute to population growth in the City of Del Mar (City). Option A would result in the development of 48 new housing units to the existing vacant site, and Option B would result in the development of 38 new units. Both Options would directly contribute to population growth in the area through the development of these dwelling units, which include a variety of one-, two-, and three-bedroom units. As described in Chapter 4.11, Population and Housing, of this EIR, based on a factor of 2.05 persons per dwelling unit, as established by the California Department of Finance for the City, Option A and Option B would directly increase population growth to the area, and would potentially add an estimated 99 or 78 people to the area, respectively (California Department of Finance 2014). The Options would not, however, indirectly induce a growth in population, as no extension of infrastructure, such as roads or water and wastewater service, is proposed beyond what is required to adequately serve either Option.

The San Diego Association of Governments (SANDAG) population growth forecasts rely, in part, on individual jurisdiction's planning documents, such as the City's Community Plan. As such, because a Community Plan Amendment and Zoning Amendment to change the site's designation from commercial uses to residential uses is being proposed, the estimated population of 99 or 78 people would not have been accounted for in SANDAG's projections and, therefore, would exceed these projections. However, determination of impacts related to population growth hinge on whether the induced growth would be considered substantial. The population increase resulting from both Options A and B would account for approximately 2.2% and 1.7% of SANDAG's projected population growth for the City, assuming that Option A or Option B is built out by 2020. The City is only projected to grow by 372 people between 2020 and 2050, for which Option A would account for 27% of projected growth and Option B would account for 21% of projected growth (SANDAG 2013). There is not a hardline number or percentage available to determine whether or not the estimated introduction of 99 or 78 people would be considered a substantial increase in population.

Further, the project site is identified by the current Housing Element (Appendix B-4 of the Housing Element) as a potential site for re-designation from North Commercial to residential uses in order to meet future growth needs and Regional Housing Needs Assessment (RHNA) requirements. The Housing Element also states that the City has adequate sites with existing residential land use designations to accommodate the entire moderate and above-moderate income RHNA units; however, the rezoning is required to meet the RHNA requirement of 22 lower-income units (City of Del Mar 2013). Option A would include seven affordable housing units and Option B would include six affordable housing units, which would aid the City in achieving its RHNA obligations.

The Housing Element includes objectives with related programs for implementation. Program #4.A.1 states that "[w]ithin 12 months of adoption of the Housing Element, the City will apply a new land use designation to two vacant parcels roughly 2.3 acres in size and currently zoned as

North Commercial Zone (APNs 299-100-47 and -48) to allow residential development by right, at a density of 20-25 du/ac" (City of Del Mar 2013). As such, the City has specifically identified the project site as an area for future higher-density residential land uses and resulting direct population growth. Option A, which would result in a density of 20.5 dwelling units per acre or Option B, which would result in a density of 16.1 dwelling units per acre, would aid the City in furthering implementation of its Housing Element to meet future growth and housing demand within its jurisdiction. Additionally, the Housing Element does not identify all sites in the housing inventory as approved, in development, or constructed. In other words, the City has the discretion to adjust allocated housing units/sites as necessary to balance proposed plans for residential development, approved/constructed residential development, and sites identified within the housing inventory that are not yet planned for development in order to adequately provide for a wide range and balance of housing stock. The City would then be able to account for the proposed units and estimated population resulting from either Option when considering future residential development proposals.

Although both Options would result in limited growth unaccounted for by regional growth projections, both Options would aid the City in meeting RHNA obligations and would be consistent with the Housing Element of the City's Community Plan. Therefore, Option A and Option B would not result in substantial population growth, would not be growth inducing, and impacts would be **less than significant**.

6.2 SIGNIFICANT IRREVERSIBLE IMPACTS

CEQA Guidelines Section 15126.2(c) requires the evaluation of:

> [u]ses of nonrenewable resources during the initial and continued phases of the project [that] may be irreversible since a large commitment of such resources makes removal or non-use thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as a highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified (14 CCR 15000 et seq.).

Implementation of either Option would result in irreversible environmental changes. Approval of either Option would commit the City to development of urban uses, including 48 or 38 dwelling units, associated recreational facilities, and internal circulation system improvements at the project site. Construction and operation of either Option would require the use of resources that include soils, gravel, concrete, and asphalt; lumber and other related forest products; petrochemical construction materials; steel, copper, and other metals; water; fuels; and energy. Because both Options would result in an increase in population in the City, it would result in an

incremental increase in the consumption of resources such as water, fuels, and electricity during long-term operation and occupancy. As such, both Options would add to the existing long-term use of fossil fuels and other nonrenewable resources, even with the proposed implementation of energy-efficient design features. Additionally, although both Options would not result in any significant visual impacts, the conversion of vacant land to residential development would result in a permanent change to the visual environment.

6.3 SIGNIFICANT UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) directs authors of EIRs to address impacts from a project that will result in significant impacts, including those that cannot be mitigated to below a level of significance. Implementation of the project-specific mitigation measures identified in the Executive Summary of this EIR would reduce all significant impacts to below a level of significance.

6.4 ENERGY CONSERVATION

Title 24, Building Energy Standards for Residential Development, establishes energy budgets or maximum energy use levels. The standards of Title 24 supersede local regulations, and state requirements mandate Title 24 requirements through implementation by local jurisdictions. The City enforces state energy regulations for new residential construction, and local principles under "Sustainable Del Mar," which includes programs and actions that provide residents with energy conserving incentives, and guide the City's decisions in implementing development and living practices that meet the needs of the present while safeguarding and enhancing the future (City of Del Mar 2015).Both Options would be designed and developed using sustainable development practices and design features. These practices include new Title 24 (2013) standards.

6.5 REFERENCES

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CHAPTER 7
CUMULATIVE EFFECTS

7.1 INTRODUCTION

Although the environmental effects of an individual project may not be significant when that project is considered independently, the combined effects of several projects may be significant when considered collectively. Such impacts are "cumulative impacts." Section 15355 of the California Environmental Quality Act (CEQA) Guidelines defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (14 California Code of Regulations (CCR) 15000 et seq.). Section 15130 of the CEQA Guidelines provides guidance for analyzing significant cumulative impacts in an environmental impact report (EIR). According to this section of the CEQA Guidelines, the discussion of cumulative impacts "need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness" (14 CCR 15000 et seq.). The discussion should also focus only on significant effects resulting from the project's incremental effects and the effects of other projects. According to Section 15130(a)(1), "An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR."

However, substantial cumulative impacts more often result from the combined effect of past, present, and future projects located in proximity to the project under review. Therefore, it is important for a cumulative impacts analysis to be viewed over time and in conjunction with other related past, present, and reasonably foreseeable future developments whose impacts might compound or interrelate with those of the project under review.

7.2 METHODOLOGY

According to Section 15130(b) of the CEQA Guidelines, cumulative impact analysis may be conducted and presented by either of two methods: (1) a list of past, present, and probable activities producing related or cumulative impacts, or (2) a summary of projections contained in an adopted general plan or related planning document or in a prior environmental document that has been adopted or certified that describes or evaluates regional or area-wide conditions contributing to the cumulative impact. Plans that were used to evaluate cumulative impacts for the Watermark Del Mar Specific Plan (WDMSP) project (proposed Option A and Option B) are the *City of San Diego General Plan*, the *City of Del Mar Community Plan*, the *City of Solana Beach General Plan*, and the *County of San Diego General Plan*.

7.2.1 Cumulative Projects List

The cumulative study area is defined as the City of Del Mar (City), including the 22nd District Agricultural Association lands, as well as southern areas of the City of Solana Beach and the eastern boundary of the City of San Diego. The cumulative impacts analysis is based on a list of projects within the proposed project's study area that have applications submitted or approved, are under construction, or have recently been completed. **Table 7-1** lists the cumulative projects within the study area.

Table 7-1
Cumulative Projects

No.	Project Title	Project Description	Status
1	Via de la Valle Townhomes	22 townhomes, each with two dwellings, are proposed for a 22-acre site on the north side of Via de la Valle, east of the Flower Hill Promenade.	Submitted Application; Pending Approval
2	Via de la Valle Street Widening (City of San Diego)	Via de la Valle is proposed for improvements between San Andres Drive and El Camino Real West.	Construction to begin in Summer 2018
3	22nd District Agricultural Association (City of Del Mar)	A master plan for the enhancement, renovation, and replacement of the existing Del Mar Fairgrounds is proposed.	Revised DEIR public review ended July 7, 2017
4	Rancho Del Mar CCRC (City of Del Mar)	A 174-unit continuing care retirement community along Via de la Valle is proposed.	Submitted Application; Pending Approval
5	Solana Highlands Revitalization (City of Solana Beach)	Demolition of the existing development on site (which includes 194 multi-family residential units in 16 buildings and three single-family residences) and construction of 260 new multi-family residential units in 24 buildings with amenities and open space area.	Submitted Application; Pending Approval
6	Jimmy Durante Boulevard South Streetscape Project (City of Del Mar)	Sidewalk and roadway rehabilitation construction project along Jimmy Durante Boulevard and Camino del Mar, between San Dieguito Drive and the Del Mar Plaza. Specific project improvements included construction of approximately 2,500 feet of new curb and gutter, 16,000 square feet of sidewalks, 2,200 square feet of retaining walls, seven pedestrian ramps, and 87,300 square feet of pavement rehabilitation. The project also included replacing approximately 2,000 feet of water main pipelines, 300 feet of wastewater pipelines, and new underground storm drain infrastructure on the east side of Jimmy Durante Boulevard.	Complete
7	River Path Del Mar Extension Project (City of Del Mar)	River Path Del Mar, an existing trail that is part of the San Dieguito segment, currently provides pedestrian access along the river's south edge between the river mouth and Jimmy Durante Boulevard. The extension will advance the River Path east from Jimmy Durante Boulevard to the Old Grand Avenue Bridge and bring the Loop Trail one step closer to a future connection at the Crest Canyon segment.	Complete

Table 7-1
Cumulative Projects

No.	Project Title	Project Description	Status
8	San Dieguito Drive Intersection Improvements (City of Del Mar)	A Focused Environmental Impact Report (EIR) was approved March 22, 2016 which reviewed alternative traffic control improvements for the intersection of Jimmy Durante Boulevard and San Dieguito Drive. The approved alternative was a roundabout for the intersection of San Dieguito Drive and Jimmy Durante Boulevard	Roundabout Complete
9	City of Del Mar City Hall/Town Hall Design (City of Del Mar)	The City of Del Mar is completing the design phase. Initial ideas for the project were presented by the architects on June 1, 2015, and a schematic design concept was approved by the City Council on July 20, 2015. The draft EIR was circulated for 45-day public review on September 11, 2015, and certified on January 4, 2016. The project received its Design Review Permit, Coastal Development Permit, Land Conservation Permit and Tree Removal Permit on January 19, 2016. Construction began Fall 2016 and is anticipated to Be completed Summer 2018.	Under Construction
10	Trailhead Parking at Northeast Corner of Jimmy Durante and San Dieguito (City of Del Mar)	The project involved creation of a trailhead parking area on a level, otherwise vacant lot on two adjacent properties located at the northeast corner of the intersection of Jimmy Durante Boulevard and San Dieguito Drive to serve three public access trails/points. Improvements included installation of two solar-powered Park, Pay, and Display meters, and parking stall mark-out for 36 parking spaces at the trailhead. The site has historically been used for vehicle parking and as a recycling yard. Other than installation of the Park, Pay, and Display machines and demarcation of the parking spaces using plastic line strips tacked to the existing decomposed granite surface (or similar striping methodology), no buildings, structures, or other uses or improvements occurred.	Complete
11	Tentative Tract Map (TTM15-001) for the Estates at Del Mar (City of Del Mar)	The project proposes to subdivide three existing parcels (containing an existing home and guest/caretaker unit) at 929 Border Avenue into five single-family residential lots west of Camino del Mar and one unbuildable parcel east of Camino del Mar. The project would result in the (net) addition of three new residential units at the site.	Approved
12	Corti Single-Family Residence (DRB14-006) (City of Del Mar)	The project is a new single-family residence on a previously disturbed, undeveloped lot at 2188 Heather Lane. The project is located within the North Hills District of the City, the Bluff Slope and Canyon Overlay Zone, and an environmentally sensitive area; directly adjacent and east of the WDMSP project site. This single-family residence project includes 7,091 square-feet, two-story, attached four-car garage on a 1.37-	Under Construction

Table 7-1
Cumulative Projects

No.	Project Title	Project Description	Status
		acre lot; with outdoor decks, patios, planter areas, and a pool/spa. The MND for the project was approved and the site is currently under construction.	
13	Garden Del Mar Specific Plan (City of Del Mar)	The Specific Plan will allow a Residential Hospitality use with 18 residential units allowing for visitor rentals, commercial and recreation spaces, and subterranean parking garage on a 25,524-square foot site at the southeast corner of Camino Del Mar and 10th Street.	Submitted Application; Pending Approval
14	Replacement of Bully's Restaurant (City of Del Mar)	Replacement of Bully's Restaurant with new Restaurant building and underground parking garage with four levels of parking.	MND is out for Public Review September 13, 2017 to October 13, 2017
15	Del Mar Beach Resort Specific Plan (City of Del Mar)	The Specific Plan will allow the development of up to 290 hotel units, 86 residential units on-site, 11 workforce housing units, and a low-cost visitor's inn.	Planning

7.3 CUMULATIVE IMPACT ANALYSIS

This analysis evaluates the potential for cumulative projects, in combination, to result in a cumulatively considerable impact, and the potential for the Options to contribute considerably to that cumulative impact on the environment. For the Options, impacts were determined during the preliminary environmental review process using the significance thresholds posed in Appendix G of the CEQA Guidelines. Below, for each resource area, an introductory statement is made regarding what would amount to a significant cumulative impact in that resource area. A discussion regarding the potential for the identified cumulative projects to result in such a cumulative impact, followed by a discussion of whether an Option's contribution to any cumulative impact would be cumulatively considerable, is presented.

7.3.1 Aesthetics

Cumulative Baseline

A cumulative impact would result if the cumulative projects, in combination, resulted in a substantial degradation of quality or obstruction of the views afforded within a scenic vista, or substantial degradation of visual character and quality of the area compared to existing conditions. Cumulative projects that are nearby within the City of Del Mar, City of Solana Beach, and City of San Diego are located in highly scenic areas and have the potential to result in changes in visual character. Although the ultimate architectural design of these cumulative projects is unknown, each project would result in residential, commercial, or infrastructure improvement of land uses similar to the existing urban setting and would not likely result in

cumulatively substantial degradation of existing views. Additionally, each cumulative project in proximity to the Options would comply with the City of Del Mar's development requirements, which would ensure that bulk, scale, height, and setbacks are compatible with the surrounding community. Therefore, a potential significant cumulative impact to visual character and quality would not result.

Cumulative Plus Option A or Option B

Option A or Option B would contribute to the baseline impact on landform alterations and aesthetics by changing the visual character of the north Del Mar area and producing new visual characteristics along San Dieguito Drive and Jimmy Durante Boulevard, as vacant land would be redeveloped to provide an urbanized residential atmosphere. However, the landscape palettes would contain native and other drought-tolerant plant species to unify the site with the surrounding landscape, and both Options would provide building facades and rooflines that provide a variety of architectural elements along Jimmy Durante Boulevard and would maintain important vistas along San Dieguito Drive. As described in Section 3.5.3 of Chapter 3, Project Description of this EIR, architectural elements found throughout Del Mar were incorporated into the design for both Options to provide for compatibility with the broader Del Mar architectural statement.

Based on site reconnaissance, due to the western (beach and sunset) orientation of homes, existing vegetation screening, elevation changes, and other natural topography and development, primary views of the lagoon are not afforded from Heather Lane or residences to the south.

Option A or Option B would contribute to the existing cumulative impacts for light and glare in the project vicinity. To minimize these potential effects of project lighting and ensure consistency with the lighting policies of the City of Del Mar, lighting fixtures within the project site would be designed and implemented to provide illumination appropriate for the level of activity. Option A and Option B would be required to comply with the Design Review Ordinance that prohibits projects that "adversely affect the lighting of the local neighborhood." On-site lighting would comply with applicable lighting regulations, including the glazing and exterior lighting requirements in the City's Zoning Ordinance, resulting in less than significant impacts.

Due to the location of the cumulative projects, it is unlikely that either Option would be visible along with any other cumulative residential or commercial project from any scenic viewpoint. However, the large single family residence atop the bluff to the southeast and the roundabout project at the intersection of Jimmy Durante and San Dieguito Drive would be visible along with the chosen Option. Similar to Option A and Option B, other cumulative projects would be required to comply with the Municipal Code requirement that all proposed designs must be "appropriately scaled with other structures in the neighborhood" (23.08.077, C) and must be "in

harmony with neighborhood character" in terms of design, scale, bulk, coverage and exterior appearance (30.31.060). Thus, with compliance with applicable regulations and City policies, cumulative impacts related to visual character under both Options would be less than significant.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to aesthetics would be less than significant under both Options, and no mitigation measures are required.

7.3.2 Air Quality

Cumulative Baseline

Air quality concerns are regional, and the standards and thresholds expressed and evaluated in Section 4.2, Air Quality, of this EIR, also provide the cumulative impact analysis for Option A and Option B. When analyzing cumulative impacts from a project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the basin is designated as nonattainment for the California Ambient Air Quality Standards and National Ambient Air Quality Standards. The San Diego Air Basin has been designated as a federal nonattainment area for ozone and a state nonattainment area for ozone, particulate matter less than or equal to 10 microns in diameter (PM_{10}), and particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$). PM_{10} and $PM_{2.5}$ emissions associated with construction of the proposed project would generally result in near-field impacts associated with exposure of nearby sensitive receptor to these emissions.

Cumulative Plus Option A or Option B

If the Options do not exceed thresholds and are determined to have less-than-significant impacts, it may still contribute to a significant cumulative air quality impact if the emissions from the Option—in combination with the emissions from other proposed or reasonably foreseeable future projects—are in excess of established thresholds. However, the Options would only be considered to have a significant cumulative impact if the Option's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

As discussed in Section 4.2 of this EIR, emissions of the criteria pollutants as a result of Option A or Option B, including PM_{10} and $PM_{2.5}$, would be below the construction significance levels established by the San Diego Air Pollution Control District. Additionally, construction would be short-term, and criteria pollutant emissions sources associated with construction of Option A or Option B would be typical for projects of similar size and scale as the Options. Construction activities for the Options would not result in substantial impacts to air quality. Furthermore,

operational emissions generated by the Options would be below the significance thresholds for criteria pollutants established by the San Diego Air Pollution Control District; the Option's operational emissions would not be regarded as resulting in a cumulatively considerable contribution to the region's air quality. As such, cumulative plus Option A or Option B impacts related to air quality would be less than significant.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to air quality would be less than significant under both Options, and no mitigation measures are required.

7.3.3 Biological Resources

Cumulative Baseline

The geographic context for the discussion of cumulative biological resource impacts is the City of Del Mar and the San Dieguito Lagoon, where wildlife corridors, riparian areas, and sensitive natural communities exist. The vegetation, plants, animals, and wetland resources in that area are fully discussed in Section 4.3, Biological Resources, of this EIR. Cumulative development projects in the Del Mar area may have an effect on biological resources. The project area contains many resources, including wetlands, riparian communities, and sensitive plant and wildlife communities.

Cumulative Plus Option A or Option B

No state or federally listed endangered or threatened wildlife species are expected to occur on the project site. However, both Options would impact 0.34 acre of disturbed southern coastal bluff scrub, which is considered a sensitive habitat; therefore, impacts would be significant. The proposed project site contains Torrey pine trees and native plants. While 13 Torrey pine trees would be removed, development of Option A or Option B and street improvements would be required to comply with the Design Review Ordinance, the Tree Ordinance, the Public Tree policy Manual, and WDMSP implementing strategies. Many of the native plants would remain and would be enhanced in an undisturbed portion of the site. The site supports a diverse assemblage of trees and shrubs, which could serve as potential nesting habitat for resident songbirds. The potential impacts to biological resources on site would be mitigated to a level below significance.

Potentially significant impacts caused by the impact to 0.34 acre of disturbed southern coastal bluff scrub, which is considered a sensitive habitat; possible indirect impacts to nesting birds due to construction-related noise; and possible indirect impacts to the approximately 0.10 acre of coastal brackish marsh on site would be mitigated to below a level of significance by

implementation of the mitigation measures discussed in Section 4.3, Biological Resources, of this EIR. With implementation of the proposed mitigation measures, all potential impacts to biological resources would be reduced to a level below significant. Therefore, Option A or Option B would not result in any significant unavoidable impacts to biological resources.

All cumulative projects would be required to reduce their individual biological impacts through mitigation measures and compliance with City regulations; therefore, there would not be any significant cumulative impacts related to biological resources.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to biological resources would less than significant under both Options, and no mitigation measures are required.

7.3.4 Cultural and Paleontological Resources

Cumulative Baseline

The geographic context for the analysis of cumulative impacts to archaeological and paleontological resources, including human remains, are localized and generally unique to each site. All significant cultural resources associated with other projects would be mitigated on a project-by-project basis; therefore, regional cumulative impacts to known and yet to be discovered archaeological and paleontological resources would not occur.

Cumulative Plus Option A or Option B

Both Options include measures to mitigate any impact it may have on the region's known and unknown archaeological and paleontological resources to a level that is less than significant. Therefore, due to the project-by-project assessment and consideration of archaeological and paleontological resources, the cumulative impact produced by Option A or Option B in combination with those identified in Section 4.4 is less than significant.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to cultural and paleontological resources would be less than significant under both Options, and no mitigation measures are required.

7.3.5 Geology and Soils

Cumulative Baseline

The geographic context for the analysis of impacts resulting from geologic hazards generally is site-specific, rather than cumulative, because geotechnical conditions are localized and generally unique to each site. Approved projects and those under review are subject to soils and stability analysis, and cannot be constructed unless each project is determined to be geotechnically feasible. The project site would be subject to uniform site development and construction standards. As such, the potential for cumulative impacts to occur is limited.

Cumulative Plus Option A or Option B

Since a project cannot be developed unless it is geotechnically feasible, it is unlikely for the chosen Option to be located adjacent to other cumulatively considerable projects. Site-specific geology and soils impacts would be mitigated to a less-than-significant level through MM-GEO-1. These site-specific impacts do not compound or increase in combination with projected development identified for cumulative impacts analyses. For seismicity, development would expose additional property and people to earthquake hazards. However, this impact can be mitigated by compliance with the California Building Code's seismic requirements on a project-by-project basis. Development throughout the north Del Mar area would not impact the plate tectonic conditions of the area, and there are no current significant cumulative geological issues in north Del Mar. As a result, the cumulative impacts generated by either Option in conjunction with others would not be significant.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to geology and soils would less than significant under both Options, and no mitigation measures are required.

7.3.6 Greenhouse Gases

Cumulative Baseline

Greenhouse gas (GHG) emissions are said to result in an increase in the Earth's average surface temperature, commonly referred to as "global climate change." Global climate change, by definition, is cumulative, as it is the result of combined worldwide contributions of GHGs to the atmosphere over many years.

As discussed in Section 4.6, Greenhouse Gas Emissions, of this EIR, the Climate Change Proposed Scoping Plan: A Framework for Change (Scoping Plan), approved by the California Air Resources Board (CARB) on December 12, 2008, provides a framework for actions to

reduce California's GHG emissions, and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects. Moreover, the Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates in the Initial Statement of Reasons that "the Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009). Under the Scoping Plan, however, there are several state regulatory measures aimed at identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area-source emissions (e.g., energy usage, high global warming potential GHGs in consumer products) and changes to the vehicle fleet (hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others. Although state regulatory measures would ultimately reduce GHG emissions associated with cumulative projects through their effect on these sources, no statewide plan, policy, or regulation would be specifically applicable to reductions in GHG emissions from the cumulative projects.

Cumulative Plus Option A or Option B

Options A and B would consist of 48 multi-family residential units and 38 multi-family residential units, respectively, a parking structure, a recreation room, and other recreational amenities, including a pool.

Option A and Option B's potential effect on global climate change was evaluated using CalEEMod, which estimated cumulative GHG emissions from various project components, such as construction, vehicular trips, area sources, electricity, water supply, and solid waste (see **Appendix F**). Option A would result in 544 metric tons of carbon dioxide equivalent (CO_2E), and Option B would result in 458 metric tons of CO_2E, per year during operations, which is below the 900 metric tons of CO_2E per year screening threshold established in the County of San Diego's Recommended Approach to Addressing Climate Change in CEQA Documents. Option A or Option B would not result in a cumulatively considerable contribution to global GHG emissions, and would not conflict with the goals of Assembly Bill 32. Cumulative impacts would be less than significant.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to GHG emissions would be less than significant under both Options, and no mitigation measures are required.

7.3.7 Hazards and Hazardous Materials

Cumulative Baseline

Cumulative impacts related to hazards and hazardous materials would result from projects that combine and increase exposure to hazards and hazardous materials. Hazardous soils, underground storage tanks, and other existing sources of hazardous materials are generally site-specific and handled on a project-by-project basis. None of the identified cumulative projects are expected to increase exposure or the chance of the release of hazardous materials, as each proposed land use (residential, general commercial, and infrastructure improvements) does not typically handle large quantities of potentially hazardous materials. Further, cumulative projects would be required to comply with federal, state, and local standards regarding the handling, use, transport, storage, and disposal of hazardous materials that are intended to minimize risk to public health and the environment. In addition to these standards, cumulative projects would be required to minimize erosion and pollution discharge through compliance with Regional Water Quality Control Board regulations and implementation of project-specific best management practices (BMPs) and stormwater pollution prevention practices (or equivalent, per project).

Cumulative Plus Option A or Option B

Due to compliance with applicable hazardous materials regulations and site-specific analysis of existing hazardous materials within each cumulative project site, a potential cumulative impact would not occur. Construction equipment accessing the site would use hazardous and/or flammable materials, including diesel fuel, gasoline, and other oils and lubricants; however, the use, storage, transport, and disposal of these materials would be required to comply with all existing local, state, and federal regulations intended to minimize the risk of hazardous material release. Operation of Option A or Option B would not include any uses that would require the transport, handling, or disposal of hazardous materials, other than typical household and landscaping materials, which are also subject to existing state and federal regulations intended to minimize the risk of hazardous material release. The types and quantities of these common household chemicals would not be substantial and would not pose a health risk to residents of Option A or Option B, or any adjacent uses. Therefore, Option A or Option B would not contribute considerably to a cumulative impact.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to hazards and hazardous materials would be less than significant under both Options, and no mitigation measures are required.

7.3.8 Hydrology and Water Quality

Cumulative Baseline

Both Options would result in stormwater discharge to the San Dieguito Lagoon, the Pacific Ocean, and associated tributaries. Cumulative development in the area would increase the amount of impervious surfaces, which would result in an increased rate of runoff. However, compliance by all surrounding projects through federal, state, and City regulations for stormwater and construction discharges, including the application of BMPs, would reduce cumulative baseline impacts to water quality to a level below significant.

Cumulative Plus Option A or Option B

Both Options would cumulatively increase impervious surfaces, thereby increasing the rate of runoff into the storm drain system. However, similar to other cumulatively considerable projects, the design of the Options include on-site detention facilities to maintain pre-development runoff quantities. A combination of treatment control BMPs would be incorporated into both Options to infiltrate, filter, and/or treat runoff from the project site to the numeric sizing treatment standards outlined in the City of Del Mar's BMP Design Manual. Since both Options would disturb 1 or more acres of soil, the chosen Option would be required to obtain coverage under the National Pollutant Discharge Elimination System General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ, as amended). The Construction General Permit requires implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would generally contain a site map showing the construction perimeter, proposed buildings, stormwater collection and discharge points, general pre- and post-construction topography, drainage patterns across the site, and adjacent roadways. The SWPPP must also include an Erosion and Sediment Control Plan with BMPs designed to protect against erosion and stormwater runoff; a visual monitoring program; a chemical monitoring program for "non-visible" pollutants, should the BMPs fail; and a sediment monitoring plan, should the site discharge directly into a water body listed on the 303(d) list for sediment.

Cumulative plus Option A or Option B impacts are not anticipated to be significant, as each project would be required to prepare a SWPPP prior to project grading under National Pollutant Discharge Elimination System program regulations as part of Section 402 of the Clean Water Act. The SWPPP would implement standard construction BMPs such as silt screening and fiber filtration rolls to control and abate the discharge of pollutants into stormwater during construction and operation. Implementation of SWPPP requirements would reduce potentially significant direct and cumulative hydrology and water quality impacts.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to hydrology and water quality would be less than significant under both Options, and no mitigation measures are required.

7.3.9 Land Use and Planning

Cumulative Baseline

The geographic context for the analysis of cumulative land use impacts is the City, which includes all cumulative growth within the City as represented by full implementation of the City of Del Mar Community Plan. Significant adverse cumulative land use impacts would result from projects that contribute to development that is inconsistent with applicable plans or incompatible with existing or planned uses or planned addition of incompatible uses. All cumulative projects listed in **Table 7-1** would be subject to similar plan consistency criteria as Option A and Option B, which would ensure compliance with existing applicable land use plans with jurisdiction over the project area. Any cumulative projects that propose amendments to the general plan or zoning ordinance would be required to show that proposed uses would be consistent with applicable policies. Therefore, the discretionary review process and long-term planning at the City of Del Mar would ensure that all development projects within the City's jurisdiction show consistency with the General Plan and all other applicable plans for the area.

Cumulative Plus Option A or Option B

Consistency of Option A and Option B with Community Plan policies is project-specific. Cumulative projects within the City include 22nd District Agricultural Association, River Path Del Mar Extension Project, San Dieguito Drive Intersection Improvements Project, City of Del Mar City Hall/Town Hall Design Project, and the Tentative Tract Map for the Estates at Del Mar. These cumulative projects, as well as Option A and Option B, would be required to show consistency with relevant and applicable planning documents that govern each respective jurisdiction.

As described in Section 4.9, Land Use and Planning, of this EIR, the property immediately to the west of the site across Jimmy Durante Boulevard is a commercial center within the same NC district that includes a fitness gym, offices, and pet shop, among other uses. Immediately to the south of the site are single-family residential units designated as Low Density (R1-10), which allows for densities up to 4.3 dwelling units per acre. Immediately to the east of the site is a parcel currently under construction (Corti Single-Family Residence (DRB14-006)) that contains the steep terrain and hilltop that slope down toward the project site and is designated R1-40. To the north of the site, across San Dieguito Road, is the San Dieguito Lagoon, which remains undeveloped and is designated as FW (Floodway). The area of Del Mar surrounding the project site is largely developed or in long-term conservation. A cumulative impact due to incompatible land uses would not occur in the north Del Mar area.

The proposed project site is vacant and undeveloped, and has been periodically used as additional paid parking for the fair and horserace seasons at the Del Mar Fairgrounds. Option A and Option B would involve construction of a new residential development consisting of approximately 48 or 38 dwelling units, respectively, and ancillary community amenities on the 2.37-acre site. Both Options would locate a high-density residential development on a lot that borders Low Density (R1-10) and Very low Density (R1-40) to the east, and commercial uses to the north and west. Construction of the chosen development would not result in the demolition of any existing structures; the displacement of any businesses or residences; or any substantial alterations to any routes of travel, including pedestrian, transit, or automobile routes. Option A or Option B would not inhibit movement between any local population centers and any community resources such as commercial centers, public parks, or transit centers. The proposed project site is identified by the current City of Del Mar Community Plan Housing Element (Appendix B-4 of the Housing Element) as a potential site for re-designation from North Commercial to residential uses to meet future growth needs and Regional Housing Needs Assessment requirements (City of Del Mar 2013).

During preparation of this EIR the Del Mar Municipal Code (DMMC) Chapter 24.21was updated requiring 20% of new units to be affordable housing units. However, these new higher requirements are not intended to be applicable to the Options. The City Council, in approving the ordinance change to DMMC Chapter 24.21, specifically discussed the applicability of this to the WDMSP. It was determined that the housing provisions of the Specific Plan would govern for the Watermark Del Mar site. The Specific Plans establish requirements for affordable housing units that implement the initial agreements discussed with the community, which are less than the 20% established in the recently updated City DMMC Chapter 24.21. The Specific Plan requirements are detailed in the Zoning Regulations Chapter 5, Section 5.9 (I) in both WDMSPs.

Option A and Option B would be consistent with the City's Housing Element since they would include seven and six affordable housing units, respectively, and would help alleviate the City's affordable housing shortage as identified in the San Diego Association of Governments (SANDAG) 2010–2020 Regional Housing Needs Assessment. By adhering to the basic principles of compact building design, and providing a diverse range of housing options, both Options would be consistent with the SANDAG Regional Comprehensive Plan and the SANDAG 2050 Regional Transportation Plan and Sustainable Communities Strategy. With adoption of one of the Options and associated General Plan, Zoning Ordinance, and Local Coastal Plan amendments, the chosen Option would not conflict with any applicable land use policy or regulation adopted with the intent of mitigating an environmental effect.

Furthermore, the San Diego County Water Authority's (SDCWA) Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP) incorporates the entire service area of the SDCWA, including the City of Del Mar. The NCCP/HCP pertains exclusively to activities

of SDCWA, including construction of new facilities, operations and management of existing facilities, and emergency operations. The provisions of the SDCWA NCCP/HCP do not apply to either Option. There are no other HCPs or NCCPs in place that are applicable to either Option. Therefore, Option A or Option B would not conflict with any applicable HCP or NCCP, or the City's Draft MCP Subarea Plan, and implementation of the chosen Option, in conjunction with the projects described in Table 7-1, would be consistent with the City of Del Mar's land use plans for the area.

Due to the reasons stated above, a potential significant cumulative impact to conflicts with land use plans, policies, and ordinances would not result. Cumulative project impacts plus proposed Option impacts related to land use and planning would be less than significant.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to land use planning would be less than significant under both Options, and no mitigation measures are required.

7.3.10 Noise

Cumulative Baseline

Noise levels tend to diminish quickly with distance from a source; therefore, the geographic scope for the analysis of cumulative impacts related to noise would be limited to projects within approximately 0.25 mile of Option A and Option B components and access routes. At distances greater than 0.25 mile, construction noise would be briefly audible and steady construction noise from Option A or Option B would generally dissipate into background noise levels. The temporal scope for cumulative impacts associated with noise would include the construction and operation phases of the chosen Option. The baseline for assessing cumulative noise impacts includes the noise sources associated with other projects within 0.25 mile of the proposed project site that could be constructed and/or operated at the same time as the chosen Option. Based on the foregoing criteria, cumulative projects that have the potential to generate noise within a 0.25 mile surrounding area include the 22nd District Agricultural Association project, Jimmy Durante Boulevard South Streetscape Project, River Path Del Mar Extension Project, and San Dieguito Drive Intersection Improvements project. Although these cumulative projects are all improvement projects, and associated noise would consist of temporary construction, all cumulative projects within City limits would be required to comply with the City's Noise Control Ordinance.

Cumulative Plus Option A or Option B

Construction would result in temporary increases in ambient noise levels in the vicinity of the proposed project site. The closest off-site existing sensitive receptor to construction of Option A or Option B is a single-family residence located 30 feet to the west. Other single-family residences border the western and southern edges of the site at a greater distance. At a distance of 30 feet (the approximate distance from the construction area to the nearest existing residence), construction noise levels would range from approximately 79 to 90 A-weighted decibels (dBA) equivalent sound level (L_{eq}). Because Option A and Option B would exceed the 75 dBA construction noise standards established in the City of Del Mar's Noise Control Ordinance, impacts would be potentially significant under both Options. Implementation of mitigation measure MM-NOI-1, which requires construction noise attenuation measures, would reduce potentially significant construction noise impacts to a level below significance.

Long-term operational noise would result from Option A and Option B, including traffic and nuisance noise. Both Options would incrementally increase off-site traffic volumes along adjacent roads, including Jimmy Durante Boulevard and San Dieguito Drive, as well as overall traffic noise in the vicinity of the proposed project site. However, Option A and Option B would not result in an audible or measurable increase in average traffic noise levels along local roadways in the vicinity of the site. Additionally, residential land uses are not typically considered sources of substantial noise. Therefore, Option A and Option B would not result in a substantial permanent increase in ambient noise levels.

All cumulative projects within 0.25 mile are improvement projects, and related noise would be associated with temporary construction. All cumulative projects would be expected to reduce their own noise impacts through mitigation measures and compliance with Del Mar regulations; therefore, there would not be any significant cumulative impacts related to noise.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to noise would be less than significant under both Options, and no mitigation measures are required.

7.3.11 Population and Housing

Cumulative Baseline

Of the cumulative projects, Via de la Valle Townhomes, Solana Highlands Revitalization, Rancho Del Mar CCRC, and the Estates at Del Mar would contribute directly to population growth in the area, as they include a residential component. However, although these cumulative projects are considered growth inducing, the growth would not be considered

substantial because the City of Del Mar, the City of Solana Beach, and a select portion of the City of San Diego (cumulative project locations) are almost completely built out; and any new development would be infill or redevelopment of underutilized land. Additionally, a cumulative impact would result if the cumulative projects resulted in the displacement of a substantial number of housing or people such that replacement housing would be required elsewhere. The cumulative projects listed above would not result in the substantial displacement of a large number of people or housing because the developments involve revitalization of existing, new, or additional housing. No replacement housing would be required elsewhere as a result of the cumulative projects. Therefore, a significant cumulative impact to the displacement of housing or people would not occur.

Cumulative Plus Option A or Option B

Implementation of Option A would result in development of 48 residential units on existing vacant land within the City, and Option B would result in 38 residential units. Based on a factor of 2.05 persons per dwelling unit, as established by the California Department of Finance for the City of Del Mar, Option A and Option B would directly induce population growth to the area and would potentially add an estimated 99 or 78 people to the area (California Department of Finance 2014). Option A and Option B would not, however, indirectly induce growth in population, as no extension of infrastructure, such as roads or water and wastewater service, is proposed beyond what is required to adequately serve either Option. Option A and Option B would be consistent with the City's Housing Element since they would include seven or six affordable housing units, respectively, and would help alleviate the City's affordable housing shortage as identified in the SANDAG 2010–2020 Regional Housing Needs Assessment. By adhering to the basic principles of mixed-use development and compact building design, and providing a diverse range of housing options, Option A and Option B would be consistent with the SANDAG Regional Comprehensive Plan and the SANDAG 2050 Regional Transportation Plan and Sustainable Communities Strategy. Option A and Option B would be an infill development, and would not result in the temporary or permanent displacement of residents.

Although both Options would result in growth unaccounted for by regional growth projections, the Options would aid the City in meeting Regional Housing Needs Assessment obligations, and would be consistent with the Housing Element of the City's Community Plan. Therefore, Option A or Option B would not result in substantial population growth. Additionally, SANDAG has projected that housing units within the City would grow by 3%, and the population would grow by 13% between 2008 and 2050. Redevelopment and infill projects, such as Option A and Option B and some of the cumulative projects, would aid the nearly built-out City in providing adequate housing for projected populations. Therefore, a potential cumulative impact related to population and housing would not occur.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to population and housing would be less than significant under both Options, and no mitigation measures are required.

7.3.12 Traffic and Circulation

Cumulative Baseline

Development of the other cumulatively considerable projects would contribute to an increased demand on the performance of the surrounding circulation systems. However, each project would be required to pay its fair share contribution via a Regional Transportation Congestion Improvement Plan (RTCIP) fee to offset any cumulative decrease in service standards. Development would benefit from the regional arterial system improvements, and the burden of such development would be mitigated in part by the payment of the RTCIP fee. Due to project payment RTCIP fees, the baseline impacts are less than significant.

A review of the cumulative projects concluded that the projects listed would not generate any significant amount of new traffic to study area roadways. However, to be conservative, 5% of the existing-plus-project traffic volumes were used to represent cumulative project traffic analyzed within Section 4.12, Traffic and Circulation, of this EIR.

Cumulative Plus Option A or Option B

Since the roundabout project was constructed at the intersection of Jimmy Durante Boulevard and San Dieguito Drive it was analyzed in combination with Option A and Option B. As noted in Section 4.12, the roundabout would operate at LOS A in the AM peak period and LOS B in the PM peak hour period with the addition of Option A (the worst-case scenario Option). Option A has been reviewed for cumulative impacts related to transportation and traffic. As shown in Section 4.12, all intersections are forecast to operate at an acceptable LOS with the addition of all cumulative projects.

Option A and Option B would neither conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, nor would they conflict with adopted policies, plans, or programs regarding public transit, bicycles, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Additionally, both Options would not conflict with an applicable congestion management program. Access would adequately accommodate project traffic, and all potential traffic and circulation impacts under the existing-plus-cumulative-projects plus Option A or Option B scenarios would be less than significant.

Furthermore, both Options and all cumulative projects would be required to pay their fair share contribution via an RTCIP fee to offset any cumulative decrease in service standards.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to traffic and circulation would be less than significant under Option A and Option B, and no mitigation measures are required.

7.3.13 Public Services

Cumulative Baseline

The geographic context for a discussion of cumulative impacts related to public services is dependent on the public service at issue. For the purpose of fire, police, emergency services, and school facilities, the geographic context is the City of Del Mar. Development of the other cumulatively considerable projects would all contribute to an increased demand on public services, including police, fire, school facilities, and emergency facilities. Although the City does not have specific development impact fees, each project will be required to pay its fair share contribution to offset any cumulative decrease in the service standards. Due to project-by-project payment of development impacts fees, the baseline impacts are not significant.

Cumulative Plus Option A or Option B

Both Options would involve an incremental increase in demand for public facilities. However, because the City is nearly built out, both Options and all cumulative projects are located in areas currently served by fire and police protection providers with adequate response times. Additionally, similar to other projects, payment of all development impact fees and design/project review by each public agency that would serve the chosen Option (via a will-serve letter or project review) would ensure that cumulative impacts to public services and facilities would remain below a level of significance. Therefore, Option A or Option B would not contribute considerably to a cumulative impact.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to public services would be less than significant under both Options, and no mitigation measures are required.

7.3.14 Utilities and Service Systems

Cumulative Baseline

The geographic context for a discussion of cumulative impacts related to utilities and service systems is dependent on the public service at issue. For water supply, the geographic context is the City of San Diego. For utility services, the geographic context is the City of Del Mar.

Development of the other cumulatively considerable projects would all contribute to an increased demand on utilities and service systems, including water supply, stormwater capacity, sewage, solid waste, and electricity. Although the City does not have specific development impact fees, each project will be required to pay its fair share contribution to offset any cumulative decrease in the service standards. Due to project payment of development impact fees, the baseline impacts are not significant.

Cumulative Plus Option A or Option B

Both Options would involve an incremental increase in demand for utility services. However, similar to other projects, payment of all development impact fees and design/project review by each public agency that would serve the project (via a will-serve letter or project review) would ensure that cumulative impacts to utilities and service systems would remain below a level of significance.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to utilities and service system under both Options would be less than significant, and no mitigation measures are required.

7.3.15 Recreation

Cumulative Baseline

The geographic context for the analysis of cumulative impacts to recreation is the City of Del Mar, which includes all parkland within the Del Mar Community Plan area. Cumulative development in the area would increase the use and demand of parkland within the City, but the area surrounding the proposed project site is largely built out with businesses, residences, and natural land features. Existing parks and recreational opportunities in the area include Powerhouse and Seagrove Community Parks, San Dieguito Lagoon, San Dieguito River, San Dieguito River Valley Open Regional Space Park, San Dieguito River Park Coastal Trails, and Del Mar Fairgrounds. All projects within the City of Del Mar would be required to conform to the City of Del Mar Local Coastal Plan Land Use Plan, and Implementing Ordinances (Title 30 of the Municipal Code) that address shoreline public access and recreation and the improvement of recreational opportunities. Compliance by all surrounding projects with applicable local plans and project design features would reduce cumulative baseline impacts on recreation to a level below significant.

Cumulative Plus Option A or Option B

Implementation of either Option would create an additional demand for parkland within the Del Mar Community Plan area since residential development was not anticipated on the site.

Based on a ratio of 2.05 people per dwelling unit, the 48 units associated with Option A would generate an estimated 99 people, and the 38 units associated with Option B would generate an estimated 78 units, which would only minimally increase the use of regional parks and other recreational facilities. Adequate public parks and recreational amenities currently exist to serve Option A or Option B's population increase. Construction of either Option would not disrupt or prevent public access to any of the recreational facilities within the City of Del Mar on a short-term or long-term horizon because the location of Option A and Option B would not interfere with access routes to the recreational facilities. In addition, the City is in the process of creating a master plan for the Del Mar Shores property, which would create 5.3 acres of additional parkland within the City. Thus, available parkland plus planned parkland is anticipated to accommodate Option A or Option B and cumulative projects' increase in use without resulting in deterioration of facilities.

Furthermore, both Options amenities such as a pool, spa area, and recreation room for use by residents and guests. Due to the minimal population increase, availability of existing recreational facilities, and the provided project amenities, implementation of either Option in conjunction with cumulative projects would not cause a substantial increase in use on existing facilities. Impacts would be less than significant.

Mitigation Measures for Cumulative Impacts

Cumulative impacts related to recreation would be less than significant, and no mitigation measures are required.

7.3.16 References

California Department of Finance. 2014. E-5 City/County Population and Housing Estimates, January 1, 2014.

City of Del Mar. 2013. City of Del Mar Community Plan Housing Element 2013–2021 (April 30, 2013–April 30, 2021). Adopted by City Council Resolution No. 2013-27 on May 20, 2013. http://www.delmar.ca.us/DocumentCenter/View/257.

CNRA (California Natural Resources Agency). 2009. Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97. December 2009. http://www.ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf.

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CHAPTER 8
ALTERNATIVES

Section 15126.6 of the California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) describe a reasonable range of alternatives to the proposed project or to the project location that would feasibly attain most of the project objectives, but would avoid or lessen any significant environmental impacts. An EIR should evaluate the environmental impacts of the alternatives compared to the proposed project. This chapter of the EIR describes and evaluates Option A and Option B alternatives and is intended to implement the requirements set forth in the CEQA Guidelines (14 CCR 15000 et seq.). This chapter also identifies the Environmentally Superior Project Alternative as required by CEQA Guidelines Section 15126.6(e)(2).

8.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS

No significant unavoidable impacts have been identified as a result of either Option. Potentially significant impacts to Biological Resources, Cultural and Paleontological Resources, Geology and Soils, and Noise have been identified and mitigation measures have been included to reduce impacts to below a level of significance.

8.2 PROJECT OBJECTIVES

The following list details Option A's objectives as stated by the project applicant:

1. Promote a quality multifamily residential community consistent with the goals and policies of the Del Mar Community Plan.
2. Establish an appropriate land use designation which serves the housing needs of current and future residents to achieve a density of 20 to 25 units per acre.
3. Provide a range of affordable housing units within the project to help meet the City of Del Mar's goals for such units.
4. Preserve natural and previously undisturbed bluffs within the Site and protect and preserve on-site wetlands.
5. Establish development standards and design regulations to achieve the multifamily density specified by the Housing Element while addressing the physical site constraints including drainage and flood protection, and providing for visually attractive landscaping, architecture, and site amenities.
6. Create a multi-family residential development with pedestrian linkage and walkability to trails, parks, beaches, businesses, and restaurants that serve the local community.

7. Provide parking for all the residential units that screens automobiles from view from the public right of way, minimizes lighting impacts, provides secure off-street parking, and serves to provide a podium building level safely above the Base Flood Elevation for residential units while minimizing impacts and disturbance to ground water.
8. Provide residential units through the condominium subdivision process with units constructed to for-sale standards. As part of the condominium process, a Homeowners' Association will be established with responsibility to manage common areas and implement covenants, conditions, and restrictions (CC&Rs) for the development. CC&Rs will be developed to regulate potential impacts including, but not limited to, those from noise, light and glare, parking, short-term vacation rentals, and landscaping.
9. Establish a site and building design that enhances its location at one of the important entryways into the City of Del Mar.

The WDMSP Option B includes all the same project objectives as Option A, with the exception of number two, which would be revised under Option B to read as follows:

2. Establish an appropriate land use designation which serves the housing needs of current and future citizens to achieve a density that will support affordable housing goals for the community.

The specific plan process was selected to provide customized regulations that can accommodate the housing density at this site while establishing certainty for the community regarding development parameters, limitations for the planned use, and specific extraordinary public benefits otherwise not afforded by a zoning change.

8.3 FACTORS IN SELECTION OF ALTERNATIVES

The following discussion covers a reasonable range of feasible alternatives that focuses on avoiding or substantially lessening any significant effects of Option A or Option B, even if these alternatives would not attain all of the objectives or would be more costly. The discussion shall focus on alternatives to the Options that are capable of meeting most of the objectives identified in Chapter 3, Project Description, of this EIR and also included above. According to the CEQA Guidelines, many factors may be taken into account when addressing the feasibility of alternatives, such as environmental impacts, site suitability as it pertains to various land use designations, economic viability, availability of infrastructure, regulatory limitations, and jurisdictional boundaries. Also according to CEQA Guidelines Section 15126.6(d), discussion of each alternative should be sufficient "to allow meaningful evaluation, analysis, and comparison with the Proposed Project." Therefore, the significant effects of each alternative are discussed in less detail than those of the Options, but in enough detail to provide decision makers with perspective and a reasoned choice among alternatives to the Options.

8.4 ALTERNATIVES CONSIDERED BUT REJECTED

8.4.1 Alternative Locations

In accordance with CEQA Guidelines 15126.6(f)(2), an EIR may consider an alternative location for the proposed project, but is only required to do so if significant project effects would be avoided or substantially lessened by moving the project to another site. The City of Del Mar is substantially built-out and there is no other feasible site available within the City that would accommodate a project of the size proposed. The proposed project site would be an infill development project that would fulfill the objectives for the site as identified in the City of Del Mar Community Plan Housing Element 2013-2021 and certified by CA-HCD by establishing an appropriate land use designation which serves the housing needs of current and future residents. There are no other sites available in the immediate project vicinity which are large enough, have compatible General Plan designations/zoning, and which would avoid significant impacts.

8.5 ALTERNATIVES IDENTIFIED AND ANALYZED

Pursuant to CEQA Guidelines 15126.6, an analysis of alternatives is presented in this EIR document to provide decision makers with a range of reasonable alternatives to be considered. The Guidelines state that an EIR shall describe a reasonable range of alternatives that would avoid or substantially lessen any significant effects of the project, but need not consider every conceivable alternative. The discussion in this EIR focuses on five alternatives: No Project No Build Alternative, Housing Element Residential Rezone Alternative, Riverview Office Alternative, North Commercial Zone Max FAR Alternative, and a Senior Housing Alternative.

The five alternatives present a reasonable range of alternatives to Option A and Option B, and they are directed at avoiding or lessening environmental impacts of Option A and Option B as identified in this EIR. Together, or in combination, this range of alternatives addresses all of the significant impacts identified in the environmental analysis. The analysis of alternatives in this section focuses on effects found to be significant through the environmental analysis as discussed in this EIR. The following discussion provides the rationale for and characteristics of each of the alternatives addressed in this section, an analysis of the environmental effects associated with the proposed project in comparison with each alternative, and the rationale for Option A or Option B over the identified alternatives. An overall comparison of Option A and Option B impacts with proposed alternative impacts can be seen in **Table 8-1**.

The alternatives are analyzed with respect to their land use compatibility. Option A involves the construction of forty eight (48) residential units which achieve a density of 20–25 units/acre and F.A.R. of 0.65 on gross land area with an affordable housing component of up to seven units, as well as associated parking, recreational amenities, and landscaping on 2.37 acres. This would fulfill the objectives for this site as identified in the City of Del Mar Community Plan Housing

Element 2013-2021 (Housing Element) and certified by California Department of Housing and Community Development (CA-HCD). Option B involves the construction of 38 residential units that achieve a density of 16 units/acre and F.A.R. of 0.62 on gross land area with an affordable housing component of up to 6 units, as well as associated parking, recreational amenities, and landscaping on 2.37 acres.

The site is located in the North Commercial (NC) Zone, and the Bluff, Slope, and Canyon (BSC) Overlay, Lagoon Overlay, and floodplain Overlay Zones. The site is included in the City of Del Mar Community Plan Housing Element 2013-2021 as a site for Residential Zoning Designation. The Housing Element was adopted by City Council on May 20, 2013 and Certified by the CA-HCD on June 6, 2013.

On the basis of the North Commercial Zone, as designated by the DMMC and the Community Plan, each of the alternatives will be assessed with regard to its land use compatibility with the site's applicable zoning.

According to CEQA Guidelines Section 15126.6(e), a No Project Alternative is required to be included in the range of alternatives. An EIR need not consider an alternative whose effects cannot be reasonably identified, whose implementation is remote or speculative, or one that would not achieve most of the basic project objectives. Finally, the Environmentally Superior Alternative shall be identified and if it is the No Project Alternative, the next Environmentally Superior Alternative shall be identified.

8.5.1 No Project No Build Alternative

Under the No Project No Build Alternative, the applicant would not undertake any reconstruction and the existing dirt lot would remain. The site would continue to operate as a seasonal Del Mar Fairgrounds and Racetrack paid parking lot. The No Project No Build Alternative would result in no impact or reduced impacts to the environmental resource areas considered within this EIR, compared to the Option A and Option B. However, the continued use of the project site as an intermittent parking lot would not be consistent with the existing North Commercial zoning designation, nor the proposed residential designation as identified in the Housing Element. No affordable housing units would be assigned, and no off-site improvements to the right of way would be undertaken.

Aesthetics

As identified in Section 4.1, Aesthetics, implementation of Option A or Option B could have potentially significant impacts to scenic views from residences along the southern and eastern boarders of the property. Potentially significant impacts could also occur due to impaired views to the bluffs, removal of Torrey pines, views from residential properties on Heather Lane, and

lighting on site. Impacts would be reduced to below a level of significance with mitigation measures MM-AES-1 and MM-BIO-2. Although Option A and Option B related impacts would be reduced to below a level of significance, the No Project No Build Alternative would leave the project site in its current state, thereby eliminating all potential impacts. Therefore, this alternative would have reduced impacts compared to Option A and Option B.

Biological Resources

As identified in Section 4.3, Biological Resources, implementation of Option A or Option B could potentially have a direct adverse impact on sensitive vegetation communities, sensitive plant communities, sensitive avian wildlife communities, and federally protected wetlands. Option A and Option B could also have potential indirect impacts on breeding birds due to construction-related noise and from invasive plant species. With implementation of MM-BIO-1 through MM-BIO-8, impacts to biological resources would be less than significant. Although Option A- and Option B-related impacts would be reduced to below a level of significance, the No Project No Build Alternative would leave the project site in its current state, thereby eliminating all potential impacts. However, the wetlands would not be enhanced through removal of invasive species and no buffer would be provided to restrict public access. Nonetheless, this alternative would have reduced impacts compared to Option A and Option B.

Cultural and Paleontological Resources

As identified in Section 4.4, Cultural and Paleontological Resources, there is potential for previously unknown archaeological resources to be discovered on site during excavation activities of the construction phase. In addition, due to the potential for inadvertent discovery of paleontological resources or human remains, impacts were determined to be significant prior to implementation of MM-CUL-1 through MM-CUL-3. Compliance with mitigation measures would reduce impacts to less than significant. Under the No Project No Build Alternative, no ground-disturbing activities would occur that could directly impact archaeological resources, paleontological resources, or human remains. Therefore, fewer impacts to cultural and paleontological resources would occur compared to Option A and Option B.

Geology and Soils

As identified in Section 4.5, Geology and Soils, the proposed project site has the potential for significant geologic impacts due to static settlement, liquefaction, and possible lateral spread. MM-GEO-1 requires that, prior to development of Option A or Option B, a licensed geologist perform additional deep explorations across the proposed project site to further define the alluvium profile and quantitatively address the potential for geologic hazards. The detailed geotechnical investigation would provide site-specific recommendations designed to stop geologic hazards that could significantly impact Option A or Option B. The final

recommendations from the geotechnical investigation would be included in the building plans for Option A or Option B, and would ensure that the chosen Option is developed with a life-safety performance level. Therefore, potentially significant impacts to geotechnical resources and soils resulting from implementation of Option A or Option B would be less than significant after mitigation. In contrast, the No Project No Build Alternative would avoid development on the site, leaving the site in its current state, thereby eliminating impacts due to static settlement, liquefaction, and possible lateral spread.

Noise

As identified in Section 4.10 Noise, at a distance of 30 feet (the approximate distance from the construction area to the nearest existing residence), construction noise levels would range from approximately 79 to 90 dBA L_{eq}. Because Option A and Option B would exceed the 75 dBA construction noise standards established in the City of Del Mar's Noise Control Ordinance, impacts would be potentially significant. However, implementation of mitigation measure MM-NOI-1, which requires construction noise attenuation measures, would reduce potentially significant construction noise impacts to a level below significance. Under the No Project No Build Alternative, the site would remain in its current state and no construction would occur. Therefore, impacts would be reduced under this alternative.

Project Objectives

Although the No Project No Build Alternative would not result in any impacts, and would technically be the environmentally superior alternative, it would not meet any of the project objectives. The goal of Option A and Option B and related objectives are to provide a residential development consistent with the Del Mar Community Plan, and to help the City achieve the number of state-mandated affordable housing units. The No Project No Build Alternative would not achieve any of the project objectives.

8.5.2 Housing Element Residential Rezone Alternative

Under this alternative, rather than proposing a specific plan for the project site, the property would be rezoned from commercial to residential. In addition to a rezone, this alternative would require a Community Plan Amendment and LCPA to create a new land use category. Under this alternative, the project site would qualify for the State Housing Density Bonus. The concept is that when a developer includes designated affordable units in their project, they are eligible for an increase in the number of overall units they can build (the density bonus). The bonus units are above the density otherwise allowed for the property per the local zoning designation. Based on the certified Housing Element, rezone of the project site would allow for 20 dwelling units per acre or greater.

Under this alternative, 48 housing units could be proposed similar to Option A; however, since the property would be rezoned residential and would qualify for the housing density bonus, the developer would be entitled to a 35% increase in total units (17 units). Thus, 65 units could be constructed under this alternative with the application of the housing density bonus. Furthermore, under a density bonus project, the developer could be entitled to waivers of development standards for height, parking, floor area ratio, and setbacks as necessary to achieve the desired density, subject to a determination of consistency with the City's certified LCP.

Aesthetics

As identified in Section 4.1, Aesthetics, implementation of Option A and Option B could have potentially significant impacts to scenic views from residences along the southern and eastern borders of the property. Potentially significant impacts could also occur due to impaired views to the bluffs, removal of Torrey pines, views from residential properties on Heather Lane, and lighting on site. Impacts would be reduced to below a level of significance with MM-AES-1 and MM-BIO-2. Under the Residential Rezone Alternative, the site would qualify for the State Housing Density Bonus and waivers for development standards, which would increase the number of proposed units on site and increase the size and scale of the development. This alternative has the potential to substantially increase the severity of previously identified impacts compared to Option A and Option B.

Biological Resources

As identified in Section 4.3, Biological Resources, implementation of Option A and Option B could potentially have a direct adverse impact on sensitive vegetation communities, sensitive plant communities, sensitive avian wildlife communities, and federally protected wetlands. Option A and Option B could also have potential indirect impacts on breeding birds due to construction-related noise and from invasive plant species. With implementation of MM-BIO-1 through MM-BIO-8, impacts to biological resources would be less than significant. Due to the fact that the Residential Rezone Alternative would qualify for waivers of development standards for height, floor area ratio, and setback to achieve the desired density, impacts to biological resources would not be reduced compared to Option A or Option B. For example, if the additional housing units required an increase in the development footprint of the project, impacts to biological resources and the bluff slope could be worse when compared to Option A and Option B. Therefore, this alternative would not reduce impacts.

Cultural and Paleontological Resources

As identified in Section 4.4, Cultural and Paleontological Resources, there is potential for previously unknown archaeological resources to be discovered on site during excavation activities of the construction phase. In addition, due to the potential for inadvertent discovery of

paleontological resources or human remains, impacts were determined to be significant prior to implementation of MM-CUL-1 through MM-CUL-3. Compliance with mitigation measures would reduce impacts to less than significant. Similar to the other alternatives analyzed herein, ground-disturbing activities would still occur on site and impacts would not be reduced or avoided compared to Option A and Option B.

Geology and Soils

As identified in Section 4.5, Geology and Soils, the proposed project site has the potential for significant geologic impacts due to static settlement, liquefaction, and possible lateral spread. MM-GEO-1 requires that, prior to development of Option A or Option B, a licensed geologist perform additional deep explorations across the proposed project site to further define the alluvium profile and quantitatively address the potential for geologic hazards. Therefore, potentially significant impacts to geotechnical resources and soils resulting from implementation of Option A or Option B would be less than significant after mitigation. Similar to other alternatives analyzed herein, the same site would be developed as Option A and Option B and the same subsurface geotechnical investigation would be required. Therefore, impacts would not be reduced or avoided.

Noise

As identified in Section 4.10, Noise, at a distance of 30 feet (the approximate distance from the construction area to the nearest existing residence), construction noise levels would range from approximately 79 to 90 dBA L_{eq}. Because Option A and Option B would exceed the 75 dBA construction noise standards established in the City of Del Mar's Noise Control Ordinance, impacts would be potentially significant. However, implementation of mitigation measure MM-NOI-1, which requires construction noise attenuation measures, would reduce potentially significant construction noise impacts to a level below significance. Since the site would still be developed under this alternative, construction impacts would be the same as Option A and Option B. However, since there would be additional housing units developed, impacts associated with construction noise, as well as, future traffic noise would be slightly increased under this alternative. A longer construction period and more residents coming and going from the site would not reduce noise impacts compared to Option A and Option B.

Project Objectives

The Residential Rezone Alternative would meet all of the project objectives with the exception of the following:

3. Provide a range of affordable housing units within the project to help meet the City of Del Mar's goals for such units.

Increasing the allowed density would be allowed pursuant to the State Density Bonus Law if the property was residentially zoned; however, increased density has the potential to create unforeseen community conflicts or inconsistencies.

8.5.3 Riverview Office Alternative

The project site is the subject of the Riverview Office Project Final Environmental Impact Report (issued on April 25, 2008 - State Clearinghouse Number 2005061143), and two current discretionary permits (Design Review Board Permit DRB-08-28 and associated Land Conservation Permit LC-08-13). If the Riverview Office Alternative was selected, a 23,120 square foot office project would be developed. Construction would consist of two, irregularly-shaped, one- and two-story commercial office buildings, with associated parking, landscaping, access, and utilities, built on a commercially zoned lot. The office buildings would be no taller than 26 feet at their highest point above the current grade, and would be painted in earth-tones to blend into the surrounding natural habitat. The buildings would constitute 22% of the total area of the project site.

This alternative would be consistent with the existing North Commercial zoning designation, and would have a reduced development footprint compared to Option A and Option B. Additionally, this alternative would avoid slope development. However, this alternative would have a greater traffic and circulation impact, and would not satisfy the City of Del Mar Housing Element.

Aesthetics

As identified in Section 4.1, Aesthetics, implementation of Option A and Option B would not have potentially significant impacts to scenic views from residences along the southwestern and eastern boarders of the property. Option A and Option B would not result in potentially significant impacts to visual character to the site and surroundings or light and glare. Impacts related to the removal of Torrey pines would be reduced to below a level of significance with Mitigation MeasureMM-BIO-2. The Riverview Office Project EIR did not identify significant impacts associated with aesthetics; therefore, impacts would be similar compared to Option A and Option B.

Biological Resources

As identified in Section 4.3, Biological Resources, implementation of Option A and Option B could potentially have a direct adverse impact on sensitive vegetation communities, sensitive plant species, sensitive avian wildlife communities, and federally protected wetlands. Option A and Option B could also have potential indirect impacts on breeding birds due to construction-related noise and from invasive plant species. With implementation of MM-BIO-1 through MM-BIO-8, impacts to biological resources would be less than significant. The Riverview Office Alternative would result in reduced impacts to biological resources. No Torrey pine trees would be removed under the Riverview Office Alternative. Therefore, impacts to biological resources

would be reduced compared to the Options. In addition, Under the Riverview Office Alternative, 0.8 acre of disturbed southern coastal bluff scrub would be impacted compared to 0.34 acre, which would be impacted as a result of Option A and Option B. However, because no Torrey pine trees would be removed under this alternative, impacts would be reduced compared to Option A and Option B.

Cultural and Paleontological Resources

As identified in Section 4.4, Cultural and Paleontological Resources, there is potential for previously unknown archaeological resources to be discovered on site during excavation activities of the construction phase. In addition, due to the potential for inadvertent discovery of paleontological resources or human remains, impacts were determined to be significant prior to implementation of MM-CUL-1 through MM-CUL-3. Compliance with mitigation measures would reduce impacts to less than significant. Under the Riverview Office Alternative, the site would still be developed and ground-disturbing activities would occur similar to Option A and Option B. The Riverview Office Alternative would have the same impacts as identified for Option A and Option B.

Geology and Soils

As identified in Section 4.5, Geology and Soils, the proposed project site has the potential for significant geologic impacts due to static settlement, liquefaction, and possible lateral spread. MM-GEO-1 requires that, prior to development of Option A or Option B, a licensed geologist perform additional deep explorations across the proposed project site to further define the alluvium profile and quantitatively address the potential for geologic hazards. Therefore, potentially significant impacts to geotechnical resources and soils resulting from implementation of Option A or Option B would be less than significant after mitigation. The Riverview Office Alternative would be constructed on the same project site as identified for Option A and Option B; therefore, geologic and soil conditions would be the same. Similar to Option A and Option B, a subsurface geotechnical exploration would still be required as part of the Riverview Office Alternative. Therefore, impacts would be the same as Option A and Option B.

Noise

As identified in Section 4.10, Noise, at a distance of 30 feet (the approximate distance from the construction area to the nearest existing residence), construction noise levels would range from approximately 79 to 90 dBA L_{eq}. Because Option A and Option B would exceed the 75 dBA construction noise standards established in the City of Del Mar's Noise Control Ordinance, impacts would be potentially significant. However, implementation of mitigation measure MM-NOI-1, which requires construction noise attenuation measures, would reduce potentially significant construction noise impacts to a level below significance.

The Riverview Office Alternative would have similar temporary construction-related noise impacts. However, the Riverview Office Alternative would be a commercial development that would have different operational noise impacts compared to a residential development. A common area of noise conflict is often found at the interface between commercial developments and residential uses. Such conflict may be due to short-term single events or due to continuously operating equipment. Short-term events are typically associated with mobile equipment (cars and trucks) visiting the site, while chronic noise sources are most often mechanical equipment, such as, air conditioners, compressors, evaporators, etc. Although operational noise impacts would not be substantially increased compared to the proposed project, additional mitigation measures would be required in order to ensure impacts remain below a level of significance. The Riverview Office Alternative would be required to implement additional mitigation measures that pertain to the HVAC mechanical equipment and hours allowed for delivery of office supplies, equipment, or other materials. Therefore, impacts would be greater under this alternative and would not be reduced or avoided compared to Option A and Option B.

Project Objectives

The Riverview Office Alternative would not meet any of the project objectives, with the exception of the following:

4. Preserve natural and previously undisturbed bluffs within the Site and protect and preserve on-site wetlands.
9. Establish a site and building design that enhances its location at one of the important entryways into the City of Del Mar.

The Riverview Office Alternative does not meet a majority of project objectives. The project objectives are geared towards providing a quality multi-family residential community with an affordable housing component consistent with the Del Mar Community Plan Housing Element. This alternative would not be superior to Option A and Option B.

8.5.4 North Commercial Zone Max FAR Alternative

Based on current Community Plan land use designation and zoning for the property, if the North Commercial Zone Max FAR Alternative was selected, an approximately 30,000-square-foot project could be developed. According to the Del Mar Municipal Code, the North Commercial zoning designation allows for an FAR of 30%. Thus the 103,282-square-foot site would allow for development of 30,985-square-foot project. Allowable uses on the project site under the North Commercial Zone include, but are not limited to, office space, appliance or automobile repair shops, blacksmith shops, garment manufacturing, physical recreation facilities, wholesale establishments, restaurants, and bars and cocktail lounges.

For comparison purposes, this alternative analysis assumes that the two individual parcels that make up the project site would each be developed with one commercial office space and one ancillary residential unit. Thus the two commercial office spaces and two ancillary residential units would total approximately 30,985 square feet. Similar to the Riverview Office Alternative, construction would consist of two, irregularly-shaped, one- and two-story commercial office buildings, with associated parking, landscaping, access, and utilities, built on both commercially zoned lots; however, this alternative would be slightly larger than the Riverview Office Alternative, because the project would be built to the maximum FAR allowed. The office buildings would be no taller than 26 feet at their highest point, and would be painted in earth-tones to blend into the surrounding natural habitat. The buildings would constitute 30% of the total area of both parcels.

This alternative would be consistent with the existing North Commercial zoning designation, and would have a reduced development footprint compared to Option A and Option B. However, this alternative would have a greater traffic and circulation impact, and would not satisfy the City of Del Mar Housing Element. Furthermore, although this alternative would propose a mix of commercial and residential land use designations, the addition of commercial uses would drastically decrease the amount of proposed residential units, resulting in no affordable housing.

Aesthetics

As identified in Section 4.1, Aesthetics, implementation of Option A and Option B would not have potentially significant impacts to scenic views from residences along the southern and eastern borders of the property. Option A and Option B would not result in potentially significant impacts to visual character to the site and surroundings or light and glare. Impacts related to the removal of Torrey pines would be reduced to below a level of significance with MM-BIO-2. The North Commercial Zone Max FAR Alternative would have similar aesthetic impacts compared to Option A and Option B; however, Option A and Option B would have FARs greater than the North Commercial Zone Max FAR Alternative. Therefore, impacts would be slightly reduced under this alternative.

Biological Resources

As identified in Section 4.3, Biological Resources, implementation of Option A and Option B could potentially have a direct adverse impact on sensitive vegetation communities, sensitive plant species, sensitive avian wildlife communities, and federally protected wetlands. Option A and Option B could also have potential indirect impacts on breeding birds due to construction-related noise and from invasive plant species. With implementation of MM-BIO-1 through MM-BIO-8, impacts to biological resources would be less than significant. The North Commercial Zone Max FAR Alternative would have similar impacts as Option A and Option B. However,

since the overall buildout of this alternative would be smaller than Option A or Option B, it's reasonable to assume that impacts to biological resources might be slightly reduced compared to Option A and Option B.

Cultural and Paleontological Resources

As identified in Section 4.4, Cultural and Paleontological Resources, there is potential for previously unknown archaeological resources to be discovered on site during excavation activities of the construction phase. In addition, due to the potential for inadvertent discovery of paleontological resources or human remains, impacts were determined to be significant prior to implementation of MM-CUL-1 through MM-CUL-3. Compliance with mitigation measures would reduce impacts to less than significant. Under the North Commercial Zone Max FAR Alternative, the site would still be developed and ground-disturbing activities would occur similar to Option A and Option B. The North Commercial Zone Max FAR Alternative would have the same impacts as identified for Option A and Option B.

Geology and Soils

As identified in Section 4.5, Geology and Soils, the proposed project site has the potential for significant geologic impacts due to static settlement, liquefaction, and possible lateral spread. MM-GEO-1 requires that, prior to development of Option A or Option B, a licensed geologist perform additional deep explorations across the proposed project site to further define the alluvium profile and quantitatively address the potential for geologic hazards. Therefore, potentially significant impacts to geotechnical resources and soils resulting from implementation of Option A or Option B would be less than significant after mitigation. The North Commercial Zone Max FAR Alternative would be constructed on the same project site as identified for Option A and Option B; therefore, geologic and soil conditions would be the same. Similar to Option A and Option B, a subsurface geotechnical exploration would still be required as part of the North Commercial Zone Max FAR Alternative. Therefore, impacts would be the same as Option A and Option B.

Noise

As identified in Section 4.10, Noise, at a distance of 30 feet (the approximate distance from the construction area to the nearest existing residence), construction noise levels would range from approximately 79 to 90 dBA L_{eq}. Because Option A and Option B would exceed the 75 dBA construction noise standards established in the City of Del Mar's Noise Control Ordinance, impacts would be potentially significant. However, implementation of mitigation measure MM-NOI-1, which requires construction noise attenuation measures, would reduce potentially significant construction noise impacts to a level below significance.

The North Commercial Zone Max FAR Alternative would have similar temporary construction related noise impacts. However, similar to the Riverview Office Alternative, the North Commercial Zone Max FAR Alternative would be a commercial development that would have different operational noise impacts compared to a residential development. As previously stated, a common area of noise conflict is often found at the interface between commercial developments and residential uses. Such conflict may be due to short-term single events or due to continuously operating equipment. Short-term events are typically associated with mobile equipment (cars and trucks) visiting the site, while chronic noise sources are most often mechanical equipment, such as, air conditioners, compressors, evaporators, etc. Although operational noise impacts would not be substantially increased compared to Option A and Option B, additional mitigation measures would be required in order to ensure impacts remain below a level of significance. The North Commercial Zone Max FAR Alternative would be required to implement additional mitigation measures that pertain to the HVAC mechanical equipment and hours allowed for delivery of office supplies, equipment, or other materials. Therefore, impacts would not be reduced or avoided compared to Option A and Option B.

Project Objectives

The North Commercial Zone Max FAR Alternative would not meet any of the project objectives, with the exception of the following:

9. Establish a site and building design that enhances its location at one of the important entryways into the City of Del Mar.

The North Commercial Zone Max Alternative does not meet a majority of project objectives. The project objectives are geared towards providing a quality multifamily residential community with an affordable housing component consistent with the Del Mar Community Plan Housing Element. This alternative would not be superior to Option A and Option B.

8.5.5 Senior Housing Alternative

The Senior Housing Alternative assumes eight, single-level senior residential units housed in a two-story building with attached garages and twelve, two-story townhouses (non-senior restricted). Forty-nine (49) parking spaces (two for each unit, plus nine visitor spaces) would be provided on site, but would not be undergrounded similar to Options A and B. The site would be raised to 18 feet above sea level, and the buildings would be approximately 26 feet high. The site would need to be rezoned in order to accommodate senior housing as proposed in the alternative.

The Senior Housing Alternative appears similar to the development proposed under Option A and Option B; however, due to the decreases in trip generation and parking needs of seniors (ITE Trip Manual), it would result in fewer environmental impacts related to noise, air quality, and

biological resources. Seniors are addressed under the Special Needs Groups within the City of Del Mar Community Plan Housing Element. Page 20 of the Housing Element states, the limited income of many senior persons often makes it difficult for them to find affordable housing. Although the Senior Housing Alternative would require the site to be rezoned RM, R-2 or RC, this alternative would be consistent with the senior housing needs of the Community Plan Housing Element.

Aesthetics

As identified in Section 4.1, Aesthetics, implementation of Option A and Option B could have potentially significant impacts to scenic views from residences along the southern and eastern boarders of the property. Option A and Option B would not result in potentially significant impacts to visual character to the site and surroundings or light and glare. Impacts related to the removal of Torrey pines would be reduced to below a level of significance with MM-BIO-2. The Senior Housing Alternative would have similar scale, mass, and design details as Option A and Option B. Views to the bluffs would still be impaired, Torrey pines would still be removed, and scenic views from the residences to the south and west would have similar impacts under the Senior Housing Alternative. Therefore, aesthetic impacts would not be reduced or avoided compared to Option A and Option B.

Biological Resources

As identified in Section 4.3, Biological Resources, implementation of Option A and Option B could potentially have a direct adverse impact on sensitive vegetation communities, sensitive plant communities, sensitive avian wildlife communities, and federally protected wetlands. Option A and Option B could also have potential indirect impacts on breeding birds due to construction-related noise and from invasive plant species. With implementation of MM-BIO-1 through MM-BIO-8, impacts to biological resources would be less than significant. The Senior Housing Alternative would have similar impacts as the Riverview Office Alternative. Under the Senior Housing Alternative, 0.8 acres of disturbed southern coastal bluff scrub would be impacted compared to 0.34 acres, which would be impacted as a result of Option A and Option B. In addition, no Torrey pine trees would be removed under the Senior Housing Alternative. Therefore, impacts to biological resources would be reduced compared to Option A and Option B.

Cultural and Paleontological Resources

As identified in Section 4.4, Cultural and Paleontological Resources, there is potential for previously unknown archaeological resources to be discovered on site during excavation activities of the construction phase. In addition, due to the potential for inadvertent discovery of paleontological resources or human remains, impacts were determined to be significant prior to

implementation of MM-CUL-1 through MM-CUL-3. Compliance with mitigation measures would reduce impacts to less than significant. Under the Senior Housing Alternative, the site would still be developed and ground-disturbing activities would occur similar to Option A and Option B. The Senior Housing Alternative would have the same impacts as identified for Option A and Option B. Impacts would not be reduced or avoided.

Geology and Soils

As identified in Section 4.5, Geology and Soils, the proposed project site has the potential for significant geologic impacts due to static settlement, liquefaction, and possible lateral spread. MM-GEO-1 requires that, prior to development of Option A or Option B, a licensed geologist perform additional deep explorations across the proposed project site to further define the alluvium profile and quantitatively address the potential for geologic hazards. Therefore, potentially significant impacts to geotechnical resources and soils resulting from implementation of Option A or Option B would be less than significant after mitigation. The Senior Housing Alternative would be constructed on the same project site as identified for Option A and Option B; therefore, geologic and soil conditions would be the same. Similar to Option A and Option B, a subsurface geotechnical exploration would still be required as part of the Senior Housing Alternative. Therefore, impacts would be the same as Option A and Option B.

Noise

As identified in Section 4.10, Noise, at a distance of 30 feet (the approximate distance from the construction area to the nearest existing residence), construction noise levels would range from approximately 79 to 90 dBA L_{eq}. Because Option A and Option B would exceed the 75 dBA construction noise standards established in the City of Del Mar's Noise Control Ordinance, impacts would be potentially significant. However, implementation of mitigation measure MM-NOI-1, which requires construction noise attenuation measures, would reduce potentially significant construction noise impacts to a level below significance.

Since the site would still be developed, construction impacts associated with the Senior Housing Alternative would be similar as impacts identified for construction of Option A and Option B. Although in theory, operational noise at a senior housing complex might be reduced compared to a typical residential development, these impacts have not been quantified and would most likely not be substantial. A slight decrease in traffic noise may occur due to the reduced number of traffic trips. However, overall impacts would be similar to those identified for Option A and Option B and impacts would not be reduced or avoided.

Project Objectives

The Senior Housing Alternative would meet all of the project objectives, with the exception of the following:

3. Provide a range of affordable housing units within the project to help meet the City of Del Mar's goals for such units.
7. Provide parking for all the residential units that screens automobiles from view from the public right of way, minimizes lighting impacts, provides secure off-street parking, and serves to provide a podium building level safely above the Base Flood Elevation for residential units while minimizing impacts and disturbance to ground water.

8.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The No Project Alternative is the environmentally superior alternative. This alternative would leave the site in its current state, and therefore would not result in impacts to traffic, the noise environment, air emissions, biological resources, aesthetic viewsheds, or demand on public services and facilities. However, this alternative does not meet any of the objectives of the project.

CEQA Guidelines Section 15126.6(e)(2) states that if the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives. Of the remaining alternatives, the Senior Housing Alternative would be the environmentally superior alternative. It would reduce the severity of impacts associated with biological resources, traffic, air quality, and traffic noise. However, traffic and air quality impacts under Option A or Option B are already less than significant. Therefore, this alternative would not substantially reduce impacts compared to Option A and Option B and it would not meet the project objectives of providing underground parking to screen views of automobiles from the public right of way, or help the City meet the goal of providing affordable housing units. In addition, Option A and Option B would not result in significant unmitigable impacts. All impacts identified as a result of Option A and Option B would be reduced to below a level of significance. Therefore, Option A or Option B should still be considered the environmentally superior alternative.

Table 8-1
Comparison of Option A and Option B to Proposed Alternatives

Environmental Issue	Proposed Project	No Project No Build Alternative	Riverview Office Alternative	Senior Housing Alternative	Housing Element Residential Rezone Alternative	North Commercial Zone Max FAR Alternative
Aesthetics	Less than Significant	No Impact	Reduced Impact	Similar Impact	Greater Impact	Reduced Impact
Biological Resources	Less than Significant with Mitigation Incorporated	No Impact	Reduced Impact	Reduced Impact	Similar Impact	Reduced Impact
Cultural and Paleontological Resources	Less than Significant with Mitigation Incorporated	No Impact	Similar Impact	Similar Impact	Similar Impact	Similar Impact
Geology and Soils	Less than Significant with Mitigation Incorporated	No Impact	Similar Impact	Similar Impact	Similar Impact	Similar Impact
Noise	Less than Significant with Mitigation Incorporated	No Impact	Greater Impact	Reduced Impact	Greater Impact	Greater Impact
Meets Most Project Objectives?	Yes	No	No	No	No	No

CHAPTER 9
MITIGATION MONITORING AND REPORTING PROGRAM

The California Environmental Quality Act (CEQA) Section 21081.6 requires that a mitigation monitoring and reporting program (MMRP) be established upon certification of an Environmental Impact Report (EIR). It stipulates that "the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation."

This MMRP has been developed in compliance with Section 21081.6 of CEQA and identifies (1) mitigation measures to be implemented prior to, during, and after construction of the Watermark Del Mar Specific Plan Project for either Option A or Option B; (2) the individual/agency responsible for that implementation; and (3) criteria for completion or monitoring of the specific measures.

9.1 GENERAL

Prior to issuance of a Notice to Proceed (NTC), The City shall verify that the following Mitigation Measures have been included in entirety on the submitted construction documents and contract specification, and included under the heading "Environmental Mitigation Requirements." In addition, the requirements for a Preconstruction Meeting shall be noted on all construction documents.

Prior to the commencement of work, a Preconstruction Meeting (Pre-con) shall be conducted and include the City of Del Mar's Mitigation Monitoring Coordination Section, Resident Engineer, Building Inspector, Applicant and other parties of interest.

Evidence of compliance with other permitting authorities is required, if applicable. Evidence shall include copies of permits issued, letters of resolution issued by the Responsible Agencies documenting compliance, or other evidence documenting compliance and deemed acceptable by the City of Del Mar designee.

Table 9-1
Mitigation Monitoring And Reporting System

Number	Mitigation Measure	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
	Biological Resources			
BIO-1	The loss of 0.34 acre of disturbed southern coastal bluff scrub shall be mitigated at a 3:1 ratio (1.02 acres). Approximately 0.04 acre of southern coastal bluff scrub and 0.15 acre of disturbed southern coastal bluff scrub shall be conserved on site via a Land Conservation Easement. In addition, 0.19 acre of disturbed habitat shall be conserved on site via a Land Conservation Easement and monitored to ensure success. This currently disturbed habitat shall be the 50-foot wetland buffer to the coastal brackish marsh. The disturbed habitat shall be revegetated with southern coastal bluff scrub species that are deemed acceptable by the Fire Marshal, as this area shall also be within the fuel modification zone. The wetland buffer shall be maintained year round by the HOA. Any shrubs and trees shall be annually maintained to be free of dead material. Any trees planted ore recruited will be maintained so that their crown cover will be more than 30 feet from any structure. Tree crowns will be separated by twenty (20) feet and maintained to keep a separation of six feet between the ground fuels (shrubs and ground covers) and the lower limbs. All trees must be maintained to the current ANSI A300 standards and Fire Marshal requirements. With the exception of the removal of dead material, the above maintenance requirements shall not apply to native wetland species, which shall be avoided. The remaining 0.64 acre of required mitigation of southern coastal bluff scrub shall be mitigated at the	Project Applicant	The Director of Planning/Community Development Department will ensure that the land conservation easement be issued for the wetland area on the project site, consistent with this measure. Additionally, the City will require review of the project design plans to ensure that the project design incorporates required components, prior to issuance of a grading permit.	1. Planning and Community Development Department. 2. Director of Planning/Community Development Department 3. Prior to issuance of a grading permit and upon completion of construction.

Table 9-1
Mitigation Monitoring And Reporting System

Number	Mitigation Measure	Party Responsible for Implementing Mitigation	Monitoring Action	1. Enforcement Agency 2. Monitoring Agency 3. Monitoring Phase
	Manchester Avenue Conservation Bank by purchasing 0.7 acre of Tier I habitat. Although this is not in-kind habitat mitigation, the tier level is the same and the bank is located within the Multiple Species Conservation Plan area.			
BIO-2	According to the Multiple Species Conservation Plan, the only naturally occurring population of Torrey pines occurs at Torrey Pines State Preserve. As such, the Torrey pines on site are considered planted and are not naturally occurring. However, the Torrey pine is considered a significant visual resource in the Community Plan and therefore, for the loss or relocation of the 13 Torrey pine trees, the project proponent shall submit a Tree Removal Permit to the Design Review Board and City Council with the appropriate processing fee according to the City of Del Mar's Municipal Code Section 23.50.080. To mitigate for the impact to these 13 trees, the project proponent shall relocate five healthy Torrey pines on site; remove and replant two Torrey pines on site or pay a fee to the City of Del Mar's Tree Mitigation Fund in accordance with the City's Municipal Code Sections 23.50.080(C-10), 23.50.030(D)(2), and 23.50.090(A)(2); and the remaining six qualify for exemption and removal and the applicant is required to submit a Notice of Intent in accordance with the City's Municipal Code Sections 23.50.040.	Project Applicant	The City will require implementation of this mitigation measure prior to project construction. The Planning and Community Development Department ensure the applicant pays the proper processing fee and shall issue the Tree Removal Permit and will determine, with input from City staff, if payment of a fee to the City of Del Mar's Tree Mitigation Fund is feasible. If feasible, the fee shall be paid in accordance with the City's Municipal Code section 23.50.030(D)(2) and 23.50.090(A)(2).	1. Planning and Community Development Department 2. Director of Planning/Community Development Department 3. Prior to issuing a grading permit
BIO-3	For the impacts to the 40 Del Mar Mesa Sand Asters, we recommend transplanting these individuals from the impact area to a preserved area on site within the Disturbed Southern Coastal Bluff Scrub or within the Disturbed Habitat to be enhanced to Southern Coastal Bluff Scrub within the 50-foot wetland buffer. A monitoring	Project Applicant	Design Review Board will determine, with input from City staff, if on-site mitigation is feasible. If determined feasible, the Board shall require the	1. Design Review Board 2. Director of Planning/Community Development 3. Prior to issuing a grading permit.

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	program shall be implemented for 2 years to monitor the survivability of the individual Sand Asters. If the Sand Asters do not survive the transplant, new container plants will be replanted, grown from the seeds previously collected from the Sand Asters that did not survive at a 3:1 ratio (120 plants).		planting of replacement trees on-site in accordance with the Mitigation Replacement Scale provided in DMMC Section 23.50.090. If on-site replacement is deemed infeasible, in-lieu payments of each replacement plant shall be required. Either of these determined measures shall occur prior to beginning of construction.	
BIO-4	In order to reduce potential indirect impacts to the roots of the Torrey pine tree located on the adjacent property during installation of the eastern retaining wall, the contractor shall be required to minimize grading on the uphill side of the retaining wall. This can be done by using an "L-type" or spread footing for the retaining wall. In addition, a qualified arborist shall be required to monitor excavation during installation of the retaining wall in this location and provide direction on root pruning if roots are encountered.	Project Applicant	The City will require a qualified arborist to be present during grading and excavation during installation of the retaining wall along the eastern boundary and shall provide direction on Torrey pine root pruning, if necessary. The contract shall also be required to minimize uphill grading in this area.	1. Planning/Community Development Department 2. City Engineer/Environmental Consultants 3. During Project Construction.
BIO-5	Although no avian nests were observed on the proposed project site, the clearing and grading of trees and shrubs shall occur outside of the avian breeding season of January 1 through August 31 (which includes raptors). This prohibition is necessary to preclude the potential for	Project Applicant	The City will require implementation of this mitigation measure prior to project, grading, or ground-disturbing activities (such	1. Planning/Community Development Department 2. Director of Planning/Community Development Department 3. Prior to the issuance of a grading

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	damage to nests and nesting birds, which would be a violation of the Migratory Bird Treaty Act. If clearing and grading during the avian breeding season is proposed, then a focused nest survey shall be conducted by a qualified biologist 72 hours prior to the vegetation removal. If active nests are discovered during the nest survey, then those nests shall be avoided until the young have fledged. The qualified biologist shall recommend appropriate nest setback distances based on the species of bird, the topography between the nest and the proposed disturbance activity, and the surrounding vegetation.		as grading for building pads, roads, utilities, and storm water improvements) proposed during the avian breeding season. The City shall review the avian nesting survey report prepared by a qualified wildlife biologist prior to issuing a grading permit. If active nests are detected, the City shall verify that an adequate buffer zone is flagged and fenced off prior to issuing the grading permit to ensure that nesting species are not disturbed.	permit and after completion of construction.
BIO-6	If project-related work is to occur during the breeding season for California gnatcatcher (February 15 through August 31), then pre-construction protocol-level surveys for California gnatcatcher shall be performed to determine the status of breeding California gnatcatchers on site and within 500 feet of the site. If a nesting California gnatcatcher pair is detected on site or within 500 feet of the site, then noise attenuation measures shall be implemented to ensure that ambient noise levels are equal to or less than 60 decibels at the nest. In addition, nest monitoring by an individual holding a Section 10(a) U.S. Fish and Wildlife Service recovery permit for California gnatcatcher shall be conducted to ensure that	Project Applicant	The City will require implementation of this mitigation measure prior to project, grading, or ground-disturbing activities (such as grading for building pads, roads, utilities, and storm water improvements) proposed during the breeding season of the California Gnatcatcher (February 15 – August 31). The City shall review the	1. Planning/Community Development Department 2. Director of Planning/Community Development Department 3. Prior to the issuance of a grading permit and after completion of construction.

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	the nesting California gnatcatchers remain undisturbed by construction.		California Gnatcatcher Survey prepared by a qualified wildlife biologist prior to issuing a grading permit. If a California Gnatcatcher pair is detected on site or within 500-feet of the site, the City shall verify that temporary noise attenuation measures are implemented that achieve a noise level of 60 dB or less at the nest.	
BIO-7	Although the on-site wetland is proposed to be preserved, and a 50-foot buffer is proposed between the wetland and the development, the project proponent shall erect a permanent fence with signage preventing human and pet access along the edge of the wetland buffer. Fencing along the edge of the wetland buffer shall be provided to define the area and discourage access, while maintaining openness and views into the area. Similar to the San Dieguito River Trail fencing, fencing along the wetland buffer shall consist of natural round wood posts and rails to be consistent.	Project Applicant	Upon completion of construction, the Planning Director will verify the size, location and required fencing and signage of the wetland buffer area.	1. Planning/Community Development Department 2. Director of Planning/Community Development Department 3. Upon Completion of construction
BIO-8	The landscaping and/or revegetation plan for the proposed project shall not include any invasive plant species listed on the California Invasive Plant Council's Invasive Plant Inventory Database. In addition, the plants chosen shall not require intensive irrigation and shall meet the Del Mar Municipal Code Water-Efficient Landscaping Ordinance. To ensure the protection of the	Project Applicant	The City will require implementation of this mitigation measure prior to approving the project landscaping or revegetation plans, the City shall verify that the CDFW	1. Planning/Community/Development Department 2. Director of Planning/Community Development Department 3. Prior to approving of the landscaping and revegetation plans.

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	on-site preservation areas from invasive plants, the landscaping and revegetation plans for the areas adjacent to the preservation areas shall be submitted to the California Department of Fish and Wildlife for its approval 60 days prior to entitlement permit issuance.		approved of the proposed plans and verify that they were cross referenced against the Cal-IPC California Invasive Plant Inventory Database.	
Cultural and Paleontological Resources				
CUL-1	Prior to the start of any ground disturbing activity, an archaeological monitor shall be retained to monitor ground-disturbing activities associated with Option A or Option B, including but not limited to grading, excavation, brush clearance, and grubbing. The archaeological monitor shall conduct preconstruction cultural resources worker sensitivity training to bring awareness to personnel of actions to be taken in the event of a cultural resources discovery. The duration and timing of monitoring shall be determined by the qualified archaeologist in consultation with the City. Initially, all ground-disturbing activities associated with Option A or Option B shall be monitored. However, the qualified archaeologist, based on observations of soil stratigraphy or other factors, and in consultation with the City, may reduce the level of monitoring as warranted. In the event that archeological resources are accidently discovered or unearthed during project subsurface activities, all earth-disturbing work within a 100-meter radius shall be temporarily suspended or redirected until the certified archaeologist has identified and evaluated the nature and significance of the find, in compliance with CEQA Guidelines 15064.5(f). If the artifact that is	Project Applicant	The City will require that a qualified archaeologist and a culturally affiliated Native American with knowledge of cultural resources be retained by the applicant to identify and evaluate the nature and significance of any archaeological resources that are discover during project construction, consistent with the requirements outlined in the mitigation measure.	1. Planning/Community Development Department 2. City Engineer/Environmental Consultants 3. During Project Construction.

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	accidentally discovered or unearthed is of Native American origin, the certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources shall be consulted for identification and evaluation. Construction activities shall be redirected to other work areas until the archaeologist determines that work can resume in the vicinity of the find.			
CUL-2	A qualified paleontologist (an individual with a MS or Ph.D. in paleontology or geology that is familiar with paleontological procedures and techniques, who is knowledgeable in the geology and paleontology of San Diego County, and who has worked as a paleontological mitigation project supervisor in the county for a least one year) shall attend the pre-construction meeting to consult with the grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues. A paleontological monitor (an individual who has experience in the collection and salvage of fossil materials, working under the direction of a qualified paleontologist) shall be on site on a full time basis during the original cutting of previously undisturbed deposits of high paleontological resource potential (Bay Point Formation and Delmar Formation) to inspect exposures for contained fossils. Grading activities in previously undisturbed deposits of moderate paleontological resource potential (Torrey Sandstone) shall be monitored on a part-time basis. In the event that paleontological resources are accidentally discovered or unearthed during project subsurface activities, all earth disturbing work within a	Project Applicant	The applicant shall provide proof to the City that a qualified paleontologist has been retained to attend the pre-construction meeting and be present to monitor the original cutting of previously undisturbed deposits, prior to the issuance of a grading permit. Following construction, the City shall verify that a summary report was completed that outlines the results of the monitoring program	1. Planning/Community Development Department 2. City Engineer/Environmental Consultant 3. Prior, During and After Project Construction.

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	100-meter radius shall be temporarily suspended or redirected until a certified paleontologist has recovered, identified, and/or evaluated the nature and significance of the find, in compliance with CEQA Guidelines 15064.5(f). After the find has been appropriately mitigated, work in the area may resume. During the monitoring and recovery phases of the mitigation program, the qualified paleontologist and/or the paleontological monitor shall routinely collect stratigraphic data (e.g., lithology, vertical thickness, lateral extent of strata, nature of upper and lower contacts, and taphonomic character of exposed strata). Collection of such data is critical for providing a stratigraphic context for any recovered fossils. Fossil remains collected during monitoring and salvage shall be cleaned (removal of extraneous enclosing sedimentary rock material), repaired (consolidation of fragile fossils and gluing together broken pieces), sorted (separating fossils of the different species), and cataloged (scientific identification of species, assignment of inventory tracking numbers, and recording of these numbers in a computerized collection database) as part of the mitigation program. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited (as a donation) in a scientific institution with permanent paleontological collections such as the San Diego Natural History Museum. Donation of the fossils shall be accompanied by financial support for preparation, curation and initial specimen storage, if this work has not already been completed. A final summary report shall be			

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	completed that outlines the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.			
CUL-3	In the event that human remains are accidentally discovered or unearthed during Option A or Option B subsurface activities, all earth disturbing work within a 100-meter radius of what, the project site or the human remains shall be temporarily suspended or redirected until a forensic expert has identified and evaluated the nature and significance of the find, in compliance with CEQA Guidelines 15064.5(f). If human remains of Native American origin are accidentally discovered or unearthed, CEQA Guidelines provide for agreements with Native Americans, identified by the Native American Heritage Commission, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens. After the find has been appropriately mitigated, as determined by a qualified archaeologist work in the area may resume.	Project Applicant	The City will require that a qualified forensic expert be retained by the applicant to identify and evaluate the nature and significance of any human remains that are discovered during project construction, consistent with the requirements outlined in the mitigation measure.	1. Planning/Community development Department 2. City Engineer/Environmental Consultant 3. During Project
		Geology and Soils		
GEO-1	Prior to the issuance of a building permit, the project applicant shall retain a City-approved geotechnical engineer to perform a detailed site specific subsurface report of preliminary geotechnical investigation, consistent with the California Building Code. The California Building Code (which incorporates the Uniform Building Code) is contained in the California Code of Regulations, Title 24, Part 2, which is a portion of the California Building Standards Code, and includes design and construction requirements related to life safety and structural safety.	Project Applicant	The City Building Department will require the Project Applicant to submit a detailed site specific subsurface geotechnical investigation study to the City prior to issuance of a building permit.	1. Building Department 2. Director of Planning/Community Development Department 3. Prior to the issuance of a building permit.

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	The geotechnical study shall include subsurface investigation, laboratory testing and additional deep explorations using borings and/or cone penetrometer tests across the alluviated portions of the proposed project site to further define the alluvium profile and quantitatively address the potential for soil liquefaction and lateral spreading across the site. The subsurface geotechnical study shall also include recommendations for the proposed construction and grading such as remedial grading, ground improvement techniques, special foundation design and other recommendations that will ensure that the construction of the building will not result in substantial liquefaction, subsidence, or seismic-related ground failure due to lateral spread, and will implement any necessary measures required to comply with existing building codes and regulation, including Del Mar Municipal Code Section 23.12 and 23.32.			
		Noise		
NOI-1	**NOI-1**: Prior to initiation of construction of Option A or Option B, the City of Del Mar shall approve a construction noise mitigation program to include the following: • Temporary sound barriers/shielding shall be installed to shield non-mobile equipment in the vicinity of nearby residences, or, alternatively, to shield at the site's boundaries (i.e., the southern, southeastern and western sides, where adjacent residences are closest). The top of the noise barrier shall be 10 feet above the existing grade, measured from the interior side of the barrier from the finished surface elevations of the western parking lot. The barrier may be constructed of any a material with a minimum weight	Project Applicant	The City will require that a qualified noise expert be retained by the applicant to identify the appropriate construction noise mitigation measures.	1. Planning/Community Development Department 2. Director of Planning/Community Development Department 3. Prior to the issuance of a building permit.

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	of 2 pounds per square foot. Noise barriers must not have any gaps or perforations and may be constructed of, but are not limited to, 5/8-inch plywood, 5/8-inch oriented strand board, or hay bales. • Construction equipment shall be properly outfitted and maintained with feasible noise-reduction devices (e.g., functioning mufflers and silencers, tightly closed access panels) to minimize construction-generated noise. • Stationary noise sources such as generators or pumps shall be located as far away from the nearest (southerly and westerly) noise-sensitive land uses (residences) as feasible and shall be required to comply with the DMMC Noise Ordinance. • Laydown and construction vehicle staging areas shall be located away from the nearest (southerly and westerly) noise-sensitive land uses (residences) if feasible. • Residential areas that will be subject to construction noise shall be informed 1 week before the start of each construction phase and made aware of the overall schedule of construction. Effectiveness of these is mitigation measures would vary from several decibels (which in general is a relatively small change) to ten or more decibels (which subjectively would be perceived as a substantial change), depending upon the specific equipment and the original condition of that equipment, the specific locations of the noise sources and the receivers, etc. Installation of a noise barrier, for example, would vary in effectiveness depending upon the degree to which the			

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	line-of-sight between the source and receiver is broken, and typically ranges from 5 to 10 dB. Installation of more effective silencers could range from several decibels to well over 10 decibels. Reduction of idling equipment could reduce overall noise levels from barely any reduction to several decibels. Cumulatively, however, these is measures would result in marked decreases in the noise from construction. With incorporation of mitigation, short-term construction impacts associated with exposure of persons to or generation of noise levels in excess of established standards would be less than significant.			

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