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<td>State Implementation Plan</td>
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<td>SOₓ</td>
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<td>Storm Water Pollution Prevention Plan</td>
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<td>Underground Storage Tank</td>
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<td>USFWS</td>
<td>U.S. Fish and Wildlife Service</td>
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<td>VOCs</td>
<td>Volatile Organic Compounds</td>
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PART I INTRODUCTION TO THE FINAL EIR

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the Draft EIR was prepared by the City of Solana Beach (City) on the proposed project. The Draft EIR was submitted to the California Office of Planning and Research (State Clearinghouse) and circulated for public review beginning on April 19, 2018 and ending on June 4, 2018 (SCH No. 2015071004). During that time, the document was reviewed by various state and local agencies, as well as by interested individuals and organizations. A total of six comment letters were received by the City. All written comments received by the City have been fully addressed in written responses. The public review comments are contained in Part III of the Final EIR.

This Final EIR includes the following items as required in Section 15132 of the State CEQA Guidelines:

- Revisions and clarifications to the Draft EIR
- Comments and recommendations received on the Draft EIR
- A list of persons, organizations, and public agencies commenting on the Draft EIR
- Responses of the Lead Agency to significant environmental points raised in the review
- Any other information added by the Lead Agency

Report Organization

This report is organized in four parts: the first part of this document is the Introduction, the second part is the Mitigation Monitoring and Reporting Program, the third part contains the Comments and Responses, and the fourth part is the Revised Draft EIR. Each of these parts has its own purpose and serves to aid the reader in fully understanding the project and its implications. A brief description of each part follows.

The Introduction to the Final EIR explains the purpose of the Final EIR and familiarizes the reader with the public review process as well as to explain how the document can be used to understand the project and its consequences. The Introduction also includes a section which summarizes revisions or clarifications to the Draft EIR.
A Mitigation Monitoring and Reporting Program (MMRP), included as Part II of the Final EIR, has been prepared in accordance with Section 15097 of the CEQA Guidelines. The State CEQA Guidelines require that a mitigation monitoring and reporting program be adopted upon certification of an EIR to ensure mitigation measures identified in the EIR are implemented.

The Comments and Responses section (Part III of the Final EIR) includes the letters received during the public review period along with the City’s responses to each comment. The comments are reproduced with the responses in a side-by-side format. Numbered brackets are added to highlight each specific comment and its corresponding response.

The full text of the revised Draft EIR and its appendices are included as the last section in this Final EIR. The revised Draft EIR is presented herein as Part IV of the Final EIR, as it was circulated for public review, with revisions incorporated as identified in the Revisions or Clarifications to the Draft EIR section below.

**Revisions or Clarifications to the Draft EIR**

Based on City review and in response to comments received, some text published in the Draft EIR has been revised. Changes to the wording of impacts or mitigation statements and information added or deleted to the impact analyses and discussions are presented below with changes shown in underline and strikeout or in a descriptive form, so that the original and revised text may be compared. Changes presented here are by section, in their order within the revised Draft EIR. Those sections where no content changes were made are not included. Minor editorial changes have also been made to the Revised Draft EIR to improve readability, correct typographical errors, etc. which are not summarized here.

**Executive Summary**

In the Executive Summary, Table ES-1 Project Level and Cumulative Environmental Impacts and Mitigation Measures was updated to match the changes made to Mitigation Measures CUL-1 and CUL-4 in Section 4.3 Cultural Resources in the Final EIR. Specific text changes are explained in Section 4.2, Cultural Resources, below.
Chapter 3 Project Description

3.4.3 Infrastructure and Support Systems

Vehicle and Bicycle Parking
Table 3.3 On-Site Garage Parking, in the Project Description has been updated to note that the bicycle storage area in the parking garage would be provided to serve the proposed 25 residential units. The table incorrectly identified that 32 bicycle spaces would be provided in the parking garage; these spaces would be provided in outdoor, at-grade locations throughout the project site.

3.4.4.1 Greenhouse Gas (GHG) Design Features

PDF-GHG-4: Transportation Demand Management
The following sentence has been added to project design feature PDF-GHG-4: Transportation Demand Management in Chapter 3:

Alternatively, commercial tenants shall develop partnerships with shared mobility service providers (on-demand rideshare, microtransit, scootershare, and bikeshare providers) to provide a commuter benefit program to the extent that at least 20 percent of employees are eligible for the program.

Section 4.3 Cultural Resources

4.3.5.2 Archeological Resources

Mitigation Measures
The text of mitigation measure CUL-1 was modified as shown below:

CUL-1 Archaeological/Native American Monitoring. Due to the potential presence of previously unknown archaeological and/or tribal cultural resources, a grading monitoring program shall be implemented for the project. The monitoring program shall include the following elements:

1. The applicant shall enter into a Tribal Cultural Resource Treatment and Monitoring Agreement (also known as a pre-excavation agreement) with a tribe that is traditionally and culturally affiliated with the project location (TCA Tribe) prior to issuance of a grading permit. The purposes of the agreement are (1) to provide the applicant with clear expectations regarding unique archaeological resources and tribal cultural resources; and (2) to formalize protocols and procedures between the applicant and the TCA Tribe for the protection and treatment of, including but not limited to, Native American human remains; funerary objects; cultural and religious landscapes; ceremonial items; traditional
gathering areas; and cultural items located and/or discovered through a monitoring program in conjunction with the construction of the proposed project, including additional archaeological surveys and/or studies, excavations, geotechnical investigations, grading, and all other ground disturbing activities.

The remainder of this mitigation measure is unchanged from the Draft EIR.

4.3.5.4 Human Remains

Mitigation Measures

The text of mitigation measure CUL-4 was modified as follows:

CUL-4 Discovery of Human Remains. In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the County Coroner has been contacted to determine that no investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 48 hours. The NAHC shall identify the person or persons it believes to be the most likely descendants (MLD) from the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98; or

The remainder of this mitigation measure is unchanged from the Draft EIR.

Section 4.6 Hazards and Hazardous Materials

4.6.5.1 Hazardous Materials Release

A discussion in the impact analysis for Issue 1: Hazardous Materials Release has been added to explain that the licensed construction contractor would screen export soils generated during construction activities to determine if contamination is present, in accordance with applicable State and local regulations. The export soil would then be removed and disposed of in an appropriate off-site location in accordance with applicable State and local regulations. The text addition is provided below:

Furthermore, in accordance with applicable State and local regulations, the licensed construction contractor would screen export soils generated during construction activities to determine if contamination is present. The export soil would then be removed and disposed of in an appropriate off-site location in accordance with applicable State and local regulations. Therefore, the project’s
compliance with existing applicable regulations for off-site disposal of soils would result in less than significant impact.

Text in the impact analysis for Issue 1: Hazardous Materials Release has been updated to include a discussion regarding the potential for lead-based paint to occur in the existing structures at the project site. Lead based paint could be present in the existing on-site structures. During demolition of the existing structures, lead containing materials would be managed in accordance with applicable State and local regulations including hazardous disposal requirements identified in Title 22 of the California Code of Regulations (CCR) Division 4.5. The text addition is provided below:

As discussed in the 2006 Phase I report, portions of the existing structures were constructed prior to 1978, which is the phase out date for lead based paints (First American Contracting 2015). Lead based paint could be present in the existing on-site structures. During demolition of the existing structures, lead containing materials would be managed in accordance with applicable State and local regulations including hazardous disposal requirements identified in Title 22 of the California Code of Regulations (CCR) Division 4.5. Therefore, the project’s compliance with existing applicable regulations for lead containing materials would result in less than significant impact.

Text in the impact analysis for Issue 1: Hazardous Materials Release has been added to include a discussion regarding the potential for mercury to occur at the project site. As described in this section, disposal of mercury-containing thermostats would be handled in accordance with the Mercury Thermostat Collection Act of 2008. The text addition is provided below:

Mercury could occur in the thermostats of existing on-site buildings proposed for demolition. Disposal of mercury-containing thermostats would be handled in accordance with the Mercury Thermostat Collection Act of 2008. Therefore, the project’s compliance with existing applicable regulations for handling of mercury-containing thermostats would result in less than significant impact.

Section 4.7 Hydrology and Water Quality

4.7.5.1 Water Quality Standards

Text in the impact analysis for Issue 1: Water Quality Standards has been added that dewatering requirements are addressed in mitigation measure GEO-1 and that before any dewatering operations occur, the contractor would obtain all required permits and authorizations. All groundwater would be treated and disposed of in compliance with all federal, State, and local regulations. The text addition is provided below:
Dewatering requirements are addressed in mitigation measure GEO-1. Discharging of groundwater would require a Report of Waste Discharge from the RWQCB in order to obtain Waste Discharge Requirements. Before starting dewatering operations, the contractor would obtain the required permits and authorizations. All groundwater would be treated and disposed of in compliance with all federal, State and local regulations. Therefore, the proposed project would not result in a significant impact related to wastewater treatment requirements.

4.12 Transportation/Traffic

4.12.5.6 Alternative Transportation

Text in the impact analysis for Issue 6: Alternative Transportation has been updated to identify that the project site has access to high-frequency local bus services (bus routes 89 and 101) and Rapid service (routes 103 and 473). The following language has been added to Section 4.12.5.6 of the Final EIR.

The following bus routes/services would be available to the proposed project:

- High frequency local bus service (Routes 89 and 101)
- Rapid service (Routes 103 and 473)

4.12.5.7 Parking

Text in the impact analysis for Issue 7: Parking has been updated in Table 4.12-9 On-Site Garage Parking to note that bicycle storage areas in the parking garage would be provided to serve the proposed 25 residential units. The table incorrectly identified 32 bicycle spaces would be provided in the parking garage; these spaces would be provided in at-grade outdoor locations throughout the project site instead.

4.12.6.1 Circulation System Performance

A concluding sentence has been added to Issue 1: Circulation System Performance regarding the project’s cumulative circulation system impacts. The text addition is provided below:

Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with circulation system performance.
4.13 Public Utilities, Service Systems and Energy

4.13.5.1 Wastewater Treatment Requirements

Text in the impact analysis for Issue 1: Wastewater Treatment Requirements has been added to explain that dewatering requirements are addressed in mitigation measure GEO-1 and that before any dewatering operations occur, the contractor would obtain all required permits and authorizations. All groundwater would be treated and disposed of in compliance with all federal, State, and local regulations. The text addition is provided below:

Dewatering requirements are addressed in mitigation measure GEO-1. Discharging of groundwater would require a Report of Waste Discharge from the RWQCB in order to obtain Waste Discharge Requirements. Before starting dewatering operations, the contractor would obtain the required permits and authorizations. All groundwater would be treated and disposed of in compliance with all federal, State and local regulations. Therefore, the proposed project would not result in a significant impact related to wastewater treatment requirements.
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## PART II MITIGATION MONITORING and REPORTING PROGRAM

**PROJECT NAME:** Solana 101 Project  
**PROJECT LOCATION:** West of Highway 101, north of Dahlia Drive, east of South Sierra Avenue  
**PROJECT DESCRIPTION:** New mixed-use development on a 1.95-acre site  
**PROJECT NUMBER:** SCH No. 2015071004  
**APPROVAL BODY/DATE:** City Council / July 2018  
**CONTACT:** Joseph Lim, Community Development Director  
**PHONE NUMBER:** (858) 720-2434

### Impact | Mitigation Measure | Project Component | Responsible Party | Timing of Verification | Certified Completion | Comments
--- | --- | --- | --- | --- | --- | ---

**Biological Resources**

Construction of the proposed project would have the potential to impact nesting birds protected under the California Fish and Game Code and Migratory Bird Treaty Act.

**Mitigation Measure BIO-1:** If construction activity occurs during the breeding season for raptors and other birds (January 1 through September 15), the project applicant shall retain a qualified biologist to conduct a biological survey for nesting bird species within the proposed impact area and a 300-foot buffer within 72 hours prior to construction. This survey is necessary to ensure avoidance of impacts to nesting raptors (e.g., Cooper’s hawk and red-tailed hawk) and/or birds protected by the federal Migratory Bird Treaty Act. The qualified biologist shall submit a written report of the survey results to the City’s Community Development Department for review and approval prior to the commencement of any construction activity on the project site. If any active nests are detected, the area shall be flagged and mapped on the construction plans along with a minimum 300-foot buffer and up to a maximum of 500 feet for raptors, as determined by the project biologist, and shall be avoided until the nesting cycle is complete. Subject to consultation with and the prior written approval of the City’s Community Development Department, the project biologist may reduce the avoidance buffer if a reduced buffer maintains protection of the nesting cycle of the avian species.

**Prior to construction**  
**Applicant / Project Biologist / Community Development Director**  
Within 72 hours prior to initiating construction
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| Cultural Resources          | **Mitigation Measure CUL-1**: Due to the potential presence of previously unknown archaeological and/or tribal cultural resources, a grading monitoring program shall be implemented for the project. The monitoring program shall include the following elements:  
1. The applicant shall enter into a Tribal Cultural Resource Treatment and Monitoring Agreement (also known as a pre-excision agreement) with a tribe that is traditionally and culturally affiliated with the project location (TCA Tribe) prior to issuance of a grading permit. The purposes of the agreement are (1) to provide the applicant with clear expectations regarding unique archaeological resources and tribal cultural resources; and (2) to formalize protocols and procedures between the applicant and the TCA Tribe for the protection and treatment of, including but not limited to, cultural and religious landscapes; ceremonial items; traditional gathering areas; and cultural items located and/or discovered through a monitoring program in conjunction with the construction of the proposed project, including additional archaeological surveys and/or studies, excavations, geotechnical investigations, grading, and all other ground disturbing activities.  
2. Prior to issuance of a grading permit, the applicant shall provide written verification to the City that a qualified archaeologist and a Native American monitor associated with a TCA Tribe have been retained to implement the monitoring program. The archaeologist shall be responsible for coordinating with the Native American monitor. This verification shall be presented to the City in a letter from the project archaeologist confirming that the selected Native American monitor is associated with a TCA Tribe. Prior to any pre-construction meeting, the City shall | Grading activities during construction | Applicant / Archaeological and Native American monitors / Community Development Director | Prior to and during construction | |
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<td>approve all persons involved in the monitoring program.</td>
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<td>3. The qualified archaeologist and Native American monitor shall attend the pregrading meeting with the grading contractors to explain and coordinate the requirements of the monitoring program.</td>
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<td>4. During the initial grubbing, site grading, excavation, or disturbance of the ground surface, the qualified archaeologist and the Native American monitor shall be onsite fulltime. If imported fill materials, or fill used from other areas of the project site, are to be incorporated at the project site, those fill materials shall be absent of any unique archaeological or tribal cultural resources. The frequency of inspections shall depend on the rate of excavation, the materials excavated, and any discoveries of unique archaeological resources as defined in PRC Section 21083.2 or discoveries of tribal cultural resources as defined in PRC Section 21074. Archaeological and Native American monitoring will be discontinued when the depth of grading and soil conditions no longer have the potential to contain cultural deposits. The qualified archaeologist, in consultation with the Native American monitor, shall be responsible for determining the duration and frequency of monitoring.</td>
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<td>5. In the event that previously unidentified tribal cultural or unique archaeological resources are discovered, the qualified archaeologist and the Native American monitor shall have the authority to temporarily divert or temporarily halt ground disturbance operations in the area of discovery to allow for evaluation of tribal cultural or unique archaeological resources. Isolates and clearly non-significant deposits shall be minimally documented in the field and collected so that the monitored grading can proceed.</td>
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<td>6. If a tribal cultural or unique archaeological resource is discovered, the archaeologist shall notify the City of said discovery and shall conduct consultation with TCA tribes to determine the</td>
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<td>Mitigation Measure CUL-2: Prior to the release of the grading bond, a monitoring report and/or evaluation report, if appropriate, that describes the results, analysis, and conclusion of the archaeological and tribal cultural resources monitoring program and any data recovery program on the project site shall be submitted by the qualified archaeologist to the City. The Native American monitor shall be responsible for providing any notes or comments to the qualified archaeologist in a timely manner, to be submitted with the report. The report will include California Department of Parks and Recreation Primary and Archaeological Site Forms for any newly discovered resources.</td>
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<td>Implementation of the proposed project has the potential to damage or destroy unknown subsurface paleontological resources paleontological resources.</td>
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<td>The proposed project has the potential to disturb unknown human remains.</td>
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the coroner shall contact the NAHC within 24 hours. The NAHC shall identify the person or persons it believes to be the most likely descendants (MLD) from the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98; or

2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance: a) the NAHC is unable to identify an MLD or the MLD fails to make a recommendation within 48 hours after being notified by the commission; b) the MLD identified fails to make a recommendation; c) or the landowner or his authorized representative rejects the recommendation of the MLD, and the mediation the NAHC fails to provide measures acceptable to the landowner.

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<th>Geology &amp; Soils</th>
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<td><strong>Excavations for the proposed project would encounter groundwater which may result in unstable soils.</strong></td>
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**Mitigation Measure GEO-1:** Prior to issuance of grading permits for the proposed project, the City Engineer shall verify that the applicant has incorporated the following applicable recommendations in the Geotechnical Investigation prepared by NOVA dated May 2012 and the Update Letter prepared by NOVA dated August 2015 into the final project design and construction documents.

These recommendations address issues including, but not limited to, excavation and fill, slope stability, site grading, erosion control, and monitoring. Construction documents shall be prepared to the satisfaction of the City Engineer. The following list of recommendations must be incorporated into the project design and construction documents:

1. For trench or other temporary excavations, safety shall be met by laying back the slopes no steeper

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<td>than 1.5:1 (horizontal:vertical) for fill and Old Paralic Deposits material.</td>
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<td>2.</td>
<td>Structures/improvements in the vicinity of the planned shoring installations shall be reviewed for foundation support and tolerance to settlement. The shoring system shall be designed to limit ground settlement behind the shoring system to 0.5 inches or less.</td>
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<td>3.</td>
<td>An array of ground survey points shall be installed to monitor settlement. The survey points shall be installed on the shoring system and incrementally away from the excavation.</td>
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<td>4.</td>
<td>A dewatering system is required for construction and shall be designed by a professional dewatering engineer. The dewatering plan shall address anticipated drawdown, volume of pumping, potential for settlement, and groundwater discharge. Disposal of groundwater shall be performed in accordance with the guidelines of the San Diego Regional Water Quality Control Board.</td>
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<td>5.</td>
<td>Unstable excavation bottom conditions that are close to or below the water table shall be mitigated by over-excavation of the bottom to suitable depths and replacement with a one-foot thick gravel or lean concrete mud mat. Any loose, soft, or deleterious material shall be removed prior to placement of gravel or lean concrete.</td>
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<td>6.</td>
<td>The proposed structure shall be founded on conventional spread footings or a mat foundation supported on formational material using an allowable bearing capacity of 5,000 pounds per square inch (psi). Exterior footings shall be founded on a minimum of two feet of compacted fill using an allowable bearing capacity of 2,000 psi. The allowable bearing capacities shall be increased by one-third when considering loads of a short duration such as wind or seismic forces.</td>
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<td>7.</td>
<td>Foundations shall have an embedment depth of 24 inches or more below the lowest adjacent grade. Continuous footings shall be 18 or more inches wide and spread foundations shall be 24 or more inches square. Footings founded in low...</td>
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expansive granular materials shall be reinforced with four No. 4 or larger reinforcing bars, two placed near the top and two near the bottom of the footings.

8. Slab-on-grade floors, underlain by very low to low expansive materials, shall be five or more inches in thickness and be reinforced with No. 3 or larger reinforcing bars spaced 18 inches on center each way. Additional slab thickness and reinforcement recommendations shall be provided by a qualified structural engineer.

9. For the exterior site improvements such as sidewalks that are expected to be located outside of the proposed excavations, remedial grading shall consist of removing the upper two feet of the existing soil and replacing it with structural fill.

**Greenhouse Gas Emissions**

Mitigation Measure GHG-1: Prior to the issuance of building permits, the project applicant shall demonstrate to the City Manager that the project has an agreement in place to purchase 100 percent green power (electricity) from the City’s Community Choice Aggregation program, Solana Energy Alliance (SEA), or, if this program is not in place, the San Diego Gas & Electric EcoChoice program. All future commercial and residential tenant agreements for the proposed project land uses shall require that all tenants opt in to either the City’s Community Choice Aggregation program or, if this program is not in place, the San Diego Gas & Electric EcoChoice program. The purchase must be sufficient to offset all remaining electricity demand from the project (approximately 1.6 million kwh/year, which is equivalent to 465 MTCO2e/year) that is not provided by on-site solar power, such that all of the project’s electricity demand is met through renewable sources. Final electricity demand and on-site solar power generation estimates shall be determined by a registered electrical engineer, retained by the project applicant and
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<td>approved by the City, prior to entering into the agreement with San Diego Gas &amp; Electric and/or the City. If the EcoChoice program is the only option, proof of enrollment in the EcoChoice program shall be provided to the City prior to obtaining building permits. The project applicant shall be responsible for paying the monthly program fee. In the event the EcoChoice program is full for commercial customers, the project applicant shall enroll in the EcoChoice waitlist, and permits shall not be issued until the project is enrolled in the City’s Community Choice Aggregation program or the SDG&amp;E EcoChoice program to offset the remaining electricity demand of 1.6 million kWh/year.</td>
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**Mitigation Measure GHG-2:** Prior to the issuance of building permits, the project applicant shall implement a local carbon reduction offset program consistent with the City’s Climate Action Plan and subject to the approval of the City Manager. The local offset program shall be demonstrated to the satisfaction of the City Manager to achieve an emissions reduction of at least 651 metric tons carbon dioxide equivalent (MTCO2e) per year for 30 years, which equates to a total of 19,530 MTCO2e. A portion of the project’s required GHG emission reductions within the City shall be accomplished by implementing the following programs:

- Provide an additional 25 on-site electric vehicle charging stations for the proposed residential use, which is equivalent to offsetting 90 MTCO2e per year.
- Provide an additional 18 on-site electric vehicle charging stations for the proposed commercial use, which is equivalent to offsetting 85 MTCO2e per year.
- Provide two electric vehicle charging stations at the proposed reverse-diagonal parking spaces on South Sierra Avenue adjacent to the project site, which is equivalent to offsetting 280 MTCO2e per year.
- Contribute towards SANDAG’s regional bike-share program in an amount equivalent to 450 MTCO2e per year.

<p>| | Operation of the proposed mixed-use development | Applicant / City Council / City Manager | Prior to the issuance of building permits |</p>
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<th>Impact</th>
<th>Mitigation Measure</th>
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<th>Responsible Party</th>
<th>Timing of Verification</th>
<th>Certified Completion</th>
<th>Comments</th>
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<td>providing 12 shared electric bicycles, which is equivalent to offsetting seven MTCO2e per year. Alternatively, and only if it can be demonstrated to the City Council that local programs cannot be feasibly implemented to fully offset 651 MTCO2e annually for 30 years, the project applicant shall purchase California Air Resources Board-approved CO2e offset credits to satisfy this mitigation requirement. There are currently three approved registries recognized by the State of California that implement established carbon offset programs: Climate Action Reserve; American Carbon Registry; and Verified Carbon Standard. Programs supported by the carbon-offset programs include restoring wetlands, avoiding conversion of grasslands to crop production, capturing methane gas from landfills and/or manure, and supporting urban forestry. The applicant shall submit documentation of the offset purchase to the City Manager demonstrating that it mitigates 651 MTCO2e per year for 30 years, as provided by the approved registry, prior to the issuance of building permits.</td>
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### Hazardous Materials

**Mitigation Measure HAZ-1:** At least 10 working days prior to demolition or removal of existing on-site structures, the project applicant shall submit an Asbestos Removal, Renovation, and Demolition Operations Notice of Intentions to the County of San Diego Air Pollution Control District. The Notice of Intentions must include:

1. The name and company of the person completing the notification form.
2. The type of notice (i.e., whether the notice is an original notification, a revision to an existing notification, including the type of revision, or a cancellation of an existing notification).
3. Type of operation (i.e., whether the operation(s) is a renovation, demolition, emergency renovation, emergency demolition, or planned renovation).

Demolition during construction | Applicant / City Engineer | At least 10 working days prior to demolition or removal of existing on-site structures |
<table>
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<tr>
<th>Impact</th>
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<tr>
<td>4.</td>
<td>The facility name, address, building number, suite number, room number, city, state, and zip code.</td>
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<tr>
<td>5.</td>
<td>The facility owner's name, address, city, state, zip code, contact person and title, and phone number.</td>
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<tr>
<td>6.</td>
<td>The removal contractor's name, address, city, state, zip code, contractor's license number, contact person and title, and phone number.</td>
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<tr>
<td>7.</td>
<td>The demolition contractor's name, address, city, state, zip code, contractor's license number, contact person and title, and phone number.</td>
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<tr>
<td>8.</td>
<td>A description of the facility, including the number of floors, the number of dwelling units, age of the facility, and the past and present use of the facility.</td>
</tr>
<tr>
<td>9.</td>
<td>Scheduled start and completion dates of renovation operations and/or of demolition operations.</td>
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<tr>
<td>10.</td>
<td>The work practices, equipment, and engineering controls to be used in demolition operations.</td>
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<tr>
<td>11.</td>
<td>Description of procedures to be followed in the event that unexpected regulated asbestos-containing material (RACM) is found or any Category I Nonfriable asbestos-containing material (ACM) or Category II Nonfriable ACM becomes crumbled, pulverized, broken into smaller pieces, or reduced to powder.</td>
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<tr>
<td>12.</td>
<td>The name, address, city, state, zip code, contact person and title, and phone number of the waste transporter for all demolition debris containing no asbestos.</td>
</tr>
<tr>
<td>13.</td>
<td>A certification that at least one person trained in accordance with San Diego Air Pollution Control District Regulation XII, District Rule No. 1206 Subsection (f)(8) will supervise the stripping and removal described by this notification.</td>
</tr>
<tr>
<td>14.</td>
<td>Information about the individual conducting the facility survey including: name, company, title, mailing address and phone number, and the certification number for the Environmental Protection Agency (EPA) approved Building Inspector Course passed by the individual.</td>
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<td>Mitigation Measure</td>
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<td>15.</td>
<td>The condition of each ACM identified by the facility survey to be removed, stripped, or disturbed, or a statement that no ACM to be disturbed by renovation or demolition operations has been identified at the facility.</td>
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<tr>
<td>16.</td>
<td>The procedure(s), including analytical methods, used to detect the presence of RACM, Category I Nonfriable ACM, and Category II Nonfriable ACM.</td>
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<td>17.</td>
<td>For all ACM to be removed, stripped, or disturbed, the categorization of each material containing more than one percent asbestos as friable ACM, Category I Nonfriable ACM, or Category II Nonfriable ACM.</td>
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<tr>
<td>18.</td>
<td>A description of the facility components containing ACM to be removed, stripped, or disturbed.</td>
</tr>
<tr>
<td>19.</td>
<td>An estimate for the total amount of ACM to be removed, stripped, or disturbed from the facility including the surface area in square feet of other facility components, or volume in cubic feet if square footage cannot be established in the course of renovation or demolition operations regulated by this rule.</td>
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<tr>
<td>20.</td>
<td>The specific work practices, equipment, and engineering controls that will be used to remove each ACM.</td>
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<tr>
<td>21.</td>
<td>The name, address, city, state, zip code, contact person and title, and phone number of the waste transporter for all ACWM.</td>
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<tr>
<td>22.</td>
<td>The name, address, city, state, zip code, and phone number of the waste disposal site for all ACWM.</td>
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In addition, a copy of the Asbestos Survey must be maintained on site for the duration of the project.
<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Noise</td>
<td><strong>Mitigation Measure NOI-1</strong>: Commercial truck deliveries to the project shall be prohibited between the hours of 10:00 p.m. and 8:00 a.m. Limitations on truck deliveries shall be required as part of all commercial tenant agreements. A sign shall be posted at the loading dock entrance that includes the loading dock hours and a phone number for receptors to report any violations to the City of Solana Beach Code Compliance Division. The Code Compliance Division shall be responsible for issuing a fine or similar penalty for any violations.</td>
<td>Operation of the proposed mixed-use development</td>
<td>Applicant / Code Compliance Division</td>
<td>Prior to issuance of certificate of occupancy permit</td>
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<td><strong>Mitigation Measure NOI-2</strong>: Use of outdoor patios associated with commercial restaurant and retail uses or operation of devices for amplifying sound or music on the project site shall be limited to the hours of 8:00 a.m. to 10:00 p.m., in accordance with SBMC Section 7.34.140(B)(5). Hours of patio operation shall be required to be posted on restaurant and retail use storefronts as a notice to customers. Limitations on outdoor patio use shall be required as part of all commercial tenant agreements. Hours of patio operation and a phone number for receptors to report any violations to the City of Solana Beach Code Compliance Division shall be posted in the public plaza. The Code Compliance Division shall be responsible for issuing a fine or similar penalty for any violations.</td>
<td>Operation of the proposed mixed-use development</td>
<td>Applicant / Code Compliance Division</td>
<td>Prior to issuance of certificate of occupancy permit</td>
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<td><strong>Mitigation Measure NOI-3</strong>: The construction contractor shall provide written notification to all residential units located within 95 feet of the property boundary and commercial land uses within 80 feet of the property boundary at least three weeks prior to the start of construction activities informing them of the estimated start date and duration of daytime vibration-generating construction activities. This notification shall include information warning about the potential for impacts related to vibration-sensitive equipment.</td>
<td>Prior to construction</td>
<td>Applicant / Construction Contractor / Community Development Director</td>
<td>At least three weeks prior to the start of construction</td>
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<td>Ground-borne vibration and noise from proposed project construction would exceed the applicable County of San Diego thresholds.</td>
<td><strong>Mitigation Measure NOI-4</strong>: The project applicant shall implement the following measures during construction of the proposed project:</td>
<td>Prior to and during construction</td>
<td>Applicant / Community</td>
<td>Prior to issuance of any construction permits</td>
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<td>A potentially significant impact regarding</td>
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MMRP 14 July 2018
### Mitigation Measures

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<tr>
<td>construction noise levels at adjacent multi-family residences and</td>
<td>1. Prior to issuance of any construction permits, an 8-foot-height construction noise barrier shall be constructed along the western property line to reduce construction noise. The noise barrier shall be continuous with no openings or gaps within its entirety. It will be constructed of “Quilted Barrier Absorber” Type: BBC-13X manufactured by Sound Seal, or equivalent. Product specification for Type BBC-13X is presented in the ABC Acoustics noise technical study (April 2018) provided in Appendix H to the EIR.</td>
<td></td>
<td>Development Director</td>
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<td>commercial uses would occur.</td>
<td>2. During construction, idling time for all equipment shall be limited to five minutes or less.</td>
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<td>3. Prior to the start of each phase of construction, the staging area for the phase shall be sited to maximize the distance between construction equipment staging areas and occupied residential areas.</td>
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<td>4. During construction, use of electric air compressors and similar power tools, rather than diesel equipment, shall be used.</td>
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<td>5. During construction, stationary construction equipment shall be placed such that emitted noise is directed away from or shielded from sensitive noise receivers.</td>
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<td>6. During construction, stockpiling and vehicle staging areas shall be located as far as practical from noise-sensitive receptors.</td>
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Development Director
PART III COMMENTS RECEIVED ON THE DRAFT EIR AND RESPONSES

During the public review period (April 19, 2018 to June 4, 2018) for the Draft EIR for the proposed project, the City of Solana Beach (City) received six comment letters. These letters, and the City’s responses to them, are attached. The responses to comments are based on the California Environmental Quality Act (CEQA) Guidelines, Section 15088 – Evaluation of and Response to Comments, sub-section (c) which states:

“...The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major environmental issues raised when the Lead Agency’s position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice.”

The following letters of comment were received from agencies, organizations, and individuals during the public review period (April 19, 2018 to June 4, 2018) of the Draft EIR. A copy of each comment letter along with corresponding staff responses is provided.

All comments and responses to comments have been assigned a letter (A-F). The comment letters have been divided into individual comments with each comment containing a single theme, issue, or concern. Each comment is bracketed in red and assigned a letter and number. Comment letters have been reduced to fit on the left side of a single page. The corresponding response and letter-number combination is provided on the right side of the page.
Table RTC-1 Summary of Public Comments on the Draft EIR

<table>
<thead>
<tr>
<th>No.</th>
<th>Commenter</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Governor’s Office of Planning and Research, State Clearinghouse</td>
<td>June 5, 2018</td>
</tr>
<tr>
<td>B</td>
<td>California Department of Toxic Substance Control</td>
<td>May 23, 2018</td>
</tr>
<tr>
<td>C</td>
<td>California Native American Heritage Commission</td>
<td>May 31, 2018</td>
</tr>
<tr>
<td>D</td>
<td>San Diego Association of Governments (SANDAG)</td>
<td>June 7, 2018</td>
</tr>
<tr>
<td>E</td>
<td>Viejas Tribal Government</td>
<td>April 25, 2018</td>
</tr>
<tr>
<td>F</td>
<td>Gary Martin *</td>
<td>May 30, 2018</td>
</tr>
</tbody>
</table>

* Attachment A has been included at the end of letter F which provides additional project information.

Any revisions to the Draft EIR mitigation measures included in the response to comments are indicated as underlined text (e.g., underlined text), and deletions are indicated as strikethrough text (e.g., strikethrough text). In the revised Draft EIR, text changes resulting from the comments received are also indicated as underlined and/or as strikethrough text, with a vertical line in the outside margin of the page. Please note that the revisions do not affect the conclusions of the document.
June 5, 2018

Corey Andrews
City of Solana Beach
635 South Highway 101
Solana Beach, CA 92075

Subject: Solana 101 Project
SCH# 2015077004

Dear Corey Andrews:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on June 4, 2018, and the comments from the responding agency (s) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project’s ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

“A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation.”

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to CEQA. It says that the Draft EIR was submitted to select state agencies for review and their comments are being forwarded to the City for use in preparing the Final EIR. The City acknowledges receipt of the letter. No response to these comments is necessary.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3944 Sacramento, California 95812-3944
1-916-322-2318 FAX 1-916-558-3184 www.opr.ca.gov
B-1 The comment requests that the EIR should identify and determine if current or historical uses of the site may have resulted in the release of hazardous substances and if so require remedial action prior to new development. As discussed in Draft EIR Section 4.6.1.1, a portion of the site was formerly used as a gas station. Five underground storage tanks (USTs) associated with the gas station were removed from the site in 1988. During the removal process, it was discovered that one 5,000-gallon waste oil tank had ruptured. Over-excavation of the site was conducted and contaminated soils were removed and disposed of in an appropriate off-site location. A “No Further Action Required” letter was received from the San Diego Department of Health (First American Contracting 2015). A 2006 Phase II Subsurface Investigation determined that there was no release of materials from the former gasoline station site. No hazardous materials were evident or in use at the project site at the time of inspection. The Draft EIR concluded that no additional remedial actions were necessary. Therefore, this issue was adequately addressed in the Draft EIR.

B-2 The comment states that any plans to discharge wastewater to a stormdrain would require an NDPES permit from the overseeing Regional Water Quality Control Board (RWQCB). As discussed in Draft EIR Section 4.7.5.1, the proposed project is required to comply with the City’s Jurisdictional Resource Management Plan (JRM Plan), Best Management Practices (BMP) Design Manual and Municipal Code which establishes the conditions under which pollutants can be discharged from the storm drain system to local streams, coastal lagoons and the ocean. The project does not propose the discharge of wastewater to a storm drain during project operation. Dewatering would occur during construction of the underground parking structure. Dewatering requirements are addressed in mitigation measure GEO-1. Discharging of groundwater would require a Report of Waste Discharge from the RWQCB in order to obtain Waste Discharge Requirements. Before starting dewatering operations, the contractor would obtain the required permits and authorizations. All groundwater would be treated and disposed of in compliance with all federal, state and local regulations. The following language has been added to the Final EIR in Sections 4.7 and 4.13.

Dewatering requirements are addressed in mitigation measure GEO-1. Discharging of groundwater would require a Report of Waste Discharge from the RWQCB in order to obtain Waste Discharge Requirements. Before starting dewatering operations, the contractor would obtain the required permits and authorizations. All groundwater would be treated and disposed of in compliance with all federal, state and local regulations. Therefore, the proposed project would not result in a significant impact related to wastewater treatment requirements.
3. The EIR states, "Asbestos insulation and other hazardous building materials (e.g., lead-based paint) may be present in structures within the BASASP area built prior to the mid- to late 1970s when the use of such substances was largely discontinued." If planned activities include building modifications/demolitions, lead-based paints or products, mercury, and asbestos containing materials (ACMs) should be investigated and mitigated/disposed of in accordance with all applicable and relevant laws and regulations. In addition, evaluate whether polychlorinated biphenyls (PCBs) containing materials is present in onsite buildings and address as necessary to protect human health and the environment.

4. If the site was used for agricultural or related activities, residual pesticides may be present in onsite soil. DTSC recommends investigation and mitigation, as necessary, to address potential impact to human health and environment from residual pesticides.

5. DTSC recommends evaluation, proper investigation and mitigation, if necessary, of onsite areas with current or historic PCB-containing transformers.

6. The EIR states, "The 1.96 gross acre (1.79 net acre) project site is located west of Highway 101, the Coastal Rail Trail, and the North County Transit District (NCTD) railroad right-of-way (ROW), north of Dahlia Drive, east of South Sierra Avenue, and south of an existing commercial development (CVS Pharmacy) south of Lomas Santa Fe Drive." Aerially deposited lead (ADL) is generally encountered in unpaved or formerly unpaved areas adjoining older roads, primarily as a result of deposition from historical vehicle emissions when gasoline contained lead. As the project site is adjacent to Highway 101, this issue should be addressed in accordance with all applicable and relevant laws and regulations.

7. The ND states, "The 1.96 gross acre (1.79 net acre) project site is located west of Highway 101, the Coastal Rail Trail, and the North County Transit District (NCTD) railroad right-of-way (ROW), . . . north of Santa Fe Drive." Railroad easements and rail yards are commonly impacted due to spillage of chemicals, fuels, and lubricants, and use of pesticides and herbicides along the tracks for weed control. DTSC recommends assessment/investigation and/or cleanup as necessary to confirm that no residual contamination associated with rail operation is present onsite.

8. The EIR further states, "Five underground storage tanks (USTs) associated with the gas station were removed from the site in 1998. During the removal process, it was discovered that one 5,000-gallon waste oil tank had ruptured. Over-excavation of the site was conducted and contaminated soils were removed and disposed of in an appropriate off-site location. A "No Further Action Required" letter was received from the San Diego Department of Health (First American

B-3 The comment states that if planned activities include building modification or demolition then the project should investigate for lead-based paints or products, mercury, or asbestos containing materials (ACM) and, if present, should dispose of these materials in accordance with applicable laws. As discussed in Draft EIR Section 4.6.5.1, the project would involve the demolition of approximately 6,500 SF of existing structures on the project site. A 2006 asbestos sampling of onsite structures determined that six of the 26 samples contained ACM. To reduce the project’s potential impact related to airborne release of asbestos, the Draft EIR identifies mitigation measure HAZ-1, Asbestos Abatement, to be implemented in accordance with the County of San Diego Air Pollution Control District Rule 1206. This mitigation measure would reduce impacts associated with ACM to a less than significant level.

As discussed in the 2006 Phase I report, some of the buildings are older than 1978 which may contain lead based paints. All lead containing materials scheduled for demolition would be required to comply with applicable regulations for demolition methods and dust suppression. Lead containing materials would be managed in accordance with applicable State and local regulations including hazardous disposal requirement (Title 22 California Code of Regulations (CCR) Division 4.5). Therefore, the project’s compliance with existing applicable regulations for lead containing materials would result in less than significant impact. In response to this comment, Section 4.6 of the Draft EIR has been updated to include a discussion in regards to the potential for lead based paints at the project site. The addition of this discussion to the Draft EIR would not result in a new significant impact. The new discussion is provided below:

“As discussed in the 2006 Phase I report, portions of the existing structures were constructed prior to 1978, which is the phase out date for lead based paints (First American Contracting 2015). Lead based paint could be present in the existing on-site structures. During demolition of the existing structures, lead containing materials would be managed in accordance with applicable State and local regulations including hazardous disposal requirements identified in Title 22 of the California Code of Regulations (CCR) Division 4.5. Therefore, the project’s compliance with existing applicable regulations for lead containing materials would result in less than significant impact.”

Mercury could occur in the thermostats of existing onsite buildings proposed for demolition. Disposal of mercury-containing thermostats would be handled in accordance with the Mercury Thermostat Collection Act of 2008. Therefore, the project’s compliance with existing applicable regulations for handling of mercury-containing thermostats would result in less than significant impact. In response to this comment, Section 4.6 of the Draft EIR has been updated to include a discussion in regards to the potential for mercury at the project site. The addition of this discussion to the Draft EIR would not result in a new significant impact. The new discussion is provided below:

“Mercury could occur in the thermostats of existing on-site buildings proposed for demolition. Disposal of mercury-containing thermostats would be handled in accordance with the Mercury Thermostat Collection Act of 2008. Therefore, the project’s compliance with existing applicable regulations for handling of mercury-containing thermostats would result in less than significant impact.”
The comment states that DTSC recommends investigation and mitigation if the site was used for agricultural or related activities. As discussed in Appendix E, 2006 Phase I, agricultural activities occurred on the site for brief period from 1939 to 1941 and the site was subsequently improved afterwards. Construction of the below-grade parking structure containing 366 spaces would require the export of approximately 49,200 cubic yards (CY) of soil off-site during excavation and grading. The entire 1.95-acre site would be excavated leaving no surface soils intact. In accordance with applicable State and local regulations, the licensed construction contractor would screen soil generated during construction activities to determine if contamination is present. The export soil would then be removed and disposed of in an appropriate off-site location in accordance with applicable State and local regulations. For clarity, this language has been added to Section 4.6 of the Final EIR. The addition of this discussion to the Final EIR would not result in a new significant impact. The new discussion is provided below:

“Furthermore, in accordance with applicable State and local regulations, the licensed construction contractor would screen export soils generated during construction activities to determine if contamination is present. The export soil would then be removed and disposed of in an appropriate off-site location in accordance with applicable State and local regulations. Therefore, the project’s compliance with existing applicable regulations for off-site disposal of soils would result in less than significant impact.”

The comment states that DTSC recommends evaluation, proper investigation, and mitigation if necessary of the site with current or historic use of PCB transformers. As discussed in Appendix E of the Draft EIR, the 2006 Phase I Environmental Site Assessment report did not identify any current or historical use of PCB transformers at the project site. Two transformers were identified offsite. No additional evaluations, investigations or mitigation are required.

The comment states that DTSC recommends addressing the issue of aerially deposited lead (ADL) due to the proposed project’s site located adjacent to Highway 101. Construction of the below-grade parking structure containing 366 spaces would require the export of approximately 49,200 CY of soil off-site during excavation and grading. The entire 1.95-acre site would be excavated leaving no surface soils intact. In accordance with applicable State and local regulations, the licensed construction contractor would screen soil generated during construction activities to determine if contamination is present. The export soil would then be removed and disposed of in an appropriate off-site location in accordance with applicable State and local regulations. Therefore, the project’s compliance with existing applicable regulations for off-site disposal of soils would result in less than significant impact.”

The comment states that DTSC recommends the assessment/investigation of the site for residual contamination associated with rail operations due to the proposed project’s location relative to the North County Transit District (NCTD) railroad Right of Way (ROW). However, the proposed project site is located to the west of Highway 101, which is approximately 100 feet from the NCTD ROW, which is below grade. No railyards are located in the vicinity of the project site. Due to the distance of the project site from the NCTD ROW and the fact that it is below grade, it is unlikely that the project site has been impacted by spillage from chemicals, fuels, lubricants, or pesticides/herbicides. Further, construction of the below-grade parking structure containing 366 spaces would require the export of approximately 49,200 CY of soil off-site during excavation and grading. The entire 1.95-acre site would be excavated leaving no surface soils intact. In accordance with applicable State and local regulations, the licensed construction contractor would screen soil generated during construction activities to determine if contamination is present. The export soil would then be removed and disposed of in an appropriate off-site location in accordance with applicable State and local regulations. Therefore, the project’s compliance with existing applicable regulations for off-site disposal of soils would result in less than significant impact.”

If you have any questions regarding this letter, please contact me at (714) 484-5380 or email at Johnson.Abraham@dsc.ca.gov.

Sincerely,

Johnson P. Abraham
Project Manager
Brownfields Restoration and School Evaluation Branch
Site Mitigation and Restoration Program – Cypress

cc: See next page.
location in accordance with applicable State and local regulations. For clarity, this language has been added to Section 4.6 of the Final EIR. The addition of this discussion to the Final EIR would not result in a new significant impact. The new discussion added to the Final EIR is provided in response to comment B-4.

B-8 The comment states that DTSC recommends that soil gas sampling to confirm that no residual volatile organic compounds (VOC) or total petroleum hydrocarbons (TPH) contamination remains onsite and/or risk is acceptable based on applicable and relevant state guidelines. As discussed in Draft EIR Section 4.6.1.1, five soil borings and six vapor probes were made throughout the proposed project site as part of a Phase II Subsurface Investigation in 2006 (AEI Consultants 2006). Total petroleum hydrocarbons as gasoline (TPH-g), total petroleum hydrocarbons as diesel (TPH-d) and total petroleum hydrocarbons as oil (TPH-o) were not detected in any analyzed soil samples. In addition, no VOCs were detected in any of the soil samples analyzed. Appendix E of the DEIR contains the full 2006 Phase II Subsurface Report (AEI 2006) which details the investigative scope and conclusions of the sampling activities. No additional discussion is required for the Final EIR.

B-9 The comment states that DTSC recommends that proper evaluation be conducted of soil import and export. If soil contamination is suspected or observed in the project area, DTSC recommends that the soil be sampled prior to export/disposal. As described in Section 4.6.5.1 of the Draft EIR, the 2006 Phase II Subsurface Investigation stated that no hazardous materials were evident or in use at the existing site at the time of inspection. Therefore, contaminated soil is not anticipated to occur onsite. Construction of the below-grade parking structure consisting of 366 spaces would require the export of approximately 49,200 CY of soil off-site during excavation and grading. In accordance with applicable State and local regulations, the licensed construction contractor would screen soil generated during construction activities to determine if contamination is present. The export soil would then be removed and disposed of in an appropriate off-site location in accordance with applicable State and local regulations. For clarity, this language has been added to Section 4.6 of the Final EIR. The addition of this discussion to the Final EIR would not result in a new significant impact. The new discussion added to the Final EIR is provided in response to comment B-4.

B-10 The comment requests that the Draft EIR should identify how any required investigation and/or remediation of contaminated soil identified during construction/demolition would be conducted and the appropriate government agency to provide regulatory oversight. As described in Section 4.6.5.1 of the Draft EIR, the 2006 Phase II Subsurface Investigation stated that no hazardous materials were evident or in use at the existing site at the time of inspection. Therefore, contaminated soil is not anticipated to occur onsite. Construction of the below-grade parking structure would require the export of approximately 49,200 CY of soil off-site during excavation and grading. In accordance with applicable State and local regulations, the licensed construction contractor would screen export soils generated during construction activities to determine if contamination is present. The export soil would then be removed and disposed of in an appropriate off-site location in accordance with applicable State and local regulations. For clarity, this language has been added to Section 4.6 of the Final EIR. The addition of this discussion to the Final EIR would not result in a new significant impact. The new discussion added to the Final EIR is provided in response to comment B-4.
Letter C – Native American Heritage Commission (NAHC)

C-1 This comment requests that mitigation measures be added that specifically address Tribal Cultural Resources separately from archaeological resources. The City has determined that the mitigation measures identified for the proposed project adequately address Tribal Cultural Resources. Mitigation Measure CUL-1 adequately addresses Tribal Cultural Resources by requiring a TCA tribal monitor during construction and recommending that all Tribal Cultural Resources identified during monitoring be repatriated to the TCA Tribe. No further mitigation is necessary.

C-2 This comment requests that the timeline for the Most Likely Dependent (MLD) be updated. The City agrees with this request and has updated Mitigation Measure CUL-4 in the Draft EIR. Mitigation measure CUL-4 now states,

"...2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance: a) the NAHC is unable to identify an MLD or the MLD fails to make a recommendation within 24 - 48 hours after being notified by the commission..."

C-3 This comment advises that the pre-exavagation agreement requirements need to be revised to remove the treatment of human remains and grave goods. The City agrees with this comment and has updated Mitigation Measure CUL-1 in the Draft EIR. Mitigation measure CUL-1 now states,

"...1. The applicant shall enter into a Tribal Cultural Resource Treatment and Monitoring Agreement (also known as a pre-excavation agreement) with a tribe that is traditionally and culturally affiliated with the project location (TCA Tribe) prior to issuance of a grading permit. The purposes of the agreement are (1) to provide the applicant with clear expectations regarding unique archaeological resources and tribal cultural resources; and (2) to formalize protocols and procedures between the applicant and the TCA Tribe for the protection and treatment of, including but not limited to, Native American human remains; funerary objects; cultural and religious landscapes; ceremonial items; traditional gathering areas; and cultural items located and/or discovered through a monitoring program in conjunction with the construction of the proposed project, including additional archaeological surveys and/or studies, excavations, geotechnical investigations, grading, and all other ground disturbing activities..."

C-4 This comment requests the removal of confidential sections of Appendix C from the Final EIR. During public review for the proposed project nothing confidential was released to the public. No specific sites locations, maps or addresses were provided in the documents released for public review. Only the cover page for the cultural resources record search was included and not the actual records. As a precaution, the City has removed Appendix C from its website.

C-5 This comment recommends that lead agencies consult with California Native American tribes as early as possible in the project planning process. As discussed in Draft EIR Section 4.3.1.4, in accordance with the requirements of AB 52, the City issued a notification letter to the Mesa Grande Band of Mission Indians regarding the City’s intent to prepare an EIR and environmental technical studies for the proposed project. The Mesa Grande Band of Mission Indians did not respond within the 30-day period or any time after that. In addition, a comment letter was received from the Viejas Band in response to the tribal scoping letters sent to all contacts provided by the NAHC. The City then met with Julie Hagen, a representative from the Viejas Tribal government to discuss the Tribe’s concerns with the project site. Therefore, the City has consulted with the appropriate Native American tribes regarding the proposed project.
Letter D – San Diego Associations of Governments (SANDAG)

D-1  This comment is an introduction and provides an explanation regarding the basis of the comments submitted and does not address the adequacy or accuracy of information provided in the Draft EIR. Therefore, no further response is necessary.

D-2  This comment identifies the project site as being within a SANDAG Smart Growth Opportunity Area and identifies the type of development envisioned for this area. It also identifies planned transit routes and services. As discussed in Chapters 3 and 4.2 of the Draft EIR, the project site is located within 0.5 miles of the Solana Beach Transit Center which provides regional rail access via the COASTER and AMTRAK. An existing NCTD bus stop is located on the eastern edge of the project site along Highway 101. The Draft EIR states that the bus stop and shelter would remain operational post-construction and would continue to provide transit access to the project site and surrounding areas. This comment requests that the Draft EIR identify that the project site has access to high-frequency local bus service (bus routes 89 and 101) and Rapid services (Routes 103 and 473). The following language has been added to Section 4.12.5.6 of the Final EIR.

“The following bus routes/services would be available to the proposed project:
- High frequency local bus service (Routes 89 and 101)
- Rapid service (Routes 103 and 473)”

D-3  This comment summarizes the intent of transportation demand management (TDM) strategies and requests that the proposed project consider incorporation of strategies to minimize traffic impacts, greenhouse gas emissions and parking demand of the proposed project. TDM strategies have been incorporated into the proposed project. Draft EIR Section 3.4.4 summarizes the project design features for the proposed project which includes the project’s identified TDM strategies. Project Design Feature PDF-GHG-4 identified the TDM strategies that the project would implement. This project design feature is stated below.

PDF-GHG-4: Transportation Demand Management

Prior to issuance of certificate of occupancy, the project shall implement the following measures to reduce vehicle miles travelled resulting from the project. The following measures are designed to influence the transportation choices of residents, employees, and customers, and serve to enhance the use of alternative transportation modes both on and off the project site through the provision of incentives and subsidies, and other innovative means:

- Project applicant shall, as part of the standard tenant agreement, require commercial tenants to offer an average transit fare subsidy of $5.96 per employee per day.
- Project applicant shall, as part of the standard tenant agreement, require commercial tenants to offer a rideshare program to employees to the extent that at least 20 percent of employees are eligible for the program.
- Project applicant shall, as part of the standard tenant agreement, require commercial tenants to encourage telecommuting and alternative work schedules, such as a 9 day/80 hour schedule, 4 day/40 hour schedule, or part-time telecommuting, to the extent that at least 10 percent of employees are eligible for the program.

Therefore, the project would implement sufficient TDM strategies and no revisions or additions to the EIR are necessary.

June 7, 2018

Mr. Corey Andrews
City of Solana Beach
635 South Highway 101
Solana Beach, CA 92075

Dear Mr. Andrews:

SUBJECT: Solana 101 Project Draft Environmental Impact Report

Thank you for the opportunity to comment on the City of Solana Beach’s Solana 101 Project Draft Environmental Impact Report (EIR). The San Diego Association of Governments (SANDAG) appreciates the City of Solana Beach’s efforts to implement the policies included in San Diego Forward: The Regional Plan (2015 Regional Plan) that emphasize the need for better land use and transportation coordination. These policies will help provide people with more travel and housing choices, protect the environment, create healthy communities, and stimulate economic growth. SANDAG comments are based on policies included in the 2015 Regional Plan and are submitted from a regional perspective.

Smart Growth

This project is located in an Existing Town Center (SB-I), a Smart Growth Opportunity Area (SGOA) identified on the Smart Growth Concept Map. SANDAG appreciates that the City of Solana Beach has prioritized transit-oriented development and land use changes that support the Smart Growth Concept Map and the 2015 Regional Plan. A key goal of the 2015 Regional Plan is to focus growth in SGOSAs. Development in these areas supports a sustainable and healthy region, a vibrant economy, and an outstanding quality of life for all. The proposed project currently is served by the COASTER; please consider including the additional following planned transit routes/services in the plan documents and increasing access to all transit services:

- High frequency local bus service (Routes 89 and 101)
- Rapid service (Routes 103 and 473)

Transportation Demand Management

Transportation demand management (TDM) strategies encourage the use of transportation alternatives that reduce the reliance on the private automobile and support objectives and goals in the City of Solana Beach’s Climate Action Plan. Please consider incorporating TDM strategies to help mitigate traffic impacts, greenhouse gas emissions, and parking demand associated with the Solana 101 project. Specific TDM measures to consider include:
This comment provides a TDM strategy for enhanced bicycle and pedestrian facilities that SANDAG would like the project to consider. The City appreciates the recommendation; however, the project already includes enhanced bicycle and pedestrian facilities. As discussed in Chapter 3 of the Draft EIR, the project would construct new and/or improved perimeter sidewalks along Highway 101, Dahlia Drive and South Sierra Avenue. In addition, bicycle access and from the project site is provided by an existing class II bike lane located along northbound Highway 101. Also located on the east side of Highway 101 is the Coastal Rail Trail (CRT), a separated multi-purpose pathway for both north- and southbound pedestrian and bicycle traffic. Along southbound Highway 101, there is a class III bike lane, or “sharrow,” where the entire lane can be used by bicycles. Additionally, a pedestrian bridge crossing the railroad rights-of-way connects Highway 101 at Dahlia Drive to South Cedros Avenue providing a direct link between these two commercial/mixed use corridors. These facilities would provide pedestrians and bicyclists safe connections to surrounding businesses, the Solana Beach Coaster Station and coastal destinations. Therefore, the project meets the intent of the suggested TDM strategy and no revisions or additions to the EIR are necessary.

This comment provides a TDM strategy to increase the proposed transit subsidy to cover the cost of a monthly COASTER pass (up to $165) that SANDAG would like the project to consider. The City appreciates the recommendation; however, the project would provide an adequate transit fare subsidy. Draft EIR Section 3.4.4 summarizes the project design features for the proposed project which include the project’s identified TDM strategies. As stated in PDF-GHG-4: Transportation Demand Management, the project applicant shall, as part of the standard tenant agreement, require commercial tenants to offer an average transit fare subsidy of $5.96 per employee per day or an average monthly rate of $113. The average transit fare subsidy is based on the air quality model CalEEMOD. This transit subsidy represents the most conservative number for which a project-specific Greenhouse Gas (GHG) reduction can be readily calculated. A higher subsidy would not result in a meaningful reduction in GHG emissions compared to what is already required by the project. However, future tenants could volunteer to provide a higher transit fare subsidy to its employees above the minimum required by the proposed project. Therefore, the project would provide an adequate transit fare subsidy and no revisions or additions to the EIR are necessary.

This comment provides a TDM strategy to unbUNDLE parking and implement reduced parking requirements that SANDAG would like the project to consider. The City appreciates the recommendation; however, the parking provided by the project is consistent with the City’s adopted parking requirements for the proposed land uses. In addition, the City of Solana Beach does not support paid parking. No revisions or additions to the EIR are necessary.

This comment provides a TDM strategy to partner with shared mobility service providers that SANDAG would like the project to consider. Mitigation measure GHG-2 also requires the applicant to contribute toward a regional bike-share program in the amount equivalent to providing 12 shared electric bicycles. In response to the comment, the City has added the following sentence to project design feature PDF-GHG-4: Transportation Demand Management in Chapters 3 and 4.5: “Alternatively, commercial tenants shall develop partnerships with shared mobility service providers (on-demand rideshare, microtransit, scootershare, and bikeshare providers) to provide a commuter benefit program to the extent that at least 20 percent of employees are eligible for the program.”
Other Considerations
SANDAG has a number of additional resources that can be used for additional information or clarification on topics discussed in this letter. These can be found on our website at sandag.org:

1. Planning and Designing for Pedestrians, Model Guidelines for the San Diego Region
2. Integrating Transportation Demand Management into the Planning and Development Process – A Reference for Cities
3. Trip Generation for Smart Growth
4. Parking Strategies for Smart Growth
5. Riding to 2050, the San Diego Regional Bike Plan
6. Designing for Smart Growth, Creating Great Places in the San Diego Region

When available, please send any additional environmental documents related to this project to:

Intergovernmental Review
c/o SANDAG
401 B Street, Suite 800
San Diego, CA 92101

We appreciate the opportunity to comment on the City of Solana Beach’s Solana 101 Draft EIR. If you have any questions, please contact me at (619) 699-1943 or seth.litchney@sandag.org.

Sincerely,

SETH LITCHNEY
Senior Regional Planner

SLUKHEHyne

D-8 This comment provides a TDM strategy to provide dedicated curb space for shared mobility services that SANDAG would like the project to consider. The City would require the project applicant to provide designated space for shared mobility services along the Dahlia Drive project frontage near Highway 101.

D-9 This comment provides the City with a website to access for additional information regarding TDM programs. No further response is required.

D-10 This comment provides recommended active transportation elements such as bus stop design, bike parking and related amenities, to be included as part of the proposed project. The City appreciates the recommendations; however, the project already includes adequate active transportation elements. As discussed in Chapter 3, the existing NCTD bus stop and shelter located on the eastern edge of the project site along Highway 101 would remain operational post construction. Outdoor bicycle parking spaces (32 total) would be provided in at least six locations fronting Highway 101 and Dahlia Drive and at least two outdoor bicycle parking areas would be provided in the middle of the project. Additional bike storage would be provided in the parking garage for project residents. In response to this comment, Table 3.3 Onsite Parking Garage has been updated to note that the secure bicycle storage area in the parking garage would be provided to serve the proposed 25 residential units. The table incorrectly identified 32 bicycle spaces would be provided in the parking garage; these spaces would actually be provided in at-grade outdoor locations throughout the project site. The Final EIR has been updated to correct the table in Chapters 3 and 4.12. In addition, no shower rooms would be provided for the proposed commercial uses at the project site. The recommendation to add additional bike storage for commercial users in the parking garage and shower rooms for commercial users is not necessary since the project includes adequate active transportation elements. No revisions or additions to the EIR are necessary.

D-11 This comment provides the City with additional resources that may provide additional information or clarification on the topics discussed in the letter. No further response is required.
This comment states that the site may contain many sacred sites associated with the Kumeyaay people and requests that all sites be avoided. The Draft EIR adequately addresses this issue. As discussed in Draft EIR Section 4.3, Cultural Resources, the City received a comment letter from the Viejas Band in response to the tribal scoping letters sent to all contacts provided by the NAHC. The City then met with Julie Hagen, a representative from the Viejas Tribal government to discuss the Tribe’s concerns with the project site. The Draft EIR determined that construction activities associated with the proposed project may have the potential to disturb unknown subsurface materials. A construction monitoring program is required for the proposed project (mitigation measures CUL-1 and CUL-2) to prevent the loss of unknown subsurface Tribal Cultural Resources. A TCA Tribal Monitor shall be retained to conduct Tribal Cultural Monitoring during ground disturbing activities. The City agrees to contact Viejas if any project changes occur or if any inadvertent discoveries are made during construction. All NEPA/CEQA/NAGPRA laws will be followed at all times. Therefore, the Draft EIR adequately addresses this issue and no revisions or additions to the EIR are necessary.

In reviewing the above referenced project the Viejas Band of Kumeyaay Indians ("Viejas") would like to comment at this time.

The project area may contain many sacred sites to the Kumeyaay people. We request that these sacred sites be avoided with adequate buffer zones.

Additionally, Viejas is requesting, as appropriate, the following:

- All NEPA/CEQA/NAGPRA laws be followed
- Immediately contact Viejas on any changes or inadvertent discoveries.

Thank you for your collaboration and support in preserving our Tribal cultural resources. I look forward to hearing from you. Please call me at 619-659-2312 or Ernest Pingleton at 619-659-2314, or email, rteran@viejas-nsn.gov or epingleton@viejas-nsn.gov, for scheduling. Thank you.

Sincerely,

Ray Teran, Resource Management
VIEJAS BAND OF KUMEYAAY INDIANS
Letter F – Gary Martin

F-1 This is an introductory paragraph that does not specifically address the adequacy or accuracy of information provided in the Draft EIR. No further response is necessary.

F-2 This comment states that the scale and massing of the proposed buildings is not compatible with existing commercial development on Highway 101. The existing surrounding commercial development along Highway 101 is zoned as General Commercial, and includes banks, offices, restaurants, pharmacies, and fitness facilities. The surrounding commercial development is typically one to two stories high, built in varying years with white or tan stucco, brick, or other materials. The existing bank building at the southwest corner of Highway 101 and Dahlia Drive is one and two stories. While the CVS building located immediately north of the project site is only one story, it is approximately 32 feet in height, which is similar to the maximum height of the proposed project. An existing commercial building located at 437 Highway 101 (1/2 block south of the project site), along with the buildings in the commercial complex surrounding it, are also two stories. Several existing structures in the vicinity of the project site are taller than the height of the proposed project, including the multi-family residential uses immediately west of the project site and the hotel adjacent to City Hall. Therefore, the proposed one and two story buildings fronting Highway 101 would be consistent with the existing scale and massing of the surrounding buildings. Further, the proposed project’s color palette would include warm earth tones, with accent balconies, raised planters, stone or tile finish, and metal roofing that is consistent with the Highway 101 Corridor Specific Plan. Therefore, no revisions or additions to the project or EIR are necessary.

F-3 This comment further explains why the scale and massing of the proposed buildings is not compatible with existing commercial development on Highway 101. See response to comment F-2 above. While the Highway 101 corridor does contain many one-story buildings, there are several that are two stories within close proximity of the project site. The proposed office building contains two stories and a mezzanine level. The mezzanine is considered part of the gross floor area, but it does not split a significant portion of the 2nd floor horizontally and is open to the lower 2nd floor area. Therefore, it is not considered three stories. While current development standards in this area allow for three stories, no three-story buildings are proposed by the project. Additionally, the project proposes one-story and lower scale buildings fronting Highway 101. Therefore, no revisions or additions to the project or EIR are necessary.

F-4 This comment requests that the project reduce the scale and massing of the proposed buildings along Highway 101. While the proposed one and two story buildings fronting Highway 101 are compatible with the existing scale and massing of surrounding buildings in the vicinity of the project, this comment can be taken into consideration by the City Council at the public hearing for the Final EIR.

F-5 This comment requests that the second story façade of the proposed retail building be revised. The City appreciates the design recommendation and the City Council can take the recommendation into consideration at the public hearing for the Final EIR. No revision to the EIR is necessary because the project would be compatible with surrounding uses.

F-6 This comment requests that the second story façade of the buildings fronting Dahlia Drive and Sierra Avenue be revised. The City appreciates the design recommendation and the City Council can take the design recommendation into consideration at the public hearing for the Final EIR. No revision to the EIR is necessary because the project would be compatible with surrounding uses.
The existing commercial development on Highway 101 consists of a mix of one and two-story buildings. Most of the buildings on Highway 101 are one-story. Practically all of the Project consists of two-story buildings. In addition, one office building has three portions that are three-story. The one exception to the foregoing is the front portions of the three buildings located along South Highway 101 that are partially one-story buildings.

Requested Corrective Work: Reduce the scale and massing of the buildings to be compatible with existing commercial development along Highway 101. Also, set back the second story facade on the retail building (located at the northeast corner of the Project at South Highway 101) by at least 20 ft. from the east facade of the first story so that the building appears to be a one-story building when viewed from South Highway 101. In addition, redesign the buildings (particularly the buildings that have frontage on Dahlia Street, the office building on South Sierra Avenue, and along the north side of the Project) so that the second story facade is set back from the first story facade for many of the buildings in order to break up the mass and apparent bulk of these buildings.

2. THE DENSITY OF BUILDINGS IN THE PROJECT ARE NOT COMPATIBLE WITH NEARBY EXISTING COMMERCIAL DEVELOPMENT ON HIGHWAY 101.

The density of the buildings within the Project is significantly more dense than other commercial development along Highway 101. The density of the Project makes it not compatible with existing community character of the existing commercial development on Highway 101.

One contributing factor to the apparent density of the Project is that there is no “break” or “gap” in the structure of the residential building situated along Dahlia Street. In addition, there is no “gap” or “break” in the structure of the office buildings situated along the north property line of the Project. Thus, when experiencing the Project from the south side (Dahlia Street) or the north side (viewed from South Highway 101), there is one continuous, monolithic structure from South Highway 101 to South Sierra Avenue. Also, the facade of the office building on South Sierra Avenue is very long and lacks any “break” or “gap” or significant articulation.

Requested Corrective Work: In order to be compatible with the existing community character and aesthetics of commercial development on Highway 101, there should be at least one obvious, noticeable, recognizable and meaningful “gap” or “break” in the building structure of the residential apartment building along Dahlia Street and the office buildings situated on the north property line of the Project. Also, the office building on South Sierra Avenue (at the northwest corner of the Project) should be redesigned to have some articulation to break up the long monolithic two-story facade.
The existing developments located along South Sierra Avenue have landscape buffers between the building facade and the sidewalk. The average landscape buffer is approximately 20 ft. to 30 ft. in width. However, the Project as proposed has a landscape buffer of only approximately 5 feet to 10 feet in width along South Sierra Avenue.

**Requested Corrective Work:** Provide a landscape buffer of at least fifteen feet in width between the sidewalk and the building facade along the South Sierra Avenue side of the Project and the Dahlia Street side of the Project. In addition, provide sufficient space for the planting of trees along the north property line of the Project in order to introduce large scale vegetation that will break up the mass and scale of the Project when experienced from the north side.

### II. TRAFFIC AND PARKING ISSUES

1. **THE PROJECT FAILS TO PROVIDE REASONABLE SPACE FOR DELIVERY VEHICLES THAT WILL SERVIE THE BUSINESSES AT THE PROJECT.**

The Project provides a small enclosed garage area with roll-up door for parking of delivery trucks. This delivery garage is entered from Dahlia Street. Large semi-truck trailers which provide delivery of products to the restaurants and retail stores in the Project are expected to somehow "back into" the delivery garage. Based on the location of this delivery garage near the intersection of Highway 101 and Dahlia Street, the narrow width of this two-lane street, and the amount of traffic, semi-trucks will not likely attempt to "back in" to this garage. Instead, based on practical experience and the customary practice in Solana Beach and other coastal areas, when there is a difficult access or insufficient space for delivery trucks to park on the project, then the delivery trucks simply park in the middle of the street adjacent to the store where the delivery is to be made. These trucks block traffic in order to make their deliveries. Unfortunately, Dahlia Street is a narrow two-lane street and parking in the middle of the street will not work. For example, the restaurants at this Project will likely receive deliveries from Shamrock Foods and Sysco Foods, and both of these suppliers make deliveries with large semi-trucks. Therefore, due to the narrow width of the street, the short length of Dahlia Street (between Highway 101 and Dahlia Street), and the amount of traffic, parking a semi-truck in the street would cause significant traffic problems.

**Requested Corrective Work:** Provide a space for unloading trucks on Dahlia Street that is adjacent to the Project and close to the intersection with Highway 101 and parallel to the sidewalk. This will allow large trucks to park parallel to the sidewalk to make deliveries. During the evenings this space could be used for valet parking for the restaurants.

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**F-12**

The comment states that the project does not provide an adequate landscape buffer along South Sierra Avenue and recommends a buffer of a minimum of 15 feet. The Highway 101 Specific Plan includes guidelines to provide a six-foot-wide landscaped parkway and a six-foot-wide concrete parkway walk on cross streets and Sierra Avenue. Cross sections for two areas of project frontage along South Sierra Avenue are provided in Attachment A, Site Cross Section Plan. The cross section locations are shown on Draft EIR Figure 3-9, Proposed Grading Plan. As shown in Attachment A, Site Cross Section Plan, the southern project frontage along South Sierra Avenue (Cross Section B-B) would exceed the Specific Plan guidelines and meet the suggestion in the comment by providing a 15-foot-wide landscape area and six-foot-wide sidewalk. The northern project frontage along South Sierra Avenue (Cross Section A-A) proposes a five-foot-wide, at-grade parkway planting area and a five-foot-wide sidewalk. This would be less than is recommended in the Highway 101 Specific Plan guidelines. The reason for the reduced width of the sidewalk and landscape area along the northern project frontage on South Sierra Avenue is the provision of seven reverse-diagonal parking spaces at this location, which is 18-feet-wide (see Attachment A, Site Cross Section Plan). Further, the Highway 101 Specific Plan contains guidelines, not rules, for the provision of landscape and walkway areas. Because the City desires reverse-diagonal parking spaces at this location it has accepted the proposed project design. The request for a larger landscaped buffer can be taken into consideration by the City Council at the public hearing for the Final EIR.

**F-13**

The comment requests that the project provide a sufficient area for the planting of larger trees on the north side of the project. As shown in Figure 3-8, the Landscape Conceptual plan includes landscaping details for the north side of the project to include the planting of drought tolerant species, with a large street tree proposed at the northern property boundary at South Sierra Avenue. This comment is a design recommendation and does not specifically address the adequacy or accuracy of information provided in the Draft EIR, however, the request for a larger trees to be planted along the north side of the project site can be taken into consideration by the City Council at the public hearing for the Final EIR.

**F-14**

This comment states that the commercial delivery ramp along Dahlia Drive is not sufficient to accommodate delivery trucks and will result in traffic impacts along Dahlia Drive. The City Engineer has reviewed the project plans and has determined that the design of the garage area with roll-up door for delivery truck parking would be adequate. The delivery entrance has been designed to accommodate standard delivery trucks that may be necessary for deliveries to tenant businesses. There is sufficient space for delivery trucks to pull into the loading facility versus stopping along Dahlia Drive. Therefore, no significant traffic impact would occur and no revisions or additions to the EIR are necessary.

**F-15**

This comment requests that the proposed project provide a parking space for delivery trucks along Dahlia Drive so they don’t have to use the garage delivery entrance with the roll-up door. The roll-up garage door is a design feature that would reduce noise from delivery trucks. The suggestion to park delivery trucks in the street could increase on-site noise from delivery trucks; therefore, it could increase impacts when compared to the noise analysis prepared for the proposed project. However, the City Council can consider an alternative loading area as requested in the comment provided limitations on the hours of loading and unloading are also adopted to minimize noise impacts.
2. THE PROJECT DOES NOT PROVIDE MAXIMUM ON-STREET PARKING.

The Project provides on-street “parallel parking” on South Highway 101. There is an opportunity to substantially increase this on-street parking by providing angled parking spaces. Also, the Project does not appear to maximize parking on Dahlia Street or South Sierra Avenue.

Requested Corrective Work: In order to provide additional on-street parking on South Highway 101 modify the parking and sidewalk to accommodate angled parking plus a minimum sidewalk width of at least thirteen feet (plus six inch curb). This would add considerable on-street parking. Also, move the bus stop to the corner of South Highway 101 and Dahlia Street. This could provide an additional five angled parking spaces on South Highway 101. In addition, add parallel parking on Dahlia Street (it can accommodate 4 parallel parking spaces) and at the south portion of South Sierra Avenue (it can accommodate 3 parallel parking spaces).

III. PUBLIC ACCESS

1. THE WIDTH OF SIDEWALKS ARE NOT ADEQUATE.

The width of the sidewalk along South Highway 101 should be consistent with the improved sidewalk in the Highway 101 Commercial district (which are targeted to be at least 15 feet wide plus curb).

The Site Plan provides for “cutouts” (designated on the Project plan as “low parkway plantings and boulders”) to be located nearby and along various curbs and sidewalks at South Highway 101, Dahlia Street, and South Sierra Avenue. In order to provide unimpeded access to the maximum amount of on-street parking spaces and appropriately wider sidewalks, the landscape cutouts should be eliminated.

Type of Landscape Material: The type of landscape plants and design of planting locations of such plants that are used for the Project should be consistent with the types of vegetation and random planting design used by the City in the improvements it constructed along Highway 101.

Requested Corrective Work: The width of the sidewalk along Highway 101 should be maintained at a minimum of fifteen feet between the curb and the building facade. Eliminate the cutouts for landscaping that are near the curbs and in the sidewalks. Also, the width of sidewalks on Dahlia Street and South Sierra Avenue should also be reconsidered and be increased to be in the range of 5 feet to 8 feet plus a 6 inch curb.

Furthermore, the type of vegetation and the random design of planting locations used for the Project’s landscaping along the Highway 101 side of the Project (and on Dahlia Drive) should be consistent with the improved sidewalks in the Highway 101 Commercial District.

F-16 The comment suggests that the project does not provide enough on-street parking as part of the proposed project. While the Highway 101 Specific Plan originally discouraged curbside parking on South Highway 101, the Highway 101 Improvement Project specifically planned for and encouraged additional on-street parking, including diagonal parking, along Highway 101. The Highway 101 Specific Plan also encourages curbside parking on Sierra Avenue and cross streets such as Dahlia Drive. As discussed in Chapter 3 of the Draft EIR, seven reverse-diagonal parking spaces would be provided for the public on South Sierra Avenue to access the project. These diagonal spaces would be an extension of the existing diagonal street parking to the north along South Sierra Avenue. The City appreciates the recommendation for the provision of additional on-street parking spaces on all project frontages. The City Council can take this recommendation into consideration at the public hearing for the Final EIR.

F-17 The comment states that the width of the sidewalk along South Highway 101 should be consistent with the improved sidewalk in the Highway 101 Commercial District. In accordance with the Highway 101 Specific Plan, Highway 101 walkways should provide a minimum six-foot wide landscaped parkway and a six-foot wide concrete parkway adjacent to Highway 101. The project proposes a minimum six-foot wide concrete sidewalk along Highway 101 with a varying width up to 15 feet which is consistent with the requirement of the Highway 101 Specific Plan. These requirements preceded the design and construction of the Highway 101 Improvement Project which widened sidewalks throughout the corridor to enhance the pedestrian environment. As such, the request for additional sidewalk width along South Highway 101 can be taken into consideration by the City Council at the public hearing for the Final EIR.

F-18 The comment recommends that the landscape cutouts be removed to allow for more on-street parking. Please see responses to comments F-16 and F-17. The City appreciates the design recommendation to eliminate cutouts along the project frontage. The City Council can take the recommendation into consideration at the public hearing for the Final EIR.

F-19 This comment suggests that the type of landscape plants and design of planting locations should be consistent with past improvements along Highway 101. As discussed in the Chapter 3 of the Draft EIR, a conceptual landscape plan (Figure 3-5) has been developed and includes a variety of trees, shrubs, groundcover, benches, a rainwater element, BMP planters, and vertical green screen planters. This plan was developed in compliance with the Landscape Guidelines and Materials requirement identified in the Highway 101 Specific Plan to provide consistency throughout the Highway 101 commercial area. Therefore, the project accomplishes the suggestion provided in the comment. Additional specific landscaping recommendations can also be considered by the City Council at the public hearing for the Final EIR.

F-20 The comment requests the width of the sidewalk along Highway 101 be maintained at a minimum of 15 feet. See responses to comment F-16, F-17 and F-18. The City appreciates the design recommendation provided in the comment. The City Council can take the recommendation into consideration at the public hearing for the Final EIR.

F-21 The Comment requests that the width of sidewalks on Dahlia Drive and South Sierra Avenue be increased to be five-feet to eight-feet-wide plus a six-inch curb. The Highway 101 Specific Plan includes guidelines to provide a six-foot-wide landscaped parkway and a six-foot-wide concrete parkway walk on cross streets and Sierra Avenue. Cross sections for two areas of project frontage along South Sierra Avenue are provided in Attachment A, Site Cross Section Plan. The cross section locations are shown on Draft EIR Figure 3-9. Proposed Grading Plan. As shown in Attachment A, Site Cross Section Plan, the southern project frontage along South Sierra Avenue (Cross Section B-B) would exceed the Specific Plan guidelines and meet the suggestion in the comment by
providing a 15-foot-wide landscape area and six-foot-wide sidewalk. The northern project frontage along South Sierra Avenue (Cross Section A-A) proposes a five-foot-wide, at-grade parkway planting area and a five-foot-wide sidewalk. This would be less than is recommended in the Highway 101 Specific Plan guidelines. The reason for the reduced width of the sidewalk and landscape area along the northern project frontage on South Sierra Avenue is the provision of seven reverse-diagonal parking spaces at this location, which is 18-feet-wide (see Attachment A, Site Cross Section Plan). Further, the Highway 101 Specific Plan contains guidelines, not rules, for the provision of landscape and walkway areas. Because the City desires reverse-diagonal parking spaces at this location it has accepted the proposed project design. While the majority of proposed sidewalk widths are consistent with the guidelines detailed in the Highway 101 Specific Plan, the City Council can take the recommendation into consideration at the public hearing for the Final EIR.

This comment requests the types of vegetation proposed along Highway 101, Dahlia Drive and South Sierra Avenue be consistent with the vegetation used for the Highway 101 commercial area. See response to comment F-19. As discussed in the Chapter 3 of the Draft EIR, a conceptual landscape plan (Figure 3-5) has been prepared for the proposed project in compliance with the Landscape Guidelines and Materials requirements provided in the Highway 101 Specific Plan to provide consistency throughout the Highway 101 commercial area. Therefore, the project accomplishes the suggestion provided in the comment. However, as stated in response to comment F-19, additional specific landscaping recommendations can be considered by the City Council at the public hearing for the Final EIR.
PART IV REVISED DRAFT EIR

Executive Summary

This chapter provides a summary of the Environmental Impact Report (EIR) for the implementation of the proposed Solana 101 mixed-use development project (proposed project), prepared in compliance with the California Environmental Quality Act (CEQA). This chapter highlights the major areas of importance in the environmental analysis of the proposed project, as required by Section 15123 of the CEQA Guidelines. It also provides a brief description of the proposed project’s features, objectives and alternatives to the proposed project. In addition, this chapter provides a table summarizing: 1) the potential environmental impacts that would occur from implementation of the proposed project; 2) the level of impact significance before mitigation; 3) the recommended mitigation measures that would avoid or reduce significant environmental impacts; and 4) the level of impact significance after mitigation measures are implemented.

Overview

As required by CEQA, this EIR does the following: 1) assesses the potential significant direct, indirect and cumulative environmental effects of the proposed project; 2) identifies potential feasible means of avoiding or substantially lessening significant adverse impacts; and 3) evaluates a range of reasonable alternatives to the proposed project, including the required “No Project” alternative. The City of Solana Beach is the “lead agency” for the proposed project evaluated in this EIR and has the principal responsibility for approving the proposed project.

Pursuant to Section 15161 of the CEQA Guidelines, a Project EIR has been prepared for the proposed project. A Project EIR examines the environmental impacts of a specific development project. It focuses primarily on the changes in the environment that would result from development of the proposed project during construction and operation.

Project Objectives

The following objectives have been identified for the proposed project:

1. Design and implement a transit-oriented, mixed-use development, which includes a balance of commercial office space, commercial retail and restaurant space, multi-family residential units, and adequate underground parking spaces with access to public transit.

2. Improve the existing aesthetic character of the site by replacing mostly vacant and abandoned development with new structures that complement existing surrounding development and are consistent with the Highway 101 Corridor Specific Plan development standards and design guidelines.
3. Implement planned improvements to Dahlia Drive and South Sierra Avenue to facilitate pedestrian movement, increase safety, and create visual continuity along the Highway 101 corridor.

4. Develop and implement a unique landscape and design plan for the project site that is consistent with the Highway 101 Corridor Specific Plan.

Project Location and Description
The proposed project is located in the City of Solana Beach in western San Diego County. The 1.95 gross acre (1.79 net acre) project site is located west of Highway 101, the Coastal Rail Trail, and the North County Transit District (NCTD) railroad right-of-way (ROW), north of Dahlia Drive, east of South Sierra Avenue, and south of an existing commercial development (CVS Pharmacy) south of Lomas Santa Fe Drive.

The proposed project would include 45,587 square feet (SF) of commercial office space, 10,562 SF of restaurant space, 2,920 SF of outdoor dining space, and 4,142 SF of retail space. The restaurant and outdoor dining space would accommodate a combination of quality restaurants and restaurants with a high turnover of patrons. The proposed commercial office/restaurant/retail space would be divided between multiple buildings within the project site including three two-story office buildings, two two-story restaurants mixed with commercial or retail, and one one-story building consisting of a restaurant.

The project proposes 33,473 SF of multi-family residential space. The proposed residential component would be comprised of two separate two-story buildings for a total of 25 dwelling units (DU). Project density would be 13.97 DU/acre based on 1.79 acres of net lot area. The residential buildings would be composed of seven different unit designs consisting of 18 two bedroom/two bathroom and 7 one bedroom/one bathroom units, ranging in size from 940 SF to 1,310 SF. The proposed project’s floor area ratio (FAR) would be 1.12, not counting the proposed subterranean parking garage. The proposed project’s apartments, offices, and retail buildings would be located on an east-west open space spine that would also serve as a public walkway from Highway 101 through the development to South Sierra Avenue.

The proposed development would include a two-level subterranean parking garage for tenants, guests, employees, and patrons of the project site. The parking garage would provide a total of 366 on-site parking spaces, including 10 handicap accessible spaces, which meets the City’s parking requirement for the proposed development. The project would provide two full-movement garage entrances via driveways on Dahlia Drive and South Sierra Avenue. The South Sierra Avenue entrance would be for residents only and the Dahlia Drive entrance would be for the commercial office, retail, and restaurant patrons and employees. In addition, seven reverse-diagonal parking spaces would be provided on South Sierra Avenue.
The proposed project would provide infrastructure and support systems on- and off-site including vehicle and bicycle parking, vehicular, transit and pedestrian access, utilities, drainage, and landscaping improvements, and transportation improvements.

**Impact Summary**

This EIR examines the potential environmental effects of the proposed project, including information related to existing site conditions, analysis of project-level and cumulative environmental impacts, and feasible mitigation measures that could reduce or avoid environmental impacts. In accordance with Appendices F and G of the CEQA Guidelines, issues associated with the following environmental topics were identified as requiring detailed analysis in the EIR:

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

Table ES-1, presented at the end of this chapter, provides a summary of the project-level and cumulative environmental impacts that could result from implementation of the proposed project and the feasible mitigation measures that could reduce or avoid the environmental impacts, as discussed in detail in Chapter 4, Environmental Impact Analysis, of this EIR.

Impacts related to the following environmental topics were determined to be “Effects Not Found to be Significant” in accordance with Section 15128 of the CEQA Guidelines: Agricultural Resources and Mineral Resources. Issues associated with these environmental topics are discussed in Chapter 5, Other CEQA Considerations, of this EIR.

**Summary of Alternatives to the Proposed Project**

Alternatives are required to be identified and evaluated to determine if they would lessen or avoid the significant impacts identified in Chapter 4 for the proposed project. The following project alternatives are compared to the proposed project in this EIR:
• No Project/No Build Alternative
• No Project/American Assets Trust Alternative
• Reduced Project/Affordable Housing Alternative
• Transit Priority Project Alternative

A comparative environmental analysis is provided for each of the alternatives in Chapter 6. Table 6-1 provides a comparison between the proposed project and each project alternative with regard to potentially significant impacts. A brief summary of the project alternatives is provided below.

**No Project/No Build Alternative**
Under the No Project/No Build Alternative, the proposed mixed-use development would not be constructed. The site would stay in its current partially developed and mostly abandoned condition and no changes would occur. This alternative would avoid all of the significant and mitigable impacts of the proposed project including cultural resources, geology and soils, GHG emissions, hazards and hazardous materials, noise and biological resources.

**No Project/American Assets Trust Alternative**
The No Project/American Assets Trust (AAT) Alternative demonstrates the type of project that could be developed on the site, consistent with the land uses and zoning allowed in the City’s General Plan and Highway 101 Specific Plan. This alternative would construct a new mixed-use development on the project site consisting of 14,137 SF of commercial office space; 10,215 SF of retail and restaurant space; 24,284 SF of a commercial specialty grocery; and 31 multi-family residential units. The existing on-site buildings would be demolished. A two-level subterranean parking garage would provide 341 on-site parking spaces. Vehicular access to the project site would be provided via one driveway on Dahlia Drive, which would be a full movement driveway allowing inbound and outbound movements. No vehicle access from South Sierra Avenue would be provided. This alternative proposes a mix of uses that would result in greater traffic and GHG impacts than the proposed project. It would not result in a reduction of any impacts identified for the proposed project.

**Reduced Project/Affordable Housing Alternative**
The Reduced Project/Affordable Housing Alternative would construct a new mixed-use development on the project site. The existing on-site buildings would be demolished. The proposed development would include 24,000 SF of commercial office space; 3,800 SF of restaurant space; and 49 multi-family residential units. Of the 49 multi-family residential units, four units would be available to very low income qualified tenants. No retail uses would be provided. A two-level subterranean parking garage would provide 243 on-site parking spaces. Vehicular access to the project site would be the same as the proposed project with two driveways, one on Dahlia Drive and one on South Sierra Avenue. This alternative would reduce average daily trips (ADT) compared to the proposed project due to the reduction in food & beverage, retail and commercial office uses on the site. The reduction in ADT would result in a reduction in vehicle miles travelled (VMT) and
subsequently a reduction in greenhouse gas emissions due to transportation. This alternative would increase the number of residential units from 25 (under the proposed project) to 49 units. It would utilize a density bonus incentive by providing four very low income rental units. This alternative was evaluated because it would result in fewer vehicle trips than the proposed project and, by reducing vehicle miles traveled, would reduce the amount of GHG and other pollutant emissions associated with the proposed project.

Transit Priority Project Alternative
The Transit Priority Project (TPP) Alternative would change the mix of land uses on the project site to meet the definition of a TPP as identified in PRC Section 21155(b) and Senate Bill 375. To qualify as a TPP, the project land uses would be altered to: 1) contain at least 50 percent residential use, based on total building square footage and, if the project contains between 26 percent and 50 percent nonresidential uses, a floor area ratio of not less than 0.75; 2) provide a minimum net density of at least 20 dwelling units per acre; and 3) be located within one-half mile of a major transit stop or high-quality transit corridor included in a regional transportation plan. The first two requirements would be met by modifying the proposed land uses on the project site. This could be done many different ways; however, for purposes of this analysis, the TPP would provide 39 residential units totaling 53,555 SF and a mix of commercial office, retail and restaurant space totaling 41,915 SF. This alternative was evaluated because it would result in fewer vehicle trips than the proposed project and, by reducing vehicle miles traveled, would reduce the amount of GHG and other pollutant emissions associated with the proposed project. The third requirement would be met due to the location of the project site within one-half mile of the Solana Beach transit station.

Areas of Controversy
Section 15123 of the CEQA Guidelines requires the summary of an EIR to include areas of controversy known to the Lead Agency including issues raised by agencies and the public. On July 1, 2015, a Notice of Preparation (NOP) for the Solana 101 Project EIR was distributed. In accordance with Section 15082 of the CEQA Guidelines, the NOP was circulated to interested agencies, groups, and individuals for a period not less than 30 days, during which time comments were solicited pertaining to environmental topics and issues that the EIR should evaluate. The NOP comment period ended on August 17, 2015. In addition, a public scoping meeting was held on July 20, 2015.

The City received comments on the NOP prepared for the proposed project from 18 residents in the surrounding neighborhoods and one local business owner. The areas of concern identified in the comments include: proposed site uses; scale and size of project; size of buildings; view of hillsides; nighttime lighting; air quality emissions from construction; project greenhouse gas emissions; site and cumulative parking availability; safety of underground garage parking; provision of only one project driveway; increased traffic on surrounding roadways; water demand and usage; site drainage; and Highway 101 Corridor Specific Plan conformance. These issues have been addressed in EIR. The NOP and associated comment letters are provided in Appendix A of this EIR.
### Table ES-1 Project Level and Cumulative Environmental Impacts and Mitigation Measures

<table>
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<tr>
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<tbody>
<tr>
<td><strong>Aesthetics</strong></td>
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<tr>
<td>Scenic Vistas</td>
<td>The proposed project would not have a substantial adverse effect on a scenic vista.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Scenic Resources</td>
<td>The proposed project would be compatible with the Scenic Area Overlay Zone along Highway 101 and would not impact scenic resources.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Visual Character and Quality</td>
<td>The proposed project would be consistent with the commercial and multi-family residential character of the surrounding developments and would not degrade the existing visual quality of the site or its surroundings.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Light and Glare</td>
<td>The proposed project would not create new sources of light and glare that would substantially impact day and nighttime views in the project area.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
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<tr>
<td><strong>Air Quality</strong></td>
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<tr>
<td>Applicable Air Quality Plans</td>
<td>The proposed project is consistent with the City’s</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
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<tbody>
<tr>
<td>General Plan</td>
<td>General Plan and would not conflict with the RAQS or SIP.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Air Quality Standards</td>
<td>Emissions from the proposed project would not exceed the significance threshold for any criteria pollutant.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Non-Attainment of Criteria Pollutants</td>
<td>The proposed project would not result in a cumulatively considerable contribution to criteria air pollutant emissions for which the region is in non-attainment.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Sensitive Receptors</td>
<td>The proposed project would not expose sensitive receptors to substantial pollutant concentrations.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Objectionable Odors</td>
<td>The proposed project would not create objectionable odors affecting a substantial number of people.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
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</table>

**Cultural Resources**

| Historical Resources | The proposed project APE does not contain any historical resources; therefore, implementation | LS | No mitigation required. | N/A |
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<tr>
<td>Archaeological and Tribal Cultural Resources</td>
<td>The proposed project has the potential to damage or destroy unknown subsurface archaeological or tribal cultural resources, which could result in a substantial adverse change in the significance of a unique archaeological resource.</td>
<td>PS</td>
<td><strong>CUL-1 Archaeological/Native American Monitoring.</strong> Due to the potential presence of previously unknown archaeological and/or tribal cultural resources, a grading monitoring program shall be implemented for the project. The monitoring program shall include the following elements: 1. The applicant shall enter into a Tribal Cultural Resource Treatment and Monitoring Agreement (also known as a pre-excavation agreement) with a tribe that is traditionally and culturally affiliated with the project location (TCA Tribe) prior to issuance of a grading permit. The purposes of the agreement are (1) to provide the applicant with clear expectations regarding unique archaeological resources and tribal cultural resources; and (2) to formalize protocols and procedures between the applicant and the TCA Tribe for the protection and treatment of, including but not limited to, Native American human remains; funerary objects; cultural and religious landscapes; ceremonial items; traditional gathering areas; and cultural items located and/or discovered through a monitoring program in conjunction with the construction of the proposed project, including additional archaeological surveys and/or studies, excavations, geotechnical investigations, grading, and all other ground disturbing activities.</td>
<td>LS</td>
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</tbody>
</table>

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2. Prior to issuance of a grading permit, the applicant shall provide written verification to the City that a qualified archaeologist and a Native American monitor associated with a TCA Tribe have been retained to implement the monitoring program. The archaeologist shall be responsible for coordinating with the Native American monitor. This verification shall be presented to the City in a letter from the project archaeologist confirming that the selected Native American monitor is associated with a TCA Tribe. Prior to any pre-construction meeting, the City shall approve all persons involved in the monitoring program.

3. The qualified archaeologist and Native American monitor shall attend the pre-grading meeting with the grading contractors to explain and coordinate the requirements of the monitoring program.

4. During the initial grubbing, site grading, excavation, or disturbance of the ground surface, the qualified archaeologist and the Native American monitor shall be onsite fulltime. If imported fill materials, or fill used from other areas of the project site, are to be incorporated at the project site, those fill materials shall be absent of any unique archaeological or tribal cultural resources. The frequency of inspections shall depend on the rate of excavation, the materials excavated, and any discoveries of unique archaeological resources as defined in PRC Section 21083.2 or discoveries of tribal cultural resources as defined in PRC Section 21074. Archaeological and Native American monitoring will be discontinued when the depth of grading and soil conditions no longer have the potential to contain.
cultural deposits. The qualified archaeologist, in consultation with the Native American monitor, shall be responsible for determining the duration and frequency of monitoring.

5. In the event that previously unidentified tribal cultural or unique archaeological resources are discovered, the qualified archaeologist and the Native American monitor shall have the authority to temporarily divert or temporarily halt ground disturbance operations in the area of discovery to allow for evaluation of tribal cultural or unique archaeological resources. Isolates and clearly non-significant deposits shall be minimally documented in the field and collected so that the monitored grading can proceed.

6. If a tribal cultural or unique archaeological resource is discovered, the archaeologist shall notify the City of said discovery and shall conduct consultation with TCA tribes to determine the most appropriate mitigation. The qualified archaeologist, in consultation with the City, the TCA Tribe, and the Native American monitor, shall determine the significance of the discovered resource. A recommendation for treatment and disposition of the resource shall be made by the qualified archaeologist in consultation with the TCA Tribe and the Native American monitor, and shall be submitted to the City for review and approval.

7. The avoidance and/or preservation of the tribal cultural resource and/or unique archaeological resource must first be considered and evaluated under CEQA. Where any significant tribal cultural resources and/or unique archaeological resources have been discovered and

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<tr>
<td>Cultural Deposits</td>
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avoidance and/or preservation measures are deemed to be infeasible by the City, a research design and data recovery program to mitigate impacts shall be prepared by the qualified archaeologist (using professional archaeological methods), in consultation with the TCA Tribe and the Native American monitor, and shall be subject to approval by the City. The qualified archaeologist, in consultation with the Native American monitor, shall determine the amount of material to be recovered for an adequate artifact sample for analysis. Before construction activities are allowed to resume in the affected area, the research design and data recovery program activities must be concluded to the satisfaction of the City.

8. In accordance with CEQA, all tribal cultural resources shall be treated with culturally appropriate dignity. If the qualified archaeologist elects to collect any tribal cultural resources, the Native American monitor must be present during the collection and cataloging of those resources. Moreover, if the qualified archaeologist does not collect the tribal cultural resources that are unearthed during the ground-disturbing activities, the Native American monitor may, at their discretion, collect said resources and provide them to the TCA Tribe for respectful and dignified treatment in accordance with the tribe’s cultural and spiritual traditions.

9. The project archaeologists shall document evidence that all cultural materials have been repatriated and/or curated as follows:
   A. It is the preference of the City that all tribal cultural resources be repatriated to the TCA Tribe, as such

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Preference would be the most culturally sensitive, appropriate, and dignified. Therefore, any tribal cultural resources collected by the qualified archaeologist shall be provided to the TCA Tribe. Evidence that all cultural materials collected have been repatriated shall be in the form of a letter from the TCA Tribe to whom the tribal cultural resources have been repatriated identifying that the archaeological materials have been received.

OR

B. Any tribal cultural resources collected by the qualified archaeologist shall be curated with its associated records at a San Diego curation facility or a culturally affiliated tribal curation facility that meets federal standards per 36 CFR Part 79, and, therefore, would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records, including title, shall be transferred to the San Diego curation facility or culturally affiliated tribal curation facility and shall be accompanied by payment of the fees necessary for permanent curation. Evidence that all cultural materials collected have been curated shall be in the form of a letter from the curation facility stating that the prehistoric archaeological materials have been received and that all fees have been paid.

CUL-2 Monitoring Report. Prior to the release of the grading bond, a monitoring report and/or evaluation report, if appropriate, that describes the results, analysis, and conclusion of the archaeological and tribal cultural
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<tr>
<td>Paleontological Resources</td>
<td>Implementation of the proposed project has the potential to damage or destroy unknown subsurface paleontological resources.</td>
<td>PS</td>
<td><strong>CUL-3 Paleontological Monitoring.</strong> A paleontological monitor shall be present during all cutting, grading, or excavation of previously undisturbed substratum. If a fossil of greater than 12 inches in any dimension (including circumference) is encountered, all operations in the area where the fossil was found shall be suspended immediately, the City shall be notified, and a qualified paleontologist shall be retained by the City to evaluate the significance of the find; to salvage, record, clean, and curate significant fossil(s); and to document the find in accordance with current professional paleontological standards. Within 30 days of completion of ground-disturbing activities, either a letter signed by the paleontological monitor stating that no fossils were found or, if fossils were found, a report prepared by the qualified paleontologist documenting the mitigation program shall be submitted to the City.</td>
<td>LS</td>
</tr>
<tr>
<td>Human Remains</td>
<td>The proposed project has the potential to disturb unknown human remains.</td>
<td>PS</td>
<td><strong>CUL-1 Archaeological/Native American Monitoring and CUL-2 Monitoring Report (see above)</strong></td>
<td>LS</td>
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<td><strong>CUL-4 Discovery of Human Remains.</strong> In the event of the accidental discovery or recognition of any human remains</td>
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</thead>
<tbody>
<tr>
<td>Tribal Cultural Resources</td>
<td>Because of the known archaeological resource</td>
<td>PS</td>
<td>CUL-1 Archaeological/Native American Monitoring (see above)</td>
<td>LS</td>
</tr>
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*In any location other than a dedicated cemetery, the following steps shall be taken:*

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the County Coroner has been contacted to determine that no investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours. The NAHC shall identify the person or persons it believes to be the most likely descendants (MLD) from the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98; or

2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance: a) the NAHC is unable to identify an MLD or the MLD fails to make a recommendation within 48 hours after being notified by the commission; b) the MLD identified fails to make a recommendation; c) or the landowner or his authorized representative rejects the recommendation of the MLD, and the mediation by the NAHC fails to provide measures acceptable to the landowner.
## Table ES-1 Project Level and Cumulative Environmental Impacts and Mitigation Measures

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<tbody>
<tr>
<td>Geology and Soils</td>
<td>sites in the vicinity of the project, there is potential for the proposed project to result in a significant impact on an unknown subsurface tribal resource.</td>
<td>No impact</td>
<td>CUL-2 Monitoring Report (see above)</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CUL-4 Discovery of Human Remains (see above)</td>
<td></td>
</tr>
<tr>
<td>Geologic Hazards</td>
<td>The proposed project would not expose people or structures to geologic hazards, including rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related ground failure, including liquefaction and/or landslides.</td>
<td>No impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Erosion and Topsoil Loss</td>
<td>With incorporation and implementation of proposed BMPs, the proposed project would not result in substantial soil erosion or the loss of topsoil.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Unstable Soils</td>
<td>Excavations for the proposed project would encounter groundwater which may result in unstable soils.</td>
<td>PS</td>
<td>GEO-1 Geotechnical Recommendations. Prior to issuance of grading permits for the proposed project, the City Engineer shall verify that the applicant has incorporated the following applicable recommendations in the Geotechnical Investigation prepared by NOVA dated May 2012 and the Update Letter prepared by NOVA dated August 2015 into</td>
<td>LS</td>
</tr>
</tbody>
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the final project design and construction documents. These recommendations address issues including, but not limited to, excavation and fill, slope stability, site grading, erosion control, and monitoring. Construction documents shall be prepared to the satisfaction of the City Engineer. The following list of recommendations must be incorporated into the project design and construction documents:

1. For trench or other temporary excavations, safety shall be met by laying back the slopes no steeper than 1.5:1 (horizontal: vertical) for fill and Old Paralic Deposits material.

2. Structures/improvements in the vicinity of the planned shoring installations shall be reviewed for foundation support and tolerance to settlement. The shoring system shall be designed to limit ground settlement behind the shoring system to 0.5 inches or less.

3. An array of ground survey points shall be installed to monitor settlement. The survey points shall be installed on the shoring system and incrementally away from the excavation.

4. A dewatering system is required for construction and shall be designed by a professional dewatering engineer. The dewatering plan shall address anticipated drawdown, volume of pumping, potential for settlement, and groundwater discharge. Disposal of groundwater shall be performed in accordance with the guidelines of the San Diego Regional Water Quality Control Board.

5. Unstable excavation bottom conditions that are close to or below the water table shall be mitigated by over-excavation of the bottom to suitable depths and replacement with a one-foot thick gravel or lean
**Table ES-1 Project Level and Cumulative Environmental Impacts and Mitigation Measures**

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<td>concrete mud mat. Any loose, soft, or deleterious material shall be removed prior to placement of gravel or lean concrete.</td>
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<tr>
<td>6. The proposed structure shall be founded on conventional spread footings or a mat foundation supported on formational material using an allowable bearing capacity of 5,000 pounds per square inch (psi). Exterior footings shall be founded on a minimum of two feet of compacted fill using an allowable bearing capacity of 2,000 psi. The allowable bearing capacities shall be increased by one-third when considering loads of a short duration such as wind or seismic forces.</td>
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<tr>
<td>7. Foundations shall have an embedment depth of 24 inches or more below the lowest adjacent grade. Continuous footings shall be 18 or more inches wide and spread foundations shall be 24 or more inches square. Footings founded in low expansive granular materials shall be reinforced with four No. 4 or larger reinforcing bars, two placed near the top and two near the bottom of the footings.</td>
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<tr>
<td>8. Slab-on-grade floors, underlain by very low to low expansive materials, shall be five or more inches in thickness and be reinforced with No. 3 or larger reinforcing bars spaced 18 inches on center each way. Additional slab thickness and reinforcement recommendations shall be provided by a qualified structural engineer.</td>
<td></td>
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<tr>
<td>9. For the exterior site improvements such as sidewalks that are expected to be located outside of the proposed excavations, remedial grading shall consist of removing</td>
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<tr>
<td>Expansive Soils</td>
<td>Soils within the proposed project site have very low expansion potential.</td>
<td>No impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Waste Water</td>
<td>The proposed project would not require the use of septic tanks or alternative wastewater disposal systems.</td>
<td>No impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Disposal Systems</td>
<td></td>
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</tr>
<tr>
<td>Greenhouse Gas Emissions</td>
<td>Construction-related GHG emissions would be less than significant. Annual GHG emissions from operation of the proposed project would exceed the 900 MTCO$_2$e/year screening threshold and would result in a potentially significant impact.</td>
<td>PS</td>
<td><strong>GHG-1 Green Power Purchase.</strong> Prior to the issuance of building permits, the project applicant shall demonstrate to the City Manager that the project has an agreement in place to purchase 100 percent green power (electricity) from the City’s Community Choice Aggregation program, Solana Energy Alliance (SEA), or, if this program is not in place, the San Diego Gas &amp; Electric EcoChoice program. All future commercial and residential tenant agreements for the proposed project land uses shall require that all tenants opt in to either the City’s Community Choice Aggregation program or, if this program is not in place, the San Diego Gas &amp; Electric EcoChoice program. The purchase must be sufficient to offset all remaining electricity demand from the project (approximately 1.6 million kwh/year, which is equivalent to 465 MTCO$_2$e/year) that is not provided by on-site solar power, such that all of the project’s electricity demand is met through renewable sources. Final electricity demand and on-site solar power generation estimates shall be determined by a registered electrical engineer prior to</td>
<td>LS</td>
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<td>GHG-2 Carbon Reduction Program.</td>
<td>Prior to the issuance of building permits, the project applicant shall implement a local carbon reduction offset program consistent with the City’s Climate Action Plan and subject to the approval of the City Manager. The local offset program shall be demonstrated to the satisfaction of the City Manager to achieve an emissions reduction of at least 651 metric tons carbon dioxide equivalent (MTCO(_2)e) per year for 30 years, which equates to a total of 19,530 MTCO(_2)e. A portion of the project’s required GHG emission reductions within the City shall be accomplished by implementing the following programs:</td>
<td></td>
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<tr>
<td>• Provide an additional 25 on-site electric vehicle charging stations for the proposed residential use, which is equivalent to offsetting 90 MTCO(_2)e per year.</td>
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<td></td>
<td></td>
<td>• Provide an additional 18 on-site electric vehicle charging stations for the proposed commercial use, which is equivalent to offsetting 85 MTCO$_2$e per year.</td>
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<tr>
<td></td>
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<td></td>
<td>• Provide two electric vehicle charging stations at the proposed reverse-diagonal parking spaces on South Sierra Avenue adjacent to the project site, which is equivalent to offsetting 280 MTCO$_2$e per year.</td>
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<td>• Contribute towards SANDAG’s regional bike-share program in an amount equivalent to providing 12 shared electric bicycles, which is equivalent to offsetting seven MTCO$_2$e per year.</td>
<td></td>
</tr>
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Alternatively, and only if it can be demonstrated to the City Council that local programs cannot be feasibly implemented to fully offset 651 MTCO$_2$e annually for 30 years, the project applicant shall purchase California Air Resources Board-approved CO$_2$e offset credits to satisfy this mitigation requirement. There are currently three approved registries recognized by the State of California that implement established carbon offset programs: Climate Action Reserve; American Carbon Registry; and Verified Carbon Standard. Programs supported by the carbon offset programs include restoring wetlands, avoiding conversion of grasslands to crop production, capturing methane gas from landfills and/or manure, and supporting urban forestry. The applicant shall submit documentation of the offset purchase to the City Manager demonstrating that it mitigates 651 MTCO$_2$e per year for 30 years, as provided by
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<tr>
<td>Applicable GHG Emissions Reduction Plan, Policy, or Regulation</td>
<td>The proposed project would not conflict with the statewide emissions reduction targets, the Scoping Plan, or City’s CAP.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
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**Human Health/Public Safety/Hazardous Materials**

| Hazardous Materials | Project construction would result in demolition of existing structures that could contain asbestos. Other project construction and operational activities comply with all applicable regulations and would not have the potential to create a significant hazard to the public or the environment through the routine transport, storage, use, or disposal of hazardous materials or wastes or through reasonably foreseeable upset and accident conditions involving the release of hazardous | PS | HAZ-1 Asbestos Abatement. At least 10 working days prior to demolition or removal of existing on-site structures, the project applicant shall submit an Asbestos Removal, Renovation, and Demolition Operations Notice of Intentions to the County of San Diego Air Pollution Control District. The Notice of Intentions must include: 1. The name and company of the person completing the notification form. 2. The type of notice (i.e., whether the notice is an original notification, a revision to an existing notification, including the type of revision, or a cancellation of an existing notification). 3. Type of operation (i.e., whether the operation(s) is a renovation, demolition, emergency renovation, emergency demolition, or planned renovation). 4. The facility name, address, building number, suite number, room number, city, state, and zip code. 5. The facility owner’s name, address, city, state, zip code, contact person and title, and phone number. | LS |
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- 6. The removal contractor’s name, address, city, state, zip code, contractor’s license number, contact person and title, and phone number.
- 7. The demolition contractor’s name, address, city, state, zip code, contractor’s license number, contact person and title, and phone number.
- 8. A description of the facility, including the number of floors, the number of dwelling units, age of the facility, and the past and present use of the facility.
- 9. Scheduled start and completion dates of renovation operations and/or of demolition operations.
- 10. The work practices, equipment, and engineering controls to be used in demolition operations.
- 11. Description of procedures to be followed in the event that unexpected regulated asbestos-containing material (RACM) is found or any Category I Nonfriable asbestos-containing material (ACM) or Category II Nonfriable ACM becomes crumbled, pulverized, broken into smaller pieces, or reduced to powder.
- 12. The name, address, city, state, zip code, contact person and title, and phone number of the waste transporter for all demolition debris containing no asbestos.
- 13. A certification that at least one person trained in accordance with San Diego Air Pollution Control District Regulation XII, District Rule No. 1206 Subsection (f)(8) will supervise the stripping and removal described by this notification.
- 14. Information about the individual conducting the facility survey including: name, company, title, mailing address and phone number, and the certification number for the
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<td>Environmental Protection Agency (EPA) approved Building Inspector Course passed by the individual.</td>
<td>15. The condition of each ACM identified by the facility survey to be removed, stripped, or disturbed, or a statement that no ACM to be disturbed by renovation or demolition operations has been identified at the facility.</td>
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<tr>
<td></td>
<td>16. The procedure(s), including analytical methods, used to detect the presence of RACM, Category I Nonfriable ACM, and Category II Nonfriable ACM.</td>
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<tr>
<td></td>
<td>17. For all ACM to be removed, stripped, or disturbed, the categorization of each material containing more than one percent asbestos as friable ACM, Category I Nonfriable ACM, or Category II Nonfriable ACM.</td>
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<tr>
<td></td>
<td>18. A description of the facility components containing ACM to be removed, stripped, or disturbed.</td>
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<tr>
<td></td>
<td>19. An estimate for the total amount of ACM to be removed, stripped, or disturbed from the facility including the surface area in square feet of other facility components, or volume in cubic feet if square footage cannot be established in the course of renovation or demolition operations regulated by this rule.</td>
<td></td>
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<tr>
<td></td>
<td>20. The specific work practices, equipment, and engineering controls that will be used to remove each ACM.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21. The name, address, city, state, zip code, contact person and title, and phone number of the waste transporter for all ACWM.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>22. The name, address, city, state, zip code, and phone number of the waste disposal site for all ACWM.</td>
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<td></td>
<td></td>
<td></td>
<td>In addition, a copy of the Asbestos Survey must be maintained on site for the duration of the project.</td>
<td></td>
</tr>
<tr>
<td>Hazardous Emissions near a School</td>
<td>The project is not located within one-quarter mile of an existing or proposed school.</td>
<td>No impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Hazardous Materials Sites</td>
<td>The project site is not located on or within one mile of a hazardous materials site pursuant to Government Code Section 65962.6.</td>
<td>No Impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Airport Safety Hazard</td>
<td>The proposed project is not located within an airport land use plan, within two miles of a public airport or within the vicinity of a private airstrip.</td>
<td>No Impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Emergency Response and Evacuation Plans</td>
<td>The proposed project would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Wildland Fires</td>
<td>The proposed project would not expose people or structures to a significant</td>
<td>No Impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
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<tr>
<td><strong>Hydrology and Water Quality</strong></td>
<td></td>
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</tr>
<tr>
<td>Water Quality Standards</td>
<td>Implementation of the proposed project would not violate water quality standards or waste discharge requirements because it would comply with all applicable regulations.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Groundwater Supply and Recharge</td>
<td>The proposed project would not deplete groundwater recharge or supplies within the Solana Beach Hydrologic Subarea.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Drainage Alterations – Erosion/Siltation</td>
<td>Implementation of the proposed project would not substantially alter the existing drainage patterns resulting in erosion or siltation.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Drainage Alterations – Flooding</td>
<td>Implementation of the proposed project would not substantially alter the existing drainage pattern of the site increase the risk of loss, injury or death involving hazardous wildland fires.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
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<tr>
<td>Water Quality</td>
<td>The incorporation of construction and permanent treatment control BMPs as part of the proposed project would ensure that the project would not otherwise substantially degrade water quality</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Exceed Capacity of Existing Stormwater Drainage System</td>
<td>Construction and operation of the proposed project would not contribute or create runoff that would exceed the capacity of the existing stormwater drainage facilities</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>100 Year Flood Hazards</td>
<td>The proposed project site is not located within a 100-year flood zone area and the project would not place housing or other structures within a 100-year flood hazard area.</td>
<td>No impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Dam Failure</td>
<td>Implementation of the proposed project would not affect the dam in a manner which would result in flooding on- or off-site.</td>
<td>No impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
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<tr>
<td>Inundation by Seiche, Tsunami or Mudflow</td>
<td>Implementation of the proposed project would not result in a substantial increase in the risk of exposure to inundation from seiche, tsunami or mudflows.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Land Use</td>
<td></td>
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</tr>
<tr>
<td>Divide an Established Community</td>
<td>The proposed project would not physically divide an established community or present a barrier to movement through the surrounding area.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Applicable Land Use Plans, Policies, and Regulations</td>
<td>The proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purposes of avoiding an environmental effect.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Habitat Conservation Plans or Natural Community</td>
<td>No significant impacts related to habitat conservation plan conflicts would occur.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
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<tr>
<td>Conservation Plans</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noise</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excessive Noise Levels</td>
<td>Implementation of the proposed project would potentially result in excessive noise levels if truck deliveries and use of restaurant patios would occur during nighttime hours.</td>
<td>PS</td>
<td><strong>NOI-1 Limitations on Truck Deliveries.</strong> Commercial truck deliveries to the project shall be prohibited between the hours of 10:00 p.m. and 8:00 a.m. Limitations on truck deliveries shall be required as part of all commercial tenant agreements. A sign shall be posted at the loading dock entrance that includes the loading dock hours and a phone number for receptors to report any violations to the City of Solana Beach Code Compliance Department Division. The Code Compliance Department Division shall be responsible for issuing a fine or similar penalty for any violations.</td>
<td>LS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>NOI-2 Limitations on Commercial Outdoor Patios.</strong> Use of outdoor patios associated with commercial restaurant and retail uses or operation of devices for amplifying sound or music on the project site shall be limited to the hours of 8:00 a.m. to 10:00 p.m., in accordance with SBMC Section 7.34.140(B)(5). Hours of patio operation shall be required to be posted on restaurant and retail use storefronts as a notice to customers. Limitations on outdoor patio use shall be required as part of all commercial tenant agreements. Hours of patio operation and a phone number for receptors to report any violations to the City of Solana Beach Code Compliance Department Division shall be posted in the public plaza. The Code Compliance Department Division shall be responsible for issuing a fine or similar penalty for any violations.</td>
<td></td>
</tr>
<tr>
<td>Environmental Topic</td>
<td>Impact(s</td>
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<td>Mitigation Measure(s)</td>
<td>Significance After Mitigation</td>
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<td>------------------------------</td>
</tr>
<tr>
<td>Permanent Noise Levels</td>
<td>Implementation of the proposed project would not result in a significant permanent increase in noise levels in the project area.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Excessive Ground-borne Vibration</td>
<td>Ground-borne vibration and noise from proposed project construction would exceed the applicable County of San Diego thresholds. No damage is expected because existing residential land uses within 95 feet of the project site and existing commercial uses within 80 feet of the project site do not contain vibration-sensitive equipment.</td>
<td>PS</td>
<td><strong>NOI-3 Construction Vibration Notification.</strong> The construction contractor shall provide written notification to all residential units located within 95 feet of the property boundary and commercial land uses within 80 feet of the property boundary at least three weeks prior to the start of construction activities informing them of the estimated start date and duration of daytime vibration-generating construction activities. This notification shall include information warning about the potential for impacts related to vibration-sensitive equipment.</td>
<td>LS</td>
</tr>
<tr>
<td>Temporary Noise Levels</td>
<td>A potentially significant impact regarding construction noise levels at adjacent multi-family residences and commercial uses would occur.</td>
<td>PS</td>
<td><strong>NOI-4 Construction Noise Best Management Practices.</strong> The project applicant shall implement the following measures during construction of the proposed project: 1. Prior to issuance of any construction permits, an 8-foot-height construction noise barrier shall be constructed along the western property line to reduce construction noise. The noise barrier shall be continuous with no openings or gaps within its entirety. It will be constructed of “Quilted Barrier Absorber” Type: BBC-13X manufactured by Sound Seal, or equivalent. Product</td>
<td>LS</td>
</tr>
</tbody>
</table>
## Table ES-1 Project Level and Cumulative Environmental Impacts and Mitigation Measures

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Aircraft Noise</strong></td>
<td>Implementation of the proposed project would not result in significant impacts related to exposure to excessive aircraft noise levels.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Population and Housing</strong></td>
<td>The proposed project would result in population growth consistent with the growth projections of the</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

- specification for Type BBC-13X is presented in the ABC Acoustics noise technical study (April 2018) provided in Appendix H to the EIR.
- 2. During construction, idling time for all equipment shall be limited to five minutes or less.
- 3. Prior to the start of each phase of construction, the staging area for the phase shall be sited to maximize the distance between construction equipment staging areas and occupied residential areas.
- 4. During construction, use of electric air compressors and similar power tools, rather than diesel equipment, shall be used.
- 5. During construction, stationary construction equipment shall be placed such that emitted noise is directed away from or shielded from sensitive noise receivers.
- 6. During construction, stockpiling and vehicle staging areas shall be located as far as practical from noise-sensitive receptors.
## Table ES-1 Project Level and Cumulative Environmental Impacts and Mitigation Measures

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</thead>
<tbody>
<tr>
<td>City’s General Plan Housing Element.</td>
<td>Implementation of the proposed project would not result in the displacement of any occupied housing units.</td>
<td>No impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Displacement of Housing</td>
<td>Implementation of the proposed project would not result in the displacement of any occupied housing units.</td>
<td>No impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Public Services and Recreation

<table>
<thead>
<tr>
<th>Fire Protection Services</th>
<th>The proposed project would not result in a substantial population increase that would require the development of new fire protection facilities.</th>
<th>LS</th>
<th>No mitigation required.</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police Protection Services</td>
<td>The proposed project would not result in a substantial population increase that would require the development of new police facilities.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Schools</td>
<td>Implementation of the proposed project would not result in a substantial population increase.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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</tr>
</thead>
<tbody>
<tr>
<td><strong>Other Public Facilities</strong></td>
<td>Implementation of the proposed project would not result in a substantial population increase that would require the development of new school facilities.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Existing Recreational Facilities</strong></td>
<td>Implementation of the proposed project would not result in the substantial physical deterioration of existing parks and other recreational facilities.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Affects from Recreational Facilities</strong></td>
<td>Implementation of the proposed project would not result in the construction or expansion of recreational facilities which would have an adverse physical effect on the environment.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Transportation and Traffic</strong></td>
<td>Implementation of the proposed project would not conflict with an existing traffic system.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
</tbody>
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</tr>
</thead>
<tbody>
<tr>
<td>Congestion Management Plan</td>
<td>Implementation of the proposed project would not conflict with the applicable congestion management plan.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Air Traffic Patterns</td>
<td>The proposed project would not result in a change in air traffic patterns that would result in a substantial safety risk.</td>
<td>No impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Traffic Hazards</td>
<td>The proposed project would not result in any hazards related to designs</td>
<td>No impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
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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.
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</tr>
</thead>
<tbody>
<tr>
<td>Emergency Access</td>
<td>The proposed project would not result in inadequate emergency access.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Alternative Transportation</td>
<td>Implementation of the proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Parking</td>
<td>The proposed two level subterranean parking structure adequately provides parking to meet the needs of the proposed project.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Public Utilities, Service Systems, and Energy</td>
<td>The proposed project is consistent with the wastewater treatment requirements of the RWQCB.</td>
<td>No impact</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
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<tbody>
<tr>
<td>Treatment Facilities</td>
<td>The proposed project would not require or result in the construction of new water or wastewater facilities, nor would the proposed project result in the expansion of existing water or wastewater treatment facilities.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Drainage Facilities</td>
<td>Construction of the proposed project would not exceed the capacity of offsite existing or planned stormwater drainage systems that would require the construction of new or expanded existing facilities.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Water Supply</td>
<td>Sufficient water supplies are available to serve the proposed project from existing entitlements and resources.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Wastewater Treatment</td>
<td>The proposed project would not be expected to adversely affect the capacity of the wastewater treatment provider.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
</tbody>
</table>
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</thead>
<tbody>
<tr>
<td>Landfills</td>
<td>The proposed project is served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Solid Waste Compliance</td>
<td>The proposed project would comply with federal, state and local statutes and regulations related to solid waste.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Energy</td>
<td>The proposed project energy demand would not result in the wasteful, inefficient, or unnecessary consumption of energy.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Biological Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensitive Species</td>
<td>Construction of the proposed project would have the potential to impact nesting birds protected under the California Fish and Game Code and Migratory Bird Treaty Act.</td>
<td>PS</td>
<td><strong>BIO-1 Pre-Construction Nesting Birds Survey.</strong> If construction activity occurs during the breeding season for raptors and other birds (January 1 through September 15), the project applicant shall retain a qualified biologist to conduct a biological survey for nesting bird species within the proposed impact area and a 300-foot buffer within 72 hours prior to construction. This survey is necessary to ensure avoidance of impacts to nesting raptors (e.g., Cooper’s hawk and red-tailed hawk) and/or birds protected by the federal Migratory Bird Treaty Act. The qualified biologist shall submit a written report of the survey results to the City’s Community Development Department for review and approval prior to</td>
<td>LS</td>
</tr>
</tbody>
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<th>Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitive Habitat</td>
<td>Implementation of the proposed project would not result in a substantial adverse effect on a riparian habitat or sensitive natural community.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Wetlands</td>
<td>Implementation of the proposed project would not result in a substantial adverse effect to wetlands.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Wildlife Movement and Corridors</td>
<td>Implementation of the proposed project would not result in a substantial adverse effect to wildlife corridors.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td>N/A</td>
</tr>
<tr>
<td>Local Policies or Ordinances</td>
<td>The proposed project has the potential to conflict with Objective 5.0 in the</td>
<td>PS</td>
<td><strong>BIO-1 Pre-Construction Nesting Birds Survey (see above)</strong></td>
<td>LS</td>
</tr>
</tbody>
</table>

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the commencement of any construction activity on the project site. If any active nests are detected, the area shall be flagged and mapped on the construction plans along with a minimum 300-foot buffer and up to a maximum of 500 feet for raptors, as determined by the project biologist, and shall be avoided until the nesting cycle is complete. Subject to consultation with and the prior written approval of the City’s Community Development Department, the project biologist may reduce the avoidance buffer if a reduced buffer maintains protection of the nesting cycle of the avian species.
Table ES-1 Project Level and Cumulative Environmental Impacts and Mitigation Measures

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</tr>
</thead>
<tbody>
<tr>
<td>Conservation and Open Space Element of the General Plan due to potential impacts to nesting birds during construction.</td>
<td>LS</td>
<td>No mitigation required.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Chapter 1. INTRODUCTION

1.1 Project Background

The Solana 101 project (proposed project) is located in the City of Solana Beach (City) in western San Diego County. The proposed project area is comprised of a 1.95 acre site, located west of Highway 101 and the North County Transit District (NCTD) railroad right-of-way (ROW), north of Dahlia Drive, east of South Sierra Avenue, and south of an existing commercial development (CVS Pharmacy) south of Lomas Santa Fe Drive (see Figures 2-1, 2-2 and 2-3 in Chapter 2). The proposed development would construct commercial office space, high turnover restaurant, quality restaurant, retail space, 25 multi-family residential units, and two floors of underground parking totaling 366 spaces.

In 2015, a different mixed-use development project was proposed on the project site. The American Assets Trust (AAT) Solana 101 Project (previous project) proposed to construct a specialty supermarket, commercial office space, retail and restaurant space, 31 multi-family residential units, and two floors of underground parking totaling 341 spaces. As explained in further detail in Section 1.3, a Notice of Preparation (NOP) was prepared and distributed by the City on July 1, 2015. In addition, environmental technical reports were prepared for the previously proposed AAT project. Temporary story poles were erected on the project site in December 2015 to show the height and general outline of the AAT project’s proposed structures. A public notice was issued to residents within 300 feet of the project site notifying them about the AAT project’s request for a Structure Development Permit to build in excess of 16 feet. The City received two claims from residents that expressed the desire to retain views of the eastern, developed hillsides, although these views are not a designated scenic vista. The claims were evaluated by the Solana Beach View Assessment Committee (VAC) on March 17, 2015 and the VAC recommended that the City Council deny the AAT project due to view impairment concerns. After that, the applicant for the AAT project did not pursue the project further. It should be noted that the two claims from residents neighboring the project site currently retain a “pending” status with the VAC and are considered valid claims for the current proposed project.
In 2017, Zephyr Partners proposed a new mixed-use development project (the proposed project) on the project site. Zephyr considered the view claims against the previous AAT project in the design of the proposed project. Zephyr also met with community members and city staff in 2016 to identify project goals. Some of these goals included: avoidance of three story buildings; design of project office, retail, restaurant and residential uses to have individual and unique character; provision and enhancement of pedestrian facilities along Highway 101 and throughout the project site; provision of two parking garage entrances; provision of reverse diagonal parking on South Sierra Avenue; and incorporation of sustainable features and building practices.

Initially, the Zephyr project was proposed as an alternative to the AAT proposed project (at the time referred to as the “Zephyr Alternative”). After the VAC recommendation of project denial, AAT assigned their project application to Zephyr and the Zephyr project was determined to be the new proposed project. The AAT project is now included as an EIR alternative in Chapter 6. The Zephyr proposed project is located within the same general footprint of the previous AAT project footprint and proposes similar residential and commercial uses; therefore, the Zephyr project is considered to be a modification to the AAT project and relies upon the 2015 NOP. Furthermore, several of the technical reports prepared for the previously proposed AAT project are specific to the physical location of project site rather than the composition of the proposed project uses, and, therefore, are adequate to evaluate the environmental impacts of the Zephyr proposed project. These reports include the cultural resources assessment, geotechnical investigation, and Phase I and II Environmental Site Assessments. Project-specific technical studies for the Zephyr project have been prepared for air quality and greenhouse gas emissions, biological resources, drainage, noise (acoustical), traffic, water quality, water demand and wastewater demand. The noise (acoustical) analysis includes the evaluation of both the Zephyr and AAT projects. All project-specific technical reports are provided as Appendices B through M to the Environmental Impact Report (EIR). Technical reports prepared solely for the AAT project are included in Appendix N.

1.2 Type, Intended Use and Purpose of the EIR

This EIR has been prepared in conformance with the requirements of the California Environmental Quality Act of 1970 (CEQA) [Public Resources Code (PRC), Section 21000, et Seq.]; the State CEQA Guidelines [California Code of Regulations [CCR] Section 15000 et seq.]; and the rules, regulations, and procedures adopted by the City. The purpose of the EIR is to evaluate potential environmental impacts associated with the implementation of the proposed project. In accordance with Section 15121 of the State CEQA Guidelines, the purpose of this EIR is to serve as an informational document that:
"Will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project."

The EIR has been prepared as a Project EIR pursuant to Section 15161 of the State CEQA Guidelines. A Project EIR is appropriate for a specific development project. As stated in the State CEQA Guidelines:

“This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation.”

The EIR will serve as an informational document for the public and the City’s decision-makers. The City, as Lead Agency, would rely on the EIR in conjunction with its consideration of project development, as deemed appropriate and consistent with the requirements of CEQA. The intent of this EIR is to serve as an informational document to be considered by the City Council during deliberations on the approval of the proposed project.

The process will culminate with a City Council hearing to consider certification of a Final EIR and a decision on whether or not to approve the proposed project. The EIR will also be used by Responsible Agencies including the California Coastal Commission, San Diego Regional Water Quality Control Board, and Santa Fe Irrigation District that may have review or discretionary authority over the proposed project.

1.3 Notice of Preparation

A Notice of Preparation (NOP) was prepared in compliance with State CEQA Guidelines Sections 15082. On July 1, 2015, the NOP was distributed by the City. In accordance with State CEQA Guidelines Section 15082, the NOP was circulated to interested agencies, groups and individuals for a period of 45 days, during which time comments were solicited pertaining to environmental issues/topics that the EIR should evaluate.

A scoping meeting was held on July 20, 2015. Comments were recorded from 16 speakers. Several of the speakers also provided written comments on the NOP. As discussed in the Executive Summary, the City received comment letters on the NOP from 18 residents in the surrounding neighborhoods and one local business owner. All verbal and written comments were reviewed and considered during the preparation of the EIR, and are provided in Appendix A.

At the end of the 45-day NOP review and comment period, the State of California Governor’s Office of Planning and Research, State Clearinghouse (SCH) issued a project number (2015071004) for the EIR.
1.4 EIR Review Process

The Draft EIR was distributed to the public and public agencies on April 19, 2018 for a 45-day review period for the purpose of providing comments “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 and mitigated” (State CEQA Guidelines Section 15204). The 45-day public review period will begin on April 19, 2018 and end on June 4, 2018. All written public comments received during the 45-day public review period will have been incorporated into the Final EIR along with a formal response to each comment as Final EIR Part III, Comments Received on the Draft EIR and Responses. The Draft EIR and appendices were made available for review at the Planning Department, City of Solana Beach, 635 S. Highway 101 Solana Beach, CA 92075. Written comments on the Draft EIR should be directed to the following address:

Corey Andrews  
City of Solana Beach  
635 S. Highway 101  
Solana Beach, CA 92075  

or  
E-mail: solana101eir@cosb.org

The City, as Lead Agency, will consider the written comments received on the EIR in making its decision whether to certify the Final EIR as complete in compliance with CEQA prior to approving or taking action on the proposed project.

1.5 Organization of the EIR

The Draft EIR is organized into several sections as follows:

**Executive Summary.** This section summarizes the proposed project, environmental impacts that would result from implementation of the proposed project, recommended mitigation measures that would avoid or reduce impacts, and the level of significance of impacts both before and after mitigation. This section also summarizes the environmental impacts associated with the project alternatives.

**Chapter 1, Introduction.** This section provides a project overview and background, and describes the purpose and intended use of the EIR, the EIR’s compliance with CEQA, and the scope and organizational format of the EIR.

**Chapter 2, Environmental Setting.** This section describes the existing physical conditions in the project vicinity as of July 1, 2015, which is the date that the NOP was published. Additional updates were made in March 2018 to reflect changes in on-site occupancy.
Specific existing environmental conditions are contained in each of the applicable resource sections within Chapter 4, Environmental Analysis.

**Chapter 3, Project Description.** This section provides a detailed description of the proposed project, including the location, the project objectives, the project features, and the construction methodologies and schedule. This section also includes a list of discretionary actions, decisions, and approvals that would be required for the proposed project.

**Chapter 4, Environmental Analysis.** This section contains the project analysis for various environmental issues. The subsection for each environmental topic contains a description of the existing environmental setting, regulatory framework, impact significance criteria, method of analysis, project impacts and mitigation (if required), and cumulative impacts.

**Chapter 5, Other CEQA Considerations.** This section provides discussions required by Sections 15126 and 15128 of the State CEQA Guidelines, including effects found not to be significant during the NOP process, growth inducing impacts of the proposed project, significant environmental effects that cannot be avoided if the proposed project is implemented, and significant irreversible environmental changes that would result from implementation of the proposed project.

**Chapter 6, Alternatives.** This section describes alternatives to the proposed project that could avoid or substantially lessen significant effects, and evaluates their environmental effects in comparison to the proposed project. The alternatives section also includes a discussion of alternatives initially considered but rejected from further analysis.

**Chapter 7, References.** This section provides a list of the reference documents and other sources of information used in preparing the EIR document and analysis.

**Chapter 8, List of Preparers.** This section provides a list of City staff and consultants involved in preparation of the EIR.
The EIR consists of supporting materials and technical appendices, including the following:

**Appendix A.** NOP and NOP Comment Letters Received

**Appendix B.** Air Quality and Greenhouse Gas Emissions Technical Report

**Appendix C.** Cultural Resources Survey Report

**Appendix D.** Geotechnical Reports

**Appendix E.** Environmental Site Assessment Reports

**Appendix F.** Drainage Technical Report

**Appendix G.** Water Quality Technical Report

**Appendix H.** Noise (Acoustical) Technical Report

**Appendix I.** Traffic Impact Analysis

**Appendix J.** Utilities Will-Serve Letters

**Appendix K.** Water Demand Memorandum

**Appendix L.** Sewer Study

**Appendix M.** Biological Resources Assessment

**Appendix N.** Technical Reports for No Project/American Assets Trust Alternative
Chapter 2. ENVIRONMENTAL SETTING

2.1 Introduction

In accordance with Section 15125 of the State CEQA Guidelines, the following section describes the physical environmental conditions in the vicinity of the proposed project as they exist at the time that the NOP was published. As identified in Chapter 1 of this EIR, the NOP was distributed by the City for public review on July 1, 2015. Issuance of the NOP generally constitutes the baseline physical conditions by which the City will determine if the proposed project would result in significant environmental effects. Additional updates to the environmental baseline were made in March 2018 to reflect changes in on-site occupancy. This chapter also provides a general overview of the City’s planning documents that are applicable to the proposed project.

2.2 Location

The proposed project is located in the City of Solana Beach in western San Diego County (Figure 2-1). The project site is a 1.95-acre lot located west of Highway 101, the Coastal Rail Trail (linear park) and the North County Transit District (NCTD) railroad ROW, north of Dahlia Drive, east of South Sierra Avenue, and south of an existing commercial development (CVS Pharmacy) south of Lomas Santa Fe Drive (Figure 2-2).

2.3 Project Site Land Uses

The project site is a rectangular shaped parcel (Figure 2-3). The topography of the project site varies from an elevation of 61 to 68 feet above mean sea level (msl). The northern half of the project site consists of a former mobile home park, which includes 24 vacant concrete pads that were once used for trailers and mobile homes. This area also contains an access road, a variety of non-native landscape trees, overhead power lines, and debris from the former mobile home park. The eastern portion of the southern half of the project site contains a one-story metal building, which was formerly part of a gas station, and a paved parking area. The gas station building is currently used as a temporary satellite office for a small company with 4-6 employees. This is the only occupied structure on the project site. Two rusted metal poles that formerly displayed signage and a small,
abandoned coffee kiosk are also present in the southeastern portion of the site. The southwestern portion of the site contains two vacated, one-story, single-family residences and a vacated one-story retail commercial building with detached garage. The southern half of the project site also includes asphalt driveways, parking areas, and non-native landscape trees and shrubs.

Stormwater runoff is currently conveyed away from the site in a southeastern direction to Highway 101, north or south along South Sierra Avenue, to ultimately drain into the City’s storm drain system within Highway 101 or South Sierra Avenue. The site’s current utilities consist of degraded water pipelines, sewer laterals, and gas and electric transmission facilities.

As part of the proposed project’s structure development permit application, temporary story poles were erected on the proposed project site in November 2017 to show the height and general outline of the proposed structures. A public notice was issued to residents within 300 feet of the project area on February 16, 2018, notifying them of the proposed project and potential view impacts. A corrected notification was issued on February 21, 2018, which clarified the maximum building height. The deadline for residents to submit a view assessment claim was March 19, 2018. As of the date of this EIR, four view claims have been submitted and were being reviewed by the View Assessment Committee.

Other features of the project site are described in the existing conditions discussions provided in Sections 4.1 through 4.14 of this EIR.

The project site has a General Plan land use designation of General Commercial (Mixed-Use, 20 dwelling units per acre), zoning designation of General Commercial, and Highway 101 Corridor Specific Plan designation of General Commercial (see Figures 2-4 and 2-5). The General Plan General Commercial designation involves the development of resident and visitor serving commercial uses and retail uses of a larger scale than those permitted under other commercial land use designations, such as grocery stores, drug stores, etc., but which still have a minimal disturbance to nearby residential neighborhoods. Residential uses are allowed as a secondary use in conjunction with permitted commercial uses at a maximum density of 20 units per acre. Other compatible uses such as religious institutions, educational institutions, public utilities, and parks and recreation facilities are permitted or conditionally permitted. The City’s General Commercial areas are located primarily along Highway 101 and along Lomas Santa Fe Drive (City of Solana Beach 2014a).

2.4 Surrounding Land Uses

The land located to the north and south of the proposed project is similarly designated as General Commercial in the General Plan, Zoning Map, and Highway 101 Corridor
Specific Plan, and consists of restaurant, retail and office/commercial development. Highway 101, the Coastal Rail Trail and the NCTD ROW are located immediately east of the proposed project site. Commercial development is located further east of the NCTD ROW. South Sierra Avenue is located immediately west of the proposed project site. Land located west of South Sierra Avenue is zoned as High Residential (13 to 20 dwelling units per acre), and consists of multi-family residential housing and a City of Solana Beach public parking lot (Figure 2-2).

Highway 101 is a 4-lane major arterial with a raised median that has pedestrian-friendly features and is a popular route for bicyclists. South Sierra Avenue is a two-lane, no-median roadway with relatively low traffic volumes that is regularly traveled by bicyclists, although there are no designated bicycle lanes (City of Solana Beach 2014b). There is a sidewalk, curb and gutter along the western side of South Sierra Avenue; however, such improvements do not currently exist on the eastern side (project frontage). At the southern boundary of the proposed project site, Dahlia Drive is a two-lane striped roadway with a sidewalk, curb and gutter on the south side. No sidewalk, curb, or gutter are currently located along the northern side of Dahlia Drive (project frontage). Regional access is provided via Highway 101, and to/from Interstate 5 (I-5) via Lomas Santa Fe Drive, and Via De La Valle. NCTD owns the rail line east of Highway 101 that runs in a north-south direction. The closest transit station to the project site is the Solana Beach Transit Center, located approximately 0.5 miles north of the project site. In addition, an NCTD bus stop is located on the eastern boundary of the project site along Highway 101.

Regional pedestrian access is provided via the perimeter sidewalks along Highway 101 and South Sierra Avenue, and a pedestrian bridge over the NCTD ROW connecting Highway 101 to South Cedros Avenue. Regional bicycle access is provided by an existing class II bike lane located along northbound Highway 101. Along southbound Highway 101, there is a class III bike lane, or “sharrow,” where the entire lane can be used by bicycles. South Sierra Avenue is also regularly traveled by cyclists, although there are no designated bicycle lanes on South Sierra Avenue.

The closest city-owned parks to the project site are the Coastal Rail Trail along the eastern edge of Highway 101 and Fletcher Cove Beach Park located 0.2 miles to the north. The closest school is St. James Academy on South Nardo Avenue, located approximately 0.5 miles southeast of the project site. The closest fire station is located approximately 0.5 miles northeast of the site on North Nardo Avenue. The City of Solana Beach contracts with the San Diego County Sheriff’s Department for law enforcement and other related services. The North Coastal Sheriff’s Station is located on North El Camino Real in Encinitas, approximately 4.2 miles northeast of the project site. The closest airport is the McClellan-Palomar Airport, located approximately ten miles to the northeast in the City of Carlsbad.
2.5 Scope of the Environmental Impact Analysis

The City determined the EIR scope of analysis after completion of the NOP, the public scoping meeting, and review of NOP comment letters, which are included in Appendix A. The following environmental issues were determined to be potentially significant and require further analysis in the EIR. These issues are addressed in Chapter 4 of the EIR.

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

The EIR also contains other mandatory discussions required by CEQA including the analysis of cumulative impacts in Chapter 4; effects found not to be significant, growth inducement, significant and unavoidable environmental effects, and significant irreversible environmental effects in Chapter 5; and alternatives to the proposed project in Chapter 6.
Figure 2-1
Regional Location
Figure 2-2
Project Vicinity
Figure 2-3
Project Site

Source: Google Earth 2017

Legend:

- Project Site

Source: North County Transit District

Coastal Rail Trail
South Cedros Avenue
South Sierra Avenue
Highway 101
Dahlia Drive
North County Transit District

Figure 2-3
Project Site
Figure 2-4
General Plan Land Use Designations

Source: City of Solana Beach 2014
General Commercial
High Density Residential
Medium Density Residential
Low Density Residential
Medium/High Density Residential
Office/Professional
Open Space/Recreational
Planned Industrial
Right of Way
Special Commercial

Project Site

Source: City of Solana Beach 2006

Figure 2-5
Highway 101 Corridor Specific Plan Land Use Designations
2.6 Format of the Environmental Impact Analysis and CEQA Requirements

The following subsections comprise each of the 14 environmental topic sections in Sections 4.1 through 4.14 of this EIR.

Existing Conditions
According to Section 15125 of the State CEQA Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of a project to provide the “baseline condition” against which project-related impacts are compared. Normally, the baseline condition is the physical condition that exists when the NOP is published. The NOP for this EIR was published on July 1, 2015.

Regulatory Framework
This subsection provides a summary of regulations, plans, policies, and laws that are relevant to each environmental topic at the federal, state, regional, and/or local levels.

Impact Significance Criteria
Impact significance criteria are used to determine whether potential environmental effects are significant. The impact significance criteria used in this analysis are primarily based upon Appendix G of the State CEQA Guidelines, and define the type, amount, and/or extent of an impact that would be considered a significant adverse change in the environment. The thresholds of significance are intended to assist the reader in understanding how and why an EIR reaches a conclusion that an impact is significant.

Method of Analysis
This subsection describes the methodology used to evaluate the potential environmental impacts of the proposed project. The methodology may include references to major sources used in the analysis, definitions of terms, and/or the general steps taken in the analysis. Where technical reports are used as the basis of the analysis, the methodology of the report is briefly summarized and the technical report is included as an appendix to the EIR.

Project Impacts and Mitigation
This subsection describes the potential environmental impacts of the proposed project. The analysis is largely based upon the categories provided in Appendix G of the State CEQA Guidelines; however, some of the applicable issues and significance criteria have been combined or reworded slightly to facilitate the environmental analysis.

Impact Analysis
The analysis of environmental impacts considers both the construction and operational aspects of implementation of the proposed project. As required by Section 15126.2(a) of
the State CEQA Guidelines, direct, indirect, short-term, extended-term, on-site and/or off-site impacts are addressed, as appropriate, for the environmental issue being analyzed.

This EIR uses the following categories to describe the level of significance of impacts identified during the course of the environmental analysis:

**Less than Significant.** This term is used to refer to: 1) impacts resulting from implementation of the proposed project that are not likely to exceed the defined standards of significance; and 2) potentially significant impacts that are reduced to a level that does not exceed the defined standards of significance after implementation of mitigation measures.

**Significant.** This term is used to refer to impacts resulting from implementation of the proposed project that exceed the defined standards of significance before identification of mitigation measures. A “significant effect” is defined by Section 15382 of the State CEQA Guidelines as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment [but] may be considered in determining whether the physical change is significant.”

**Significant and Unavoidable.** This term is used to refer to significant impacts resulting from implementation of the proposed project that cannot be eliminated or reduced to below applicable standards of significance through implementation of feasible mitigation measures.

**Mitigation Measures**
Section 15126.4 of the State CEQA Guidelines requires an EIR to “describe feasible measures which could minimize significant adverse impacts” if avoidance is not possible. CEQA Guidelines Section 15364 defines feasibility as capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, legal, social, and technological considerations. This subsection lists the “mitigation measures” that could reduce the severity of impacts identified in the Impact Analysis subsection. CEQA Guidelines Section 15370 defines “mitigation” as including (a) avoiding the impact altogether by not taking a certain action or parts of an action, (b) minimizing the impact by limiting the degree or magnitude of the action and its implementation, (c) rectifying the impact by repairing, rehabilitating or restoring the impacted environment, (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, and (e) compensating for the impact by replacing or providing substitute resources or environments.
Cumulative Impacts
CEQA requires that EIRs discuss cumulative impacts, in addition to project impacts. According to Section 15355 of the State CEQA Guidelines:

“Cumulative impacts’ refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

a. The individual effects may be changes resulting from a single project or a number of separate projects.

b. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.”

Section 15130(a) of the State CEQA Guidelines requires that EIRs discuss the cumulative impacts of a project when the project’s incremental effect is cumulatively considerable. According to Section 15065(a)(3) of the CEQA Guidelines, “cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. In accordance with Section 15130(b) of the CEQA Guidelines, the discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, this discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone. Further, the discussion of cumulative impacts is guided by the standards of practicality and reasonableness. The State CEQA Guidelines allow for a project’s contribution to be rendered less than cumulatively considerable with implementation of mitigation measure(s) designed to alleviate the cumulative impacts.

State CEQA Guidelines Section 15130(b)(1) indicates the following approaches for identifying cumulative projects:

A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

In determining the present and probable future projects to include in the cumulative impact analysis, the following guidance is provided by the Communities for a Better
Environment v. California Resources Agency (2002) 103 Cal. App. 4th 98. Probable projects include those which: 1) have an application on file at the time the NOP is released; 2) are included in an adopted capital improvement program, general plan, RTP, or similar plan; 3) are included in a summary of projections of projects (or development areas designated) in a general plan or similar plan; 4) are anticipated as later phases of approved projects; and/or 5) are included in money budgeted by public agencies.

This EIR uses the “list” approach. The full range of past, present and probable future (proposed) projects that are considered as part of the baseline when evaluating cumulative impacts were provided by the City at the time of release of the NOP on July 1, 2015, and subsequently updated in October 2017. This EIR refined the list provided by the City to exclude those projects located farther than two miles from the project site. Table 2-1 summarizes the geographic area within which past, present, and reasonably foreseeable future projects may contribute to a specific cumulative impact. The list of cumulative projects for the proposed project are described in Table 2-2 and depicted in Figure 2-6. The cumulative impact analysis for each environmental topic addressed in Chapter 4 of this EIR considers a unique set of projects from Table 2-2 that occur within the specific geographic areas described in Table 2-1. In accordance with State CEQA Guidelines Section 15130(b)(5), a determination is made of the significance of the baseline cumulative impact (prior to considering the cumulative contribution of the proposed project) resulting from the combination of cumulative projects that occur within the specific geographic areas.

In addition to the cumulative projects listed in Table 2-2, future infill development could occur along Highway 101, as the proposed project site is located within the Highway 101 Corridor Specific Plan. Land uses within the Highway 101 Corridor Specific Plan include residential, commercial, office/professional, and open space/recreational.

References
This subsection identifies sources relied upon for each environmental topic analyzed in Chapter 4 of this EIR.

<table>
<thead>
<tr>
<th>Table 2-1 Geographic Scope of Cumulative Impact Analyses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental Topic</strong></td>
</tr>
<tr>
<td>Aesthetics</td>
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<td>Environmental Topic</td>
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<td>-------------------------------------------</td>
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<tr>
<td><strong>Air Quality</strong></td>
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<td><strong>Cultural Resources</strong></td>
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<td><strong>Geology and Soils</strong></td>
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<td><strong>Greenhouse Gas Emissions (GHG)</strong></td>
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<td><strong>Hazards and Hazardous Materials</strong></td>
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<td><strong>Hydrology and Water Quality</strong></td>
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<td><strong>Land Use and Planning</strong></td>
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</table>
Table 2-1 Geographic Scope of Cumulative Impact Analyses

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<thead>
<tr>
<th>Environmental Topic</th>
<th>Geographic Scope of Cumulative Impact Analyses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>conservation plans is the North County Multiple Habitat Conservation Program area.</td>
</tr>
<tr>
<td>Noise</td>
<td>The area of cumulative impacts that would be considered for the noise and vibration cumulative analysis is limited to cumulative projects within the immediate vicinity of the proposed project site. The area of cumulative impact that would be considered for aircraft impacts would be those projects located within the McClellan-Palomar ALUCP noise contour area.</td>
</tr>
<tr>
<td>Population and Housing</td>
<td>The geographic context for the analysis of cumulative impacts in regards to population growth is defined as the City of Solana Beach. For the issues of displacement of housing and people, the geographic context for the analysis of cumulative projects is defined as San Diego County.</td>
</tr>
<tr>
<td>Public Services and Recreation</td>
<td>The service area of each service provider is the geographic scope of cumulative impacts to public services. The City of Solana Beach is the geographic scope of cumulative analysis for impacts to recreation.</td>
</tr>
<tr>
<td>Transportation/Traffic</td>
<td>The cumulative study area associated with traffic and level of service standards, traffic hazards, alternative transportation, and emergency access is the study area determined by the project-specific traffic impact analysis. Impacts related to aircraft traffic are limited to the McClellan-Palomar ALUCP Area of Influence.</td>
</tr>
<tr>
<td>Public Utilities, Service Systems and Energy</td>
<td>The cumulative study area for wastewater issues is defined as the San Elijo Water Reclamation Facility wastewater service area. The geographic extent of cumulative impacts related to water issues is the SFID delivery service area. The cumulative study area for landfill capacity is defined as the service areas of the Sycamore and Otay Landfills. For stormwater drainage facilities and solid waste compliance, the projects within and adjacent to the City, identified in Table 2-2, is the geographic study area. Finally, the study area for the cumulative analysis of energy supplies is defined as the SDG&amp;E and Solana Energy Alliance (SEA) service area.</td>
</tr>
<tr>
<td>Biological Resources</td>
<td>The cumulative study area for the analysis of sensitive species, habitat, wetlands, wildlife movement and corridors, and local policies and ordinances is the City of Solana Beach. The cumulative study area for the analysis of habitat conservation plans and natural community conservation plans is the North County Multiple Habitat Conservation Program area.</td>
</tr>
</tbody>
</table>

Table 2-2 Recent Past, Present and Probable Future Cumulative Projects

<table>
<thead>
<tr>
<th>Cumulative Project</th>
<th>Location</th>
<th>Project Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. The Pearl</td>
<td>555 S. Sierra Avenue</td>
<td>Three-story building designed to provide 10 housing units, 795 square feet (sf) of commercial office space, and 53</td>
<td>Approved by City Council in April 2014. Litigation resolved.</td>
</tr>
<tr>
<td>Cumulative Project</td>
<td>Location</td>
<td>Project Description</td>
<td>Status</td>
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<tr>
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<tr>
<td>parking spaces. Residential units would range from one to four bedrooms.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposes several mixed-use buildings totaling approximately 522,630 sf to be developed in multiple phases. Phase 1 would include an underground garage and approximately 12 one- and two-story mixed use buildings. Phase 2 would include an underground garage, boutique hotel and approximately 29-35 multi-family residential apartments.</td>
<td>Project planning stage. Conceptual plan has been presented to the City Council. No application on file.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highway 101 at the north end of the City and adjacent to San Elijo Lagoon</td>
<td>Open space and public trails improvements, public viewing platform.</td>
<td>Site designation from Commercial to Open Space complete. City permitting underway.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 2-2 Recent Past, Present and Probable Future Cumulative Projects

<table>
<thead>
<tr>
<th>Cumulative Project</th>
<th>Location</th>
<th>Project Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. I-5 North Coast Corridor</td>
<td>I-5 Freeway from Vandergrift Boulevard in Oceanside to La Jolla Village Drive in San Diego (Adjacent west)</td>
<td>27-mile long Interstate 5 improvement project. Includes construction of express lanes, interchanges, and soundwalls.</td>
<td>Phase 1 under construction; I-5 Express lane construction along median from Lomas Santa Fe to Oceanside</td>
</tr>
<tr>
<td>10. Lomas Santa Fe Corridor Study</td>
<td>Lomas Santa Fe Drive from Sierra Avenue to Highland Drive</td>
<td>Corridor study</td>
<td>Phase 1 of planning process.</td>
</tr>
<tr>
<td>11. Santa Fe Christian Schools Master Plan Update</td>
<td>838 Academy Drive</td>
<td>K-12th grade campus-wide improvement plan. Providing 172,336 sf for buildings and 266 parking spaces. Requires 9,000 cubic yards of cut 6,000 cubic yards of fill.</td>
<td>Phase 1A under construction.</td>
</tr>
<tr>
<td>12. Genevieve Street 99-bed Senior Care Facility Specific Plan</td>
<td>959 Genevieve Street</td>
<td>85 unit residential care facility up to 99 beds.</td>
<td>CEQA document in process.</td>
</tr>
<tr>
<td>13. Stevens Avenue Comprehensive Active Transportation Strategy (CATS) Project</td>
<td>Stevens Avenue from Via de la Valle to Lomas Santa Fe Drive</td>
<td>Complete streets improvements.</td>
<td>Under construction.</td>
</tr>
<tr>
<td>14. Ocean Ranch Estates</td>
<td>512 - 538 S. Nardo Avenue</td>
<td>Subdivision and construction of eight additional single-family homes as well as purchasing one off-site affordable dwelling unit.</td>
<td>Project planning stage. CEQA document in process.</td>
</tr>
<tr>
<td>15. Solana Highlands</td>
<td>661 to 781 S. Nardo Avenue</td>
<td>The existing 194 multi-family units would be demolished and 260 multi-family units would be constructed in 24 two and three-story buildings, including 32 units of affordable housing. Also proposed is a new recreation facility and clubhouse.</td>
<td>NOP submitted in November 2014. Draft EIR in process.</td>
</tr>
<tr>
<td>17. Del Mar Surfside Race Place</td>
<td>Del Mar Fairgrounds,</td>
<td>1,900 seat concert venue.</td>
<td>Planning</td>
</tr>
<tr>
<td>Cumulative Project</td>
<td>Location</td>
<td>Project Description</td>
<td>Status</td>
</tr>
<tr>
<td>--------------------</td>
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</tr>
<tr>
<td>2260 Jimmy Durante Boulevard, Surfside Race Place, Del Mar, CA 92014</td>
<td>18. La Colonia Skate Park&lt;br&gt;715 Valley Avenue</td>
<td>The City of Solana Beach is in the process of awarding a construction contract for a proposed skate park and basketball court in La Colonia Park consistent with the La Colonia Park Master Plan. This project consists of a 5,000 square foot skate park and a mini full basketball court adjacent to one another. The project includes a concrete walkway providing pedestrian access to the proposed facilities complemented by drought tolerant landscaping and pedestrian-scaled lighting. Users of the facilities will be able to enter and exit the site both from the existing parking spaces at Valley Avenue as well as from Stevens Avenue which will be accommodated by a new entrance to the park. The project received a categorical exemption pursuant to CEQA 15332 (Infill Development). Construction for this project is scheduled to begin in May 2018 and will take approximately 9 months to complete.</td>
<td>Pre-construction</td>
</tr>
</tbody>
</table>

Source: City of Solana Beach 2017b.
The Pearl
330 South Cedros Mixed Use
NCTD Train Station Project
Solana Beach School District Office and Child Development Center Modular Building Replacement Project
Harbaugh Trails Public Open Space and Trails Project
Skyline Elementary School Reconstruction
Earl Warren Middle School Reconstruction
I-5 North Coast Corridor
Lomas Santa Fe Corridor Study
Santa Fe Christian Schools Master Plan Update
Genevieve Street 99-bed Senior Care Facility Specific Plan
Stevens Avenue Comprehensive Active Transportation Strategy (CATS) Project
Ocean Ranch Estates
Solana Highlands
Via de la Valle Underground Utilities District for Utilities Undergrounding Program
Del Mar Surfside Race Place
La Colonia Skate Park

Source: City of Solana Beach 2018; Google Earth

Figure 2-6
Cumulative Project Locations
Chapter 3. PROJECT DESCRIPTION

3.1 Introduction

The purpose of this chapter is to describe the Solana 101 project (proposed project) for the public, reviewing agencies and decision-makers. According to Section 15124 of the State CEQA Guidelines, a complete project description must contain the following information: a) the precise location and boundaries of the project, as shown on a detailed map, along with a regional map of the project's location; b) a statement of the objectives (or goals) sought by the project; c) a description of the project's technical, economic, and environmental characteristics; and d) a statement of the intended uses of the EIR, including discretionary actions.

3.2 Project Location

The proposed project site is comprised of a 1.95-acre gross lot area (1.79-acre net lot area) site located within the City of Solana Beach, California. The project site is located west of Highway 101, the Coastal Rail Trail and the NCTD railroad right-of-way (ROW), north of Dahlia Drive, east of South Sierra Avenue, and south of an existing commercial development (CVS Pharmacy) south of Lomas Santa Fe Drive. Figure 2-1 shows the proposed project’s regional location, Figure 2-2 shows vicinity of the proposed project and Figure 2-3 depicts an aerial view of the project site.

3.3 Project Objectives

The following objectives have been identified for the proposed project:

1. Design and implement a transit-oriented, mixed-use development, which includes a balance of commercial office space, commercial retail and restaurant space, multi-family residential units, and adequate underground parking spaces with access to mass transit.

2. Improve the existing aesthetic character of the site by replacing mostly vacant and abandoned development with new structures that complement existing...
surrounding development and are consistent with the Highway 101 Corridor Specific Plan development standards and design guidelines.

3. Implement planned improvements to Dahlia Drive and South Sierra Avenue to facilitate pedestrian movement, increase safety, and create visual continuity along the Highway 101 corridor.

4. Develop and implement a unique landscape and design plan for the project site that is consistent with the Highway 101 Corridor Specific Plan.

3.4 Project Description

The project proposes to construct a new mixed-use development. The proposed development would include commercial office space; high turnover restaurant, quality restaurant; retail space; 25 multi-family residential units; and two floors of underground parking totaling 366 spaces. The proposed project’s floor area ratio (FAR) would be 1.12, not counting the proposed subterranean parking garage. The existing buildings on the site would be demolished to make way for the proposed development. Table 3-1 summarizes the proposed land uses and site coverage, which are described in the following sections. Figure 3-1 depicts the proposed site plan. Figure 3-2 shows the first floor plan layout while Figure 3-3 shows the second floor plan layout. Figure 3-4 provides a conceptual 3D view of the proposed project design.

<table>
<thead>
<tr>
<th>Table 3-1 Proposed Land Uses</th>
</tr>
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<tbody>
<tr>
<td>Project Development Feature</td>
</tr>
<tr>
<td>Total Gross Lot Area</td>
</tr>
<tr>
<td>Parking Garage</td>
</tr>
<tr>
<td>Total Gross Floor Area (without parking)</td>
</tr>
<tr>
<td>Commercial Office</td>
</tr>
<tr>
<td>Commercial Retail</td>
</tr>
<tr>
<td>Commercial Food and Beverage</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
</tr>
</tbody>
</table>

1 Total Commercial Food and Beverage made up of High Turnover and Quality restaurant

Source: MW Steele Group 2017
Figure 3-1
Proposed Site Plan

Site Plan Notes

1. Storm Drains (Per Civil)
2. Storm
3. Decorative Gravel per Landscape Drawings
4. Planters per Landscape Drawings
5. Synthetic Turf
6. New Driveway and Cut Out
7. Stepping Stone
8. New Pedestrian Curb Ramp per ADA
9. Toilet and Recycling Enclosure
10. Trash Access
11. Commercial Loading Ramps
12. BMP Planter
13. Electrical Vault Access
14. ADA Ramp 1:12 Max Slope
15. Line of Sanded Rock Overhang Above
16. Parking Garage Exit Stairs
17. Concrete Filling
18. ADA Access in Garage
19. Accessible Path
20. Shed Parking (52 total)
21. T-Concrete Curb
22. Paving Type 1 per Landscape Plan
23. Paving Type 4 per Landscape Plan
24. Paving Type 6 per Landscape Plan
25. Storm Service (per Civil Work)
26. Bus Loop
27. Outdoor Dining Area
28. Parking Garage Ramp - Pedestrian Access Point
29. Pedestrian Access
30. Path of Travel (Diamonds) for Loading Trucks
31. Hatch for Sewing Grease Trap
32. Underground Hydrant/Storage Tank (See Civil Drawings)

Source: MW Steele Group Inc. 2017
Figure 3-2
Proposed Site Plan First Floor

Source: MW Steele Group Inc. 2017
Figure 3-3
Proposed Site Plan Second Floor
3.4.1 Multi-Family Residential

The proposed residential component (33,473 SF) would be comprised of two separate two-story buildings for a total of 25 dwelling units (DU). Project density would be 13.97 DU/acre based on 1.79 acres of net lot area. The residential buildings would be composed of seven different unit designs consisting of 18 2BR/2BA units and 7 1BR/1BA ranging in size from 940 SF to 1,310 SF. The units would be rentals (apartments) and the project proposes to pay the Affordable Housing In-Lieu Fee instead of constructing affordable housing units onsite. A breakdown of unit types by building is shown in Table 3-2.

The proposed residential component would be prominently visible along Dahlia Drive and at the corner of South Sierra Avenue and Dahlia Drive. Architectural elements viewable from South Sierra Avenue and Dahlia Drive would include metal guardrails along private patios or balconies; cement masonry; porcelain wall tile; and a combination of plaster and painted hardboard siding. The residential buildings would be a maximum of 28.5 feet in height.

<table>
<thead>
<tr>
<th>Building</th>
<th>1 Bedroom/ 1 Bathroom Units</th>
<th>2 Bedroom/ 2 Bathroom Units</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern</td>
<td>2</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Southern</td>
<td>5</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>18</td>
<td>25</td>
</tr>
<tr>
<td>Percentage by Unit Type</td>
<td>28%</td>
<td>72%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: MW Steele Group 2017

3.4.2 Commercial Office, Retail and Restaurant

The proposed project would provide 45,587 SF of commercial office space, 4,142 SF of commercial retail space, 10,562 SF of indoor commercial restaurant space consisting of high turnover and quality restaurant use, and 2,920 SF of outdoor patio space. The space would be divided between multiple buildings within the project site including three two-story office buildings, two two-story restaurants mixed with commercial or retail, and one one-story building consisting of a restaurant (see Figure 3-1). The buildings would be a maximum of 33.2 feet in height. The roof lines would consist of both flat and sloped lines that would allow for the installation of photovoltaic panels. The project would allow for private ownership of the office tenant spaces.
3.4.3 Infrastructure and Support Systems

The proposed project consists of infrastructure and support systems including parking and vehicular access, pedestrian access, utilities, drainage, and landscaping improvements, as well as half-width roadway improvements. Each of these topics is described below.

Vehicle and Bicycle Parking

The two level subterranean parking garage would extend below the majority of the project site. The parking garage is proposed for residents, tenants, guests, employees, and patrons of the commercial office, commercial retail, and commercial restaurant uses. The parking garage would provide 366 spaces including ten handicap accessible spaces, two of which would be van accessible spaces. Table 3-3 provides a breakdown of the parking spaces that would be provided in the garage. The parking garage would be designed with the residential parking on the west side of level 1, directly below the residential land uses to allow for close proximity to residences and short walking distances. Residential parking would be secured with gate access. Residents would have key cards for access to the residential parking. A total of 47 vehicle parking spaces, including two handicap accessible vehicle spaces and one handicap accessible van space, would be provided in the residential parking area. Six residential guest parking spaces would be located in the commercial parking area for guests of the residential units because guests would not have access to the gated residential parking area. A total of 313 commercial spaces would be available on both level 1 and level 2 of the parking structure. Level 1 would provide a total of 111 commercial parking spaces, including six handicap accessible vehicle spaces and one handicap accessible van space. Level 2 would provide a total of 202 commercial parking spaces. Motorcycle spaces would be available on level 1. A total of 51 parking spaces would be designated for electric and alternative fuel vehicles, 11 spaces would be equipped to charge electric vehicles, and 11 spaces would be prewired to be EV charging capable.

Additionally, seven reverse-diagonal parking spaces would be provided for the public on South Sierra Avenue to access the project. These diagonal spaces would be an extension of the existing diagonal street parking to the north.

Bicycle parking would be provided in several locations onsite. Thirty two outdoor bicycle parking spaces would be provided in at least six locations fronting Highway 101 and Dahlia Drive to serve the proposed commercial retail and restaurant uses. In addition, at least two outdoor bicycle parking areas would be provided to serve the proposed commercial office uses in the middle of the project. The residential portion of the parking garage would also provide a dedicated bike storage area to serve the proposed residential uses.
### Table 3-3: On-Site Garage Parking

<table>
<thead>
<tr>
<th>Parking Type</th>
<th>Area / Units</th>
<th>Parking Ratio</th>
<th>Number of Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Office</td>
<td>45,587</td>
<td>1 space/300 SF</td>
<td>152</td>
</tr>
<tr>
<td>Commercial Retail</td>
<td>4,142</td>
<td>1 space/200 SF</td>
<td>21</td>
</tr>
<tr>
<td>Commercial Food and Beverage (F&amp;B) (including outdoor)</td>
<td>13,482</td>
<td>1 space/100 SF</td>
<td>135</td>
</tr>
<tr>
<td>Multi-Family Residential 1 Bedroom/1 Bathroom Units</td>
<td>7</td>
<td>1.5 spaces/DU</td>
<td>11</td>
</tr>
<tr>
<td>Multi-Family Residential 2 Bedroom/2 Bathroom Units</td>
<td>18</td>
<td>2 spaces/DU</td>
<td>36</td>
</tr>
<tr>
<td>Residential Guest</td>
<td></td>
<td>1 space/4 DU</td>
<td>6</td>
</tr>
<tr>
<td>Motorcycle Spaces (1)</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Bicycle Storage Area for Project Residents (1)</td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
<tr>
<td>Accessible Spaces (1)</td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Total Required Spaces</td>
<td></td>
<td></td>
<td>361</td>
</tr>
<tr>
<td><strong>Total Proposed Spaces</strong></td>
<td></td>
<td></td>
<td><strong>366</strong></td>
</tr>
</tbody>
</table>

(1) Not included in the total.  
Source: MW Steele Group 2017

**Vehicular, Transit, and Pedestrian Access**

Vehicular access to the project site would be provided via two garage entrances via driveways off of Dahlia Drive and South Sierra Avenue. Both entrances would provide full movement driveways allowing inbound and outbound movements. The South Sierra Avenue entrance would be for residents only and the Dahlia Drive entrance would be for the commercial office, retail and restaurant patrons and employees and the general public. Regional vehicular access is provided via Highway 101, and to/from Interstate 5 (I-5) via Lomas Santa Fe Drive, and Via De La Valle. The project driveways are proposed to be unsignalized.

The project includes a loading dock on the ground floor of the project site, accessible through a roll-up door from a driveway on Dahlia Drive. The dock would be adjacent to the restaurant/retail space, and separated from residential uses by the parking garage entrance. Delivery trucks would be completely enclosed in the loading dock following entry of the truck and closing the roll-up door, similar to a home garage.

The project site is located within 0.5 miles of the Solana Beach Transit Center. An existing NCTD bus stop is located on the eastern edge of the project site along Highway 101. The bus stop and shelter would remain operational post construction and would continue to provide transit access to the project site and surrounding areas.

Pedestrian access would be provided to the project site via new and/or improved perimeter sidewalks along Highway 101, Dahlia Drive and South Sierra Avenue. Three existing crosswalks are located at the intersection of Dahlia Drive and Highway 101, which
facilitate safe pedestrian movement through the intersection in both north-south and east-west directions. An existing pedestrian bridge to the east of the project site provides access over the NCTD ROW connecting Highway 101 to South Cedros Avenue to the east. Regional bicycle access is provided by an existing northbound bike lane and southbound sharrow located along Highway 101. South Sierra Avenue is also regularly traveled by cyclists, although there are no designated bicycle lanes. The east-west open space design of the proposed project also allows for public access through the project site from Highway 101 to South Sierra Avenue.

Pedestrian access to the proposed high quality restaurant and commercial restaurant/retail space on the first floor of the proposed project would be accessible from the intersection of Dahlia Drive and Highway 101. Three staircases located at the northwest corner along South Sierra Avenue, the northeast corner along Highway 101 and near the high turnover restaurant space would provide access to the site from the underground parking structure. Elevators would also be provided in these areas. Pedestrian access to multi-family residential units would be available from Highway 101, Dahlia Drive and South Sierra Avenue. Pedestrians would access the second level residential units and the underground parking structure via elevators or stairs located between the two buildings. Three sets of stairs would be located between the two residential buildings on the west, middle and east sides. One elevator would be located in the middle between the two residential buildings.

Utilities
The proposed project would connect to existing utilities located on-site that once served previous uses. Upgrades to the existing utilities would be required for potable water pipelines, sewer laterals, gas and electric transmission facilities, stormwater treatment, and communications facilities. New grease interceptors for restaurants would be constructed. Sewer and water easements are proposed to be located throughout the project site. Water service would be provided by Santa Fe Irrigation District. Sewer service would be provided by the City of Solana Beach. The project’s wastewater would flow to the Solana Beach Pump Station, and ultimately treated and disposed of at the San Elijo Joint Powers Authority Water Reclamation Facility (Project Design Consultants 2017c).

Drainage
Project runoff would be conveyed away from the project site in a southeastern direction onto Highway 101, and north or south along South Sierra Avenue. Since the commercial and residential buildings would be constructed over the proposed parking structure, there is limited opportunity to gravity drain towards the adjacent street gutters. Seven raised biofiltration planter BMPs with nutrient sensitive media proposed to treat the onsite runoff would be located on the outside edge of the project boundary.
Runoff collected via roof drains and drains throughout the plaza would be pumped to the proposed biofiltration BMP planters located along the outside edge of the project boundary along Highway 101, Dahlia Drive and South Sierra Avenue (Project Design Consultants 2017b). Additional runoff would be collected in a detention basin located in the northwest corner of the site. A sump pump system would pump the water to a series of biofiltration planters for treatment along South Sierra Avenue and Dahlia Drive (Project Design Consultants 2017b). The water would then be released into the existing storm drain system and carried off site.

**Landscaping**

A conceptual landscape plan has been designed to encourage social interactions between the various onsite land uses (Figure 3-5). Gathering spaces would be part of the open space design concept. These spaces include areas for seating, dining, lounging and playing. Landscaping would include a variety of trees, shrubs, and groundcover in compliance with City standards. Concrete walkways, paver tiles, and steps would be installed to provide an enhanced landscape experience. The landscape species would include native plants that are responsive to the local climate and limited water resources. The landscape plan would include a water-efficient drip irrigation system and low to moderate water use plants. However, recycled water infrastructure is not currently available to the project site. Stormwater infiltration systems would be integrated through the use of planters along the perimeter of the project site. A focal rainwater element would be located along Highway 101 which would channel roof drainage through an overhead tunnel with a waterfall to a biofiltration BMP planter. Figures 3.6 – 3.8 display the proposed landscape design along the Highway 101, South Sierra Avenue and Dahlia Drive street frontages. The landscape plan is required to comply with the City of Solana Beach Water Efficient Landscape Regulations approved in December 2015.

**Roadway Improvements**

Implementation of the proposed project would include ROW dedications and improvements to Dahlia Drive, South Sierra Avenue, and Highway 101 along the perimeter of the proposed project. Improvements to Dahlia Drive would include half-width improvements consisting of pavement, sidewalk, gutter, curb, and a curb cut/driveway entrance to the underground parking garage. Improvements to South Sierra Avenue would include half-width improvements consisting of sidewalk, gutter, curb, off-street reverse-diagonal parking, and a curb cut/driveway entrance to the underground parking garage. Improvements to Highway 101 would include closing the two existing driveways and improvements to the existing sidewalk, curb, and gutter. Some trenching would be anticipated in all surrounding roadways for utility upgrades. Trenched areas would be restored to their original condition, with the exception of half-width roadway improvement areas, which would be restored to improved conditions as described above.
Figure 3-5
Conceptual Landscape Plan
Figure 3-6
Landscape Elevation along Highway 101
Figure 3-7
Landscape Elevation along South Sierra Avenue

Source: Carson Douglas Landscape Architecture, Inc. 2017
3.4.4  Project Design Features

The following design features have been incorporated into the project which would reduce the potential for impacts associated with these issues.

3.4.4.1  Greenhouse Gas (GHG) Design Features

The proposed project has included the following project design features (PDFs) to minimize potential project impacts related to GHG.

**PDF-GHG-1: Energy Efficiency**

Prior to the issuance of building permits, the project applicant shall demonstrate that the project has included the following elements to reduce energy demand:

- Install Energy Star rated washing machines, dish washers, fans, and refrigerators in the multi-family housing units
- Install solar hot water heaters in the multi-family units
- Install programmable thermostats in all multi-family units and commercial spaces
- Install LED lights in all outdoor spaces
- Install timers on all outdoor lighting so that only safety lights are utilized after business hours and only as necessary during daylight hours
- Exceed 2016 Title 24 building energy efficiency standards by 10 percent and obtain third-party HVAC commissioning and verification of energy savings

**PDF-GHG-2: Generation of On-Site Renewable Solar Energy**

Prior to the certificate of occupancy, the project applicant shall demonstrate that the project has installed an on-site renewable solar energy source to provide the project with 230,000 kilowatt hours (kWh) per year.

**PDF-GHG-3: Conservation of Water and Solid Waste**

Prior to issuance of building permits, the project shall demonstrate implementation of the following measures to reduce water consumption and solid waste generation resulting from the project:

- Landscaping shall include only water-efficient drip irrigation systems, low to moderate water use plans, and no turf. A complete landscape and irrigation plan package in compliance with the State of California Model Water Efficiency Landscape Ordinance shall be submitted to the City of Solana Beach for review and approval prior to the issuance of a building permit.
- The applicant shall apply a water conservation strategy to achieve a 25 percent indoor water use reduction compared to standard estimates for the proposed
uses according to information provided by the applicant (EIR Appendix K). Quantifications of water conservation measures shall be included before the issuance of building permits. Measures that may be incorporated to achieve the target reductions include, but are not limited to, the following: install low-flow plumbing fixtures and appliances and only serve water at restaurants upon request.

- The project applicant shall, as part of the standard tenant agreement, require residents and commercial tenants to institute recycling and composting services with a target of 75 percent diversion, in compliance with Assembly Bill 939 and Assembly Bill 341. A description of the program and instructions for compliance shall be made part of the standard tenant agreement for residents and commercial tenants.

**PDF-GHG-4: Transportation Demand Management**

Prior to issuance of certificate of occupancy, the project shall implement the following measures to reduce vehicle miles travelled resulting from the project. The following measures are designed to influence the transportation choices of residents, employees, and customers, and serve to enhance the use of alternative transportation modes both on and off the project site through the provision of incentives and subsidies, and other innovative means:

- Project applicant shall, as part of the standard tenant agreement, require commercial tenants to offer an employer-sponsored vanpool/shuttle service to the extent that at least 20 percent of employees are eligible for the program. Additionally, commercial tenants shall develop partnerships with shared mobility service providers (on-demand rideshare, microtransit, scootershare, and bikeshare providers) to provide a commuter benefit program to the extent that at least 20 percent of employees are eligible for the program.

- Project applicant shall, as part of the standard tenant agreement, require commercial tenants to offer an average transit fare subsidy of $5.96 per employee per day.

- Project applicant shall, as part of the standard tenant agreement, require commercial tenants to offer a rideshare program to employees to the extent that at least 20 percent of employees are eligible for the program.

- Project applicant shall, as part of the standard tenant agreement, require commercial tenants to encourage telecommuting and alternative work schedules, such as a 9 day/80 hour schedule, 4 day/40 hour schedule, or part-time telecommuting, to the extent that at least 10 percent of employees are eligible for the program.

**PDF-GHG-5: Promotion of Electric and Alternative Fuel Vehicles**
Prior to issuance of building permits, the project applicant shall demonstrate that each of the following measures have been incorporated into the design of the project to encourage electric vehicle and alternative fuel vehicle use:

- Implement City of Solana Beach Climate Action Plan Measure T-5 to designate 20 percent of onsite parking spaces (51 parking spaces) for electric and alternative fuel vehicles.
- Provide 11 electric vehicle (EV) charging stations and 11 EV capable parking spaces, consistent with California Green Building Standards requirements to pre-wire 6 percent of parking spaces for EV charging.

### 3.4.4.2 Water Quality Design Features

The proposed project has included the following project design features to minimize potential impacts related to water quality:

PDF-WQ-1: Stenciling
All inlets/catch basins would be stenciled with the words “No Dumping – Drains to Creek,” or equivalent message.

PDF-WQ-2: Trash Containers
All trash container areas would be designed so that drainage from adjoining roofs and pavement is diverted around the area(s) to avoid run-off. All trash container areas would be screened or walled to prevent offsite transport of trash. Trash and recycling containers would be placed in the underground parking structure.

### 3.4.4.3 Noise Design Features

The proposed project has included the following project design features to minimize potential project impacts related to noise:

PDF-NOI-1: Loading Dock Design
The loading dock would be enclosed by a roll-up door that does not include any openings or gaps in order to minimize noise outside the loading dock. A door that is rated to provide at least 20 A-weighted decibels (dBA) noise reduction would be installed.

PDF-NOI-2: Air Conditioning Systems
All 25 multi-family residential units would be equipped with an air-conditioning system to allow for closed window conditions.

### 3.4.4.4 Water Conservation Design Features

The proposed project has included the following water conservation project design features.
PDF-WC-1: Water Conservation Features
Design of the project would include drought-resistant landscaping; efficient, weather-responsive outdoor irrigation; no turf grass; and low water use indoor plumbing fixtures.

3.4.5 Project Construction

Construction of the proposed project is anticipated to occur over an 18-month period, beginning in Summer/Fall 2018, and ending in Fall/Winter 2019. Construction would typically occur from 7 a.m. to 4 p.m. five days a week (Monday through Friday), and 8 a.m. to 1 p.m. on Saturdays.

Construction would involve the demolition of approximately 6,500 SF of existing on-site structures, and the removal of approximately 0.94 acre of disturbed habitat, including mature, non-native trees. Demolition debris is anticipated to total 1,070 tons, of which 990 tons would be recycled. Construction debris is anticipated to total 500 tons, of which 375 tons is anticipated to be recycled.

Construction of the below-grade parking structure would require the export of approximately 49,200 CY of soil off-site during excavation and grading. Approximately 6,150 truck trips would be required to haul the export from the site to an approved disposal location. The proposed project would use construction equipment typical of commercial and residential developments. No pile driving would be required. The proposed grading plan is provided in Figure 3-9.

Construction BMPs would be used to reduce or eliminate the discharge of sediment and other pollutants in stormwater and non-stormwater runoff from the project site. Construction BMPs would include but not be limited to, the following:

- Minimization of disturbed areas by limiting disturbance to the portions of the project site necessary for construction;
- Stabilization of exposed or stockpiled soils and cleared or graded slopes;
- Establishment of permanent re-vegetation or landscaping as early as feasible;
- Removal of sediment from surface runoff before it leaves the project site by silt fences or other similar devices around the site perimeter;
- Diversion of upstream runoff around disturbed areas of the project site;
- Protection of all storm drain inlets on site or downstream of the project site to eliminate entry of sediment;
- Prevention of tracking of soil through use of a gravel strip or wash facilities at exits from the project site;
- Proper storage, use, and disposal of construction materials; and
• Continual inspection and maintenance of all specified BMPs through the duration of construction.

3.5 Discretionary Actions, Decisions and Approvals

The proposed project is a “discretionary project,” which is defined in Section 15357 of the CEQA Guidelines as “a project that requires the exercise of judgment or deliberation when the public agency or body decides to approve or disapprove a particular activity.” The proposed project would require a number of discretionary actions and/or approvals. According to Sections 15050 and 15367 of the CEQA Guidelines, the City is designated as the Lead Agency for the project. Responsible agencies are those agencies that have discretionary approval authority over one or more actions involved with the development of a proposed project. The State Water Resources Control Board, Santa Fe Irrigation District and California Coastal Commission are responsible agencies for the proposed project. Trustee agencies are state agencies having jurisdiction by law over natural resources affected by a proposed project that are held in trust of the people of the State of California. No trustee agencies have been identified for the proposed project.

The following discretionary actions are associated with the proposed project and would be considered by the City:

• Major Subdivision (SUB)
• Development Review Permit (DRP)
• Structure Development Permit (SDP)
• Conditional Use Permit (CUP) for restaurants (with bars or cocktail lounges) and the sale of alcoholic beverages for off-site consumption
• Tentative Map for Office Condominiums
• Grading Permit
• Encroachment Removal and Maintenance Agreement
• Comprehensive Sign Plan
• Temporary Use Permit for offsite construction staging

Discretionary actions anticipated to be required by responsible agencies include:

• California Coastal Commission, Coastal Development Permit
• Santa Fe Irrigation District, Water Utility Connection
• State Water Resources Control Board, Construction Activities Stormwater General Permit
Figure 3-8
Landscape Elevation along Dahlia Drive

Source: Carson Douglas Landscape Architecture, Inc. 2017
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Chapter 4. ENVIRONMENTAL ANALYSIS

4.1 Aesthetics

This section describes the existing aesthetic and visual conditions that could be adversely affected by the proposed project, discusses the applicable laws and regulations related to aesthetics and visual quality, and analyzes the proposed project’s effect on: 1) designated scenic views; 2) scenic resources from a designated highway; 3) the existing visual character of the site and its surroundings; and 4) day and nighttime views affected by introducing light or glare.

Specific visual concepts and terminology are commonly used to describe existing aesthetics and visual quality conditions, or are used to describe the change in the existing conditions after implementation of the proposed project. The following definitions pertain to terminology used in visual analysis.

- Aesthetics generally refers to the identification of visual resources and the quality of what can be seen, or the overall visual perception of the environment.
- Focal points are areas that draw the attention of the viewer, such as prominent structural features and water features.
- Key vantage point is a viewing area selected by evaluating an area’s scenic quality, visual sensitivity, and viewer response. Project visualizations are often created from these points.
- Viewer sensitivity, or viewer concern, about noticeable changes to views is based on the visibility of a scenic resource, proximity of viewers to the resource, relative elevation of viewers to the resource, frequency and duration of views, number of viewers, and types and expectations of the viewers.
- Viewshed is all of the surface area visible from a particular location or sequence of locations (e.g., roadway or trail).
- Vista areas are generally defined as scenic resources which are visible from public locations, such as public open space, public parks and schools, municipal buildings and public roadways.
4.1.1 Environmental Setting

4.1.1.1 Existing Landform and Aesthetic Character

The project site is located in a developed area of Solana Beach (see Figure 2-3, Project Site). The topography of the project site varies in elevation from 61 to 68 feet above msl. The northern half of the project site consists of a former mobile home park, which includes 24 vacant concrete pads that were once used for trailers and mobile homes. This area also contains an access road, a variety of trees, overhead power lines, and debris from the former mobile home park. The eastern portion of the southern half of the project site contains a one-story metal building, which was formerly part of a gas station, and a paved parking area. The gas station building is currently used as a temporary satellite office for a small company with 4-6 employees. Two rusted metal poles that formerly displayed signage and a small, abandoned coffee kiosk are also present in the southeastern portion of the site. The southwestern portion of the site contains two vacated, one-story, single-family residences and a vacated one-story retail commercial building with detached garage. The southern half of the project site also includes asphalt driveways, parking areas, and various trees and shrubs.

The site is bordered by commercial development to the north and south, multi-family units to the west, and Highway 101, the Coastal Rail Trail, and the NCTD ROW to the east, with commercial development further east. The existing surrounding commercial development along Highway 101 is zoned as General Commercial, and includes banks, offices, restaurants, pharmacies, and fitness facilities. The surrounding commercial development is typically one to two stories high, built in varying years with white or tan stucco, brick, or other materials. The existing surrounding residential development located west of South Sierra Avenue is zoned as High Residential with a maximum allowable density of 13-20 dwelling units per acre. The Solana Beach and Tennis Club located southwest of the proposed project site was built in 1975, and features two story condominiums with neutral tan and brown stucco and red terracotta roofing material. The Seascape Shores Condos located northwest of the proposed project site was built in 1973 and features two stories of wood shake style condos with a gated entrance. Further northwest of the proposed project site is more residential development, typically two stories high with tan or white stucco and brown or red roofing materials built between 1970 and 1990.

4.1.1.2 Designated Scenic Views

Designated scenic views are generally defined as views of scenic resources from public locations, such as public open space, public parks and schools, municipal buildings, and public roadways. No designated scenic views are within the viewshed of the proposed project site.
4.1.1.3 Scenic Highways

Scenic resources also include scenic roadways and highways within the city that traverse, or provide views of, areas with outstanding scenic quality that contain striking views of natural vegetation, geology, and other unique natural features including the beach and ocean. No designated State Scenic Highways exist within the proposed project area; however, Interstate 5 is an eligible State Scenic Highway (not officially designated) that goes through the city approximately one mile east of the proposed project site. Highway 101 is a locally designated scenic corridor.

4.1.1.4 Other Public Views

The proposed project site is bound on all sides by existing commercial and residential development, as well as the Highway 101 corridor to the east. Residential buildings, the backs of commercial buildings along South Cedros Avenue, and the pedestrian bridge over the NCTD railroad ROW are also visible to the east. Commercial buildings and associated parking lots are visible to the north and south. Multi-family residential buildings and a City-owned public surface parking lot are visible to the west. The only other view available from the proposed project area, other than the surrounding developments, is the Coastal Rail Trail across Highway 101 and the developed, hilly terrain to the east.

4.1.1.5 Recreational Land Uses

There are no existing recreational facilities located on the project site. However, the City has 103 acres of recreational facilities, which consist of public parks, beach areas, and open space. The City has 1.7 miles of beachfront, which is divided into four beach parks: Fletcher Cove Park, Tide Park, Seascape Sur Public Access Stairway, and Del Mar Shores Public Access Stairway. Other City parks and community centers include La Colonia Park, and La Colonia Community Center; Fletcher Cove Community Center; and the Coastal Rail Trail. Other recreational spaces include San Dieguito County Park, the Boys and Girls Club, the Lomas Santa Fe Country Club, and the Lomas Santa Fe Executive Golf Course. Open spaces used for recreational activities nearby the area include the Holmwood Canyon area and San Elijo Lagoon. The closest park/beach access to the project site is the Seascape Sur Public Access Stairway approximately 0.1 mile to the south. The closest parks to the project site are the Coastal Rail Trail (linear park) located immediately east of Highway 101, and Fletcher Cove Park, located at 111 South Sierra Avenue, which is approximately 0.2 miles north of the project site.

4.1.1.6 Public Roadways and Rights-of-Ways

The public roadways and rights-of-way surrounding the proposed project site include South Sierra Avenue to the west and Dahlia Drive to the south. Highway 101 and its associated public transit routes border the proposed project area to the east. The CVS
parking lot and roadway entrances back up onto the northern edge of the proposed project area.

4.1.1.7 Light and Glare

There are two common types of light intrusion: first, light that emanates from the interior of structures and passes out through windows; and second, light that projects from exterior sources, such as street, security, and landscape lighting. Light spillover is typically defined as the presence of unwanted or misdirected light on properties adjacent to a subject property being illuminated. Light spillover can be a nuisance to adjacent areas and can diminish views of the clear night sky.

Glare is described as the distraction, discomfort, or impairment of vision caused by extreme contrasts in the field of vision, where light sources such as sunlight, lamps, luminaries, or reflecting surfaces are excessively bright in relation to the general brightness of surroundings. Glare also results from sunlight reflecting off flat building surfaces, with glass typically contributing the highest degree of reflectivity. In its simplest form, glare is a consequence of the normally helpful capability of the human eye to adapt to different light levels.

On Site Lighting
The project site is mostly vacant and does not currently generate substantial light. The most prominent sources of lighting are from perimeter streetlights and safety lighting associated with the former gas station building. Existing sources of daytime glare include bidirectional transitory glare from vehicles using the existing parking area adjacent to the former gas station, as well as glare from the windows of the existing, on-site structures.

Off Site Lighting
As described above, the area surrounding the project site is largely built-out and supports a mixture of commercial, recreational, and residential uses. The nighttime lighting environment surrounding the project site consists mainly of ambient light produced by interior and exterior buildings (residential, office, commercial) lighting, highly ordered/structured lighting from streetlights, and transitory lighting from vehicle and transit-related (i.e., bus and train) headlights.

Sources of daytime lighting and glare include commercial, retail, residential, and municipal uses that incorporate lighting for security, decoration, or operation. Transitory lighting and glare from cars, trucks, buses, and trains further contribute to ambient conditions in the area. Overall, because the area is largely built-out, existing ambient levels of light and glare are considered to be high.
4.1.2 Regulatory Framework

4.1.2.1 State

California Coastal Act
The City is located entirely within the state-designated coastal zone, established by the California Coastal Act of 1976 (Coastal Act) (Solana Beach 2014). Under the Coastal Act, scenic and visual qualities of coastal areas are considered and protected as a visual resource. One of the primary objectives of the 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 statute also requires that development is sited and designed to be visually compatible with the character of surrounding areas. Where feasible, development shall include measures to restore and enhance visual quality in visually degraded areas.

4.1.2.2 Local

City of Solana Beach General Plan
The City’s General Plan includes a series of goals, objectives, and plan policies related to aesthetics and visual character within the Conservation and Open Space Element. The General Plan contains the following goal and policies relative to the preservation of scenic resources and public scenic views as they relate to the proposed project:

Goal 3.2: To protect and enhance sensitive open space areas and viewsheds.

Objective 3.0: Maintain the quality of scenic views in the city as well as the overall visual quality of the city’s landscape.

- **Policy 3.a:** The City shall require new developments to be subjected to visual impact analyses where potential impacts upon sensitive locations are identified.
- **Policy 3.b:** The City shall require that new structures and improvements be integrated with the surrounding environment to the greatest possible extent.
- **Policy 3.d:** The City shall encourage the preservation of private views, including policies for tree trimming and removal.
- **Policy 3.e:** The City shall designate areas that will be subject to a dark sky policy.

City of Solana Beach Highway 101 Corridor Specific Plan
Adopted in 2003 and amended in 2006, the Highway 101 Corridor Specific Plan establishes standards for the development and redevelopment of the Highway 101 corridor that significantly defines the City of Solana Beach. Highway 101 serves a vital commercial corridor for the region, and the adopted Specific Plan envisions revitalization
of Highway 101 as the heart or downtown of the City. The proposed project is located within the Highway 101 Corridor Specific Plan area and is part of the South Highway 101/South Sierra District within the Specific Plan. The Specific Plan identifies the following design guidelines as they relate to the proposed project:

**Landscaping:** Create a distinct southern entry by developing:

- **Rustic Parkway Character:** Incorporate the plant materials and tree canopy character of the Coastal Rail Trail within building setback areas and parking areas visible from Highway 101 for development west of the highway. Landscape parking areas facing Highway 101 shall be arranged in an irregular pattern with one Torrey Pine or Melaleuca for each 15 parking spaces.

- **Sierra Residential Character:** Create a residential character along the east side of South Sierra Avenue that is similar to that of the residential development on the west side of South Sierra Avenue. This includes varied trees, lawn areas, and semi-private gardens and entries. Screening with hedges, trees, and shrubs shall be used to fully screen parking adjacent to South Sierra Avenue.

**Site Planning:** Create a distinct southern entry by utilizing the following site planning:

- **Auto-Oriented Highway 101 Edge:** Projects will provide a visually open building edge that allows deep views through trees into parcels. No more than 40 percent of the setback can be occupied by building, and the remaining frontage will have a minimum 20-foot additional setback.

- **Building Stepping:** Buildings shall step away from the setback line on Highway 101 according to height with second stories located a minimum of 15 feet from the setback line.

- **Mixed Use:** Provide residential use on the east side of South Sierra Avenue to offer a compatible transition between residential uses west of South Sierra Avenue and commercial and office uses to the east. Residential frontage may be at the ground floor and above, or commercial on the ground floor and residential above. Parking for residential uses will be below grade or screened by landscape. Residential units will primarily face South Sierra Avenue and shall have a minimum 10-foot setback from the ROW.

- **Vehicular Access:** Limit access to parcels from Highway 101 to one driveway per parcel or 100 feet of linear frontage.

- **Site Pedestrian Access:** Provide a paved pedestrian walkway a minimum of four feet wide from the parkway walk on Highway 101 to all buildings within a site with highway frontage.
• **Highway 101 Walkways:** Provide a minimum 10-foot-wide landscaped parkway and a six-foot-wide concrete parkway walk adjacent to Highway 101.

• **Other Walkways:** Provide a six-foot-wide landscaped parkway and a six-foot-wide concrete parkway walk on cross streets and South Sierra Avenue.

• **Signs:** Create a distinct southern entry by blending entry signs for private sites with the parkway landscape and not contrasting colors and materials more than necessary to create legible text.

**City of Solana Beach Local Coastal Plan (LCP)**
The Solana Beach City Council adopted a LCP Land Use Plan (LUP) on February 27, 2013 (amended and certified on June 11, 2014). Although the LUP has been certified by the California Coastal Commission, the Local Implementation Plan (LIP) portion of the LCP has not yet been certified; as such, the provisions of the LUP are considered by the Coastal Commission to be advisory rather than mandatory at this time. The purpose of the LUP is to implement the State’s goals for the coastal zone. The City’s LUP provides long-term goals that promote the beneficial use of lands in the city and the beach and shoreline for residents and visitors alike. The LUP addresses public access and recreation, marine and land uses, hazards shoreline bluff development, scenic and visual resources, and public works. The LUP provides for the protection of scenic and visual resources from public viewpoints, including views of the beach, ocean, lagoons, views of distant mountains and canyons, and views of native habitat surrounding the San Elijo and San Dieguito lagoons. The LUP also identifies scenic roads, which are those roads within the city that traverse, or provide views of, areas with outstanding scenic quality that contain striking views of natural vegetation, geology, and other unique natural features including the beach and ocean. The proposed project is located within the designated Special Zoning Overlays (Figure 4.1-1). The LUP identifies the following, summarized policies as they relate to the proposed project:

• **Policy 6.1:** The City contains scenic resources of local, regional and national importance. The scenic and visual qualities of these areas shall be protected and where feasible enhanced.

• **Policy 6.2:** Protect the scenic and visual qualities of Solana Beach, including the unique character of the Highway 101 Railway Corridor, the Cedros Design District, and the shoreline.

• **Policy 6.4:** Location along public roads, railways, trails, parklands, and beaches that offer views of scenic resources are considered public viewing areas. Existing public roads where there are major views of the ocean and other scenic resources are considered Scenic Roads and include:
  - Highway 101 and Railway Corridor
  - Interstate (I-) 5
Lomas Santa Fe Drive

Public views to scenic resources from Scenic Roads shall also be protected.

- **Policy 6.5**: Regulate development in areas with high scenic value to preserve and enhance the scenic resources within and adjacent to such areas to the extent feasible, as well as, to assure exclusion of incompatible uses and structures.

- **Policy 6.7**: Fences, walls, and landscaping shall not block major public views of scenic resources or views of other public viewing areas.

- **Policy 6.8**: Proposed development that unreasonably interferes with or degrades natural or man-made visual features of sites, or adjacent sites, which contribute to the City’s scenic attractiveness, as viewed from either a scenic road or scenic resource shall be prohibited.

- **Policy 6.9**: The impacts of proposed development on existing public views of scenic resources shall be assessed by the City prior to approval of proposed development or redevelopment to preserve the existing character of established neighborhoods. Existing public views of the ocean and scenic resources shall be protected.

- **Policy 6.10**: New development shall be sited and designed to minimize adverse impacts on scenic resources visible from scenic roads or major public viewing areas.

- **Policy 6.11**: Avoidance of impacts to scenic resources through site selection and design alternatives is the preferred method over landscape screening. Landscape screening, as mitigation of visual impacts, shall not substitute for project alternatives including re-siting, or reducing the height, or bulk of structures.

- **Policy 6.12**: All new development shall be sited and designed to minimize alteration of natural landforms by:
  - Conforming to the natural topography.
  - Preventing substantial grading or reconfiguration of the project site.
  - Eliminating flat building pads on slopes and utilizing split level or stepped-pad designs.
  - Requiring that man-made contours mimic the natural contours to and blend with the existing terrain of the site and surrounding area.
  - Minimize grading outside of the building footprint.
  - Clustering structures to minimize site disturbance and to minimize development area.
  - Minimizing the height and length of cut and fill slopes.
• Minimizing the height and length of retaining walls.
• Cut and fill operations may be balanced on-site, where the grading does not substantially alter the existing topography and blends with the surrounding area.
• Export of cut material may be required to preserve the natural topography

**Policy 6.13**: New development, including a building pad, if provided, shall be sited on the flattest area of the project site, except where there is an alternative location that would be more protective of scenic resources or environmentally sensitive habitat areas (ESHAs).

**Policy 6.14**: All new structures shall be sited and designed to minimize impacts to scenic resources by:
  • Ensuring visual compatibility with the character of surrounding areas.
  • Avoiding large cantilevers or under stories.
  • Setting back higher elements of the structure toward the center or uphill portion of the building.

**Policy 6.15**: The general criterion of development review is that the proposed development shall not, to the maximum extent feasible, interfere with or degrade those visual features, natural or manmade, of the site or adjacent sites which contribute to its scenic attractiveness, as viewed from either the scenic highway or the adjacent scenic, historic, or recreational resource.

**Policy 6.16**: All development shall be compatible with the topography, vegetation, and colors of the natural environment, and with the scenic, historic, and recreation resources of the designated [scenic overlay] areas.

**Policy 6.17**: The placement of buildings and structures shall not detract from the visual setting or obstruct significant views and shall be compatible with the topography of the site and adjacent areas.

**Policy 6.18**: Buildings and structures should be sited to provide unobstructed view corridors from the nearest scenic highway or view corridor road.

**Policy 6.19**: The removal of native vegetation shall be minimized and the replacement vegetation and landscaping shall be compatible with the vegetation of the designated [scenic overlay] area. Landscaping and plantings shall be used to the maximum extent practicable to screen roads and utilities. Landscaping and plantings shall be designed so that they do not obstruct significant views, either when installed, or when they reach mature growth.

**Policy 6.20**: Any development involving more than one building or structure shall provide common access roads and pedestrian walkways. Parking and outside storage areas shall be screened from view, to the maximum extent feasible, from either the scenic highway or the adjacent scenic, historic, or recreational.
resource. Acceptable screening methods shall include, but are not limited to, the use of existing topography, the strategic placement of buildings and structures, or landscaping and plantings, which harmonize with the natural landscape of the designated [scenic overlay] area.

- **Policy 6.21**: Utilities shall be constructed and routed underground except in those situations where natural features prevent undergroundering or where safety considerations necessitate above ground construction and routing.

- **Policy 6.22**: The alteration of the natural topography of the site shall be minimized and shall avoid adverse effects to the visual setting of the designated [scenic overlay] area and the existing natural drainage system.

- **Policy 6.23**: The interior and exterior lighting of the buildings and structures and the lighting of signs, roads, and parking areas shall be compatible with the lighting permitted in the designated [scenic overlay] area.

- **Policy 6.28**: Signs shall be designed and located to minimize impacts to visual resources. Signs approved as part of commercial development shall be incorporated into the design of the project and shall be subject to height and width limitations that ensure that signs are visually compatible with surrounding areas and protect scenic views.

- **Policy 6.29**: Placement of signs other than traffic or public safety signs, which obstruct views to the ocean or beaches from public viewing areas, and scenic roads shall be prohibited.

- **Policy 6.30**: The Pacific Coast/Highway 101 and Railway Corridor shall be protected as a Scenic Road and major public viewshed.

- **Policy 6.31**: Landscape improvements, including median plantings, may be permitted along Pacific Coast Highway/Highway 101. Any proposed landscaping shall be comprised primarily of native non-invasive, drought tolerant, salt-tolerant, and fire resistant plant species. Landscaping shall be designed and maintained to complement to the character of the area, and designed not to block ocean, or lagoon views at maturity.
Figure 4.1-1
Special Zoning Overlays

LEGEND
- Project Area
- HWY 101 Corridor Specific Plan
- Scenic Area Overlay (LCP)

Source: ESRI 2015, City of Solana Beach 2013
City of Solana Beach Municipal Code (SBMC)
Chapter 11.24 of the SBMC prohibits the trimming, breaking, defacing, destruction, burning, removal, or planting of any tree, palm, hedge, or shrub on public property or in the public right-of-way, unless the City Manager has issued a written permit.

Chapter 17.48.010 of the SBMC designates areas of the City as being within a Scenic Area Overlay. The Scenic Overlay Zone encompasses “all areas of unique scenic value including, but not limited to, State Scenic Highways, scenic highway corridors designated by the Solana Beach General Plan, critical viewshed and prime viewshed areas as designated by the LCP, and areas within 100 feet of significant recreational, historic, or scenic resources including designated City, county, or state parks.” The proposed project is located within the Scenic Overlay Zone along Highway 101. Development within areas covered by the Scenic Area Overlay are subject to development review.

Chapter 17.60.060 of the SBMC regulates exterior lighting. The purpose of the regulations is to control excessive or unnecessary outdoor light emissions, which produce unwanted illumination of adjacent premises within the City. Specifically, new lighting would be subject to the following regulations.

- All lights, exclusive of approved signage, shall be used for the purposes of illumination only, and not designed for or used as an advertising display. The operation of searchlights for advertising purposes is prohibited. The illumination of outdoor billboards is prohibited.

- Luminaries, including street lighting, shall be designed and shielded by horizontal cutoff to eliminate all light directed above the horizon. The lower edge of the luminary housing shall extend below the entire light source and all glassware so that any light emitted above the horizon is eliminated. Light directing refractors shall be considered to be light sources.

- The illumination of adjacent premises by spill light shall not exceed a value of 0.02 foot candles measured in the horizontal or vertical plane at a point five feet inside the adjacent property.

View Assessment Ordinance: Chapter 17.63 of the SBMC includes the process and procedures of a view assessment to preserve the existing character of established residential neighborhoods and protect, where feasible, public and private views. Any owner proposing to construct a new structure, or an addition to an existing structure, exceeding a height of 16 feet above existing grade, is required to submit an application for a structure development permit to the City.

As part of the permit application for the previously proposed American Assets Trust (AAT) project, temporary story poles were erected on the project site in December 2015 to show the height and general outline of the previously proposed structures. A subsequent
public notice was issued to residents within 300 feet of the project site. The City received two claims from residents that expressed the desire to retain views of the eastern, developed hillsides, although these views are not a designated scenic vista. These claims currently have a “pending” status with the Visual Assessment Commission (VAC) and are valid claims for the currently proposed project. The claims were evaluated by the VAC on March 17, 2015 and the VAC recommended that the City Council deny the project due to the following findings:

- The applicant, AAT, had not made a reasonable attempt to resolve the view impairment issues with the appellants requesting view assessment. There were no attempts to address the concerns of either claimant.
- The proposed structure was not designed and situated in such a manner as to minimize impairment of views. There were no other building options which would result in a lesser degree of view impairment discussed at the March 17, 2015 VAC meeting.
- There would be significant cumulative view impairment caused by approving the application, as previously proposed, if adjacent lots were allowed to construct a structure of a similar size and height.
- The proposed structure in general was not compatible with the immediate neighborhood character. The structure, as previously proposed, was out of scale and therefore, would not be compatible with the neighborhood residences in terms of design, bulk, scale, height and size.

The VAC also found in its March 17, 2015 meeting that the previously proposed project would not significantly impair any view from public property (i.e., parks, major thoroughfares, bikeways, walkways, equestrian trails), which had been identified in the City’s General Plan or City designated viewing areas.

As part of the proposed project’s permit application, revised story poles were certified on November 17, 2017 to show the height and outline of the currently proposed structures. A public notice was issued to residents within 300 feet of the project area on February 16th 2018, notifying them of the proposed project. A corrected notification was subsequently issued on February 21st, 2018, which clarified building height. The deadline for residents to submit a view assessment claim was March 19, 2018. Two additional applications for view assessment were received, in addition to the two “pending” claims from the previous AAT project. The applicant has the opportunity to meet with the claimants to discuss and resolve their view concerns. If an agreement between the applicant and claimants is not reached, a VAC hearing will be scheduled to evaluate the claims.
4.1.3 Impact Significance Criteria

According to Appendix G of the CEQA Guidelines, the project would have a significant impact on aesthetics and visual resources if it would:

- **Issue 1**: Have a substantial adverse effect on a scenic vista, including, but not limited to, the vista areas designated by the LCP and General Plan.
- **Issue 2**: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- **Issue 3**: Substantially degrade the existing visual character or quality of the site and its surroundings.
- **Issue 4**: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

4.1.4 Method of Analysis

Aesthetic experiences can be highly subjective and vary from person to person; therefore, when feasible it is preferable to evaluate aesthetic resources using a process that objectively identifies the visual features of the area, their importance, and the sensitivity of the associated viewers. The proposed project-related changes to the aesthetic character of the site and surrounding area are identified and qualitatively evaluated based on the extent of the modification to the existing physical condition and based largely on viewer sensitivity to the modification.

The following section identifies viewer groups that would be sensitive to changes in the visual setting and discusses key vantage points of the proposed project that would be visually accessible to these viewers. The existing visual environment is then compared to the anticipated future visual environment through a series of computer-generated visualizations that include representative images of proposed project elements. A key viewpoint location map is provided in Figure 4.1-2 and the visual simulations are provided in Figures 4.1-3 through 4.1-5. Proposed project-related changes are evaluated using the threshold criteria discussed in Section 4.1.3, “Impact Significance Criteria,” to determine significance.
CHAPTER 4. ENVIRONMENTAL ANALYSIS
4.1 Aesthetics

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Figure 4.1-2
Key Vantage Point (KVP) Locations

Source: Architects Hanna Gabriel Wells 2015
Vantage 1: View of Highway 101 Looking North

Pre project view

Post project view

Figure 4.1-3

Path: Dropbox (Harris & Associates)/MarCom/CLIENT PROJECTS/Environmental/Solana Beach 170-0050-001

no scale
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Figure 4.1-4
Vantage 2: View of Highway 101 Looking South
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Figure 4.1-5
Vantage 3: View of Dahlia Drive and South Sierra Avenue Looking East
4.1.4.1 Key Vantage Points (KVPs)

To depict representative existing views and the aesthetic character of the project site, visual renderings were created of the project from three key vantage points. Computer-generated visual simulations of the developed project site were created to allow for a comparison of the project area after project implementation. Additionally, story poles were placed on site to function as a visual approximation of the proposed project’s scale but are not part of existing development. Each key vantage point is discussed below with a narrative description of the existing view. A description of the proposed view from each key view point location is discussed in Section 4.1.5.2, Issue - 2 Scenic Resources, and Section 4.1.5.3, Issue 3 - Visual Character and Quality.

KVP 1: View looking northwest at the project site from Highway 101. The first key view point is the view looking northwest from Highway 101 towards the southeast corner of the proposed project site, as shown in Figure 4.1-3 (top photo). This existing view is available to drivers, pedestrians, and bicyclists heading northbound on Highway 101, and to pedestrians using the crosswalk to cross Highway 101 from the railroad right-of-way. Existing foreground views consist primarily of the intersection of Highway 101 and Dahlia Drive including vehicles parked at the intersection. Existing midground views include the sidewalk at the northwest corner of Highway 101 and Dahlia Drive, one street light on the corner, a small portable abandoned coffee kiosk, a one story metal building currently used for a temporary commercial office space and a metal fence outlining the project site. The existing background view of the proposed project site includes partially obstructed views of the former onsite commercial and residential uses, residential uses west of South Sierra Avenue, the tops of onsite non-native trees and the CVS Pharmacy.

KVP 2: View looking southwest at the project site from Highway 101. The second project visualization is the view looking south from Highway 101 toward the northeast corner of the proposed project area, as shown in Figure 4.1-4 (top photo). This existing view is primarily available to drivers, pedestrians, and bicyclists heading southbound on Highway 101. Existing foreground views consist primarily of Highway 101, sidewalk, street light, street trees and shrubs along Highway 101 and the existing driveway that serves the CVS Pharmacy and seasonal shave ice stand to the north. Existing midground views include the wooden fence separating the project site from the adjacent commercial uses to the north, and a concrete paved area and vegetated area on the project site that were part of the former mobile home park. Background views include existing, mostly vacant onsite structures and the two story multi-family residences located west of South Sierra Avenue.

KVP 3: View looking northeast at the project site from the intersection of South Sierra Avenue and Dahlia Drive. The third key view point is the view looking northeast toward the project site from the intersection of South Sierra Avenue and Dahlia Drive, as shown in Figure 4.1-5 (top photo). This existing view is available to drivers, pedestrians, and
bicyclists traveling northbound on South Sierra Avenue. Existing foreground views consist of the intersection of South Sierra Avenue and Dahlia Drive. Existing midground views involve thick green ground cover, mature trees and shrubs and an abandoned one-story single family home. The existing background view includes mature trees and scrubs, a chain link fence to the north of abandoned single-family home and the vacant, former mobile home park. The CVS Pharmacy to the north is partially visible, obstructed by trees scattered throughout the project site.

4.1.5 Project Impacts and Mitigation

4.1.5.1 Issue 1 – Scenic Vistas

Would implementation of the proposed project have a substantial adverse effect on a scenic vista?

Impact Analysis

Based on the CEQA Guidelines, implementation of the proposed project would have a significant impact if it would cause a substantial adverse change in a scenic vista. A change would be considered substantial and adverse if the majority of an existing public scenic view were to be blocked. Scenic vistas or public views are generally defined as views of scenic resources from public locations, such as public open space, public parks and schools, municipal buildings, and public roadways (Solana Beach 2014). The City also encourages the preservation of private views per General Plan Conservation and Land Use Element Goal 3.2 Policy 3.d.

Scenic vistas or viewpoints can be defined as singular vantage points that offer an unobstructed view of expansive visible landscape components. A significant visual feature in Solana Beach is the Pacific Ocean; however, it is not visible from the project site. Other scenic vistas are available to residents overlooking the golf courses in the eastern portion of the city and to residents overlooking the Holmwood Canyon and San Elijo Lagoon. The proposed project site does not offer views, or obstruct views, of any of these scenic vistas.

Some residents have expressed desire to retain views of the eastern developed hills seen from the multi-family residences located along South Sierra Avenue immediately west of the project site. Views of the hills would change as a result of the proposed project due to the construction of two-story buildings that would be of greater height than the one-story structures that currently exist at the site. However, the eastern, developed hills are not a designated scenic vista in any adopted documents including the General Plan, LCP, and Highway 101 Corridor Specific Plan. Therefore, although the views of the eastern, developed hills may change as a result of the proposed project, obstruction of a designated scenic vista would not occur.
The proposed project has been designed to incorporate the LCP, General Plan, and Highway 101 Corridor Specific Plan goals and policies in order to lessen impacts on visual resources, including non-designated views of the developed hills to the east. The proposed project is designed to be visually compatible with the character of the surrounding area and minimize obstruction of views by providing an east-west open pedestrian walkway through the development, as well as two-story buildings that are stepped back from setback lines along Dahlia Drive, South Sierra Avenue and Highway 101. The highest portion of the project would not exceed 35 feet above the existing grade. Therefore, the proposed project would not have a substantial adverse effect on a scenic vista.

**Significance of Impact**
Impacts on a scenic vista would be less than significant.

**Mitigation Measures**
No mitigation measures are required.

### 4.1.5.2 Issue 2 – Damage Scenic Resources

**Would the proposed project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway?**

**Impact Analysis**
No State designated Scenic Highways exist within the vicinity of the project site. Highway 101 is a locally designated scenic corridor. Local scenic resources include elements of both the natural and built environment, including open space, bodies of water, hillsides, vegetation, and historic monuments (City Solana Beach 2014b). No native trees, rock outcroppings or historical buildings exist at the project site. Most of the key open space areas within the city, including the City’s beaches, parks, golf courses, San Elijo Lagoon, Holmwood Canyon, and Pacific Ocean, are not visible from the proposed project site. However, the project site is visible from the Coastal Rail Trail and the eastern half of the project site is located along Highway 101, which is a City designated scenic corridor located within the Highway 101 Corridor Scenic Area Overlay Zone. Locally designated scenic roads are those roads within the city that traverse, or provide views of, areas with outstanding scenic quality that contain striking views of natural vegetation, geology, and other unique natural features including the beach and ocean. The Scenic Area Overlay Zone preserves and enhances the scenic resources present within and adjacent to such areas and assures the exclusion of incompatible uses and structures.

The eastern half of the project site is located within the Special Zoning Overlays, as shown in Figure 4.1-1; therefore, the discussion below relates to the proposed views along Highway 101 that would result from implementation of the proposed project.
As shown on Figure 4.1-3, KVP 1 shows the post-project view looking north at the project site from Highway 101 and includes views of the southeast corner of the project site. This area of the project site is located at the northwest corner of the Highway 101/Dahlia Drive intersection. As shown in the photo simulation, the southeast corner of the proposed project would consist of two-story buildings, with commercial restaurant and retail space on the ground level and second level. The two-story multi-family residential buildings would be visible behind the commercial restaurant/retail buildings. The exterior of the proposed commercial restaurant and retail spaces would consist of a brick, stone or tile wall finish, with aluminum or vinyl door and window systems, adorned with awnings. The residential buildings would have enclosed balconies on the ground and second levels. The proposed project would feature a variety of street trees, shrubs, groundcover, built-in benches, and planters.

The KVP 2 post-project view looking south at the project site from Highway 101 would include views of the northeast corner of the project site, as shown on Figure 4.1-4. The northeast corner of the proposed project site would be located south of the existing commercial development and west of Highway 101. As shown in the photo simulation, the northeast corner of the project site would consist of two-story buildings, with commercial restaurant/retail space on the ground level and office space on the ground and second levels. The exterior of the proposed commercial restaurant/retail space would consist of brick, stone or tile wall finish with aluminum or vinyl door and window systems adorned with awnings. The exterior of the office buildings would consist of plastered wall surfaces and vertical batten siding. Views of the project site would be partially obstructed by street trees both on the proposed project site and off site.

The proposed project would be subject to the design guidelines contained within the Highway 101 Corridor Specific Plan. These guidelines are used to inform site planning, public space, views, parking, signs and lighting decisions for specific districts along Highway 101. The proposed project complies with the area-wide guidelines, as well as those specific to the 101/South Sierra district, which include creating areas of great public accessibility and activity, providing auto-oriented mixed-use retail and residential spaces, and preserving views from neighborhoods. Similar to the proposed project land uses, adjacent uses within the Scenic Area Overlay Zone along Highway 101 consist of restaurant and office/commercial development to the north and south of the project site.

The proposed project’s color palette would include warm earth tones, with accented balconies, raised planters, stone or tile finish, and metal roofing, similar to the existing surrounding development along Highway 101 (Figures 4.1-3 and 4.1-4). With compliant setbacks, the proposed project would be consistent with the surrounding commercial scenic resources along Highway 101. As such, the eastern half of the proposed project site located within the Scenic Area Overlay Zone would not substantially damage existing scenic resources along Highway 101.
Significance of Impact
The proposed project would be compatible with and would not substantially damage the existing scenic resources located within the Scenic Area Overlay Zone along Highway 101; therefore, impacts would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.1.5.3 Issue 3 – Visual Character and Quality

Would implementation of the proposed project substantially degrade the existing visual character or quality of the project site and/or its surroundings?

Impact Analysis
Based on the CEQA Guidelines, implementation of the proposed project would have a significant adverse impact if it would substantially degrade the existing visual character or quality of the project site and/or its surroundings. Visual character is defined as the order and combination of patterns that are created by visual elements in a scene (Solana Beach 2014b). As stated in the City’s General Plan Update EIR, the visual character of the City reflects a coastal residential community atmosphere, uniquely located on San Diego County’s central coast (City of Solana Beach 2014a). As discussed in Section 4.1.4.2, the eastern half of the project site along Highway 101 is located within the Scenic Area Overlay Zone. The development proposed by the project along Highway 101 would be compatible with the adjacent scenic resources and visual character of Highway 101. Thus, the visual character and quality of the project site along Highway 101 would not result in a significant impact and is not discussed further below.

To determine if substantial degradation of the existing visual character and quality of the site along South Sierra Avenue would occur from implementation of the proposed project, a photo simulation was created (Figure 4.1-5). The photo simulation serves as an indicator of the extent of the visual character and quality changes that would occur on-site from implementation of the proposed project.

The KVP 3 post-project view looking north toward the intersection of Dahlia Drive and South Sierra Avenue includes views of the southwest corner of the proposed project site, as shown on Figure 4.1-5. Views of the proposed project would include two-story multi-family residential units and two-story office buildings. Walkways would be located along South Sierra Avenue to lead pedestrians to the multi-family residential units and office buildings. Each of the street-facing residential units would include balconies on the first and second floors enclosed with a metal or wood railing system. The exterior of the residential units would consist of stone or tile wall finish and plastered wall surfaces. The exterior of the office buildings would consist primarily of plaster and vertical siding finish.
The multi-family housing units and office buildings would be partially obstructed with street trees lining Dahlia Drive and South Sierra Avenue.

Implementation of the proposed project would change the landscape of the site from an abandoned lot with vacant buildings and non-native vegetation to a new mixed-use development. Existing site character would be improved by implementation of the proposed project because the functionality and visual quality of the site would increase. The site would change from a vacant lot consisting of abandoned buildings which lack distinctive architectural characteristics to an occupied, mixed-use development which would be visually compatible with the surrounding land uses. The proposed project’s color palette would include warm earth tones, with accent balconies, raised planters, stone or tile finish, and metal roofing that is consistent with the Highway 101 Corridor Specific Plan. In addition, the proposed project would include street trees and shrubs to partially obstruct views of the proposed new development from the nearby multi-family residential uses (Figure 4.1-5). Similarly, the existing surrounding development along South Sierra Avenue includes two-story residential buildings and commercial developments with warm earth tone color palettes partially obstructed with mature street trees and shrubs. Thus, the proposed project would be consistent with the surrounding commercial and multi-family residential character along Highway 101 (described in Section 4.1.5.2), Dahlia Drive, and South Sierra Avenue. As such, implementation of the proposed project would not substantially degrade the existing visual character of the site or its surroundings.

Significance of Impact
The proposed project would be consistent with the commercial and multi-family residential character of the surrounding developments along Highway 101, Dahlia Drive, and South Sierra Avenue. Therefore, the proposed project would not degrade the existing visual quality of the site or its surroundings, and impacts would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.1.5.4 Issue 4 – Create New Sources of Light or Glare

Would implementation of the proposed project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Impact Analysis
Based on the CEQA Guidelines, implementation of the proposed project would have a significant adverse impact if it would create a new source of light or glare that would adversely affect day or nighttime views in the area. During the day, potential impacts from glare would primarily occur from the sun reflecting off reflective building materials. Daytime views that are subject to a substantial amount of new glare may be significantly impacted. However, the proposed project would not include the implementation of
large, uninterrupted expanses of glass and/or any other highly reflective materials at street level. In addition, the proposed project would consist of landscaping, including street trees, shrubs, vertical plantings, and BMP planters. The proposed landscaping would partially obstruct street views of the proposed project. Therefore, the proposed project would not create a substantial new source of glare, and glare impacts would be less than significant.

Implementation of the proposed project would increase the ambient nighttime lighting, as the project site is currently abandoned and is not lighted at night. Increased lighting would be generated by additional streetlights, residential and commercial lighting, signage, and headlights. All lighting would be designed to illuminate specific areas of the project site. Although the lighting would be visible from off-site locations and would contribute to the overall ambient glow of the project site and surrounding areas, lighting from on-site uses would be designed so as not to spill directly onto other areas consistent with Section 17.60.60, Exterior Lighting, of the SBMC. Furthermore, these additional sources of lighting would not be substantially brighter than existing light sources used by surrounding development.

These exterior lighting regulations are in place to ensure that any future development would not increase light and glare within the city. As such, contributions to increased ambient glow would not represent a significant adverse change in existing condition.

**Significance of Impact**

Development of the proposed project would not create sources of light and glare that would substantially impact day and nighttime views in the project area. Impacts would be less than significant.

**Mitigation Measures**

No mitigation measures are required.

**4.1.6 Cumulative Impacts**

**Would implementation of the proposed project have a cumulatively considerable contribution to a cumulative aesthetics impact considering past, present, and probable future projects?**

**4.1.6.1 Issue 1 - Scenic Vistas**

The geographic context for the analysis of cumulative impacts in regards to scenic vistas is defined as the City limits. A significant cumulative impact related to aesthetics would occur if the cumulative projects would cause a view blockage of scenic vistas. As discussed in Section 4.1.4.1, the most significant scenic vistas in the City are locations overlooking the Pacific Ocean, Holmwood Canyon, and San Elijo Lagoon. Most of the cumulative projects listed in Table 2-2 in Section 2.6 and depicted in Figure 2-6 would not
obscure or block scenic vistas of these resources due to their locations; however, the NCTD train station development project and North Bluff Resort development project have the potential to obscure scenic vistas of the Pacific Ocean. The Harbaugh Trails Public Open Space and Trails project may temporarily obstruct vistas of the Pacific Ocean during construction, but, given the nature of the project, is not expected to result in long-term scenic vista impacts. There are no public views of the Pacific Ocean, Holmwood Canyon, or San Elijo Lagoon from the project site, and the proposed project would not impact scenic vistas of these natural features.

Growth is also anticipated within the Highway 101 Corridor Specific Plan area. New development in the surrounding area would most likely be redevelopment, as the City is largely built-out (Solana Beach 2014b). Due to the limited areas of undeveloped or vacant land, new development would be scarce and would be consistent with the existing land use pattern. New and enlarged buildings, signage, roadways, parking, and accessory facilities would have the potential to result in significant impacts to scenic vistas. However, new development would be required to be in compliance with the City’s General Plan, LCP, and SBMC. Additionally, Scenic Area Overlay Zones regulate development within designated scenic zones, including all of the Highway 101 Specific Plan area. Cumulative development projects within the boundaries of the City of Del Mar would be required to comply with Del Mar’s Design Review process, which protects both private and public views. Therefore, the proposed project would not contribute to a cumulatively considerable impact related to scenic vistas.

4.1.6.2 Issue 2 - Scenic Resources

The geographic context for the analysis of cumulative impacts in regards to scenic resources is defined as the City limits. A significant cumulative impact would occur if the cumulative projects would cause a view blockage of scenic resources. No scenic resources are located near the proposed project site. The proposed project is located along Highway 101, a City designated scenic corridor, located within the Highway 101 Corridor and the LCP Scenic Area Overlay Zone. Of the cumulative projects listed in Table 2-2 in Section 2.6, 330 South Cedros Mixed Use, NCTD Train Station, The Pearl, the Solana Beach District Office and Child Development Center Modular Building Replacement, and the Harbaugh Trails Public Open Space and Trails projects are also located within the Highway 101 Specific Plan area. The Harbaugh Trails Public Open Space and Trails project would be located within the LCP Scenic Overlay Area. New and enlarged buildings, signage, roadways, parking, and accessory facilities would have the potential to result in significant impacts on views of nearby scenic resources. However, development would be required to comply with the City’s General Plan, LCP, SBMC, and Highway 101 Specific Plan. Compliance with these requirements would avoid significant cumulative impacts. Therefore, the proposed project would not contribute to a cumulatively considerable impact related to scenic resources.
4.1.6.3  **Issue 3 - Visual Character and Quality**

The geographic context for the analysis of cumulative impacts with regard to visual character and quality are public views of the proposed project site and immediately surrounding areas. A significant cumulative impact would occur if cumulative projects would change the overall visual character of the area. The surrounding uses along Highway 101 and Dahlia Drive consist of commercial space, and South Sierra Avenue consists of multi-family residential space and surface parking. While the cumulative projects listed in Table 2-2 in Section 2.6 are not located in the area immediately surrounding the project site, growth is still anticipated within the Highway 101 Corridor Specific Plan. All future projects along Highway 101 would be required to comply with the Highway 101 Corridor Specific Plan and the Scenic Area Overlay Zone design requirements. In addition, new development would be required to comply with the City’s General Plan, LCP, and SBMC. Compliance with these requirements would avoid significant cumulative impacts. Therefore, the proposed project would not contribute to a cumulatively considerable impact related to the degradation of the visual character or quality of the site and its surroundings.

4.1.6.4  **Issue 4 - Light and Glare**

The geographic context for analysis of cumulative impacts in regards to light and glare is defined as the City limits. A significant cumulative impact would occur if cumulative projects would create new sources of substantial light and glare. The City is largely built-out with significant existing nighttime lighting, and new development would incrementally increase the ambient nighttime lighting throughout the city (Solana Beach 2014b). Increased light would be generated by streetlights, residential lighting, parking lot lights, new commercial and mixed-use development, and signage. Increased lighting would potentially adversely affect adjacent properties as well as the overall nighttime lighting levels within the city. Increased glare within the city could potentially occur as a result of new development containing building materials, roofing materials, or windows that would reflect sunlight. However, new development throughout the city would be required to comply with the City’s Dark Sky Overlay and exterior lighting regulations in SBMC 17.60.060. Therefore, with implementation of the City's existing regulations to minimize lighting and glare, the proposed project would not contribute to a cumulatively considerable impact related to new sources of light and glare.
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4.2 Air Quality

This section describes existing air quality conditions, the regulatory framework applicable to air quality, and evaluates project-related and cumulative impacts on air quality as a result of project construction and operation. Air quality emissions modeling for the proposed project was conducted as part of the Air Quality and Greenhouse Gas Analysis for the Solana 101 Project (Zephyr) (Harris & Associates 2018) and is provided in Appendix B to the EIR. The following information is based on this report, unless otherwise referenced.

4.2.1 Environmental Setting

4.2.1.1 Climate and Meteorology

Regional climate and local meteorological conditions influence ambient air quality. The project site is located in the San Diego Air Basin (SDAB). The climate of the SDAB is dominated by a semi-permanent high pressure cell located over the Pacific Ocean. This high-pressure cell typically creates a pattern of late-night and early-morning low clouds, hazy afternoon sunshine, daytime onshore breezes, and little temperature variation year-round. The climatic classification for San Diego is a Mediterranean climate, with warm, dry summers and mild, wet winters (County of San Diego 2007).

The prevailing westerly wind pattern is sometimes interrupted by regional “Santa Ana” conditions. A Santa Ana occurs when a strong high pressure develops over the Nevada–Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry, northeasterly winds over the mountains and out to sea. Strong Santa Ana winds tend to blow pollutants out over the ocean, producing clear days. However, at the onset or during breakdown of these conditions or if the Santa Ana is weak, local air quality may be adversely affected. In these cases, emissions from the South Coast Air Basin (SCAB) to the north are blown out over the ocean, and low pressure over Baja California draws this pollutant-laden air mass southward. As the high pressure weakens, prevailing northwesterly winds reassert themselves and send this cloud of contamination ashore in the SDAB. When this event does occur, the combination of transported and locally produced contaminants produce the worst air quality measurements recorded in the basin (City of Solana Beach 2014b).

The nearest climatological monitoring station along the coast to the project site is the Oceanside Marina station. Climatological monitoring stations collect temperature and precipitation data. The normal daily maximum temperature at the monitoring station is 74 degrees Fahrenheit (°F) in August, and the normal daily minimum temperature is 44°F in January, according to the Western Regional Climate Center (WRCC 2017). The normal precipitation at the Oceanside Marina station is 11 inches annually, occurring primarily from November through April.
4.2.1.2 Air Pollutants

Historically, air quality laws and regulations have divided air pollutants into two broad categories: criteria air pollutants and toxic air contaminants (TACs). Criteria air pollutants are a group of common air pollutants regulated by the federal and state governments by means of ambient standards based on criteria regarding health and/or environmental effects of pollution (US EPA 2017a). TACs are pollutants with the potential to cause significant adverse health effects. The California Air Resources Board (CARB) identifies exposure thresholds for TACs that indicate the level below which no significant adverse health effects are anticipated from exposure to the identified substance. However, CARB does not set thresholds for TACs that do not have a safe exposure level, or where insufficient data is available to identify an exposure threshold (CARB 2011).

Criteria Air Pollutants

The criteria air pollutants pertinent to the analysis of the proposed project are carbon monoxide (CO), nitrogen oxides (NO\textsubscript{x}), ozone (O\textsubscript{3}), particulate matter (PM), and sulfur dioxide (SO\textsubscript{2}). The following describes the health effects for each of these criteria air pollutants. Emissions from lead typically result from industrial processes such as ore and metals processing, and leaded aviation gasoline (US EPA 2017b). These sources are not proposed as part of the project, and lead emissions are not included in this analysis.

Carbon Monoxide (CO) is a colorless, odorless, poisonous gas, produced by combustion processes, primarily mobile sources. When CO gets into the body, it combines with chemicals in the blood and prevents the blood from providing oxygen to cells, tissues, and organs. Because the body requires oxygen for energy, high-level exposures to CO can cause serious health effects, including death (US EPA 2017b).

Nitrogen Oxides (NO\textsubscript{x}) is a general term pertaining to compounds, including nitric oxide (NO), nitrogen dioxide (NO\textsubscript{2}), and other oxides of nitrogen. NO\textsubscript{x} is produced from burning fuels, including gasoline, diesel, and coal. NO\textsubscript{x} reacts with volatile organic compounds to form ground-level ozone (smog). NO\textsubscript{x} is linked with a number of adverse respiratory system effects (US EPA 2017b).

Ozone (O\textsubscript{3}) is not emitted directly in the air, but is formed by chemical reactions of “precursor” pollutants – NO\textsubscript{x} and volatile organic compounds (VOCs) – in the presence of sunlight. Major emissions sources include NO\textsubscript{x} and VOC emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents. Ozone can trigger a variety of health problems, particularly for sensitive receptors, including children, the elderly, and people of all ages who have lung diseases such as asthma (US EPA 2017b).

Particulate Matter (PM) includes dust, metals, organic compounds, and other tiny bits of solid materials that are released into and move around in the air. Particulates are
produced by many sources, including burning of diesel fuels by trucks and buses, industrial processes, and fires. Particulate pollution can cause nose and throat irritation and heart and lung problems. PM is measured in microns, which are one millionth of a meter in length (or one-thousandth of a millimeter). PM$_{10}$ is small (respirable) PM measuring no more than 10 microns in diameter, while PM$_{2.5}$ is fine PM measuring no more than 2.5 microns in diameter (US EPA 2017b).

Sulfur Dioxide (SO$_2$) is formed primarily by the combustion of sulfur-containing fossil fuels, especially at power plants and industrial facilities. SO$_2$ is linked with a number of adverse effects on the respiratory system (US EPA 2017b).

Volatile Organic Compounds (VOCs) are defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. The major sources of VOCs in the SDAB are on-road motor vehicles and solvent evaporation. Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, higher concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea; and damage to the liver, kidneys, and central nervous system (US EPA 1999). It should be noted that there are no California Ambient Air Quality Standards (CAAAQs) or National Ambient Air Quality Standards (NAAQS) for VOCs because they are not classified as criteria pollutants. They are regulated, however, because a reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone.

Toxic Air Contaminants
The two primary emissions of concern regarding health effects for land development projects are CO and diesel particulate matter (DPM). The health effects of CO are described above. DPM is a mixture of many exhaust particles and gases that is produced when an engine burns diesel fuel. Compounds found in diesel exhaust are carcinogenic. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation and exposure can cause headaches and dizziness. Long-term exposure is linked with increased risk of cardiovascular, cardiopulmonary and respiratory disease and lung cancer (OSHA 2013).

4.2.1.3 Existing Air Quality

The nearest ambient monitoring station to the project area that measures ozone is the Del Mar-Mira Costa College station, located approximately 2.5 miles to the south of the project site. The nearest station that measures PM$_{2.5}$, PM$_{10}$, and NO$_2$ is the San Diego-Kearny Villa Road station, located approximately 13 miles southeast of the project site. The nearest station that measures CO is the Escondido-East Valley Parkway station located approximately 14 miles northeast of the project site. The nearest station that
monitors SO₂ is the El Cajon-Redwood Avenue station, located approximately 23 miles southeast of the project area. Table 4.2-1 presents a summary of the ambient pollutant concentrations monitored at the nearest monitoring stations during the last three years available (2014 through 2016).

As shown in Table 4.2-1, the 1-hour ozone concentrations did not exceed the state standard in 2016, but exceeded the standard in 2014 and 2015. The 8-hour ozone concentrations did not exceed the federal standards in 2016, but exceeded federal standards in 2014 and 2015, and exceeded the state standards in all three years. Neither the state nor federal standards for CO, NO₂, SO₂, PM₂.₅, or PM₁₀ were exceeded at any time during the reported years.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Monitoring Station</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Monoxide (CO)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum 8-hour concentration (ppm)</td>
<td>Escondido-East Valley Parkway</td>
<td>3.61¹</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Days above state or federal standard (&gt;9.0 ppm)</td>
<td></td>
<td>0¹</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO₂)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak 1-hour concentration (ppm)</td>
<td>San Diego-Kearny Villa Road</td>
<td>0.051</td>
<td>0.051</td>
<td>0.053</td>
</tr>
<tr>
<td>Days above 1-hour state standard (0.18 ppm)</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ozone (O₃)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum 1-hour concentration (ppm)</td>
<td>Del Mar-Mira Costa College</td>
<td>0.100</td>
<td>0.098</td>
<td>0.079</td>
</tr>
<tr>
<td>Days above 1-hour state standard (&gt;0.09 ppm)</td>
<td></td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Maximum 8-hour concentration (ppm)</td>
<td></td>
<td>0.088</td>
<td>0.078</td>
<td>0.071</td>
</tr>
<tr>
<td>Days above 8-hour state standard (&gt;0.07 ppm)</td>
<td></td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Days above 8-hour federal standard (&gt;0.075 ppm)</td>
<td></td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO₂)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum 24-hour concentration (ppm)</td>
<td>El Cajon-Redwood Avenue</td>
<td>0.001¹</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Days above 24-hour state standard (&gt;0.04 ppm)</td>
<td></td>
<td>0¹</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Days above 24-hour federal standard (&gt;0.14 ppm)</td>
<td></td>
<td>0¹</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Respirable Particulate Matter (PM₁₀)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak 24-hour concentration (µg/m³)</td>
<td>San Diego-Kearny Villa Road</td>
<td>39</td>
<td>39</td>
<td>36</td>
</tr>
<tr>
<td>Days above state standard (&gt;50 µg/m³)</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Days above federal standard (&gt;150 µg/m³)</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fine Particulate Matter (PM₂.₅)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.2 Air Quality

Table 4.2-1 Air Quality Monitoring Data

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Monitoring Station</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak 24-hour concentration (µg/m³)</td>
<td>San Diego-Kearny Villa Road</td>
<td>20.2</td>
<td>25.7</td>
<td>19.4</td>
</tr>
<tr>
<td>Days above federal standard (&gt;35 µg/m³)</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

1 This data is from 2012, the most recent year data is available for CO and SO₂.
ppm = parts per million, µg/m³ = micrograms per cubic meter
Source: CARB 2017

4.2.2 Regulatory Framework

4.2.2.1 Federal

Clean Air Act
The Clean Air Act (CAA) of 1970 is the comprehensive federal law that regulates air emissions from stationary and mobile sources. The CAA authorizes the EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants. Current NAAQS are listed in Table 4.2-2.

Table 4.2-2 Ambient Air Quality Standards

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>California Standards (1)</th>
<th>Federal Standards (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Concentration</td>
<td>Primary (3,4)</td>
</tr>
<tr>
<td>Ozone (O₃)</td>
<td>1 Hour</td>
<td>0.09 ppm (180 µg/m³)</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>8 Hour</td>
<td>0.070 ppm (137 µg/m³)</td>
<td>0.070 ppm (137 µg/m³)</td>
</tr>
<tr>
<td>Respirable Particulate Matter (PM₁₀)</td>
<td>24 Hour</td>
<td>50 µg/m³</td>
<td>150 µg/m³</td>
</tr>
<tr>
<td></td>
<td>Annual Arithmetic Mean</td>
<td>20 µg/m</td>
<td>--</td>
</tr>
<tr>
<td>Fine Particulate Matter (PM₂.₅)</td>
<td>24 Hour</td>
<td>No Separate State Standard</td>
<td>35 µg/m³</td>
</tr>
<tr>
<td></td>
<td>Annual Arithmetic Mean</td>
<td>12 µg/m³</td>
<td>12 µg/m³</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>8 Hour</td>
<td>9 ppm (10 mg/m³)</td>
<td>9 ppm (10 mg/m³)</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>20 ppm (23 mg/m³)</td>
<td>35 ppm (40 mg/m³)</td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO₂)</td>
<td>Annual Arithmetic Mean</td>
<td>0.030 ppm (57 µg/m³)</td>
<td>0.053 ppm (100 µg/m³)</td>
</tr>
<tr>
<td></td>
<td>1 Hour</td>
<td>0.18 ppm (339 mg/m³)</td>
<td>100 ppb (188 µg/m³)</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO₂)</td>
<td>Annual Arithmetic Mean</td>
<td>--</td>
<td>0.030 ppm</td>
</tr>
<tr>
<td></td>
<td>24 Hour</td>
<td>0.04 ppm (105 µg/m³)</td>
<td>0.14 ppm</td>
</tr>
<tr>
<td></td>
<td>3 Hour</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
Table 4.2-2 Ambient Air Quality Standards

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>California Standards (1)</th>
<th>Federal Standards (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Concentration</td>
<td>Primary (3,4)</td>
</tr>
<tr>
<td>1 Hour</td>
<td>0.25 ppm (655 μg/m³)</td>
<td>75 ppb (196 μg/m³)</td>
<td>--</td>
</tr>
</tbody>
</table>

(1) California standards for O₃, CO, SO₂ (1 and 24 hour), NO₂, and particulate matter (PM₁₀, PM₂.₅) 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 O₃, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, 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 PM₂.₅, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the US EPA for further clarification and current national policies.

(3) Concentration expressed first in units in which it was promulgated. Equivalent units given in parenthesis are based on 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.

Source: CARB 2016.

The EPA has classified air basins (or portions thereof) as being in “attainment,” “nonattainment,” or “unclassified” for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. The EPA classifies the SDAB as in attainment for the federal CO, NO₂, lead (Pb), PM₂.₅, and SO₂ standards. It is unclassifiable for PM₁₀ with respect to federal air quality standards. The SDAB is classified as marginal nonattainment for state and federal ozone standards. The SDAB is classified as non-attainment for state PM₁₀ and PM₂.₅ standards. Table 4.2-3 lists the attainment status of the SDAB for criteria pollutants.

Table 4.2-3 San Diego Air Basin Attainment Status

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>State Status</th>
<th>Federal Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>Attainment</td>
<td>Attainment</td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO₂)</td>
<td>Attainment</td>
<td>Attainment</td>
</tr>
<tr>
<td>Ozone (O₃) (1-hour)</td>
<td>Non-attainment</td>
<td>No Federal standard</td>
</tr>
<tr>
<td>Ozone (O₃) (8-hour)</td>
<td>Non-attainment</td>
<td>Non-attainment</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>Attainment</td>
<td>Attainment</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO₂)</td>
<td>Attainment</td>
<td>Attainment</td>
</tr>
<tr>
<td>Respirable Particulate Matter (PM₁₀)</td>
<td>Non-attainment</td>
<td>Unclassifiable</td>
</tr>
<tr>
<td>Fine Particulate Matter (PM₂.₅)</td>
<td>Non-attainment</td>
<td>Attainment</td>
</tr>
</tbody>
</table>


The CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The CAA amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra
control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The SIP is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The US EPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

### 4.2.2.2 State

**California Clean Air Act**

California has adopted ambient air quality standards (CAAQS) that are stricter than the federal standards for six criteria air pollutants. Under the California Clean Air Act (CCAA), patterned after the CAA, areas have been designated as attainment, non-attainment or unclassified with respect to the State ambient air quality standards. The attainment status of the SDAB with respect to the CAAQS is presented in Table 4.2-3. The CAAQS relevant to the proposed project are presented in Table 4.2-2.

CARB, a part of the California Environmental Protection Agency (Cal EPA), is the state regulatory agency with the authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. CARB is responsible for the development, adoption, and enforcement of the state’s motor vehicle emissions programs, as well as the adoption of the CAAQS. CARB also reviews operations and programs of the local air districts, and requires each air district with jurisdiction over a non-attainment area to develop its own strategy for achieving the NAAQS and CAAQS. CARB also has the primary responsibility for development of California’s SIP, described below, for which it works closely with the federal government and the local air districts.

**California State Implementation Plan (SIP)**

The CAA (and its subsequent amendments) required each State to prepare an air quality control plan referred to as the SIP. The SIP is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The US EPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA, and will achieve air quality goals when implemented. CARB adopts the California SIP. The San Diego Air Pollution Control District (SDAPCD) has developed the SDAPCD input to the SIP, which is required under the CAA for areas that are out of attainment of air quality standards. The SIP includes the SDAPCD’s plans and control measures for attaining the ozone NAAQS.

The SIP is updated on a triennial basis. CARB adopted the 2016 State SIP Strategy for Federal Ozone and PM$_{2.5}$ Standards on March 7, 2017. As part of the State SIP Strategy, the SDAPCD adopted its “2008 Eight-Hour Ozone Attainment Plan for San Diego County” Plan (SDAPCD 2016a), which provides plans for attaining and maintaining the 8-hour NAAQS for ozone. This plan accommodates emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the US EPA and CARB,
and the emissions and reduction strategies related to mobile sources are considered in the SIP.

**Toxic Air Contaminant Regulations**

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807 - Tanner Act) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588 - Hot Spots Act). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB designates a substance as a TAC. The Hot Spots Act requires existing facilities that emit toxic substances above specified levels to: 1) prepare a toxic emission inventory, 2) prepare a risk assessment if emissions are significant (i.e., 10 tons per year or on the air district’s Hot Spots Risk Assessment list), 3) notify the public of significant risk levels, and 4) prepare and implement risk reduction measures.

In September 2000, CARB approved the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (CARB 2000). The plan outlines a comprehensive and ambitious program that includes the development of numerous control measures aimed at substantially reducing emissions from new and existing on-road vehicles (e.g., heavy-duty trucks and buses), off-road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps), and stationary engines (e.g., stand-by power generators). CARB has adopted several regulations that will reduce diesel emissions from in-use vehicles and engines throughout California, including the In-Use Off-Road Diesel Fueled Fleets Regulation which uses the Diesel Off-Road Online Reporting System (DOORS) to report relevant vehicles to CARB, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment certification (CARB 2012). In some cases, the particulate matter reduction strategies also reduce smog-forming emissions such as NOx. As an ongoing process, CARB reviews air contaminants and identifies those that are classified as TACs. CARB also continues to establish new programs and regulations for the control of TACs, including DPM, as appropriate.

### 4.2.2.3 Regional

**San Diego Air Pollution Control District**

The SDAPCD has jurisdiction over air quality programs in San Diego County. State and local government projects, as well as projects proposed by the private sector, are subject to SDAPCD requirements if the sources are regulated by the SDAPCD. Additionally, the SDAPCD, along with CARB, maintains and operates ambient air quality monitoring stations at numerous locations throughout San Diego County, including those referenced in Section 4.2.1.3. The stations are used to measure and monitor criteria and toxic air pollutant levels in the ambient air.

Under the requirements of the CCAA, each local air district is required to develop its own strategies to achieve both state and federal air quality standards for its air basin. The SDAPCD developed the 2016 Revision of the Regional Air Quality Strategy for San Diego
County (RAQS). The RAQS was developed pursuant to CCAA requirements and identifies feasible emission control measures to provide progress in San Diego County toward attaining the state ozone standard. The pollutants addressed are VOCs and NOx, precursors to the photochemical formation of ozone (the primary component of smog). The RAQS control measures focus on emission sources under the SDAPCD’s authority, specifically stationary emission sources (such as power plants, manufacturing and industrial facilities) and some area-wide sources (such as water heaters, architectural coatings, and consumer products). However, the emissions inventories and emissions projections in the RAQS reflect the impact of all emissions sources and all control measures, including those under the jurisdiction of CARB (on-road and off-road motor vehicles) and the US EPA (aircraft, ships, and trains). Thus, while legal authority to control various pollution sources is divided among agencies, the SDAPCD is responsible for reflecting federal, state, and local measures in a single plan to achieve state ozone standards in San Diego County. The RAQS was initially adopted by the SDAPCD in 1992 and has generally been updated on a triennial basis, in accordance with State requirements. The latest version of the RAQS was adopted by the SDAPCD in 2016 (SDAPCD 2016b).

Additionally, as mentioned previously, because San Diego County is currently designated as a non-attainment area for the 8-hour ozone NAAQS, the SDAPCD must submit to US EPA, through CARB, an implementation plan as part of the California SIP identifying control measures and associated emission reductions as necessary to demonstrate attainment of the federal eight hour ozone standard within San Diego County. SDAPCD adopted its 2008 Eight-Hour Ozone Attainment Plan for San Diego County in March 2017 (SDAPCD 2017b).

Neither the RAQS nor the SIP address emissions of particulate matter in the SDAB. The SDAPCD prepared the report, Measures to Reduce Particulate Matter in San Diego County, in December 2005. This report identifies existing federal, state, and local measures to control particulates in the SDAB. This plan outlines potential measures for particulate matter control that the SDAPCD may further evaluate for future rule adoption. It does not outline a plan for AAQS compliance that the project would need to implement or demonstrate compliance with. As such, this report is not discussed further in this analysis.

The SDAPCD is also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws. All development projects within the city may be subject to the following SDAPCD rules (as well as others):

- **Rule 51, Nuisance:** prohibits emissions that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which
endanger the comfort, repose, health, or safety of any such persons or the public; or which cause injury or damage to business or property.

- **Rule 52, Particulate Matter**: establishes limits to the discharge of any particulate matter from non-stationary sources.
- **Rule 54, Dust and Fumes**: establishes limits to the amount of dust or fumes discharged into the atmosphere in any 1 hour.
- **Rule 55, Fugitive Dust Control**: sets restrictions on visible fugitive dust from construction and demolition projects.
- **Rule 67, Architectural Coatings**: establishes limits to the VOC content for coatings applied within the SDAPCD.
- **Rule 1200, Toxic Air Contaminants**: requires review of health risks of any new, relocated, or modified emissions unit which may increase emissions of one or more TAC.
- **Rule 1210, Toxic Air Contaminant Public Health Risks – Public Notification and Risk Reduction**: implements the public notification and risk reduction requirements of the State Air Toxics “Hot Spots” Act, and requires facilities to reduce risks to acceptable levels within five years.

### 4.2.2.4 Local

**City of Solana Beach General Plan**

The City of Solana Beach General Plan includes a Circulation Element that is intended to provide for a balanced circulation system that will support travel demands associated with land uses in the Land Use Element while maintaining a high quality of life for the residents of Solana Beach and all roadway users (City of Solana Beach 2014b). The Circulation Element includes goals and policies to improve and maintain air quality. The following Circulation Element goals and policies are relevant to the proposed project.

**Goal 8.0**: Safe alternatives to motorized transportation that meet the needs of all city residents, reduce vehicle trips, save energy, and improve air quality.

- **Policy C-8.1**: Encourage businesses to provide flexible work schedules for employees.
- **Policy C-8.2**: Encourage employers to offer shared commute programs and/or incentives for employees to use transit.
- **Policy C-8.3**: Require new or expanded uses to provide adequate bicycle parking and support facilities.
- **Policy C-8.4**: Encourage carpooling and other shared commute programs.
- **Policy C-8.5**: Encourage the use of alternative transportation modes.
- **Policy C-8.6**: Prioritize attention to transportation issues along routes to schools to reduce school-related vehicle trips.

- **Policy C-8.7**: Seek opportunities to reduce vehicle trips before requiring physical roadway improvements.

**Goal C-11.0**: An adequate supply of private off-street and public parking to meet the needs of residents and visitors to the city in a way that balances economic development, livable neighborhoods, environmental health, and public safety.

- **Policy C-11.1**: In general, maintain parking requirements for specified land uses, but allow for a reduction in parking requirements for existing buildings that change uses and cannot accommodate current parking standards without significantly altering the site. In determining what constitutes sufficient parking under these circumstances, the City may take into consideration: 1) the overall effectiveness of the circulation system as a whole (i.e., pedestrians, bicyclists, motorized vehicles, etc.); 2) the particular needs of a specific location and/or project; 3) the parking generation demand of the proposed use; 4) the availability of public parking spaces; and 5) the ability of the project to aid in the reduction of personal vehicle use and the corresponding reduction in air pollution, energy consumption, greenhouse gas emissions, and other environmental effects.

**City of Solana Beach Local Coastal Plan**

The Solana Beach Local Coastal Plan is a citywide planning document that includes long-term goals and policies that promote the beneficial use of lands in the city and the beach and shoreline for residents and visitors (City of Solana Beach 2013). This plan includes a list of land use policies organized by topic. The following policy in the Public Works section of this plan is related to air quality:

- **Policy 7.12**: Promote land use policies which encourage reduced automobile use to attain and maintain healthy air quality.

**4.2.3 Impact Significance Criteria**

According to Appendix G of the CEQA Guidelines, the project would have a significant impact on air quality if it would:

- **Issue 1**: Conflict with or obstruct the implementation of the San Diego RAQS or applicable portions of the SIP.

- **Issue 2**: Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- **Issue 3**: Result in a cumulatively considerable net 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 thresholds for ozone precursors).

- **Issue 4**: Expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations.

- **Issue 5**: Create objectionable odors affecting a substantial number of people.

The SDAPCD does not provide quantitative thresholds for determining the significance of construction or mobile source-related projects. However, the SDAPCD does specify Air Quality Impact Analysis (AQIA) trigger levels for new or modified stationary sources (APCD Rules 20.2 and 20.3). If these incremental levels are exceeded, an AQIA must be performed. Although these trigger levels do not generally apply to mobile sources or general land development projects, for comparative purposes these levels may be used to evaluate the increased emissions from these projects. For CEQA purposes, the screening level thresholds can be used to demonstrate that a project’s total emissions would not result in a significant impact to air quality. Because the AQIA screening thresholds do not include VOCs, the screening levels for VOCs used in this analysis are from the SCAQMD, which generally has stricter emissions thresholds than SDAPCD. For PM$_{2.5}$, the US EPA “Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards” published in 2005, which quantifies significant emissions as 10 tons per year, is used as the screening level threshold. These thresholds have been adopted by the County of San Diego for CEQA analysis (County of San Diego 2007). The thresholds listed in Table 4.2-4 are used in this analysis to determine whether the proposed project has the potential to violate an air quality standard or contribute substantially to an existing or projected air quality violation. The thresholds are applicable to both construction and operational emissions.

<table>
<thead>
<tr>
<th>Table 4.2-4 Screening Level Criteria Thresholds for Air Quality Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollutant</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>Carbon monoxide (CO)</td>
</tr>
<tr>
<td>Nitrogen Oxides (NO$_x$)</td>
</tr>
<tr>
<td>Respirable Particulate Matter (PM$_{10}$)</td>
</tr>
<tr>
<td>Fine Particulate Matter (PM$_{2.5}$)</td>
</tr>
<tr>
<td>Oxides of Sulfur (SO$_x$)</td>
</tr>
<tr>
<td>Volatile Organic Compounds (VOC)</td>
</tr>
</tbody>
</table>

Sources: SDAPCD Rule 20.2 (d)(2), Table 20.2-1; County of San Diego 2007.
For Issue 4, the City has not adopted its own thresholds for determining whether or not a project would impact sensitive receptors. The County has developed the following guidelines to be used for determining whether or not the project would expose sensitive receptors to substantial pollutant concentrations:

- The project would place sensitive receptors near CO hot spots or create CO hot spots near sensitive receptors.
- Project implementation would result in exposure to TACs resulting in a maximum incremental cancer risk greater than one in one million without application of Toxics-Best Available Control Technology or a health hazard index greater than one.

A CO hotspot would occur if the CO concentration exceeds either the CAAQS or NAAQS for CO. The CAAQS and NAAQS are provided in Table 4.2-2.

### 4.2.4 Method of Analysis

Regional impacts related to criteria pollutant emissions from construction and operation were assessed using the California Emissions Estimator Model (CalEEMod, version 2016.3.2). The emissions modeling estimated maximum daily emissions of criteria pollutant emissions from individual construction and operation activities. See Appendix B for details on model assumptions and methodology for estimating criteria pollutant emissions.

Localized carbon monoxide concentrations are evaluated by using the CALINE4 microscale dispersion model, in accordance with the Caltrans Transportation Project-Level Carbon Monoxide Protocol, in combination with EMFAC 2017 emission factors. In addition, the proposed project’s surrounding environment was reviewed for potential sources of substantial TACs; guidance from CARB’s Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005) was used to qualitatively identify if the project would expose sensitive receptors to substantial sources of TACs. See Appendix B for details on model assumptions and methodology for evaluating impacts on sensitive receptors.

### 4.2.5 Project Impacts and Mitigation

#### 4.2.5.1 Issue 1 - Consistency with the RAQS and SIP

*Would implementation of the proposed project result in a conflict with or obstruct implementation of the San Diego RAQS or applicable portions of the SIP?*

**Impact Analysis**

The applicable air quality planning documents for the SDAPCD are the 2016 RAQS (SDAPCD 2016b) and the 2008 Eight-Hour Ozone Attainment Plan for San Diego County, which is the SDAPCD portion of the California SIP. As discussed in Section 4.2.2.3, the RAQS
and Ozone Attainment Plan were prepared by the SDAPCD for CARB to be included as part of the SIP. These plans demonstrate how the SDAB would either maintain or strive to attain the NAAQS. The 2016 RAQS and Ozone Attainment Plan were developed based on growth assumptions, land use, and other planning information from SANDAG in order to project future emissions and determine from that the strategies necessary for the reduction of stationary source emissions through regulatory controls. The majority of regional emissions (67 percent) result from motor vehicle emissions. These emissions are primarily reduced through emissions standards, which are established by CARB, but further reduced at the district level through incentive programs to encourage the use of alternative transportation (SDAPCD 2016b). Because of the limited jurisdiction that the SDAPCD has over mobile source emissions, and even smaller control that individual projects have on influencing the public’s ultimate use of motor vehicles, compliance with the RAQS is based on whether or not an individual project would comply with the emissions projections contained in the plan. Reduction strategies are applied to the region as a whole and were determined to be adequate to meet the NAAQS based on the regional emissions projections. A project that proposes growth that exceeds growth assumptions would potentially conflict with the RAQS and SIP because it would potentially result in mobile source emissions that would exceed the projected emissions inventory. The SANDAG growth projections are based on population and vehicle use trends and land use plans developed as part of individual city and county general plans. As such, projects that propose development consistent with, or less than, the growth projections anticipated by a general plan would be consistent with the RAQS and SIP (County of San Diego 2007a).

The City of Solana Beach updated the Land Use Element of its General Plan in 2014. The 2016 RAQS was developed based on SANDAG’s San Diego Forward: The Regional Plan, which was adopted in 2015. The Regional Growth Forecast employed by SANDAG in San Diego Forward: The Regional Plan (the Series 13, 2050 Regional Growth Forecast) was based upon the general plans of cities that had been adopted as of 2013 (SANDAG 2015). Therefore, the 2016 RAQS relied on the version of the City of Solana Beach General Plan Land Use Element that was in place as of 2013. As such, projects that propose development consistent with the City of Solana Beach 2010 General Plan Update land use designation would propose development that is consistent with the emissions projections in the RAQS.

The proposed project site is designated General Commercial by the City’s 2014 General Plan and was designated General Commercial in the City’s 2010 General Plan. The City’s General Plan describes this designation as “the development of tourist-oriented commercial uses and retail uses of a larger scale than those permitted in Special Commercial areas such as grocery stores, drug stores, etc. Residential uses are allowed as a secondary use in conjunction with permitted commercial uses at a maximum density of 20 units per acre.” The proposed project would provide commercial retail space and 25 residential units on its 1.79 net acre lot, which does not exceed the maximum
residential density defined for the General Commercial land use designation. The proposed project is consistent with the General Commercial designation. Therefore, the proposed project is consistent with the growth projections used by SANDAG and is consistent with the RAQS and SIP.

**Significance of Impact**

Impacts related to consistency with regional plans would be less than significant without mitigation.

**Mitigation Measures**

No mitigation measures are required.

### 4.2.5.2 Issue 2 - Consistency with Air Quality Standards

**Would implementation of the proposed project result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation?**

**Impact Analysis**

Construction and operation of the proposed project would result in air pollutant emissions. This section summarizes the emission estimates and compares them to the significance thresholds described in Section 4.2.3.

**Construction**

Construction of the proposed project would result in temporary increases in air pollutant emissions. Heavy equipment and vehicles used during construction would generate exhaust emissions from fuel combustion. Fugitive dust emissions would be generated from earth disturbance during site grading, as well as from construction vehicles operating within the construction area.

Construction of the proposed project would take place over an approximately 18-month period. Construction activities would include approximately one month of demolition of onsite structures (approximately 6,500 square feet), two months of grading and earthwork, 10 months of building construction, two months of paving, and two months of architectural coating. The building construction, paving, and coating phases would potentially occur simultaneously. Approximately 49,200 cubic yards of material would be exported from the project site. CalEEMod defaults were assumed for the construction equipment fleet, construction vehicle trips (employee commute and material delivery), hours of operation for construction equipment, and construction equipment specifications. The construction parameters and assumptions are provided in detail in Appendix B and summarized in Table 4.2-5.
Table 4.2-5 Construction Assumption Summary

<table>
<thead>
<tr>
<th>Construction Phase</th>
<th>Duration (Months)</th>
<th>Anticipated Fleet</th>
<th>Daily Worker Vehicle Trips</th>
<th>Material Movement Required</th>
<th>Total Hauling Truck Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition</td>
<td>1</td>
<td>1 Industrial Saw</td>
<td>13</td>
<td>6,500 square feet</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Dozer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Loader/Backhoe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grading</td>
<td>2</td>
<td>1 Grader</td>
<td>8</td>
<td>49,200 cubic yards</td>
<td>6,150</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Dozer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Loader/Backhoe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Construction</td>
<td>10</td>
<td>1 Crane</td>
<td>132</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Forklift</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Generator Set</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Loader/Backhoe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Welders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paving</td>
<td>2</td>
<td>1 Cement and Mortar Mixer</td>
<td>13</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Paver</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Architectural Coating</td>
<td>2</td>
<td>1 Air compressor</td>
<td>19</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Table 4.2-6 summarizes the maximum daily construction emissions of each phase of construction and compares the results to the CEQA thresholds of significance. As shown in Table 4.2-6, unmitigated construction emissions would not exceed the applicable significance thresholds for any criteria air pollutant during construction. Therefore, implementation of the proposed project would result in less than significant daily emissions of criteria air pollutants during construction.

Table 4.2-6 Maximum Daily Construction Emissions

<table>
<thead>
<tr>
<th>Construction Phase</th>
<th>VOC</th>
<th>NOx</th>
<th>CO</th>
<th>SOx</th>
<th>PM10</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition</td>
<td>3</td>
<td>25</td>
<td>16</td>
<td>&lt;1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Grading (1)</td>
<td>3</td>
<td>61</td>
<td>17</td>
<td>&lt;1</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Building Construction</td>
<td>3</td>
<td>22</td>
<td>18</td>
<td>&lt;1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Paving</td>
<td>1</td>
<td>9</td>
<td>9</td>
<td>&lt;1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Architectural Coating</td>
<td>57</td>
<td>2</td>
<td>3</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Simultaneous Building Construction, Paving, and Coating</td>
<td>61</td>
<td>33</td>
<td>30</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Worker trips for all construction phases except building construction and architectural coating are based on 1.25 workers per equipment. Building construction rates are 0.72 daily trips per multi-family unit, 0.32 per 1,000 square feet of commercial/retail space, and 0.42 per 1,000 square feet office space. Architectural coating worker trips are 20 percent of building construction phase trips.

Source: CalEEMod Version 2016.3.2. See Appendix B for model output.
CHAPTER 4. ENVIRONMENTAL ANALYSIS
4.2 Air Quality

Table 4.2-6 Maximum Daily Construction Emissions

<table>
<thead>
<tr>
<th>Construction Phase</th>
<th>Pollutant Emissions (pounds/ day)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VOC</td>
</tr>
<tr>
<td>Maximum Daily Emissions</td>
<td>61</td>
</tr>
<tr>
<td>Significance Threshold</td>
<td>75</td>
</tr>
<tr>
<td>Significant Impact?</td>
<td>No</td>
</tr>
</tbody>
</table>

CO = carbon monoxide; NOₓ = nitrogen oxides; VOC = volatile organic compounds; SOₓ = sulfur oxides
PM₁₀ = respirable particulate matter; PM₂.₅ = fine particulate matter
(1) Includes hauling of imported and exported material and all worker vehicle trips.
Emission quantities are rounded to the nearest whole number; exact values are provided in Appendix B.
Source: CalEEMod Version 2016.3. See Appendix B for model output.

Operation
Operation of the proposed project would result in new sources of criteria pollutants from area and vehicular sources. Area sources of air pollutant emissions associated with the proposed project include fuel combustion emissions from space and water heating; fuel combustion emissions from landscape maintenance equipment; VOC emissions from periodic repainting of interior and exterior surfaces; and energy usage. Vehicular sources are the largest source of operational pollutant emissions attributable to the proposed project. Table 4.2-7 summarizes the assumptions for operational emissions sources for the project. Design features that would reduce use of natural gas and vehicle trips would also reduce the project’s criteria pollutant emissions.

Table 4.2-7 Operational Assumption Summary

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Assumptions</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Sources</td>
<td>1,777 Average Daily Trips</td>
<td>Urban Systems Traffic Impact Analysis (Appendix I)</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>2,777 kBTU/year(1)</td>
<td>CalEEMod Default</td>
</tr>
<tr>
<td>Landscaping</td>
<td>180 days/year</td>
<td>CalEEMod Default</td>
</tr>
</tbody>
</table>

(1) Includes additional 5 percent reduction beyond CalEEMod estimate to account for installation of solar water heaters and programmable thermostats.
Source: CalEEMod Version 2016.3.2. See Appendix B for model output.

As shown in Table 4.2-8, operational emissions from the proposed project would not exceed the significance thresholds for any criteria pollutant; therefore, impacts would be less than significant.

Table 4.2-8 Maximum Daily Operational Emissions

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Pollutant Emissions (pounds/ day)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VOC</td>
</tr>
<tr>
<td>Vehicular Sources</td>
<td>3</td>
</tr>
<tr>
<td>Consumer Products</td>
<td>2</td>
</tr>
<tr>
<td>Area Sources</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.2-8 Maximum Daily Operational Emissions

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>VOC</th>
<th>NO\textsubscript{x}</th>
<th>CO</th>
<th>SO\textsubscript{x}</th>
<th>PM\textsubscript{10}</th>
<th>PM\textsubscript{2.5}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td>&lt;1</td>
<td>1</td>
<td>1</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Landscape</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>2</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Architectural Coating</td>
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<td>0</td>
<td>0</td>
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</tr>
<tr>
<td><strong>Total Emissions</strong></td>
<td><strong>6</strong></td>
<td><strong>12</strong></td>
<td><strong>31</strong></td>
<td><strong>&lt;1</strong></td>
<td><strong>7</strong></td>
<td><strong>2</strong></td>
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<tr>
<td><strong>Significance Thresholds</strong></td>
<td><strong>75</strong></td>
<td><strong>250</strong></td>
<td><strong>550</strong></td>
<td><strong>250</strong></td>
<td><strong>100</strong></td>
<td><strong>55</strong></td>
</tr>
<tr>
<td><strong>Significant Impact?</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

CO = carbon monoxide; NO\textsubscript{x} = nitrogen oxides; VOC = volatile organic compounds; SO\textsubscript{x} = sulfur oxides
PM\textsubscript{10} = respirable particulate matter; PM\textsubscript{2.5} = fine particulate matter
Emission quantities are rounded to the nearest whole number; exact values are provided in Appendix B.

Significance of Impact
Daily emissions from construction and operation of the proposed project would not exceed any applicable air quality standard and impacts would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.2.5.3 Issue 3 - Non-Attainment Criteria Pollutants

Would implementation of the proposed project result in a cumulatively considerable net 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 thresholds for ozone precursors)?

Impact Analysis
As explained in Section 4.2.2, the SDAB is classified as a non-attainment area for the state 1-hour ozone standard, the federal and state 8-hour ozone standards, and the state PM\textsubscript{10} and PM\textsubscript{2.5} standards. Therefore, there is an existing cumulative impact for ozone and particulate matter emissions.

Construction
As defined by the County of San Diego’s Guidelines for Determining Significance, a potential cumulative impact would occur if direct construction emissions from the proposed project would exceed the significance thresholds in Table 4.2-4, or if the project’s construction emissions, combined with the emissions from another project’s construction emissions, would exceed the thresholds.

Construction-generated pollutant emissions would disperse (exhaust emissions) or settle out (dust) and would not contribute to long-term concentrations of emissions in the SDAB. The SDAPCD has not established screening thresholds for localized cumulative impacts.
The County of San Diego’s Guidelines for Determining Significance provides guidance for assessing the impact of cumulative emissions of criteria pollutants. As stated in the County guidelines, cumulative air quality impacts are typically due to projects near each other implementing simultaneous construction.

The County of San Diego Guidelines do not define what is considered a nearby project. In lieu of a screening distance, the Localized Significance Thresholds (LSTs) established by the SCAQMD (SCAQMD 2008) are used to determine potential cumulative impacts. Based on the LSTs, NOx emissions decrease approximately 95 percent beyond approximately 4,270 feet. Therefore, cumulative projects 4,270 feet from the project site are excluded from the cumulative NOx analysis. According to the LSTs, PM$_{10}$ decreases approximately 95 percent at 1,300 feet, and PM$_{2.5}$ at 1,430 feet. SCAQMD has not established a threshold for VOCs. Being of a gaseous nature similar to NOx, it is assumed for the purposes of this analysis that VOC pollutant concentrations would disperse by 95 percent beyond 4,270 feet, similar to NOx. Therefore, cumulative projects 1,300 feet from the project site are excluded from the cumulative PM$_{10}$ analysis, projects 1,430 feet from the site are excluded from the PM$_{2.5}$ analysis, and projects 4,270 feet from the site are excluded from the cumulative VOC analysis.

Eight potential cumulative projects may be under construction concurrently with the proposed project and are located within an LST screening distance. From closest to farthest, they are: the 330 S. Cedros Mixed Use project, located approximately 500 feet from the proposed project; The Pearl and Ocean Ranch Estates projects, both located approximately 2,000 feet from the proposed project; the Solana Highlands, Solana Beach School District Office, La Colonia Skate Park, and Child Development Center Modular Building Replacement, and Stevens Avenue Comprehensive Active Transportation Strategy (CATS) projects, all located approximately 3,000 feet from the proposed project; and the Santa Fe Christian School Master Plan Update and the Skyline Elementary school Reconstruction projects, both located approximately 4,000 feet from the proposed project site.

The closest cumulative project to the project site with the potential to generate cumulative construction emissions is the 330 S. Cedros Mixed Use project, located approximately 500 feet from the proposed project. This project is currently under construction and is within the screening distances for NOx, PM$_{10}$, PM$_{2.5}$, and VOC emissions. The 330 S. Cedros Mixed Use Project is similar in size to the proposed project and is assumed to have similar construction requirements. Therefore, it is assumed the construction emissions from the 330 S. Cedros Mixed Use Project would be similar to the emissions of the proposed project. As shown in Table 4.2-6, the proposed project would not exceed the significance thresholds for any pollutant. At the halfway point between the two projects, based on the dispersion rates estimated from the LSTs, project construction emissions would be 10 percent or less of the significance threshold for NOx, PM$_{10}$, and PM$_{2.5}$ emissions under the worst case scenario (grading). VOC emissions would
be minimal during all phases except architectural coating. VOC emissions would be reduced to approximately 65 percent during architectural coating. However, coating would last for 45 days at the very end of the construction period. Because the 330 S. Cedros Mixed Use Project is already under construction, it is unlikely that simultaneous construction would occur during the final phases of the proposed project’s construction. Any overlap would likely occur during the early phases of the proposed project, when VOC emissions would be minimal. The next closest projects are similarly sized projects located approximately 2,000 feet from the project site. At this distance, coating emissions would be less than half of the VOC threshold. Therefore, the emissions from the proposed project, combined with cumulative project emissions, would not exceed the significance thresholds and a cumulative impact would not occur during construction.

**Operation**

According to the County of San Diego significance threshold, a project’s operation would result in a significant cumulatively considerable contribution to an air quality impact if the project does not conform to the RAQS, if the project has a significant direct impact to air quality, or would create a CO hotspot. The potential for the project to result in an impact under these criteria are addressed as direct impacts of the project under separate issue headings. As discussed in Section 4.2.5.1, the proposed project would not conflict with the RAQS or SIP. As shown in Table 4.2-8, operational emissions from the proposed project would be well below the significance thresholds for any pollutant. Additionally, as discussed below in Section 4.2.5.4, the proposed project would not result in a CO hotspot. Therefore, implementation of the proposed project would not result in a significant cumulatively considerable contribution to criteria air pollutant emissions.

**Significance of Impact**

Construction and operation of the proposed project would not result in a cumulatively considerable contribution to criteria air pollutant emissions for which the region is in non-attainment. The proposed project would have a less than significant impact.

**Mitigation Measures**

No mitigation measures are required.

### 4.2.5.4 Issue 4 - Sensitive Receptors

Would implementation of the proposed project expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations?

**Impact Analysis**

The County of San Diego defines sensitive receptors for air quality impacts as residences, schools, hospitals, resident care facilities, day-care centers, or other facilities that may house individuals with health conditions that would be adversely affected by changes in air quality. The two primary pollutants of concern regarding impacts to sensitive receptors...
are CO and TACs. An analysis of the potential for construction or operation of the proposed project to expose sensitive receptors to substantial pollutant concentrations of CO or TACs is provided below.

**Carbon Monoxide Hot Spots**

Areas with high vehicle density, such as congested intersections and parking garages, have the potential to create high concentrations of carbon monoxide, known as carbon monoxide hot spots. Specifically, hot spots may occur at signalized intersections that operate at or below level of service (LOS) E with peak-hour trips for that intersection exceeding 3,000 trips (County of San Diego 2007a). An air quality impact is considered significant if CO emissions create a hot spot where either the California 1-hour standard of 20 ppm or the federal and California eight-hour standard of 9.0 ppm is exceeded. This typically occurs at severely congested intersections (LOS E or worse) (Caltrans 2010).

As discussed in detail in Section 4.12, Transportation and Traffic, one study area intersection would operate at a LOS E in the Year 2035 during the PM peak hour under both with and without proposed project scenarios: Highway 101/Lomas Santa Fe Drive. Peak hour trips at this intersection would exceed 3,000 trips. Therefore, the worst-case 1-hour CO concentration at this intersection was estimated using the CALINE 4 model. Receptor locations were set 30 feet from the roadway centerline at the intersection, although actual receptor locations are generally at a greater distance. CO emission factors were generated using the EMFAC 2017 model, using the CO emission factors associated with truck and non-truck vehicles for Year 2035 during conditions in January at a temperature of 40 degrees Fahrenheit and 40 percent relative humidity. A vehicle mix of 40 percent trucks and 60 percent non-trucks is conservatively assumed, based on the vehicle mix estimated by CalEEMod for the proposed project. The assumed vehicle speed is 5 miles per hour. An ambient 1-hour CO concentration of 3.6 ppm was used to reflect ambient conditions, based on the data reported at the Escondido-East Valley Parkway air quality monitoring station. This concentration estimate is conservative for future years, since CO ambient concentrations have shown a generally downward trend based on historical data.

The CO concentration was estimated to be 3.7 ppm. This would not exceed the state 1-hour standard of 20 ppm or the federal 1-hour standard of 35 ppm. Based on an urban persistence factor of 0.7 (for an urban area), the maximum cumulative 8-hour CO concentration at the intersection would be 2.59 ppm, which is below the 9 ppm state and federal 8-hour standard. Therefore, the proposed project would not place sensitive receptors near a CO hot spot or create a CO hotspot near sensitive receptors.

**Toxic Air Contaminants**

According to the San Diego County Guidelines for Determining Significance, Air Quality (County of San Diego 2007), DPM is the primary TAC of concern for typical land use projects that do not propose stationary sources of emissions regulated by SDAPCD.
Construction
Operation of construction equipment would be a potential source of DPM during construction, including heavy trucks used for hauling material. As shown in Table 4.2-6, PM emissions from construction would be well below the thresholds that are intended to protect public health. Further, PM emissions from exhaust make up less than one-third of total PM emissions during the worst construction phase, grading (Appendix B). Most of the PM emissions would come from fugitive dust. Additionally, because DPM is considered to have long-term health effects and construction would be a short-term event, emissions would not result in a significant long-term health risk to surrounding receptors.

Operation
CARB’s Air Quality and Land Use Handbook: A Community Health Perspective lists land uses that are considered major air toxic emitters (CARB 2005). These land uses are generally industrial and processing land uses that require a permit from the SDAPCD to operate, including chrome plating facilities, refineries, rail yards, and distribution centers. Relevant recommendations are assessed below.

Heavily traveled roads. CARB recommends avoiding siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. The most heavily traveled roadway within 500 feet of the project site is Highway 101, which is estimated to currently have 35,000 average daily trips. Therefore, the project would not expose on-site sensitive receptors to substantial TACs from heavily traveled roads.

Rail yards. CARB recommends avoiding siting new sensitive land uses within 1,000 feet of a major service and maintenance railyard. The project is located within 150 feet of NCTD ROW that includes two rail lines, but does not include a major service or maintenance rail yard. Therefore, the proposed project would not expose on-site sensitive receptors to substantial TACs from rail yards.

Fueling stations. CARB recommends avoiding new sensitive land uses within 300 feet of a large fueling station or within 50 feet of a typical gas dispensing facility. The nearest gas stations are nearly one mile from the project site. Therefore, the project would not expose on-site sensitive receptors to substantial TACs from a fueling station.

Dry cleaning operations. CARB recommends avoiding siting new sensitive land uses within 300 feet of any dry cleaning operation that uses perchloroethylene. The nearest dry cleaning operation is approximately 300 feet south of the project site. However, the dry cleaner operation (Solana Beachwalk Cleaners) does not use perchloroethylene. Therefore, the project would not expose on-site sensitive receptors to substantial TACs from dry cleaning operations.
In addition to the recommendations above, CARB recommends siting guidance for new land uses relative to distribution centers, ports, refineries, and chrome platers. There are no distribution centers, ports, refineries, or chrome platers in the vicinity of the project site. Therefore, the project would not expose on-site sensitive receptors to substantial TACs from any TAC-emitting land use identified in CARB’s Land Use Handbook.

Based on the SCAQMD’s “Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis” (SCAQMD 2003), projects that should be analyzed for DPM emissions include truck stops, distribution centers, and transit centers, which could be sources of DPM from heavy-duty diesel trucks. Operation of the proposed project would include underground parking, commercial office space, retail and restaurant space, and multi-family residential units. None of these facilities are classified as TAC emitters by CARB or SCAMQD. Occasional diesel emissions would occur from diesel trucks using the commercial loading dock. However, a single loading dock is considered a minor emitter of diesel exhaust. CARB’s Land Use Guidance is concerned with diesel exhaust emissions from distribution centers with around 100 truck trips per day (CARB 2005). Single loading docks are not associated with substantial amounts of diesel exhaust. Therefore, the proposed project would not significantly contribute to long-term diesel particulate exposure. Implementation of the proposed project would not expose existing sensitive receptors or proposed on-site sensitive receptors to substantial, long-term health risks from TACs that would result in a maximum incremental cancer risk greater than one in one million or a health hazard index greater than one.

**Significance of Impact**
The proposed project would not expose sensitive receptors to substantial pollutant concentrations. Impacts related to sensitive receptors would be less than significant.

**Mitigation Measures**
No mitigation measures are required.

**4.2.5.5 Issue 5 - Objectionable Odors**

*Would implementation of the proposed project create objectionable odors affecting a substantial number of people?*

**Impact Analysis**
The potential for construction and operation of the proposed project to generate offensive odors is described below.

**Construction**
Construction associated with the proposed project could result in minor amounts of odor compounds associated with diesel heavy equipment exhaust. However, all diesel
equipment would not be operating at once, and construction near existing receptors would be temporary. In addition, construction emissions would disperse rapidly from the project site. Pollutant emissions would be well below thresholds for health concerns, as described in Section 4.2.5.2, and would not be expected to be emitted at a level that would induce a negative odor response. Odor impacts associated with construction would be less than significant.

Operation
The proposed project would include the development of underground parking, commercial office space, retail and restaurant space, and multi-family residential units. The project does not propose land uses that are typically associated with emitting objectionable odors.

The surrounding and nearby land uses do not include existing sources of odor that would affect the project’s sensitive receptors. Therefore, the proposed project does not propose any new sources of odor that could affect sensitive receptors, nor does it place any sensitive receptors near existing sources of odor. Odor impacts associated with project operation would be less than significant.

Significance of Impact
The proposed project would not create objectionable odors affecting a substantial number of people. Impacts related to objectionable odors would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.2.6 Cumulative Impacts

Would implementation of the proposed project have a cumulatively considerable contribution to a cumulative air quality impact considering past, present, and probable future projects?

4.2.6.1 Issue 1 - Consistency with the RAQS and SIP

The geographic scope for the analysis of cumulative impacts relative to criteria air pollutants is the SDAB. The RAQS and SIP are intended to address cumulative impacts in the SDAB based on future growth predicted by SANDAG. SANDAG uses growth projections from the local jurisdictions’ adopted general plans; therefore, development consistent with the applicable general plan would be generally consistent with the growth projections in the air quality plans. Cumulative development is not expected to result in a significant impact in terms of conflicting with the SDAPCD air quality management plans and the California SIP because the majority of cumulative projects would propose development that is consistent with the applicable growth projections incorporated into local air quality management plans. As described under Section
4.2.5.1, the proposed project is consistent with the City’s General Plan; therefore, the project is consistent with the growth projections in the RAQS and SIP. Implementation of the proposed project, in combination with other cumulative projects, would not conflict with or obstruct implementation of the RAQS or SIP air quality plans. A cumulative impact would not occur.

4.2.6.2 Issue 2 - Consistency with Air Quality Standards

Section 4.2.5.3 provides the analysis of the proposed project’s potential to result in a cumulatively considerable contribution to an exceedance of an air quality standard. As stated in this section, emissions associated with construction and operation of the proposed project are below the County of San Diego significance thresholds. The construction and operation of the proposed project would not result in a cumulatively considerable contribution to a significant cumulative air quality impact.

4.2.6.3 Issue 3 - Non-Attainment Criteria Pollutants

The SDAB is classified as a non-attainment area for the state 1-hour ozone standard, the federal and state 8-hour ozone standards, and the state PM$_{10}$ and PM$_{2.5}$ standards. The SDAB is in attainment for federal PM$_{2.5}$, and state and federal CO, NO$_2$, and SO$_2$. Section 4.2.5.3 provides the analysis of the project’s potential to result in a cumulatively considerable contribution to this existing cumulative impact. As stated in this section, emissions associated with construction and operation of the proposed project are below the County of San Diego significance thresholds. Therefore, the proposed project would not result in a cumulatively considerable net increase of non-attainment pollutants PM$_{10}$, PM$_{2.5}$, NO$_x$ and VOCs.

4.2.6.4 Issue 4 - Sensitive Receptors

Cumulative growth in the planning area would have the potential to increase congestion and potentially result in CO hot spots. However, as described under Section 4.2.5.4, the increase in vehicle trips associated with the implementation of the proposed project, in combination with cumulative trips, would not result in significant congestion at any intersection during construction or operation. Therefore, a significant cumulative impact related to CO hot spots would not occur.

The cumulative projects would also have the potential to result in a significant cumulative impact associated with sensitive receptors if, in combination, they would expose sensitive receptors to a substantial concentration of TACs that would significantly increase cancer risk. Cumulative projects include the 330 S. Cedros Mixed Use project, located approximately 500 feet from the proposed project; The Pearl and Ocean Ranch Estates projects, both located approximately 2,000 feet from the proposed project; the Solana Highlands, Solana Beach School District Office and Child Development Center Modular Building Replacement, La Colonia Skate Park, and Stevens Avenue Comprehensive
Active Transportation Strategy (CATS) projects, all located approximately 3,000 feet from the proposed project; and the Santa Fe Christian School Master Plan Update and the Skyline Elementary School Reconstruction projects, both located approximately 4,000 feet from the proposed project site. These projects have the potential to generate diesel particulate matter from truck trips during operation. However, impacts would generally be localized and not cumulative in nature because impacts related to a particular source of TACs would be limited to the proximity of the source. Additionally, similar to the proposed project, these projects would not generate the level of truck trips during operation that would be considered to cause a potential health risk (100 truck trips per day or more). The cumulative projects would not be expected to result in a maximum incremental cancer risk greater than one in one million or in a health hazard index greater than one. The project’s cumulative impact associated with sensitive receptors would not be cumulatively considerable.

4.2.6.5 Issue 5 - Objectionable Odors

Impacts relative to objectionable odors are limited to the area immediately surrounding the odor source and are not cumulative in nature because the air emissions that cause odors disperse beyond the sources of the odor. As the emissions disperse, the odor becomes decreasingly detectable. Additionally, as described under Section 4.2.5.5, implementation of the proposed project would not generate a new source of objectionable odors. Therefore, implementation of the proposed project, in combination with other cumulative projects, would not result in a cumulatively considerable contribution to a significant cumulative impact associated with objectionable odors.
4.3 Cultural Resources

This section describes the existing conditions related to cultural, tribal and paleontological resources within the project area, and evaluates the potential for impacts to those resources due to implementation of the proposed project. Information in the following section is based on the Cultural Resources Survey Report for the Highway 101 and Dahlia Drive Mixed Use Project (Atkins 2015), which is included as Appendix C.

4.3.1 Environmental Setting

The proposed study area for the cultural, tribal and paleontological resources assessment has been defined as an Area of Potential Effect (APE) that considers the whole project site (1.95 acres). The proposed project is situated in the western San Diego County portion of the Peninsular Ranges Geomorphic Province. The province encompasses an area that extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin south to the southern tip of Baja California. The province varies in width from approximately 30 to 100 miles. In general, the province consists of rugged mountains underlain by Jurassic metavolcanic and metasedimentary rocks, and Cretaceous igneous rocks of the southern California batholith. The proposed project is located in the coastal portion of the province in San Diego County, where the metamorphic and granitic basement rocks are overlain by sedimentary materials that are Cretaceous, Tertiary, and Quaternary age.

4.3.1.1 Definition of Resources

Archaeological or prehistoric resources are physical properties resulting from human activities that predate written records and are generally identified as isolated finds or sites. Prehistoric resources can include village sites, temporary camps, lithic (stone tool) scatters, roasting pits/hearths, milling features, rock features, and burials.

Historic resources consist of physical properties, structures, or built items resulting from human activities after the time of written records. Historic resources can include archaeological remains and architectural structures.

Paleontological resources are the fossilized remains or traces of multi-cellular invertebrate and vertebrate animals and multi-cellular plants, including their imprints from a previous geologic period. Fossil remains such as bones, teeth, shells, and leaves are found in the geologic deposits (rock formations) where they were originally buried.

4.3.1.2 Cultural Resources Setting

Occupation in the San Diego region can be firmly attributed to over 7,000 years Before Present (B.P.) by radiocarbon dating, although there are some who suggest occupations
beyond 10,000 years ago. However, there has been much debate in past years over how to synthesize a regional chronology.

Using Malcolm Rogers’ chronology along the coast, the La Jolla I Complex can be characterized by flexed burials and “crude” scrapers. The La Jolla II Complex adds multiple projectile point types, formal cemeteries, and discoidal groundstone. The La Jolla III Complex is influenced by the eastern Yuman culture at around 4,000 B.P. After this point, an increase in terrestrial resources, especially acorn, is introduced and cremations firmly replace inhumations before 1,500 B.P.

The people whom the Spanish first encountered in this area are known as the Kumeyaay. Their territory extended from the Pacific Ocean in the west, to the San Luis River/San Felipe Creek/Salton Sea to the north, almost to the Colorado River to the east, to approximately 30 miles south of Ensenada in Baja California, Mexico. Their language is in the Yuman language family of Hokan stock, and the two dialects are Ipai and Tipai.

Within Kumeyaay territory, bands comprised of approximately five to 15 autonomous kinship groups controlled portions of land measuring between 10 and 30-miles in length. These areas were located within drainage systems extending from the coast to the desert via the foothills and mountains. This allowed the groups to have access to resources from multiple ecological zones throughout the year. Thus, Kumeyaay subsistence patterns included fishing and hunting, as well as desert irrigation farming along the Colorado River and its tributaries. Wild plants and seeds were also harvested, including agave, yucca, manzanita, elderberry, chia, buckwheat, cholla, prickly-pear cactus, piñon nuts, and acorns. Acorns were gathered from several different species of oak in the late summer, and were stored in family and village granaries. Mesquite replaced acorn as a primary staple for Kumeyaay living in the eastern deserts. Wild game included woodrats, rabbits, doves, geese, quail, deer, antelope, and mountain sheep.

Shelter consisted of winter village structures and summer camp dwellings. Winter village sites were often found at lower elevations and within sheltered locations. These villages were comprised of dispersed single-family dwellings, which were composed of semi-subterranean, circular wooden pole frameworks that were covered with brush thatch and/or earth. Rectangular openings were constructed and faced east, while doors were placed to guard against the wind. A family-owned platform granary may have also accompanied this structure. Other structures found in the winter village included a communal ceremonial flat-roofed brush shelter, a dance ground, and a semicircular shelter for the keruk mourning ceremony. The dance circle and ceremonial shelter were often reinforced with a low rock wall. Summer campsites were less elaborate, and were selected for access to water, drainage, dietary resources, and protection from the elements. Windbreaks, trees, and/or caves with rocky overhangs served as summer campsite shelters.
The Kumeyaay people had a varied material culture reflective of the many ecosystems they utilized. They created finely woven baskets; twined caps; agave fiber sandals; a variety of ceramic vessels, including miniature forms, pipes, and human figures; throwing sticks; mesquite war clubs; and a double-bladed paddle which was used with their tule watercraft. They largely traded amongst their own group; however, they also participated in trade between the southwest and the Pacific coast.

The historic period in San Diego is considered to have begun with the founding of Mission San Diego de Alcalá in 1769. The Spanish Mission system served both as a way to provide a means of colonization for the Spanish and also as a safe rest stop for travelers along El Camino Real, or the King’s Highway. Mission San Luis Rey de Francia was founded in 1798, and is still an active Catholic Church. After the Mission System became secularized in 1833, portions of mission lands were granted as ranchos (Atkins 2015).

The area of Solana Beach was originally known as Lockwood Mesa and was first settled in 1886 by the family of George Jones. The area was used to farm grain and lima beans. After the completion of Lake Hodges Dam and the creation of the Santa Fe Irrigation District in 1918, development in the area increased significantly. Agriculture was a mainstay of the area at that time. In 1922, Colonel Ed Fletcher, an early community leader and developer, purchased 201 acres at $200 per acre from George Jones to develop the town of Solana Beach. Solana Beach grew rapidly, paralleling the development of the entire county during the 1924–29 period. On March 5, 1923, Fletcher filed the original subdivision map of Solana Beach. The community has since grown from an agricultural community to a developed urban area. The City of Solana Beach was incorporated in 1986 (City of Solana Beach 2014a).

### 4.3.1.3 Paleontological Resources Setting

As previously stated, the proposed project is situated in the western San Diego County portion of the Peninsular Ranges Geomorphic Province. The project site itself is located within Quaternary undivided Paralic Deposits (Qop6) that were deposited in the late to middle Pleistocene (Atkins 2015). This is represented generally as friable silty sandstone. Previous geologic testing indicates this deposit extended to a maximum investigation depth of 50 feet below the existing ground surface. Overlaying the Qop6 deposits is undocumented artificial fill (Afu), and extends from the existing surface in varying depths to a maximum of seven feet below surface; the history of its introduction is unknown (Atkins 2015).

According to the County of San Diego’s Guidelines for Determining Significance for Paleontological Resources, the underlain Quaternary undivided Paralic Deposits have high to moderate potential to contain paleontological resources while undocumented artificial fill has very low potential to no potential to contain paleontological resources (County of San Diego 2009a).
4.3.1.4 Known Cultural and Paleontological Resources

CHRIS Records Search
A cultural records search was conducted at the South Coastal Information Center (SCIC), located at San Diego State University, San Diego. The records search provided a review of existing cultural resources, including historic buildings, structures, and objects that were previously identified within a one-mile radius of the project site. The results of the CHRIS records search were received on July 16, 2015 and concluded that no previously recorded resources are located within the APE. However, there were 15 previously recorded resources and two historic addresses within the one-mile search radius of the project’s APE. As shown in Table 4.3-1, these resources consist of two historic buildings, one historic lumber yard, four habitation sites, two shell middens, one shell scatter, two shell/lithic scatters, two sites with multiple hearths, two groundstone isolates, and one multicomponent site (historic dump/trash scatter and prehistoric shell midden with groundstone and debitage). Three of these resources were also recorded as having human remains and/or burials present.

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<th>Primary No. P-37-</th>
<th>Trinomial No. CA-SDI-</th>
<th>Resource Description</th>
<th>Recording Events</th>
<th>Proximity to APE</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-37-000191</td>
<td>CA-SDI-191</td>
<td>Prehistoric - approximately 8 acres of scattered hearths, thin shell distribution and some worked stones.</td>
<td>Originally recorded by Treganza, then updated by Bull and Gross. No dates for either.</td>
<td>Within 1-mile buffer</td>
</tr>
<tr>
<td>P-37-010238</td>
<td>CA-SDI-101238</td>
<td>Prehistoric - lithic scatter, shell scatter, hearths, habitation debris, and human remains.</td>
<td>Originally recorded by unknown and no date. Updated by Cooley and Barrie in 2002.</td>
<td>Within 1-mile buffer</td>
</tr>
<tr>
<td>P-37-010940</td>
<td>CA-SDI-10940</td>
<td>Prehistoric - habitation site with extensive midden deposit and burials.</td>
<td>Originally recorded by Rogers (no date). Updated by Pigniolo in 1988.</td>
<td>Within 1-mile buffer</td>
</tr>
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### Table 4.3-1 Cultural Resources within One-mile of the Proposed Project’s APE

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<th>Primary No.</th>
<th>Trinomial No. CA-SDI-</th>
<th>Resource Description</th>
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<th>Proximity to APE</th>
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<td>P-37-013729</td>
<td>CA-SDI-13752</td>
<td>Prehistoric – habitation/camp (shell midden, lithic scatter, lithic tools, groundstone).</td>
<td>Recorded (presumably) by Rogers, no date.</td>
<td>Within 1-mile buffer</td>
</tr>
<tr>
<td>P-37-013731</td>
<td>CA-SDI-13754</td>
<td>Prehistoric – high frequency of portable sandstone mortars; hearths.</td>
<td>Reported by Spencer Rogers and M.V. Harding in 1951.</td>
<td>Within 1-mile buffer</td>
</tr>
<tr>
<td>P-37-026494</td>
<td>CA-SDI-17390</td>
<td>Prehistoric – groundstone, shell and charcoal.</td>
<td>Recorded (presumably) by Rogers, no date.</td>
<td>Within 1-mile buffer</td>
</tr>
</tbody>
</table>

Source: Atkins 2015

In addition, the CHRIS records search identified 58 cultural resources reports on file at the SCIC for the APE and a one-mile buffer of the project site. Three of these reports address various portions of the APE. Based on this review it was determined that the APE had been previously surveyed for cultural resources and 100 percent of the APE has been addressed through literature review.

A review of USGS topographical maps for the project shows the rail lines as the only development near the APE in 1904, while there are three structures represented within the APE on the 1953 Del Mar USGS 7.5-minute quadrangle. A review of other historic maps shows the project area as being open land, though several ranchos are located nearby. Additionally, historic aerial photos were also reviewed. A mobile home park was located on the northern half of the project site in aerial photographs from 1953 through 2005; however, these residences are not present in the 2012 aerial photograph.
Native American Heritage Commission Consultation
The Native American Heritage Commission (NAHC) was contacted on June 2, 2015 to request a Native American Sacred Lands File (SLF) search to determine the presence of sacred or Traditional Cultural Properties within the proposed project area. On July 16, 2015, the NAHC responded saying the SLF did not indicate the presence of Native American cultural resources within the proposed project area, and provided a list of Native American contacts to inform about proposed project-related activities. Tribal scoping letters were sent out on September 1, 2015 to all contacts listed in the NAHC response (the form letter for Tribal Scoping is provided in Attachment B to Appendix C).

One response was received from the Viejas Band of Kumeyaay Indians requesting that the project be moved and construction at the site be avoided. The letter stated that the project site was, "extremely sensitive and sacred to the Kumeyaay people" but did not include any further information or explanation. The City met with Julie Hagen, a representative from the Viejas Tribal government to discuss the tribe’s concerns with the project site. The outcome of the meeting was to ask the developer to consider a shovel testing program across the project site once current uses have been removed.

California Assembly Bill (AB) 52
In accordance with the requirements of AB 52 (see Section 4.3.3.2 below), the City issued a notification letter to the Mesa Grande Band of Mission Indians regarding the City’s intent to prepare an EIR and environmental technical studies for the proposed project. To date, the Mesa Grande Band is the only tribe to have contacted the City requesting to receive notifications under AB 52; therefore, under the law they are the only tribe that must be notified. Under AB 52, the Mesa Grande Band had 30 days to respond to the City if it wished to begin consultation on the project. The Mesa Grande Band of Mission Indians did not respond within the 30-day period or any time after that.

Pedestrian Survey
A pedestrian archaeological survey of the proposed project area was conducted on July 18, 2015 by Atkins’ archaeologists. Resources were recorded using a sub-meter Trimble GPS and California Department of Parks and Recreation (DPR) 523 forms. Approximately 40 percent of the project site is paved with concrete or asphalt or contained structures. The pedestrian survey reported the project site as being highly disturbed and identified heavy rodent burrowing activity. The backdirt from the rodent burrows was inspected for cultural resources, but none were identified. No cultural resources were reported during the survey.
4.3.2 Regulatory Framework

4.3.2.1 Federal

Native American Graves Protection and Repatriation Act
The Native American Graves Protection and Repatriation Act (NAGPRA) is a federal law passed in 1990. NAGPRA provides a process for museums and federal agencies to return certain Native American cultural items—human remains, funerary objects, sacred objects, or objects of cultural patrimony—to lineal descendants, and culturally affiliated Native American tribes and Native Hawaiian organizations. NAGPRA includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American cultural items on federal and tribal lands, and penalties for noncompliance and illegal trafficking.

Federal curation regulations are also provided in 36 CFR Part 79 which apply to collections that are excavated or removed under the authority of the Archaeological Resources Protection Act (16 USC 470[aa-mm]), the Reservoir Salvage Act (16 USC 469-469[c]), or Section 110 of the National Historic Preservation Act (16 USC 470[h-2]).

National Historic Preservation Act
Section 106 of the National Historic Preservation Act (NHPA) of 1966 requires federal agencies to take into account the effects of their undertakings on historic properties, and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, assess their effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. In order to help identify these historic properties and provide community involvement, consulting parties are identified through coordination with the appropriate State Historic Preservation Officer (SHPO) and/or Tribal Historic Preservation Officer (THPO).

The NHPA established the NRHP as the official federal list of cultural resources that have been nominated by state offices for their historical significance at the local, state, or national level. Listing on the NRHP assists in preservation of historic properties through the following actions: formal recognition of a property’s historical, architectural, or archaeological significance; consideration in planning for federal, federally licensed, or federally assisted projects; eligibility for federal tax benefits; consideration of historic values in the decision to issue a surface mining permit; and qualification for federal grants for historic preservation, when funds are available.
4.3.2.2 State

California AB 52, Native Americans: California Environmental Quality Act
AB 52 specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. Further, AB 52 requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. AB 52 specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources.

California Health and Safety Code Section 7050.5
California Health and Safety Code Section 7050.5, Disturbance of Human Remains, establishes intentional disturbance, mutilation, or removal of interred human remains as a misdemeanor and specifies protocol for the inadvertent discovery of human remains.

California Native American Graves Protection and Repatriation Act
The California NAGPRA, enacted in 2001, requires all state agencies and museums that receive state funding and that have possession or control over collections of human remains or cultural items, as defined, to complete an inventory and summary of these remains and items on or before January 1, 2003, with certain exceptions. California NAGPRA also provides a process for the identification and repatriation of these items to the appropriate Native American tribes.

California Public Resources Code (PRC) Section 5097.9
California PRC 5097.9 prohibits interference with Native American religion or damage to cemeteries or places of worship and requires the NAHC to immediately notify the most likely descendants when it receives notification of a discovery of Native American human remains pursuant to California Health and Safety Code 7050.5 (described above).

California Register of Historical Resources (PRC Section 5020 et seq)
State law protects cultural resources by requiring evaluations of the significance of prehistoric and historical resources. The California criteria for the register are nearly identical to those for the NRHP. SHPO maintains the California Register of Historical Resources (CRHR). Properties listed, or formally designated eligible for listing, on the NRHP are automatically listed on the CRHR, as are State Landmarks and Points of Interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.
4.3.2.3 Local

City of Solana Beach General Plan
The Conservation and Open Space Element of the City’s General Plan contains the following goals and policies relative to the protection and conservation of cultural and paleontological resources as they relate to the proposed project:

Goal 3.1: To protect and conserve the City’s natural and cultural resources.

- **Policy 6.a:** The City shall complete an inventory of local historic resources and cultural landmarks and shall establish a list of significant resources to be preserved.
- **Policy 6.b:** The City shall require that sites proposed for future development are to be evaluated by certified archaeologists and/or paleontologists in accordance with the California Environmental Quality Act. Where potentially significant adverse impacts are identified, the City shall require appropriate mitigation measures such as in situ preservation or professional retrieval.
- **Policy 6.c:** The City shall implement the objectives and policies established in the community design element of the General Plan which promote the preservation of historic landmarks, focal points, and special features.
- **Policy 6.d:** The City shall encourage and support the acquisition of significant cultural resources by private and/or public entities interested in preserving such resources.
- **Policy 6.e:** The City shall establish a historic preservation section within its zoning ordinance.

City of Solana Beach Municipal Code (SBMC)
SBMC Chapter 17.60.160 establishes a procedure for the designation of historic, cultural, archaeological, or architectural landmarks herein after referred to as historic/cultural landmarks. In accordance with the code, no person shall demolish, destroy, or move all or any part of a designated historic/cultural landmark, nor shall any permit be issued for such demolition, moving or earth movement, unless a conditional use permit has been approved by the City Council.

City of Solana Beach Local Coastal Plan (LCP)
The Solana Beach City Council adopted a LCP Land Use Plan (LUP) on February 27, 2013 (amended and certified on June 11, 2014). Although the LUP has been certified by the California Coastal Commission, the Local Implementation Plan (LIP) portion of the LCP has not yet been certified; as such, the provisions of the LUP are considered by the Coastal Commission to be advisory rather than mandatory at this time. The purpose of the LUP is to provide a long-term comprehensive land use planning and policy blueprint for the utilization, management, and preservation of coastal resources within the city. The
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4.3 Cultural Resources

LUP addresses cultural, tribal and paleontological issues through the inclusion of goals and policies. The LUP identifies the following policies associated with cultural, tribal and paleontological resources as they relate to the proposed project:

- **Policy 5.51**: Identify and mitigate potential impacts of development on archaeological, paleontological, and historic resources.
- **Policy 5.52**: New development shall protect and preserve archaeological, historical, and paleontological resources from destruction, and shall avoid and minimize impacts to such resources.
- **Policy 5.53**: Where development would adversely impact historical, archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.
- **Policy 5.54**: The City shall coordinate with appropriate agencies to identify archaeologically sensitive areas. Such information should be kept confidential to protect archaeological resources.
- **Policy 5.55**: Coastal Development Permits for new development within archaeologically sensitive areas shall be conditioned upon the implementation of the appropriate mitigation measures.
- **Policy 5.56**: New development on sites identified as archaeologically sensitive shall include on-site monitoring of all grading, excavation, and site preparation that involve earth moving operations by a qualified archaeologist(s) and appropriate Native American consultant(s).
- **Policy 5.57**: The establishment of a museum/visitor center to display local archaeological and/or paleontological artifacts and to provide public educational information on the cultural and historic value of these resources shall be encouraged.

### 4.3.3 Impact Significance Criteria

According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on cultural, tribal and paleontological resources if it would:

- **Issue 1**: Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.
- **Issue 2**: Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- **Issue 3**: Disturb any human remains, including those interred outside of dedicated cemeteries.
- **Issue 4**: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- **Issue 5**: Cause a substantial adverse change in the significance of a tribal cultural resource defined in Section 21074 as either a site, feature, place, cultural...
landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Section 5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Section 5024.1(c). In applying the criteria set forth in Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

### 4.3.4 Method of Analysis

The analysis of cultural, tribal and paleontological resources is based on the analysis of the Cultural Resources Survey Report for Highway 101 and Dahlia Drive Mixed Use Project prepared by Atkins (Atkins 2015). As described above, a records search was undertaken by the SCIC at San Diego State University. The records search encompassed a one-mile search radius around the proposed project’s APE. This records search was completed to determine the general character of the cultural resources within the project area as well as to gauge the potential effects of the proposed construction activities. A pedestrian survey was conducted on June 18, 2015 to inspect the ground surface for cultural resources. Digital photographs were taken to document the character of the proposed project’s APE and survey conditions. In addition, the City issued a notification letter to the Mesa Grande Band of Mission Indians in accordance with AB 52, and tribal scoping letters were sent on September 1, 2015 to all contacts provided by the NAHC.

### 4.3.5 Project Impacts and Mitigation

#### 4.3.5.1 Issue 1 – Historical Resources

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

**Impact Analysis**

The proposed project’s APE was assessed for the presence of cultural resources, including historical resources. The results of the CHRIS records search indicated that no historic resources have been recorded within the APE. Implementation of the proposed project would include construction and operational activities, which would be contained within the boundaries of the APE and, as such, would not impact historical resources. The project requires the demolition of the existing structures on the property. These structures are not considered historically significant properties. Therefore, implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource.
Significance of Impact
The proposed project APE does not contain any historical resources and, as such, implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource. Therefore, impacts associated with historical resources would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.3.5.2 Issue 2 – Archaeological Resources

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

Impact Analysis
Effects on archaeological resources generally occur as a result of construction activities, such as grading or trenching, which could potentially damage or destroy unknown buried archaeological resources. The CHRIS records search concluded that no recorded archaeological resources are located within the APE. A search of the NAHC Sacred Lands Files indicated that there are no documented sacred lands within the project site. In addition, no resources were identified during the site survey. Thus, archaeological and cultural resources are not known to occur within the project site. However, the CHRIS records search identified four habitation sites, two shell middens, one shell scatter, two shell/lithic scatters, two sites with multiple hearths, two groundstone isolates, and one multicomponent site (historic dump/trash scatter and prehistoric shell midden with groundstone and debitage) within the one-mile search radius from the APE. Thus, the presence of previously recorded archaeological sites near the project site illustrates the regional sensitivity for archaeological resources.

While the APE has demonstrated areas of disturbance, it is possible that ground-disturbing activities associated with construction of the proposed project may uncover unknown subsurface archaeological or tribal cultural resources. In the event that subsurface archaeological or tribal cultural resources are encountered during construction, such resources could potentially be damaged or destroyed, resulting in a significant adverse impact. Therefore, implementation of the proposed project would result in a potentially significant impact associated with archaeological and tribal cultural resources.

Significance of Impact
Implementation of the proposed project has the potential to damage or destroy unknown subsurface archaeological or tribal cultural resources, which could result in a substantial adverse change in the significance of a unique archaeological resource. Therefore, impacts related to archaeological and tribal cultural resources are considered to be potentially significant.
Mitigation Measures

CUL-1 Archaeological/Native American Monitoring. Due to the potential presence of previously unknown archaeological and/or tribal cultural resources, a grading monitoring program shall be implemented for the project. The monitoring program shall include the following elements:

1. The applicant shall enter into a Tribal Cultural Resource Treatment and Monitoring Agreement (also known as a pre-excavation agreement) with a tribe that is traditionally and culturally affiliated with the project location (TCA Tribe) prior to issuance of a grading permit. The purposes of the agreement are (1) to provide the applicant with clear expectations regarding unique archaeological resources and tribal cultural resources; and (2) to formalize protocols and procedures between the applicant and the TCA Tribe for the protection and treatment of, including but not limited to, Native American human remains; funerary objects; cultural and religious landscapes; ceremonial items; traditional gathering areas; and cultural items located and/or discovered through a monitoring program in conjunction with the construction of the proposed project, including additional archaeological surveys and/or studies, excavations, geotechnical investigations, grading, and all other ground disturbing activities.

2. Prior to issuance of a grading permit, the applicant shall provide written verification to the City that a qualified archaeologist and a Native American monitor associated with a TCA Tribe have been retained to implement the monitoring program. The archaeologist shall be responsible for coordinating with the Native American monitor. This verification shall be presented to the City in a letter from the project archaeologist confirming that the selected Native American monitor is associated with a TCA Tribe. Prior to any pre-construction meeting, the City shall approve all persons involved in the monitoring program.

3. The qualified archaeologist and Native American monitor shall attend the pre-grading meeting with the grading contractors to explain and coordinate the requirements of the monitoring program.

4. During the initial grubbing, site grading, excavation, or disturbance of the ground surface, the qualified archaeologist and the Native American monitor shall be onsite fulltime. If imported fill materials, or fill used from other areas of the project site, are to be incorporated at the project site, those fill materials shall be absent of any unique archaeological or tribal cultural resources. The frequency of inspections shall depend on the rate of excavation, the materials excavated, and any discoveries of unique archaeological resources as defined in PRC Section 21083.2 or discoveries of tribal cultural resources as defined in PRC Section 21074. Archaeological and Native American monitoring will be discontinued when the depth of grading and soil conditions no longer have the potential to contain...
cultural deposits. The qualified archaeologist, in consultation with the Native American monitor, shall be responsible for determining the duration and frequency of monitoring.

5. In the event that previously unidentified tribal cultural or unique archaeological resources are discovered, the qualified archaeologist and the Native American monitor shall have the authority to temporarily divert or temporarily halt ground disturbance operations in the area of discovery to allow for evaluation of tribal cultural or unique archaeological resources. Isolates and clearly non-significant deposits shall be minimally documented in the field and collected so that the monitored grading can proceed.

6. If a tribal cultural or unique archaeological resource is discovered, the archaeologist shall notify the City of said discovery and shall conduct consultation with TCA tribes to determine the most appropriate mitigation. The qualified archaeologist, in consultation with the City, the TCA Tribe, and the Native American monitor, shall determine the significance of the discovered resource. A recommendation for treatment and disposition of the resource shall be made by the qualified archaeologist in consultation with the TCA Tribe and the Native American monitor, and shall be submitted to the City for review and approval.

7. The avoidance and/or preservation of the tribal cultural resource and/or unique archaeological resource must first be considered and evaluated under CEQA. Where any significant tribal cultural resources and/or unique archaeological resources have been discovered and avoidance and/or preservation measures are deemed to be infeasible by the City, a research design and data recovery program to mitigate impacts shall be prepared by the qualified archaeologist (using professional archaeological methods), in consultation with the TCA Tribe and the Native American monitor, and shall be subject to approval by the City. The qualified archaeologist, in consultation with the Native American monitor, shall determine the amount of material to be recovered for an adequate artifact sample for analysis. Before construction activities are allowed to resume in the affected area, the research design and data recovery program activities must be concluded to the satisfaction of the City.

8. In accordance with CEQA, all tribal cultural resources shall be treated with culturally appropriate dignity. If the qualified archaeologist elects to collect any tribal cultural resources, the Native American monitor must be present during the collection and cataloging of those resources. Moreover, if the qualified archaeologist does not collect the tribal cultural resources that are unearthed during the ground-disturbing activities, the Native American monitor may, at their discretion, collect said resources and provide them to the TCA Tribe for respectful and dignified treatment in accordance with the tribe’s cultural and spiritual traditions.
9. The project archaeologists shall document evidence that all cultural materials have been repatriated and/or curated as follows:

A. It is the preference of the City that all tribal cultural resources be repatriated to the TCA Tribe, as such preference would be the most culturally sensitive, appropriate, and dignified. Therefore, any tribal cultural resources collected by the qualified archaeologist shall be provided to the TCA Tribe. Evidence that all cultural materials collected have been repatriated shall be in the form of a letter from the TCA Tribe to whom the tribal cultural resources have been repatriated identifying that the archaeological materials have been received.

OR

B. Any tribal cultural resources collected by the qualified archaeologist shall be curated with its associated records at a San Diego curation facility or a culturally-affiliated tribal curation facility that meets federal standards per 36 CFR Part 79, and, therefore, would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records, including title, shall be transferred to the San Diego curation facility or culturally affiliated tribal curation facility and shall be accompanied by payment of the fees necessary for permanent curation. Evidence that all cultural materials collected have been curated shall be in the form of a letter from the curation facility stating that the prehistoric archaeological materials have been received and that all fees have been paid.

**CUL-2 Monitoring Report.** Prior to the release of the grading bond, a monitoring report and/or evaluation report, if appropriate, that describes the results, analysis, and conclusion of the archaeological and tribal cultural resources monitoring program and any data recovery program on the project site shall be submitted by the qualified archaeologist to the City. The Native American monitor shall be responsible for providing any notes or comments to the qualified archaeologist in a timely manner, to be submitted with the report. The report will include California Department of Parks and Recreation Primary and Archaeological Site Forms for any newly discovered resources.

**Significance After Mitigation**

With implementation of mitigation measures CUL-1 and CUL-2, potential impacts related to unique archaeological resources would be reduced to a less than significant level.

**4.3.5.3 Issue 3 – Paleontological Resources**

*Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*
Impact Analysis
According to the County of San Diego's Guidelines for Determining Significance for Paleontological Resources, the underlying Quaternary undivided paralic (Qop6) deposits have high to moderate potential to contain paleontological resources while undocumented artificial fill has very low potential to no potential to contain paleontological resources (County of San Diego 2009a).

Construction activities associated with the proposed project would include soil excavations to a depth of approximately 30 feet below existing grade in order to construct the two levels of underground parking (NOVA 2012). Thus, implementation of the proposed project would encounter native soils in the Qop6 deposits from approximately seven to 30 feet below existing grade and, as such, have the potential to uncover buried unknown paleontological resources. In the event that paleontological resources are encountered during construction, such resources could potentially be damaged or destroyed. Therefore, implementation of the proposed project would result in a potentially significant impact associated with paleontological resources.

Significance of Impact
Implementation of the proposed project has the potential to damage or destroy unknown subsurface paleontological resources from project grading and excavation activities. Therefore, impacts related to paleontological resources are considered to be potentially significant.

Mitigation Measures

**CUL-3 Paleontological Monitoring.** A paleontological monitor shall be present during all cutting, grading, or excavation of previously undisturbed substratum. If a fossil of greater than 12 inches in any dimension (including circumference) is encountered, all operations in the area where the fossil was found shall be suspended immediately, the City shall be notified, and a qualified paleontologist shall be retained by the City to evaluate the significance of the find; to salvage, record, clean, and curate significant fossil(s); and to document the find in accordance with current professional paleontological standards. Within 30 days of completion of ground-disturbing activities, either a letter signed by the paleontological monitor stating that no fossils were found or, if fossils were found, a report prepared by the qualified paleontologist documenting the mitigation program shall be submitted to the City.

Significance After Mitigation
With implementation of mitigation measure CUL-3, potential impacts related to paleontological resources would be reduced to a less than significant level.
4.3.5.4 Issue 4 – Human Remains

Would the proposed project disturb any human remains, including those interred outside of dedicated cemeteries?

Impact Analysis
No archaeological resources were identified or recorded within the proposed project APE. However, as stated in Section 4.3.1.4, the CHRIS records search conducted for the proposed project identified three previously recorded resources within the one-mile search radius containing human remains and/or burials. The close proximity of the three previously recorded sites indicates the likely presence of additional human remains within the overall region due to prehistoric human habitation of the region. Further, there is always the possibility that ground-disturbing activities associated with construction may potentially uncover presently obscured or buried unknown human remains resulting in a significant impact.

Significance of Impact
Implementation of the proposed project has the potential to disturb unknown human remains, which would result in a potentially significant impact.

Mitigation Measures
Implementation of mitigation measures CUL-1 and CUL-2, along with mitigation measure CUL-4 described below, would reduce impacts to human remains to a less than significant level.

CUL-4 Discovery of Human Remains. In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the County Coroner has been contacted to determine that no investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24-48 hours. The NAHC shall identify the person or persons it believes to be the most likely descendants (MLD) from the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98; or

2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location
not subject to further subsurface disturbance: a) the NAHC is unable to identify an MLD or the MLD fails to make a recommendation within 24 hours after being notified by the commission; b) the MLD identified fails to make a recommendation; c) or the landowner or his authorized representative rejects the recommendation of the MLD, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

Significance After Mitigation
With implementation of mitigation measures CUL-1, CUL-2 and CUL-4, potential impacts related to human remains would be reduced to a less than significant level.

4.3.5.5 Issue 5 – Tribal Cultural Resources

Would the proposed project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape, sacred place, or object that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Section 5024.1(c). In applying the criteria set forth in Public Resources Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

Impact Analysis
As described above, only one comment letter was received from the Viejas Band in response to the tribal scoping letters sent to all contacts provided by the NAHC. The Viejas Band requested that the project be moved and construction at the site be avoided because the project site is, “extremely sensitive and sacred to the Kumeyaay people” but did not include any further information or explanation. The City met with Julie Hagen, a representative from the Viejas Tribal government to discuss the Tribe’s concerns with the project site. The Tribe did not share any specific information regarding tribal resources located on the project site; only that the Tribe is traditionally and culturally affiliated with the project location. The outcome of the meeting was to ask the City and applicant to consider a shovel testing program across the project site once current uses have been removed. The City and project applicant considered this request but instead chose to implement the mitigation measures listed in this section because they achieve the same goals.
In accordance with the requirements of AB 52, the City issued a notification letter to the Mesa Grande Band of Mission Indians regarding the City’s intent to prepare an EIR and environmental technical studies for the proposed project. To date, the Mesa Grande Band is the only tribe to have contacted the City requesting to receive notifications under AB 52; therefore, under the law they are the only tribe that must be notified. Under AB 52, the Mesa Grande Band had 30 days to respond to the City if it wished to begin consultation on the project. The Mesa Grande Band of Mission Indians did not respond within the 30-day period or any time thereafter.

The NAHC SLF search did not indicate the presence of tribal cultural resources within the proposed project area. No archaeological or tribal cultural resources were identified on-site during the pedestrian survey. In addition, no tribal cultural resources were identified during the meeting with a representative from the Viejas Band; however, the Kumeyaay Indians consider the project site to be sensitive and sacred because they are traditionally and culturally affiliated with the project location. In addition, the CHRIS record search identified four habitation sites, two shell middens, one shell scatter, two shell/lithic scatters, two sites with multiple hearths, two groundstone isolates, and one multicomponent site (historic dump/trash scatter and prehistoric shell midden with groundstone and debitage) within the one-mile search radius from the APE. While no tribal cultural resources have been identified on the project site, there is potential for the proposed project to result in impacts to unknown subsurface tribal cultural resources during project grading and excavation.

**Significance of Impact**

Because of the known archaeological resource sites in the vicinity of the project and the sensitivity of the project site identified by the Kumeyaay Indians, there is potential for the proposed project to result in a significant impact on an unknown subsurface tribal cultural resources.

**Mitigation Measures**

Mitigation measures CUL-1, CUL-2 and CUL-4 would be implemented to reduce potential significant impacts on tribal cultural resources. This mitigation requires a Native American monitor to be on-site for all ground disturbing activities associated with the project and identifies actions to be taken if these resources are discovered.

**Significance After Mitigation**

With implementation of mitigation measures CUL-1, CUL-2, and CUL-4, potential impacts related to tribal cultural resources would be reduced to a less than significant level.
4.3.6 Cumulative Impacts

Would implementation of the proposed project have a cumulatively considerable contribution to a cumulative historical, archaeological, paleontological, human remains, or tribal cultural resource impact considering past, present, and probable future projects?

4.3.6.1 Issue 1 - Historical Resources

The geographic context for the analysis of cumulative impacts to historical resources is defined as the City limits because historical resources were inventoried and evaluated at a cumulative, city-wide level under the City of Solana Beach General Plan. The Conservation and Open Space Element of the City’s General Plan includes goals and policies for the preservation of local historical resources within the city. The Conservation and Open Space Element Policy 6.c states that the City shall implement the objectives and policies established in the community design element of the general plan which promote the preservation of historic landmarks, focal points, and special features. Similar to the proposed project, past, present and reasonably foreseeable future development projects would be required to comply with the goals and policies in the City’s General Plan related to historical resources. Prior to issuance of a building and/or grading permit, other future development projects would be required to demonstrate that the project includes adequate mitigation measures to mitigate potentially significant impacts to historical resources in accordance with CEQA. Therefore, a cumulative impact related to historical resources would not occur.

4.3.6.2 Issue 2 - Archaeological Resources

The geographic context for the analysis of cumulative impacts to archaeological resources is considered to be the San Diego County region. Evidence of human occupation in the project area is represented by numerous archaeological sites throughout the City and overall region. These sites contain artifacts and features of value in reconstructing cultural patterns of prehistoric life. Due to the scarcity of archaeological resources and the potential for construction activities associated with future development projects to impact these resources, a significant cumulative impact to archaeological resources exists.

The CHRIS records search reported that no known archaeological resources have been recorded within the proposed project’s APE. In addition, no sites were identified during the pedestrian survey conducted for the project. As discussed in Section 4.3.5.2, implementation of the proposed project has the potential to result in potentially significant impacts to unknown buried archaeological resources. However, mitigation measures CUL-1 and CUL-2 would be implemented to ensure that the proposed project would not result in significant direct impacts to these resources. These measures would also reduce the proposed project’s potential cumulative impacts to unknown buried archaeological resources. Therefore, implementation of the proposed project would not
make a cumulatively considerable contribution to a significant cumulative impact on archaeological resources.

4.3.6.3 Issue 3 - Paleontological Resources

The geographic context for the analysis of cumulative impacts to paleontological resources is considered to be the San Diego County region. According to the San Diego County General Plan, there are a number of distinct geological rock units (i.e., formations) within San Diego County that contain paleontological resources, such as bones, teeth, shells, and wood (County of San Diego 2011). Cumulative projects within the San Diego County region have the potential to disturb these geologic formations and the fossils that they contain. However, previous development has also led to the discovery of many fossil sites that have been documented and which have been added to the natural history records for the region. Future development in the region could impact unrecorded paleontological resources, which would result in a significant cumulative impact.

Construction activities associated with the proposed project would include trenching and grading activities, which would have maximum vertical depths that average approximately 30 feet below current ground surface. These trenching depths have the potential to reach underlying formations that could contain unknown buried paleontological resources, which could result in a potentially significant impact. However, with implementation of mitigation measure CUL-3, which requires paleontological monitoring during ground-disturbing construction activities, the proposed project would not result in a significant impact to paleontological resources. Therefore, the proposed project would not make a cumulatively considerable contribution to a significant cumulative impact on paleontological resources.

4.3.6.4 Issue 4 - Human Remains

The geographic context for the analysis of cumulative impacts to human remains is considered to be the San Diego County region. The presence of numerous archaeological sites throughout the region indicates that prehistoric human occupation occurred throughout the region. Additionally, historic era occupation of the area increases the possibility that humans were interred outside of a formal cemetery. Cumulative development projects would have the potential to encounter unknown, interred human remains during construction activities, which would result in a significant cumulative impact.

While no human remains have been observed and no dedicated cemeteries are known within the project’s APE, there are three known recorded resources within the one-mile search radius of the APE that contain human remains and/or burials. Therefore, the proposed project may inadvertently discover unrecorded human remains during construction activities. However, the implementation of mitigation measures CUL-1, CUL-
2 and CUL-4, which require archaeological and Native American monitors during construction and compliance with California Health and Safety Code Section 7050.5 and California PRC Section 5097.98 would reduce impacts to less than significant. Therefore, the proposed project would not make a cumulatively considerable contribution to a significant cumulative impact on human remains.

4.3.6.5 Issue 5 - Tribal Cultural Resources

Cumulative projects located in the San Diego County region have the potential to result in a cumulative impact associated with the loss of tribal cultural resources through development activities that could cause a substantial adverse change in the significance of a tribal cultural resource. These sites may contain artifacts and resources associated with tribal cultural values and religious beliefs. Any cumulative projects that involve ground-disturbing activities have the potential to result in significant impacts on tribal cultural resources. Therefore, the cumulative destruction of significant tribal cultural resources from planned construction and development projects in the region would be cumulatively significant.

Although no tribal cultural resources have been identified within the proposed project site, there is potential for the proposed project to result in significant impacts to unknown subsurface tribal cultural resources. This potentially significant impact would be mitigated to a less than significant level with implementation of mitigation measures CUL-1, CUL-2 and CUL-4. Therefore, the proposed project would not make a cumulatively considerable contribution to a significant cumulative impact on tribal cultural resources.
4.4 Geology/Soils

This section describes the potential impacts of the proposed project related to regional geology, soil characteristics, and geologic hazards. Information in this section is based on the Geotechnical Investigation prepared by NOVA Services, Inc. (NOVA) on May 31, 2012, the Update Letter prepared by NOVA on August 31, 2015 and the Planning Phase Infiltration Suitability Assessment Solana 101 Mixed Use Project prepared by NOVA on October 17, 2016. The reports are included as Appendix D.

4.4.1 Environmental Setting

4.4.1.1 Regional Geology

The proposed project is in the western San Diego County portion of the Peninsular Ranges Geomorphic Province. The province encompasses an area that extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin south to the southern tip of Baja California. The province varies in width from approximately 30 to 100 miles. In general, the province consists of rugged mountains underlain by Jurassic metavolcanic and metasedimentary rocks, and Cretaceous igneous rocks of the southern California batholith. The proposed project site is located in the coastal portion of the province in San Diego County, where the metamorphic and granitic basement rocks are overlain by sedimentary materials that are Cretaceous, Tertiary, and Quaternary age.

The Peninsular Ranges Province is traversed by a group of sub-parallel faults and fault zones trending roughly northwest. Several of these faults are considered active. The Elsinore and San Jacinto faults are active fault systems located northeast of the project area and the Rose Canyon, Coronado Bank and San Clemente faults are active faults located west of the project area. Major tectonic activity associated with these and other faults within the regional tectonic framework consists primarily of right-lateral, strike-slip movement. Specifics of faulting are discussed in the following sections.

4.4.1.2 Soils and Geologic Formations

The topography of the proposed project site varies from 61 to 68 feet msl. In general, the proposed project site is underlain by undocumented artificial fill overlying late to middle Pleistocene-age Old Paralic Deposits (Qop6). These soils and geologic formations are based upon the Geotechnical Investigation (NOVA 2012), which included subsurface exploratory borings. The soils are described below in order of increasing age.

Artificial Fill

Artificial fill materials were encountered at the existing surface or directly underneath the existing pavement, extending to a maximum depth of seven feet below the existing
ground surface. The artificial fill consisted of light to dark brown, damp to moist, loose to medium dense, sand and silty sand.

**Old Paralic Deposits**

Old Paralic Deposits, late to middle Pleistocene materials, were encountered underlying the fill material, extending to the maximum exploration depth of 50 feet below the existing ground surface. The old Paralic Deposit materials consisted generally of light brown to reddish brown, damp to moist, weakly to moderately cemented, weathered, friable, silty sandstone.

### 4.4.1.3 Groundwater

The elevation of project site varies from 61 to 68 feet msl. Groundwater was not encountered during the subsurface exploratory borings meaning it did not occur within 15 feet below the existing ground surface (above an elevation of approximately 46 to 53 feet msl). However, review of reference documents indicates a historic high groundwater of as high as 41 feet msl (NOVA 2016). Public records of groundwater levels in the area indicate that groundwater was encountered at depth ranging from 28 to 30 feet below grade at the former Unocal Station, which is located 0.24 miles north of the proposed project site (NOVA 2016). Both the former Unocal Station and the proposed project site are located at similar elevations (61 to 68 feet msl) and both sites are located at a similar distance from the ocean’s upper tidal mark (NOVA 2016). Based on this information, historic groundwater at the proposed project site could be as high as 41 feet msl. Fluctuations in the groundwater level may occur due to variations in ground surface topography, subsurface geologic conditions and structure, rainfall, irrigation, and other factors.

### 4.4.1.4 Geologic Hazards

The following discussion is an assessment of the existing environmental setting pertaining to potential geologic hazards including faulting and seismicity, liquefaction, landslides, seiches and tsunamis, flooding, subsidence and seismic settlement, and expansive soils.

**Faulting and Seismicity**

All of San Diego County is located within Seismic Zone 4, which is the Seismic Zone with the greatest ground acceleration (County of San Diego 2007b). Like all of southern California, the proposed project would be subject to ground shaking. However, there are no designated Alquist-Priolo Earthquake fault zones within the vicinity of the project area. Based on the Geotechnical Investigation assessment of the soil and geologic conditions in the general area, there are no known active, potentially active, or inactive faults located in the project area (NOVA 2012). The proposed project area is not located within a Special Studies Fault Zone or State of California Earthquake Fault Zone.
According to the 2008 U.S. Geological Survey (USGS) fault database, six known active faults are located within a search radius of 50 miles from the property. The nearest known active fault is the Rose Canyon Fault, located approximately two miles west of the project area, and is the closest dominant source of potential ground motion. Earthquakes that might occur on the Rose Canyon Fault or other faults within the southern California and northern Baja California, Mexico area are potential generators of significant ground motion at the project area. The estimated maximum earthquake magnitude for the Rose Canyon Fault is 6.9. Table 4.4-1 lists the estimated maximum earthquake magnitude for the most dominant faults in relationship to the proposed project location.

<table>
<thead>
<tr>
<th>Fault Name</th>
<th>Distance from Project Areas (miles)</th>
<th>Maximum Earthquake Magnitude (Mw)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rose Canyon</td>
<td>2.3</td>
<td>6.9</td>
</tr>
<tr>
<td>Newport-Inglewood</td>
<td>14.8</td>
<td>7.0</td>
</tr>
<tr>
<td>Coronado Bank</td>
<td>16.7</td>
<td>7.4</td>
</tr>
<tr>
<td>Elsinore (Temecula Segment)</td>
<td>28.7</td>
<td>7.1</td>
</tr>
<tr>
<td>Earthquake Valley</td>
<td>41.8</td>
<td>6.8</td>
</tr>
<tr>
<td>Palos Verdes</td>
<td>42.5</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Source: NOVA 2012

**Liquefaction**

Liquefaction typically occurs during seismic shaking in relatively loose, cohesionless soil that exists below the groundwater surface. Under these conditions, a seismic event could result in a rapid water pressure increase from the earthquake-generated ground accelerations, and causes the soil to behave as a fluid. According to the Geotechnical Investigation, the existing potential for liquefaction in the project area is considered negligible due to the dense nature of the formational material on-site (NOVA 2012).

**Landslides**

Landslides are the down-slope movement of soil and rock under the direct influence of gravity, and commonly occur in connection with other major natural disasters such as earthquakes, wildfires, and floods (USGS 2013). The stability of slopes is related to a variety of factors, including the slope’s steepness, the strength of geologic materials, surface water and groundwater conditions, changes in loading, and changes in vegetation. In the City of Solana Beach, the principal area of concern regarding slope stability is along the city’s coastal bluffs (City of Solana Beach 2014b). The proposed project site is located approximately 500 feet east of the coastal bluffs, and is within a low soil-slip susceptibility zone (USGS 2003).
Seiches, Tsunamis, and Flooding
Seiches are caused by the movement of an inland body of water due to the movement from seismic forces. The existing potential for earthquake-induced seiches in the project area is considered to be negligible due to the distance to enclosed bodies of water. Tsunamis are large sea waves generated by sudden movements of the ocean bottom during earthquakes, landslides, or volcanic activity. According to the USGS Tsunami Inundation Map, the proposed project area is not within the potential tsunami inundation area (County of San Diego 2015). In addition, the site is not within the Federal Emergency Management Agency’s (FEMA) 100-year flood zone (City of Solana Beach 2014b).

Subsidence and Seismic Settlement
Subsidence is the settling, compaction, or caving in of land caused by subsurface mining, groundwater withdrawal, pumping of oil and gas, or seismic forces (USGS 2013). Based on the existing subsurface conditions below the project area, the site is not expected to be subject to hazards from ground subsidence or seismic settlement (NOVA 2012).

Expansive Soil
Certain types of clay soils expand when they are saturated and shrink when dried (County of San Diego 2007b). The shrinking and swelling of expansive soils in response to changes in moisture content commonly result in serious cracking of structures (USDA 2004). According to the Geotechnical Investigation, the existing artificial fill and Old Paralic Deposits exhibit very low expansion potential (Qop6).

4.4.2 Regulatory Framework

4.4.2.1 Federal

Federal Uniform Building Code
The Uniform Building Code (UBC) published by the International Conference of Building Officials forms the basis for about half the state building codes in the United States, including California. The UBC has been adopted by the state legislature together with additions, amendments, and repeals to address the specific building conditions and structural requirements in California. The UBC is the primary means for authorizing and enforcing procedures and mechanisms to ensure safe building standards. The UBC uses a hazard classification system to determine what protective measures are required to protect human health and property. To ensure that these safety measures are met, the UBC employs a permit system based on hazard classification.

4.4.2.2 State

Alquist-Priolo Earthquake Fault Zoning Act
The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (formerly the Special Studies Zoning Act) regulates development and construction of buildings intended for human occupancy to avoid the hazard of surface fault rupture. The Act helps define areas
where fault rupture is most likely to occur. The Act groups faults into categories of active, potentially active, and inactive. Historic and Holocene age faults are considered active, Late Quaternary and Quaternary age faults are considered potentially active, and pre-Quaternary age faults are considered inactive. These classifications are qualified by the conditions that a fault must be shown to be sufficiently active and well defined by detailed site-specific geologic explorations in order to determine whether building setbacks should be established.

**California Building Code**

CCR Title 24, Part 2, the California Building Code (CBC), provides minimum standards for building design. Local codes are permitted to be more restrictive than Title 24, but are required to be no less restrictive. Chapter 16 of the CBC deals with general design requirements, including but not limited to regulations governing seismically resistant construction (Chapter 16, Division IV) and construction to protect people and property from hazards associated with excavation cave-ins and falling debris or construction materials. Chapters 18 and A33 deal with site demolition, excavations, foundations, retaining walls, and grading, including but not limited to requirements for seismically resistant design, foundation investigations, stable cut and fill slopes, and drainage erosion control.

**California Geologic Survey**


**California Seismic Hazards Mapping Act**

The California Seismic Hazards Mapping Act (PRC Division 2, Chapter 7.8, Section 2690 et seq.) provides a statewide seismic hazard mapping and technical advisory program to assist local governments in protecting public health and safety relative to seismic hazards. The act provides direction and funding for the State Geologist to compile seismic hazard maps and to make those maps available to local governments. The Act, along with related standards in the Seismic Hazards Mapping Regulations (CCR Title 14, Division 2, Chapter 8, Article 10, Section 3270 et seq.), also directs local governments to require the completion and review of appropriate geotechnical studies prior to approving development projects. These requirements are implemented on a local level through means such as general plan directives and regulatory ordinances.

**4.4.2.3 Local**

**City of Solana Beach General Plan**

The City of Solana Beach General Plan consists of a series of objectives, standards, and plan policies related to geology and geologic hazards within the Safety Element. The
General Plan contains the following goal and policies relative to geologic hazards as they relate to the proposed project:

**Goal 3.1:** To minimize hazards to public health, safety, and welfare resulting from natural and man-made phenomena.

- **Policy 1.a:** The city shall require geotechnical investigations by a certified engineering geologist for all grading and construction proposed within any area of significant erosion, slope stability, and/or areas subject to severe seismic hazards, including inland and coastal bluffs.
- **Policy 1.b:** The city shall provide qualified expertise for the review of geotechnical reports and sufficient personnel for the field inspection of grading operations and construction.
- **Policy 1.c:** The city shall require construction to be in conformance with the Uniform Building Code, specifically Chapter 23 as it provides for earthquake-resistant design, Chapter 70 as it provides for excavation and grading, and with the city’s adopted hillside development ordinance.

### 4.4.3 Impact Significance Criteria

According to Appendix G of the CEQA Guidelines, the project would have a significant geological impact if it would:

- **Issue 1:** Expose people or structures to potential substantial adverse effects, including the risk of loss, or 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 or based on other substantial evidence of a known fault;
  - Strong seismic ground shaking;
  - Seismic-related ground failure, including liquefaction; or
  - Landslides.
- **Issue 2:** Result in substantial soil erosion or the loss of topsoil.
- **Issue 3:** Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the proposed action, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- **Issue 4:** Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property.
- **Issue 5:** 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.
4.4.4 Method of Analysis

This section of the EIR gives full consideration to the development of the proposed project and acknowledges the physical changes that would occur to the existing setting from implementation of the proposed project. The analysis of geology and soils is based on the results of the Geotechnical Investigation prepared by NOVA on May 31, 2012, the Update Letter prepared by NOVA on August 31, 2015, and the Planning Phase Infiltration Suitability Assessment Solana 101 Mixed Use Project prepared by NOVA on October 17, 2016. The methods for the proposed project’s geotechnical investigation consisted of a geological reconnaissance, including the observation of geologic conditions and the evaluation of possible geologic hazards, and a subsurface exploration, including drilling, logging, and sampling of eight exploratory soil borings to evaluate subsurface conditions. Further, geology and soils impacts were determined by comparing the proposed project with the objectives of the City’s General Plan, specifically the Safety Element.

4.4.5 Project Impacts and Mitigation

4.4.5.1 Issue 1 – Geologic Hazards

Would the proposed project expose people or structures to geologic hazards, including rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related ground failure, including liquefaction and/or landslides?

Impact Analysis

Ground Rupture
The proposed project is not located within an established Alquist-Priolo Earthquake Fault Zone and no active faults are known to underlie the project area. The nearest active fault lines are the Rose Canyon Fault located approximately two miles to the west, the Newport-Inglewood Fault located approximately 15 miles to the north, and the Coronado Bank Fault located approximately 17 miles to the southwest of the proposed project area. Therefore, there is a low risk for ground rupture within the project area due to the apparent lack of faulting within or adjacent to the project area. Thus, no significant impact associated with the rupture of a known earthquake fault would occur from implementation of the proposed project.

Strong Seismic Ground Shaking
All of San Diego County is located within Seismic Zone 4, which is the highest Seismic Zone with the greatest ground acceleration (County of San Diego 2007b). Like all of southern California, the proposed project site has the potential to experience strong seismic ground shaking as it is located in a seismically active region. The design and construction of the proposed project are required to be in compliance with the seismic safety standards set forth in the most current CBC in effect at the time grading and building
permits are obtained. In general, compliance with the CBC would include the incorporation of: 1) seismic safety features to minimize the potential for significant effects as a result of earthquakes; 2) proper building footings and foundations; and 3) construction of the building structure so that it would withstand the effects of strong ground shaking. Proper engineering and design, along with mandatory compliance with the UBC and CBC guidelines would minimize the risk of structural collapse and the risk to life and property from potential ground motion within the project area. Therefore, no significant impact associated with strong seismic ground shaking would occur from implementation of the proposed project.

Seismic-Related Ground Failure, including Liquefaction
The proposed project is not located within a liquefaction hazard area. The potential for liquefaction in the project area is considered negligible due to the dense nature of the formational material on-site and the absence of groundwater. Therefore, no significant impact associated with liquefaction would occur from implementation of the proposed project.

Landslides
In Solana Beach, the principal area of concern regarding slope stability is along the city’s coastal bluffs (City of Solana Beach 2014b). The proposed project site is located approximately 500 feet from the coastal bluffs, and is located within a low soil-slip susceptibility zone (USGS 2003). Therefore, the proposed project would not result in an impact to a landslide area and no significant impact associated with landslides would occur from implementation of the proposed project.

Significance of Impact
The proposed project would not expose people or structures to geologic hazards, including rupture of a known earthquake fault, strong seismic ground shaking, or seismic-related ground failure, including liquefaction and/or landslides. Therefore, no impact would occur.

Mitigation Measures
No mitigation measures are required.

4.4.5.2 Issue 2 – Erosion and Topsoil Loss

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

Impact Analysis
During project construction, erosion (including loss of topsoil) can occur or be accelerated by site preparation activities. Vegetation removal throughout the site could reduce soil cohesion, as well as the buffer provided by vegetation from wind, water, and surface disturbance, which could render the exposed soils more susceptible to erosive
forces. Additionally, newly exposed soils from excavation or grading activities may also be vulnerable to erosion. Earth-disturbing activities associated with construction would be temporary and erosion effects would depend largely on the areas disturbed, the quantity of disturbance, and the length of time soils are subject to conditions that would be affected by erosion processes. All construction activities would comply with Chapter 29 of the CBC, which regulates excavation activities and the construction of foundations and retaining walls, and Chapter 70 of the CBC, which regulates grading activities, including drainage and erosion control.

Furthermore, a site-specific Storm Water Pollution Prevention Plan (SWPPP) would be prepared prior to project construction in accordance with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit. For coverage by the General Construction Permit, the applicant is required to submit to the State Water Resources Control Board (SWRCB) a Notice of Intent (NOI) and develop a SWPPP describing best management practices (BMPs) to be used during and after construction to prevent discharge of sediment and other pollutants in stormwater runoff from the proposed project. The BMPs may include, but are not limited to, silt fences, fiber rolls, gravel bags, temporary desilting basins, velocity check dams, temporary ditches or swales, stormwater inlet protection, or soil stabilization measures such as erosion control mats. The BMPs would help to minimize erosion and the loss of topsoil from the site during construction. Prior to the issuance of grading permits, the SWPPP would be required to be prepared to the satisfaction of the City Engineer.

Post construction, site drainage would be designed to minimize soil erosion and the loss of topsoil at the project site. Section 4.7, Hydrology and Water Quality, provides a comprehensive analysis of the existing and proposed hydrology and drainage features of the proposed project. As discussed in Section 4.7, with implementation of the proposed drainage facilities, impacts related to runoff and erosion to would be reduced to a less than significant level.

**Significance of Impact**

With incorporation and implementation of proposed BMPs, the proposed project would not result in substantial soil erosion or the loss of topsoil. Impacts would be less than significant.

**Mitigation Measures**

No mitigation measures are required.
4.4.5.3 Issue 3 – Unstable Soils

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 landslides, lateral spreading, subsidence, liquefaction or collapse?

Impact Analysis
The proposed project is underlain by undocumented artificial fill overlying late to middle Pleistocene-age Old Paralic Deposits. Based on the Geotechnical Investigation, the bottom elevation of the proposed excavation would be stable and provide suitable support to the proposed buildings (NOVA 2012). However, excavations that are close to or below the water table, if encountered, may be unstable. As discussed in Section 4.4.1.3, historic groundwater at the proposed project site could be as high as 41 feet msl. Construction activities associated with the proposed project would include soil excavations to a depth of approximately 30 feet below existing grade (61 to 68 feet msl) in order to construct the two levels of underground parking. The excavations would extend to a max depth of approximately 31 feet, which would be below the groundwater level of 41 feet. Therefore, dewatering would be required during construction. Therefore, the proposed project’s parking structure design would be below the recommended design groundwater level, which has the potential to cause unstable soil conditions.

Significance of Impact
Excavations for the proposed project would encounter groundwater which may result in unstable soils. Impacts would be potentially significant.

Mitigation Measures
To reduce the project’s potential impact related to unstable soils, the following mitigation measure shall be implemented:

GEO-1 Geotechnical Recommendations. Prior to issuance of grading permits for the proposed project, the City Engineer shall verify that the applicant has incorporated the following applicable recommendations in the Geotechnical Investigation prepared by NOVA dated May 2012 and the Update Letter prepared by NOVA dated August 2015 into the final project design and construction documents. These recommendations address issues including, but not limited to, excavation and fill, slope stability, site grading, erosion control, and monitoring. Construction documents shall be prepared to the satisfaction of the City Engineer. The following list of recommendations must be incorporated into the project design and construction documents:

1. For trench or other temporary excavations, safety shall be met by laying back the slopes no steeper than 1.5:1 (horizontal:vertical) for fill and Old Paralic Deposits material.
2. Structures/improvements in the vicinity of the planned shoring installations shall be reviewed for foundation support and tolerance to settlement. The shoring system shall be designed to limit ground settlement behind the shoring system to 0.5 inches or less.

3. An array of ground survey points shall be installed to monitor settlement. The survey points shall be installed on the shoring system and incrementally away from the excavation.

4. A dewatering system is required for construction and shall be designed by a professional dewatering engineer. The dewatering plan shall address anticipated drawdown, volume of pumping, potential for settlement, and groundwater discharge. Disposal of groundwater shall be performed in accordance with the guidelines of the San Diego Regional Water Quality Control Board.

5. Unstable excavation bottom conditions that are close to or below the water table shall be mitigated by over-excavation of the bottom to suitable depths and replacement with a one-foot thick gravel or lean concrete mud mat. Any loose, soft, or deleterious material shall be removed prior to placement of gravel or lean concrete.

6. The proposed structure shall be founded on conventional spread footings or a mat foundation supported on formational material using an allowable bearing capacity of 5,000 pounds per square inch (psi). Exterior footings shall be founded on a minimum of two feet of compacted fill using an allowable bearing capacity of 2,000 psi. The allowable bearing capacities shall be increased by one-third when considering loads of a short duration such as wind or seismic forces.

7. Foundations shall have an embedment depth of 24 inches or more below the lowest adjacent grade. Continuous footings shall be 18 or more inches wide and spread foundations shall be 24 or more inches square. Footings founded in low expansive granular materials shall be reinforced with four No. 4 or larger reinforcing bars, two placed near the top and two near the bottom of the footings.

8. Slab-on-grade floors, underlain by very low to low expansive materials, shall be five or more inches in thickness and be reinforced with No. 3 or larger reinforcing bars spaced 18 inches on center each way. Additional slab thickness and reinforcement recommendations shall be provided by a qualified structural engineer.

9. For the exterior site improvements such as sidewalks that are expected to be located outside of the proposed excavations, remedial grading shall consist of removing the upper two feet of the existing soil and replacing it with structural fill.

Significance After Mitigation
With implementation of mitigation measure GEO-1, potential impacts related to unstable soils would be reduced to a less than significant level.
4.4.5.4 Issue 4 – Expansive Soils

Would the proposed project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?

Impact Analysis
Expansive behavior is attributable to the water-holding capacity of clay minerals in soil, and can adversely affect the integrity of facilities such as pavement, foundations, and subsurface structures and utilities. Table 18-1-B of the UBC assigns an expansion index (EI) to soil types to determine their expansion potential. The EI is used to measure a basic index property of soil. Soil types with very low expansion potential have an EI index of less than 50. According to the Geotechnical Investigation (NOVA 2012), the project site is underlain by artificial fill and Old Paralic Deposits which exhibit very low expansion potential as defined by Table 18-1-B of the UBC. Therefore, expansive soils do not occur at the project site.

Significance of Impact
Soils within the proposed project have very low expansion potential. Therefore, no impact would occur.

Mitigation Measures
No mitigation measures are required.

4.4.5.5 Issue 5 – Wastewater Disposal Systems

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 disposal of wastewater?

Impact Analysis
The proposed project would be served by the City of Solana Beach sewer system, as described in Section 4.13, Public Utilities Service Systems and Energy. No septic tanks or alternative wastewater systems are proposed. Therefore, no further analysis of this issue is required.

Significance of Impact
The proposed project would not require the use of septic tanks or alternative wastewater disposal systems. No impact would occur.

Mitigation Measures
No mitigation measures are required.
4.4.6 Cumulative Impacts

Would implementation of the proposed project have a cumulatively considerable contribution to a cumulative geologic impact considering past, present, and probable future projects?

4.4.6.1 Issue 1 - Geologic Hazards

The geographic context for the analysis of impacts resulting from geologic hazards, is generally site-specific, rather than cumulative in nature. Potential impacts related to the proposed project are not additive with other projects and are therefore not cumulatively significant. Additionally, as discussed in Section 4.4.4, geologic hazards related to ground rupture, seismic ground shaking, liquefaction, and landslides would not be significant with compliance with building codes, other applicable regulations. Although the proposed project and related cumulative projects could have potentially significant geological impacts requiring mitigation, these projects are geographically removed to the extent that a hazardous geologic event at one site would not necessarily occur at another site. Therefore, potential geological impacts would not be cumulatively significant.

4.4.6.2 Issue 2 - Unstable Soils

The geographic context for the analysis of impacts resulting from geologic hazards, unstable soils, and expansive soils is generally site-specific, rather than cumulative in nature. Potential impacts related to the proposed project are not additive with other projects and are therefore not cumulatively significant. Additionally, as discussed in Section 4.4.4, geologic hazards related to unstable soils would not be significant with the implementation of mitigation measure Geo-1, as recommended in the Geotechnical Report (NOVA 2012). Although the proposed project and related cumulative projects would have potentially significant geological impacts requiring mitigation, these projects are geographically removed to the extent that a hazardous geologic event at one site would not necessarily occur at another site. Therefore, potential unstable soils impacts would not be cumulatively significant.

4.4.6.3 Issue 3 - Expansive Soils

The geographic context for the analysis of impacts resulting from geologic hazards, unstable soils, and expansive soils is generally site-specific, rather than cumulative in nature. Potential impacts related to the proposed project are not additive with other projects and are therefore not cumulatively significant. Additionally, as discussed in Section 4.4.4, geologic hazards related to expansive soils would not be significant due to the types of soils located on the proposed project site. Although the proposed project and related proposed projects could have potentially significant geological impacts requiring mitigation, these projects are geographically removed to the extent that a hazardous geologic event at one site would not necessarily occur at another site.
Therefore, potential geological impacts associated with expansive soils would not be cumulatively significant.

### 4.4.6.4 Issue 4 - Erosion and Topsoil Loss

The geographic context for the analysis of impacts regarding soil erosion or topsoil loss encompasses the Carlsbad and San Dieguito Hydrologic Units. Potentially cumulative impacts related to soil erosion or top soil loss are addressed in Section 4.7, Hydrology and Water Quality. As discussed in that section, future growth and redevelopment in the project area would result in an increase in impermeable surfaces, alteration of the hydrology of local streams and drainage, and grading and clearing of vegetation. All of these actions have the potential to contribute to a cumulative increase in erosion or topsoil loss. However, future development of the cumulative projects is subject to federal, state and local runoff and erosion prevention requirements, and compliance with all applicable regulations and BMPs would ensure that future development projects would not result in a significant erosion or topsoil loss impact. In addition, implementation mitigation measure Geo-1 and proposed post-construction BMPs including, silt fences, fiber rolls, gravel bags, temporary desilting basins, velocity check dams, temporary ditches or swales, stormwater inlet protection, and/or soil stabilization measures such as erosion control mats, would further reduce the likelihood of soil erosion or topsoil loss resulting from the implementation of the proposed project. Therefore, a cumulative impact related to erosion or topsoil loss would not occur.

### 4.4.5.3 Issue 5 - Wastewater Disposal Systems

The geographic context for the cumulative wastewater disposal systems analysis is defined as the City of Solana Beach. The proposed project and cumulative projects located within the City would be served by the City of Solana Beach sewer system, as described in detail in Section 4.13, Public Utilities. The proposed project and cumulative projects would not propose the use of septic tanks or alternative wastewater systems. Therefore, no significant cumulative impact related to wastewater disposal systems would occur.
4.5 Greenhouse Gas Emissions

This section describes existing conditions, the regulatory framework related to greenhouse gas (GHG) emissions, and evaluates the potential impacts from climate change that may result from the generation of GHG associated with implementation of the proposed project. Harris & Associates (2018) prepared an Air Quality and Greenhouse Gas Emissions Analysis for the proposed project which is included as Appendix B in EIR. The following information is based on the Harris & Associates (2018) report, unless otherwise referenced.

4.5.1 Environmental Setting

4.5.1.1 Global Climate Change Overview

Climate change refers to any substantial change in measures of climate (such as temperature, precipitation, or wind) lasting for decades or longer. According to the US EPA, the Earth's climate has changed many times during the planet's history, including events ranging from ice ages to long periods of warmth. Historically, natural factors such as volcanic eruptions, changes in the earth's orbit, and the amount of energy released from the sun have affected the earth's climate. Some GHGs, such as water vapor, occur naturally and are emitted to the atmosphere through natural processes, while others are emitted through human activities. Beginning late in the 18th century, human activities associated with the Industrial Revolution have also changed the composition of the atmosphere and therefore very likely are influencing the earth's climate. For over the past 200 years, the burning of fossil fuels, such as coal and oil, and deforestation has caused concentrations of heat-trapping GHG to increase substantially in the atmosphere.

The accumulation of GHGs in the atmosphere regulates the earth’s temperature. Without the natural heat-trapping effects of GHGs, the earth’s temperature would be about 34 degrees Celsius cooler (CCAT 2007). However, it is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

4.5.1.2 Greenhouse Gases

CO₂ enters the atmosphere through the burning of fossil fuels, solid waste, trees and wood products, and as a result of other chemical reactions such as through the manufacturing of cement. Globally, the largest source of CO₂ emissions is the combustion of fossil fuels in power plants, automobiles, industrial facilities, and other similar sources (US EPA 2017c). Methane (CH₄) is emitted from a variety of both natural and human-related sources, including fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management (US EPA 2017c). Nitrous oxide (N₂O) is emitted during agricultural
and industrial activities, as well as during combustion of fossil fuels and solid waste (US EPA 2017c). HFCs, PFCs, and SF₆ are synthetic, powerful GHGs that are emitted from a variety of industrial processes, and the production of chlorodifluoromethane (HCFC-22). Construction or operation of the proposed project would not include any industrial processes, and HCFC-22 has been mostly phased out of use in the U.S. (UNEP 2012); therefore, these GHGs are not discussed further in this EIR.

Individual GHGs have varying heat-trapping properties and atmospheric lifetimes. Table 4.5-1 identifies the carbon dioxide equivalent (CO₂e) and atmospheric lifetimes of basic GHGs. The CO₂e is a consistent methodology for comparing GHG emissions because it normalizes various GHG emissions to a consistent measure. Each GHG is compared to CO₂ with respect to its ability to trap infrared radiation, its atmospheric lifetime, and its chemical structure. For example, CH₄ is a GHG that is 25 times more potent than CO₂; therefore, one metric ton (MT) of CH₄ is equal to 25 MTCO₂e.

<table>
<thead>
<tr>
<th>GHG</th>
<th>Formula</th>
<th>100-year global warming potential(1)</th>
<th>Atmospheric lifetime (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon dioxide</td>
<td>CO₂</td>
<td>1</td>
<td>50-200</td>
</tr>
<tr>
<td>Methane</td>
<td>CH₄</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>Nitrous oxide</td>
<td>N₂O</td>
<td>298</td>
<td>114</td>
</tr>
</tbody>
</table>

(1) The warming effects over a 100-year time frame relative to other GHG. Source: EPA 2017

**Carbon Dioxide (CO₂)**

CO₂ enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees, and wood products, and also as a result of other chemical reactions such as through the manufacturing of cement. Globally, the largest source of CO₂ emissions is the combustion of fossil fuels in power plants, automobiles, industrial facilities, and other similar sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and petroleum-based products also produce CO₂ emissions. CO₂ is also removed from the atmosphere (or “sequestered”) when it is absorbed by plants as part of the biological carbon cycle. As part of the carbon cycle billions of tons of atmospheric CO₂ are removed from the atmosphere by oceans and growing plants, also known as ‘sinks’, and are emitted back into the atmosphere annually through respiration, decay, and combustion, also known as ‘sources’. When in balance, the total CO₂ emissions and removals from the entire carbon cycle are roughly equal. Since the Industrial Revolution in the 1700s, human activities, such as the burning of oil, coal and gas or deforestation, have increased CO₂ concentrations in the atmosphere (US EPA 2017c). The global atmospheric CO₂ concentration reached nearly 400 ppm on average in 2015, 27 percent higher than 1960 levels (Global Carbon Project 2016).
Methane (CH\textsubscript{4})

CH\textsubscript{4} is emitted from a variety of both human-related and natural sources. Human-related activities include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. CH\textsubscript{4} is emitted during the production and transport of fossil fuels. CH\textsubscript{4} emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills. It is estimated that 60 percent of global CH\textsubscript{4} emissions are related to human activities. Natural sources of CH\textsubscript{4} include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. Natural processes in soil and chemical reactions in the atmosphere help remove CH\textsubscript{4} from the atmosphere (US EPA 2017c).

Nitrous Oxide (N\textsubscript{2}O)

N\textsubscript{2}O is produced by both natural and human-related sources. N\textsubscript{2}O is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste. Primary human-related sources of N\textsubscript{2}O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic (fatty) acid production, and nitric acid production. N\textsubscript{2}O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. Globally, about 40 percent of total N\textsubscript{2}O emissions come from human activities (US EPA 2017c).

4.5.1.3 Global, National, Statewide, and Local GHG Inventories

In an effort to evaluate and reduce the potential adverse impact of climate change, global, national, state, and local organizations have conducted GHG inventories to estimate levels of and trends in GHG emissions and removals. The following summarizes these GHG inventories.

Global

Worldwide anthropogenic GHG emissions in 2010 were approximately 49,000 million metric tons (MMT) CO\textsubscript{2}e, including ongoing emissions from industrial and agricultural sources and emissions from land use changes (i.e., deforestation, biomass decay) (IPCC 2014). CO\textsubscript{2} emissions from fossil fuel use and industrial processes accounts for 65 percent of the total emissions of 49,000 MMT of CO\textsubscript{2}e (which includes land use changes) and all CO\textsubscript{2} emissions are 77 percent of the total GHG emissions. CH\textsubscript{4} emissions account for 16 percent and N\textsubscript{2}O emissions for 6 percent of total GHG emissions (IPCC 2014).

United States

The US EPA publication, Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016, provides a comprehensive emissions inventory of the nation’s primary anthropogenic sources and sinks of GHGs. Total U.S. GHG emissions in 2016 were 6,511.3 MMTCO\textsubscript{2}e, a decrease from 2015 by 1.9 percent. Emissions from transportation activities, in aggregate, accounted for the largest portion (28.5 percent) of total U.S. GHG emissions in 2016. Electric power generation accounted for the second largest portion (28.4
percent), while emissions from industry accounted for the third largest portion (21.6 percent) of total U.S. GHG emissions in 2016. Emissions from industry have in general declined over the past decade, due to a number of factors, including structural changes in the U.S. economy (i.e., shifts from a manufacturing-based to a service-based economy), fuel switching, and energy efficiency improvements. The remaining U.S. GHG emissions were contributed by, in order of magnitude, the agriculture, commercial, and residential sectors (U.S. EPA 2018).

California
Total California GHG emissions in 2014 were 441.5 MMTCO₂e, according to the 2016 California Greenhouse Gas Emissions Inventory, which tracks the emissions of seven GHGs for the years 2000 through 2014. During the 2000 to 2014 period, per capita GHG emissions in California have continued to drop from a peak in 2001 of 13.9 tonnes per person to 11.4 tonnes per person in 2014, an 18 percent decrease. The transportation sector remains the largest source of GHG emissions in the state, accounting for 36 percent of the inventory, and shows a small increase in emissions in 2014. Emissions from the electricity sector (20 percent in 2014) continue to decline due to growing zero-GHG energy generation sources. Emissions from the industrial sector contributed 21 percent to total GHG emissions in 2014, the commercial and residential sector contributed 9 percent, agriculture contributed 8 percent, and recycling and waste contributed 2 percent (CARB 2016).

San Diego County
In addition to the State of California GHG Inventory, a county-wide GHG inventory was prepared by the University of San Diego School of Law Energy Policy Initiative Center (EPIC) in 2013. This San Diego County Updated GHG Inventory is a detailed inventory that considers the unique characteristics of the region in calculating emissions. A summary of the inventory results, by category and percent contribution for the year 2010, is provided in Table 4.5-2.

Table 4.5-2 shows that in 2010, a total of 33 MMTCO₂e was generated by both the incorporated and unincorporated areas of the county. The largest contributor of GHG was from the on-road transportation category, which comprised 43 percent (14 MMTCO₂e) of the total amount. The second highest contributor was the electricity category, which contributed 8 MMTCO₂e, or 24 percent of the total. Together the on-road transportation and electricity category comprised 67 percent of the total GHG emissions for the County of San Diego. The remaining amount was contributed by natural gas end uses, civil aviation, industrial processes, off-road transportation, waste, agriculture, rail, water-borne navigation, land use, and other fuels.
Table 4.5-2 County of San Diego GHG Emissions by Category (2010)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total Emissions (MMTCO&lt;sub&gt;e&lt;/sub&gt;)</th>
<th>Percent of Total Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Road Transportation</td>
<td>14.4</td>
<td>43</td>
</tr>
<tr>
<td>Electricity</td>
<td>8.3</td>
<td>24</td>
</tr>
<tr>
<td>Natural Gas End Uses</td>
<td>2.9</td>
<td>9</td>
</tr>
<tr>
<td>Industrial Processes and Products</td>
<td>1.8</td>
<td>5</td>
</tr>
<tr>
<td>Civil Aviation</td>
<td>1.9</td>
<td>6</td>
</tr>
<tr>
<td>Water-Borne Navigation</td>
<td>0.1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Off-Road Equipment and Vehicles</td>
<td>1.4</td>
<td>4</td>
</tr>
<tr>
<td>Rail</td>
<td>0.3</td>
<td>1</td>
</tr>
<tr>
<td>Waste</td>
<td>0.6</td>
<td>2</td>
</tr>
<tr>
<td>Other Fuels (Propane, Kerosene, Wood, etc.)/Other</td>
<td>1.6</td>
<td>5</td>
</tr>
<tr>
<td>Agriculture/Forestry/Land Use</td>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td>Sequestration from Land Cover</td>
<td>-0.7</td>
<td></td>
</tr>
<tr>
<td>Total GHG Emissions</td>
<td>33</td>
<td>100</td>
</tr>
</tbody>
</table>

MMTCO<sub>e</sub> = million metric tons of carbon dioxide equivalent
Numbers may not total to 100 percent due to rounding
Source: Energy Policy Initiative Center, University of San Diego School of Law, 2013

City of Solana Beach

In 2016, EPIC prepared a greenhouse gas inventory and forecast for the City of Solana Beach (City of Solana Beach 2016b), which provided the basis for the City’s Climate Action Plan (CAP) adopted in 2017. The document provides a summary of community-scale GHG emissions from 2010 through 2013 and GHG emissions projections for 2020 and 2035, using information about the City’s anticipated growth and development but without changes to policy to reduce GHG after the baseline year. In 2010, transportation contributed the most to overall GHG emissions: 10 percent from trips within the Solana Beach boundary and 54 percent from trips outside the boundary but starting or ending in the city, for a total of 64 percent of total emissions. Wastewater contributed the least to overall GHG emissions (less than one percent). The total GHG emissions from the City of Solana Beach in 2013 were 142,750 MTCO<sub>e</sub>e, three percent higher than the total GHG emissions in 2010, with similar distribution of the categories. The estimated emissions in each category from 2010 to 2013 are presented in Table 4.5-3. GHG emissions increased in the city between 2010 and 2012, and decreased slightly in 2013.

Table 4.5-3 City of Solana Beach GHG Emissions by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>2010 (MTCO&lt;sub&gt;e&lt;/sub&gt;)</th>
<th>2011 (MTCO&lt;sub&gt;e&lt;/sub&gt;)</th>
<th>2012 (MTCO&lt;sub&gt;e&lt;/sub&gt;)</th>
<th>2013 (MTCO&lt;sub&gt;e&lt;/sub&gt;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>27,182</td>
<td>25,267</td>
<td>30,762</td>
<td>29,205</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>15,504</td>
<td>15,631</td>
<td>15,315</td>
<td>15,614</td>
</tr>
<tr>
<td>Transportation (emissions from miles within city boundary)</td>
<td>13,489</td>
<td>13,484</td>
<td>13,433</td>
<td>13,513</td>
</tr>
</tbody>
</table>
### 4.5 Greenhouse Gas Emissions

#### Table 4.5-3 City of Solana Beach GHG Emissions by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>2010 (MTCO$_2$e)</th>
<th>2011 (MTCO$_2$e)</th>
<th>2012 (MTCO$_2$e)</th>
<th>2013 (MTCO$_2$e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation (emissions from miles outside city boundary, trips starting and ending in city)</td>
<td>74,560</td>
<td>74,772</td>
<td>74,718</td>
<td>75,395</td>
</tr>
<tr>
<td>Solid Waste</td>
<td>4,736</td>
<td>4,622</td>
<td>4,419</td>
<td>4,862</td>
</tr>
<tr>
<td>Water</td>
<td>3,052</td>
<td>2,963</td>
<td>3,601</td>
<td>3,553</td>
</tr>
<tr>
<td>Wastewater</td>
<td>693</td>
<td>673</td>
<td>621</td>
<td>607</td>
</tr>
<tr>
<td>Total GHG Emissions</td>
<td>139,216</td>
<td>137,412</td>
<td>142,868</td>
<td>142,750</td>
</tr>
</tbody>
</table>

MTCO$_2$e = metric tons of carbon dioxide equivalent

Source: City of Solana Beach 2017a.

#### 4.5.1.4 Regional Adverse Effects of Climate Change

The San Diego Foundation’s Regional Focus 2050 Working Paper and Technical Assessment (Focus 2050) explored what the San Diego region would be like in 2050 if current climate change trends continue (San Diego Foundation 2008). The range of impacts presented in Focus 2050 are based on projections of climate change on the San Diego region using three climate models and two emissions scenarios drawn from those used by the Intergovernmental Panel on Climate Change (IPCC). A summary of the potential adverse effects of Climate Change on the San Diego region, as projected in Focus 2050, is provided below.

**Climate**

From observations and model historical simulations, it appears that temperatures began to warm more substantially in the 1970s. Some scientists attribute the change to the response to the effects of GHG accumulation, which began to increase substantially during this time. All of the climate model simulations exhibit warming across San Diego County, ranging from about 1.5 degrees Fahrenheit to 4.5 degrees Fahrenheit, with some differences in the timing and geographic distribution of the changes. The models predict greater warming in the summer than in winter, with surface air temperatures warming from 0.7 degrees Fahrenheit to more than 2 degrees Fahrenheit over that found in winter. Temperature changes for areas along the coast would be moderated by the influence of the Pacific Ocean, but interior areas, where the greatest population growth would occur, would experience the greatest temperature increase.

The months when San Diego County experiences the most extreme warm temperatures, currently in July and August, will likely begin in June and extend until September. It is estimated that the inland portion of the County may have more than a threefold increase in hot days in 2050. Experts generally conclude that rainfall will continue to vary widely from year to year, leaving San Diego County highly vulnerable to drought.
Sea Level
If current climate change trends continue, rising sea levels will have a major impact on the San Diego region’s environment and economy, particularly in coastal areas. When high tide occurs during a large storm, particularly in El Niño winters, flooding will threaten homes, businesses, and hotels in low-lying coastal communities such as Imperial Beach, Coronado, Mission Beach, La Jolla Shores, Del Mar, and Oceanside. Flooding may also impact military, port and airport operations. High surf events will last for more hours, with waves causing even greater coastal erosion and related damage. Rising sea levels will wear away the foundations of sea bluffs, such as those found in Solana Beach, and significantly change the County coastline. Sandy beaches and nearby wetlands serve as barriers to protect coastline developments from high surf. As these areas shrink from more intense wave activity, there may be a greater need for beach sand replenishment. More seawalls and breakwaters may need to be built to defend homes and businesses from coastal flooding. In addition to being extremely costly, these structures will destroy beaches and wetlands that do not have space to shift inland. Wetlands and estuaries could be devastated, leaving beaches exposed to more pollutants that endanger human and marine life.

Water Supply
The San Diego County Water Authority predicts an increase in water demand for San Diego County of around 20 percent, from 648,030 acre-feet/year (the 2005-2010 average) to about 785,685 acre-feet/year in 2035. About 84 percent of this demand is expected to come from imported sources (SDCWA 2010). By 2050, the expected demand will increase to 915,000 acre-feet/year, which is an increase of 41 percent over the 2005-2010 period. By 2050, about 80 percent of the water supply is expected to be imported.

Drought years, which have historically increased water demand by another seven percent, might occur as much as 50 percent more often and be considerably drier. In drought years, parched soil soaks up more surface water and groundwater, increasing the need for imported and other water supplies. At the same time that the County demand for water would increase, climate change could shrink the Colorado River flow (a major source of imported water for the County) by 20 percent or more. A decline in the Sierra Nevada snowpack, aggravated by increased temperatures, could impact the water flow of many northern California rivers which serve as primary sources of water to the California Aqueduct, a major source of imported water for the County. San Diego’s water supply plans are likely to be severely challenged by climate change. Even with plans in place to conserve, recycle, and augment our available water, it is estimated San Diego County could face an 18 percent shortfall in water supply by 2050.

Wildfires
Fire occurrence has steadily increased in southern California, in direct proportion to human population growth as most ignitions are caused by human activities. Most fires
start during the summer, when coastal sage and chaparral vegetation have dried to a highly flammable state. Fires that start during the fall, however, burn many more acres because flames are intensified and spread by hot, dry Santa Ana winds. It is not entirely clear from climate change models how Santa Ana conditions will affect San Diego regional fire regimes in the future. Some models predict a decrease in the frequency and intensity of Santa Ana conditions while others predict an increase, particularly during the fire season. If Santa Ana conditions increase significantly earlier in the fire season, this shift could increase the incidence of massive Santa Ana fires, because the winds will begin gusting during the time of year when most fires start. More frequent fires would threaten native plant species by not allowing sufficient recovery time before they burn again. This would allow weedy, non-native species, which thrive in post-fire conditions, to multiply. Weedy invaders dry out earlier in the year, catch fire more easily, and burn faster than native plants.

Additionally, if current trends continue, the San Diego region will experience a population increase, with more development and human activities in backcountry areas over the coming decades. As a result of climate change, we can expect higher spring temperatures, scorching summers, drier vegetation, and longer fire seasons. A simultaneous occurrence of all of these factors will increase the likelihood of more devastating firestorms similar to those that destroyed many homes and lives in the unincorporated County during 2003 and 2007.

**Ecosystems**
San Diego County beaches, canyons, mountains and deserts support a vast variety of plants and animals, some of which are found nowhere else on the planet. This biodiversity is already under stress from human population growth and land use changes that have broken up and reduced species habitat into fragmented areas. The impacts of climate change will add to the pressures on habitats and the species that live in the County. As a result, the locations where the temperature, moisture, and other environmental conditions are suitable for a particular species will shift. Plant and animal species are generally able to adapt to shifting habitats, but under existing trends, climate change would occur so rapidly that ecological conditions may shift faster than species are able to follow. To survive, some animals and plants will have to move up to 95 miles over the next century to find new habitat or they will face extinction. Drought and unusually warm years have already led to growing insect populations, such as bark beetles, which have attacked and killed drought-stressed trees in San Diego County. With warmer weather, the County’s forests will lose even more trees. Ecological changes will cascade, as the loss of one species will challenge the ability of other species up and down the same food chain to survive. Top predators like coyotes may be lost if habitat patches become too small or isolated, and that can lead to an increase in smaller predators that prey on native songbirds.
**Public Health**

Increased heat, air pollution, wildfires, and infectious disease will cause illness and death in San Diego County, especially among the elderly, children, and the chronically ill. Californians experience the worst air quality in the nation, and San Diego is currently out of compliance with the federal ozone standard. By 2050, more hot sunny days will increase ozone air pollution levels, which can exacerbate asthma and other respiratory and cardiovascular diseases. Fire-related injuries and death are likely to increase as intense wildfires occur more frequently. Wildfires can also be a significant contributor to air pollution. Wildfire smoke contains numerous toxic and hazardous pollutants that are dangerous to breathe and can worsen lung disease and other respiratory conditions.

Warmer temperatures year-round could lead to growing mosquito populations, increasing the occurrence of West Nile Virus in the San Diego region. Hot weather could also bring tropical diseases such as malaria and dengue fever to the region for the first time. In coastal waters, conditions are likely to favor more frequent “red tides” or harmful algal blooms, which can harbor toxic bacteria and other diseases. In 2050, with an aging population and more residents living in areas with extreme heat conditions and poor air quality, the San Diego region will face intensified public health concerns.

**Energy Needs**

If current climate change trends continue, warmer temperatures and a growing population will translate into big challenges for the San Diego region’s energy supply by 2050. The main impact will be higher demand for electricity as a result of the greater need for summer cooling, especially in inland areas where both regional population growth and temperature increases will be highest. Hotter summers and more frequent, longer and intense heat waves will increase peak demand for electricity, which could result in blackouts and power outages, without adequate planning.

**4.5.2 Regulatory Framework**

**4.5.2.1 International**

**United Nations Framework Convention on Climate Change**

On March 21, 1994, the U.S. joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change (UNFCCC). Under the Convention, governments agreed to gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.
Intergovernmental Panel on Climate Change (IPCC)
In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis for human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, the economy, and human health and welfare are unavoidable.

4.5.2.2 Federal

U.S. Environmental Protection Agency Endangerment Finding and Cause or Contribute Finding (2009)
In its Endangerment Finding, the Administrator of the EPA found that GHGs in the atmosphere threaten the public health and welfare of current and future generations. The Administrator also found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare. Although the Endangerment Finding does not place requirements on industry, it is an important step in the EPA’s process to develop regulations. This action was a prerequisite to finalizing the EPA’s proposed GHG emission standards for light-duty vehicles. In the EPA’s Cause or Contribute Finding the Administrator found that the combined emissions of these well-mixed GHG from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

Fuel Economy Standards
In 2012, the U.S. Environmental Protection Agency (US EPA) and the Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) issued final rules extending the National Program to further reduce GHG emissions and improve fuel economy for model years (MYs) 2017 through 2025 light-duty vehicles. US EPA established national GHG emissions standards under the Clean Air Act, and NHTSA established Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act, as amended by the Energy Independence and Security Act (EISA). US EPA’s standards apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, in MYs 2017 through 2025. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of carbon dioxide (CO₂) in model year 2025, which is equivalent to 54.5 miles per gallon (mpg) if achieved exclusively through fuel economy improvements (US EPA 2012).
4.5.2.3 State

Executive Order S-3-05
California’s Governor announced on June 1, 2005, through EO S-3-05, the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels
- By 2020, California shall reduce GHG emissions to 1990 levels
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels

The first California Climate Action Team (CCAT) Report to the Governor in 2006 contained recommendations and strategies to help ensure the targets in EO S-3-05 are met. The latest CCAT Biennial Report was released in 2010. It expands on the policy-oriented 2006 assessment and provides new information and scientific findings. The new information and details in the CCAT Assessment Report include development of new climate and sea-level projections using new information and tools that have become available, and evaluation of climate change within the context of broader social changes such as land-use changes and demographic shifts (CCAT 2010). The action items in the draft report focus on the preparation of the Climate Change Adaptation Strategy required by EO S-13-08, which is summarized below.

Assembly Bill 32, the California Global Warming Solutions Act of 2006
In September 2006, the California State Legislature adopted Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHG emissions in California. GHGs as defined under AB 32 include CO₂, CH₄, N₂O, chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Under AB 32, CARB has the primary responsibility for reducing GHG emissions and continues the California Climate Action Team (CCAT) to coordinate statewide efforts and promote strategies that can be undertaken by many other California agencies. AB 32 required CARB to adopt rules and regulations that would achieve GHG emissions equivalent to state-wide levels in 1990 by 2020.

In general, AB 32 directed CARB to do the following:

- Prepare and approve a Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs by 2020, and update the Scoping Plan every five years;
- Maintain and continue reductions in emissions of GHG beyond 2020;
- Identify the statewide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020;
- Identify and adopt regulations for discrete early actions that could be enforceable on or before January 1, 2010;
- Adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit GHG emissions;
- Convene an Environmental Justice Advisory Committee to advise the Board in developing and updating the Scoping Plan and any other pertinent matter in implementing AB 32; and
- Appoint an Economic and Technology Advancement Advisory Committee to provide recommendations for technologies, research and GHG emission reduction measures (CARB 2014).

Regarding the first bullet, the first update to the Scoping Plan was adopted in May 2014. The first update identifies opportunities for GHG reductions using existing and new funding sources, defines CARB’s climate change priorities for the next five years, and establishes the plan for meeting the long-term goals of Executive Order (EO) S-3-05, described below. The first update highlights California’s progress toward meeting the 2020 GHG emission reduction goals defined in the initial Scoping Plan and evaluates how GHG reduction strategies may be aligned with other state priorities for water, waste, natural resources, clean energy, transportation, and land use. According to the first update, California is on track to meet the 2020 GHG emission reduction goal. While the first update discussed setting a mid-term target, the plan did not set a quantifiable target toward meeting the 2050 goal.

The 2017 Climate Change Scoping Plan Update was finalized in November 2017 and adopted in December 2017. This most recent scoping plan lays out the framework for achieving the 2030 reductions as established in Executive Order B-30-15 and SB 32, described below. The proposed 2017 Scoping Plan Update identifies GHG reductions by emissions sector to achieve a statewide emissions level that is 40 percent below 1990 levels by 2030. CARB recommends statewide targets of no more than six metric tons CO$_2$e per capita by 2030 and no more than two metric tons CO$_2$e per capita by 2050. However, CARB specifically states that these goals are appropriate for the plan level (city, county, subregional, or regional level, as appropriate), but not for specific individual projects because they include all emissions sectors in the State.

The 2017 Scoping Plan also includes recommendations for local governments when considering discretionary approvals and entitlements of individual projects through CEQA. Specifically, CARB recommends that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions, and that achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development. When designing mitigation measures, CARB recommends that lead agencies prioritize on-site design...
features that reduce emissions, especially from vehicle miles travelled (VMT), and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally.

**EO B-30-15, Senate Bill 32 and AB 197**

EO B-30-15 was enacted by the Governor on April 29, 2015. EO B-30-15 established an interim GHG emission reduction goal for the state of California to reduce GHG emissions to 40 percent below 1990 levels by the year 2030. This EO directs all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the preexisting, long-term 2050 goal identified in EO S-3-05 to reduce GHG emissions to 80 percent below 1990 levels by the year 2050. The EO directs CARB to update its Scoping Plan to address the 2030 goal.

In 2016, the Legislature passed Senate Bill (SB) 32, which codified the 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation AB 197, which provided additional direction for CARB to develop an update to the Climate Change Scoping Plan. CARB is currently in the process of developing a Second Update to the Scoping Plan to reflect the 2030 target set by EO B-30-15 and codified by SB 32.

**Executive Order S-13-08**

On November 14, 2008, the Governor issued EO S-13-08, the Climate Adaptation and Sea Level Rise Planning Directive, which provided clear direction for how the state should plan for future climate impacts. S-13-08 calls for the implementation of four key actions to reduce the vulnerability of California to climate change:

1. Initiate California's first statewide Climate Change Adaptation Strategy (CAS) that will assess the state's expected climate change impacts, identify where California is most vulnerable and recommend climate adaptation policies;

2. Request the National Academy of Science establish an expert panel to report on sea level rise impacts in California in order to inform state planning and development efforts;

3. Issue interim guidance to state agencies for how to plan for sea level rise in designated coastal and floodplain areas for new and existing projects; and

4. Initiate studies on critical infrastructure projects, and land use policies vulnerable to sea level rise.

The CAS was developed by the California Natural Resources Agency, in coordination with Cal EPA; the California Climate Action Team (CCAT); the Business, Transportation and Housing Agency; California Department of Public Health; and other key stakeholders. The CAS synthesizes the most up-to-date information on expected climate change impacts to California for policy-makers and resource managers, provides
strategies to promote resiliency to these impacts, and develop implementation plans for short and long term actions. The CAS was adopted in 2009. The California Natural Resources Agency, in coordination with other state agencies, is preparing an update to the CAS. The draft plan, called the Safeguarding California Plan, was released in May 2017.

**EO S-01-07 – Low Carbon Fuel Standard**

EO S-01-07 was enacted by the Governor on January 18, 2007, and mandates that: 1) a statewide goal be established to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020; and 2) a Low Carbon Fuel Standard (“LCFS”) for transportation fuels be established for California. According to the San Diego County Greenhouse Gas Inventory (EPIC 2013), the effects of the LCFS would be a 10 percent reduction in GHG emissions from fuel use by 2020. On April 23, 2009, CARB adopted regulations to implement the LCFS.

**Assembly Bill 1493 – Vehicular Emissions of Greenhouse Gases**

AB 1493 (Pavley) requires that CARB develop and adopt regulations that achieve “the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State.” On September 24, 2009, CARB adopted amendments to the Pavley regulations that intend to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments bind California’s enforcement of AB 1493 (starting in 2009), while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to merge its rules with the federal CAFE rules for passenger vehicles. In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single packet of standards called Advanced Clean Cars.

**4.5.2.4 Regional**

**San Diego Air Pollution Control District**

The AB 32 Scoping Plan does not provide an explicit role for local air districts in implementing AB 32, but it does state that CARB will work actively with air districts in coordinating emissions reporting, encouraging and coordinating GHG reductions, and providing technical assistance in quantifying reductions. The ability of air districts to control emissions (both criteria pollutants and GHGs) is provided primarily through permitting as well as through their role as CEQA lead or commenting agency, the establishment of CEQA thresholds, and the development of analytical requirements for CEQA documents. To date, the SDAPCD has not developed specific thresholds of significance with regards to addressing the GHG emissions in CEQA documents.
4.5.2.5 Local

City of Solana Beach General Plan
The City last updated its General Plan in 2014. The General Plan includes a Circulation Element (City of Solana Beach 2014) that is intended to provide for a balanced circulation system that will support travel demands associated with land uses in the Land Use Element while maintaining a high quality of life for the residents of Solana Beach and all roadway users. The Circulation Element includes goals and policies to reduce vehicle trips, which would limit GHG emissions. The following Circulation Element goals and policies are relevant to the proposed project.

Goal 8.0: Safe alternatives to motorized transportation that meet the needs of all city residents, reduce vehicle trips, save energy, and improve air quality.

- **Policy C-8.1**: Encourage businesses to provide flexible work schedules for employees.
- **Policy C-8.2**: Encourage employers to offer shared commute programs and/or incentives for employees to use transit.
- **Policy C-8.3**: Require new or expanded uses to provide adequate bicycle parking and support facilities.
- **Policy C-8.4**: Encourage carpooling and other shared commute programs.
- **Policy C-8.5**: Encourage the use of alternative transportation modes.
- **Policy C-8.6**: Prioritize attention to transportation issues along routes to schools to reduce school-related vehicle trips.
- **Policy C-8.7**: Seek opportunities to reduce vehicle trips before requiring physical roadway improvements.

Goal C-11.0: An adequate supply of private off-street and public parking to meet the needs of residents and visitors to the city in a way that balances economic development, livable neighborhoods, environmental health, and public safety.

- **Policy C-11.1**: In general, maintain parking requirements for specified land uses, but allow for a reduction in parking requirements for existing buildings that change uses and cannot accommodate current parking standards without significantly altering the site. In determining what constitutes sufficient parking under these circumstances, the City may take into consideration: 1) the overall effectiveness of the circulation system as a whole (i.e., pedestrians, bicyclists, motorized vehicles, etc.); 2) the particular needs of a specific location and/or project; 3) the parking generation demand of the proposed use; 4) the availability of public parking spaces; and 5) the ability of the project to aid in the reduction of personal
vehicle use and the corresponding reduction in air pollution, energy consumption, greenhouse gas emissions, and other environmental effects.

- **Policy C-11.4**: Require parking lots to provide shade through the use of landscaping (i.e., a tree canopy) and encourage the use of solar photovoltaic shading to reduce the heat island effect, where feasible.

The General Plan also includes a Conservation and Open Space Element which describes existing conditions and issues related to water resources, floricultural resources, air resources, cultural resources, energy resources, and open space/visual resources. The following are goals, objectives, and policies established to ensure that natural resources within Solana Beach are managed wisely, according to the Conservation and Open Space Element.

**Goal 3.1**: To protect and conserve the city’s natural and cultural resources

**Objective 3.0**: Conserve and recycle important resources.

- **Policy 3.a**: The city shall participate in the county’s efforts to recycle waste products such as glass, broken concrete, asphalt, etc. for use as construction materials.
- **Policy 3.b**: The city shall encourage efforts to increase public participation in recycling.

**City of Solana Beach Climate Action Plan**

The City adopted a Climate Action Plan (CAP) on July 12, 2017 to address the challenges of climate change in Solana Beach while supporting the goals of AB 32 and SB 32. The CAP includes emission reduction targets of 15 percent below 2010 baseline conditions by 2020 and 50 percent below 2010 baseline conditions by 2035. The CAP identifies a total of 30 specific local GHG emissions reduction measures to enable the City to achieve its targets (City of Solana Beach 2017). The top five measures in the CAP that will achieve the most local GHG emissions reductions are the following:

- Increase electric vehicles and alternative fuel vehicles in the region;
- Implement a Community Choice Aggregation program to achieve 100 percent renewable electricity by 2035;
- Install 10.8 megawatts of residential rooftop solar photovoltaic systems;
- Divert 90 percent of solid waste from landfills, with an 85 percent capture rate; and
- Install solar hot water heaters at commercial spaces in the City.
4.5.3 Impact Significance Criteria

According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact associated with GHG emissions if it would:

- **Issue 1:** Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- **Issue 2:** Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG.

The CEQA Guidelines do not quantify the amount of GHG emissions that would constitute a significant impact on the environment. Determination of the significance of GHG emissions is left up to the lead agency, which may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts (CEQA Guidelines §§ 15064.4(a), 15064.7(c)).

While the City’s CAP provides aspirational GHG reduction targets for the City and identifies many GHG reduction measures that could be applied to the proposed project, the City has not conducted a CEQA environmental review of the CAP. Furthermore, the CAP does not establish a “bright line” threshold below which the contribution to GHG emissions from individual projects is covered by the CAP and would not be cumulatively considerable. Therefore, the CAP is not considered to be a qualified plan as described in CEQA Guidelines Section 15183.5 and cannot be used by individual projects for CEQA streamlining and tiering purposes.

The 2017 Scoping Plan provides limited guidance to lead agencies in determining an appropriate threshold for evaluating the significance of project-level GHG emissions. In the 2017 Scoping Plan, CARB recommends that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving no net additional increase in GHG emissions (herein referred to as net zero or net zero emissions), resulting in no contribution to GHG impacts, is the overall objective for new development. However, CARB acknowledges that the inability of a project to mitigate its GHG emissions to net zero does not imply the project would result in a substantial contribution to a cumulatively significant environmental impact of climate change under CEQA. Lead agencies have the discretion to develop evidence-based numeric thresholds consistent with the Scoping Plan, the State’s long-term GHG goals, and climate change science.

In the absence of CEQA coverage for the City’s CAP and adopted City-specific GHG thresholds for determining the significance of individual development projects, the City of Solana Beach, as lead agency, uses the threshold recommended by the California Air Pollution Control Officers Association (CAPCOA) in their white paper CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to
the California Environmental Quality Act. The CAPCOA white paper determines that projects that emit less than a screening threshold of 900 MTCO₂e/year would not result in a significant impact. This screening level was determined to capture more than 90 percent of development projects, allowing for lead agencies to require mitigation or sustainability features as part of the CEQA process so that new development would work towards achieving the State’s long-term GHG reduction goals. This screening level is consistent with and conservative compared to example thresholds cited in the 2017 Scoping Plan (1,000 MTCO₂e/year in Santa Barbara County and 1,100 MTCO₂e/year in the Sacramento Metropolitan Air Quality Management District). Additionally, this threshold was determined to be appropriate for local use by the County of San Diego (2016) until a qualified CAP is adopted.

### 4.5.4 Method of Analysis

The total amount of project-related GHG emissions from construction and operation were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 using the same inputs as the air quality analysis. CalEEMod quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, and water use. Emissions are quantified based on construction and operational information provided by the applicant and additional information provided by the City. Where project-specific information is not available, model default values are assumed. Refer to Table 4.2-5 and Table 4.2-7 for detailed model inputs. The GHG analysis also includes assumptions for energy use (electricity and natural gas), water demand, and solid waste generation. This analysis incorporates the sustainability-related Project Design Features PDF-GHG-1 through PDF-GHG-5, as described in Chapter 3, Project Description and restated below.

**Project Design Feature PDF-GHG-1: Energy Efficiency**

Prior to the issuance of building permits, the project applicant shall demonstrate that the project has included the following elements to reduce energy demand:

- Install Energy Star rated washing machines, dish washers, fans, and refrigerators in the multi-family housing units
- Install solar hot water heaters in the multi-family units
- Install programmable thermostats in all multi-family units and commercial spaces
- Install LED lights in all outdoor spaces.
- Install timers on all outdoor lighting so that only safety lights are utilized after business hours and only as necessary during daylight hours.
- Exceed 2016 Title 24 building energy efficiency standards by 10 percent and obtain third-party HVAC commissioning and verification of energy savings
Project Design Feature PDF-GHG-2: Generation of On-Site Renewable Solar Energy

Prior to the certificate of occupancy, the project applicant shall demonstrate that the project has installed an on-site renewable solar energy source to provide the project with 230,000 kilowatt hours (kWh) per year.

Project Design Feature PDF-GHG-3: Conservation of Water and Solid Waste

Prior to issuance of building permits, the project shall demonstrate implementation of the following measures to reduce water consumption and solid waste generation resulting from the project:

- Landscaping shall include only water-efficient drip irrigation systems, low to moderate water use plans, and no turf. A complete landscape and irrigation plan package in compliance with the State of California Model Water Efficiency Landscape Ordinance shall be submitted to the City of Solana Beach for review and approval prior to the issuance of a building permit.

- The applicant shall apply a water conservation strategy to achieve a 25 percent indoor water use reduction compared to standard estimates for the proposed uses according to information provided by the applicant (EIR Appendix K). Quantifications of water conservation measures shall be included before the issuance of building permits. Measures that may be incorporated to achieve the target reductions include, but are not limited to, the following: install low-flow plumbing fixtures and appliances and only serve water at restaurants upon request.

- The project applicant shall, as part of the standard tenant agreement, require residents and commercial tenants to institute recycling and composting services with a target of 75 percent diversion, in compliance with Assembly Bill 939 and Assembly Bill 341. A description of the program and instructions for compliance shall be made part of the standard tenant agreement for residents and commercial tenants.

Project Design Feature PDF-GHG-4: Transportation Demand Management

Prior to issuance of certificate of occupancy, the project shall implement the following measures to reduce vehicle miles travelled resulting from the project. The following measures are designed to influence the transportation choices of residents, employees, and customers, and serve to enhance the use of alternative transportation modes both on and off the project site through the provision of incentives and subsidies, and other innovative means:

- Project applicant shall, as part of the standard tenant agreement, require commercial tenants to offer an employer-sponsored vanpool/shuttle service to the extent that at least 20 percent of employees are eligible for the program. Alternatively, commercial tenants shall develop partnerships with shared mobility.
service providers (on-demand rideshare, microtransit, scootershare, and bikeshare providers) to provide a commuter benefit program to the extent that at least 20 percent of employees are eligible for the program.

- Project applicant shall, as part of the standard tenant agreement, require commercial tenants to offer an average transit fare subsidy of $5.96 per employee per day.
- Project applicant shall, as part of the standard tenant agreement, require commercial tenants to offer a rideshare program to employees to the extent that at least 20 percent of employees are eligible for the program.
- Project applicant shall, as part of the standard tenant agreement, require commercial tenants to encourage telecommuting and alternative work schedules, such as a 9 day/80 hour schedule, 4 day/40 hour schedule, or part-time telecommuting, to the extent that at least 10 percent of employees are eligible for the program.

Project Design Feature PDF-GHG-5: Promotion of Electric and Alternative Fuel Vehicles

Prior to issuance of building permits, the project applicant shall demonstrate that each of the following measures have been incorporated into the design of the project to encourage electric vehicle and alternative fuel vehicle use:

- Implement City of Solana Beach Climate Action Plan Measure T-5 to designate 20 percent of onsite parking spaces (51 parking spaces) for electric and alternative fuel vehicles.
- Provide 11 electric vehicle (EV) charging stations and 11 EV capable parking spaces, consistent with California Green Building Standards requirements to pre-wire 6 percent of parking spaces for projects EV charging stations.

Table 4.5-4 summarizes these additional inputs, with and without these project features. A comparison of annual vehicle miles traveled and natural gas demand with and without the Project Design Features is also included in this table. Complete model inputs and outputs are provided in Appendix B.

<table>
<thead>
<tr>
<th>Table 4.5-4 GHG Assumption Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input</strong></td>
</tr>
<tr>
<td>Vehicle Miles Traveled</td>
</tr>
</tbody>
</table>
The applicable plans, policies, and regulations adopted to reduce GHG emissions that are applicable to the proposed project are the statewide emissions reduction goals established in AB 32 and SB 32, the 2017 Scoping Plan, and the City CAP. The proposed project’s compatibility with statewide and local emissions reductions targets is determined by comparing the project to overall goals and project-level guidance in the Scoping Plan and City’s CAP, and well as consideration of statewide and regional emissions reduction efforts that would reduce future project emissions.

### 4.5.5 Project Impacts and Mitigation

#### 4.5.5.1 Issue 1 - Direct and Indirect Generation of GHG

*Would implementation of the proposed project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

**Impact Analysis**

Both construction and operation of the proposed project would result in GHG emissions, as described below.

**Construction**

Construction of the proposed project would generate GHG emissions from the operation of construction equipment, as well as truck trips from material hauling and worker vehicle trips. Construction assumptions used to calculate the GHG emissions for the proposed project are consistent with the assumptions used in the air quality analysis provided in

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**Table 4.5-4 GHG Assumption Summary**

<table>
<thead>
<tr>
<th>Input</th>
<th>Without Project Design Features</th>
<th>With Project Design Features</th>
<th>Applicable Project Design Features</th>
<th>Input Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity Demand</td>
<td>2.0 million kWh/year</td>
<td>1.6 million kWh/year</td>
<td>PDF-GHG-1, PDF-GHG-2</td>
<td>CalEEMod Default</td>
</tr>
<tr>
<td>Natural Gas Demand</td>
<td>3,052 kBTU/year</td>
<td>2,777 kBTU/year(1)</td>
<td>PDF-GHG-1</td>
<td>CalEEMod Default</td>
</tr>
<tr>
<td>Indoor Water Use</td>
<td>4.3 million gallons/year</td>
<td>3.2 million gallons/year</td>
<td>PDF-GHG-3</td>
<td>Project Design Consultants (May 12, 2017)</td>
</tr>
<tr>
<td>Outdoor Water Use</td>
<td>100,588 gallons/year</td>
<td>100,588 gallons/year</td>
<td>PDF-GHG-3, City’s Water Efficient Landscape Ordinance (Municipal Code Section 17.56)</td>
<td>MW Steele Group (September 15, 2017)</td>
</tr>
<tr>
<td>Solid Waste Generation</td>
<td>183 tons</td>
<td>46 tons</td>
<td>PDF-GHG-3</td>
<td>CalEEMod Default</td>
</tr>
</tbody>
</table>

(1) Includes additional 5 percent reduction beyond CalEEMod estimate to account for installation of solar water heaters and programmable thermostats.

Source: CalEEMod Version 2016.3. See Appendix B for model output.
Section 4.2, Air Quality. Refer to Table 4.5-4 for detailed model inputs. The assumptions include construction duration, phasing and types of equipment to be used. Based on results of the CalEEMod air emissions modelling effort, construction of the proposed project would emit an estimated 707 MTCO₂e total during the entire 18-month construction period, and a maximum of 418 MTCO₂e during a single calendar year, as shown in Table 4.5-5. Emissions include on-site equipment and off-site truck and vehicle trips generated by project construction. Annual construction emissions would not exceed the CAPCOA Screening Criteria of 900 MTCO₂e per year. Therefore, the proposed project would result in a less than significant GHG impact during construction.

<table>
<thead>
<tr>
<th>Construction Phase</th>
<th>Year 2018 Annual Emissions</th>
<th>Year 2019 Annual Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>Grading</td>
<td>274</td>
<td>0</td>
</tr>
<tr>
<td>Building Construction</td>
<td>126</td>
<td>252</td>
</tr>
<tr>
<td>Paving</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Architectural Coating</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td><strong>Annual Construction Emissions</strong></td>
<td><strong>418</strong></td>
<td><strong>289</strong></td>
</tr>
<tr>
<td>Screening Criteria</td>
<td>900</td>
<td>900</td>
</tr>
<tr>
<td>Significant Impact?</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

MTCO₂e = metric tons of carbon dioxide equivalent
Source: CalEEMod Version 2016.3.2. See Appendix B (Harris & Associates 2018). Attachment A for model output.

**Operation**

Table 4.5-6 summarizes total GHG emissions from operation of the proposed project. As shown in Table 4.5-4, the Project Design Features PDF-GHG-1 through PDF-GHG-5 would reduce the project’s demand for water, energy, solid waste, and VMT, resulting in reduced GHG emissions compared to a similar project without these design features. Project Design Feature PDF-GHG-1 would reduce electricity and natural gas use by requiring energy efficient or solar-powered fixtures and lighting. Feature PDF-GHG-2 would require generation of solar energy on-site, which would reduce project energy demand. Feature PDF-GHG-3 would require water conservation to reduce water transport demand and a waste diversion program to reduce landfill disposal demand. Project Design Features PDF-GHG-4 and PDF-GHG-5 would reduce VMT from fossil fuel-powered vehicles by promoting alternative modes of transportation and work schedules, and implementing electric vehicle infrastructure. However, based on results of the CalEEMod air emissions modeling effort, operation of the proposed project is estimated to result in 2,016 MTCO₂e per year. This exceeds the CAPCOA Screening Criteria of 900 MTCO₂e per year. Therefore, the proposed project would exceed the significance criteria and would result in a potentially significant GHG impact.
Table 4.5-6 Estimated Annual Operational GHG Emissions

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Annual Emissions (MTCO\textsubscript{2}e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area (Landscape Equipment)</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Natural Gas Usage</td>
<td>149\textsuperscript{(1)}</td>
</tr>
<tr>
<td>Electricity Usage</td>
<td>465\textsuperscript{(2)}</td>
</tr>
<tr>
<td>Mobile (Vehicular Use)</td>
<td>1,375\textsuperscript{(3)}</td>
</tr>
<tr>
<td>Waste</td>
<td>23</td>
</tr>
<tr>
<td>Water</td>
<td>19</td>
</tr>
<tr>
<td>Emissions associated with existing use</td>
<td>-16</td>
</tr>
<tr>
<td>Net Annual Operational Emissions with Project Design</td>
<td>2,016</td>
</tr>
<tr>
<td>Criteria</td>
<td></td>
</tr>
<tr>
<td>Significant Impact?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Notes:
\textsuperscript{(1)} Includes additional 5 percent reduction beyond CalEEMod estimate to account for installation of solar water heaters and programmable thermostats.
\textsuperscript{(2)} Includes an 11 percent reduction in electricity emissions for implementation of the Renewable Portfolio Standard (UCSD 2015), which are not accounted for in CalEEMod.
\textsuperscript{(3)} Includes reduction of 0.87 MTCO\textsubscript{2}e per electric vehicle parking space (11 spaces) (Dudek 2018).
MTCO\textsubscript{2}e = metric tons of carbon dioxide equivalent
Source: CalEEMod 2016.3.2. See Appendix B (Harris & Associates 2018), Attachment A for model output.

Significance of Impact
Construction-related GHG emissions would be less than significant. Annual GHG emissions from operation of the proposed project would exceed the 900 MTCO\textsubscript{2}e/year screening threshold and would result in a potentially significant impact.

Mitigation Measures
Implementation of Mitigation Measures GHG-1 and GHG-2 would reduce the proposed project’s climate change impact to a less than significant level by reducing the project’s GHG to below the 900 MTCO\textsubscript{2}e/year screening threshold.

GHG-1 Green Power Purchase. Prior to the issuance of building permits, the project applicant shall demonstrate to the City Manager that the project has an agreement in place to purchase 100 percent green power (electricity) from the City’s Community Choice Aggregation program, Solana Energy Alliance (SEA), or, if this program is not in place, the San Diego Gas & Electric EcoChoice program. All future commercial and residential tenant agreements for the proposed project land uses shall require that all tenants opt in to either the City’s Community Choice Aggregation program or, if this program is not in place, the San Diego Gas & Electric EcoChoice program. The purchase must be sufficient to offset all remaining electricity demand from the project (approximately 1.6 million kwh/year, which is equivalent to 465 MTCO\textsubscript{2}e/year) that is not provided by on-site solar power, such that all of the project’s electricity demand is met through renewable sources. Final electricity demand and on-site solar power generation estimates shall be determined by a registered electrical engineer, retained by the project applicant and approved by the City, prior to entering into the agreement with San Diego Gas & Electric.
Gas & Electric and/or the City. If the EcoChoice program is the only option, proof of enrollment in the EcoChoice program shall be provided to the City prior to obtaining building permits. The project applicant shall be responsible for paying the monthly program fee. As of March 2018, In the event the EcoChoice program is full for commercial customers. If necessary, the project applicant shall enroll in the EcoChoice waitlist, and permits shall not be issued until the project is enrolled in the City’s Community Choice Aggregation program or the SDG&E EcoChoice program to offset the remaining electricity demand of 1.6 million kwh/year.

GHG-2 Carbon Reduction Program. Prior to the issuance of building permits, the project applicant shall implement a local carbon reduction offset program consistent with the City’s Climate Action Plan and subject to the approval of the City Manager. The local offset program shall be demonstrated to the satisfaction of the City Manager to achieve an emissions reduction of at least 651 metric tons carbon dioxide equivalent (MTCO₂e) per year for 30 years, which equates to a total of 19,530 MTCO₂e. A portion of the project’s required GHG emission reductions within the City shall be accomplished by implementing the following programs:

- Provide an additional 25 on-site electric vehicle charging stations for the proposed residential use, which is equivalent to offsetting 90 MTCO₂e per year.
- Provide an additional 18 on-site electric vehicle charging stations for the proposed commercial use, which is equivalent to offsetting 85 MTCO₂e per year.
- Provide two electric vehicle charging stations at the proposed reverse-diagonal parking spaces on South Sierra Avenue adjacent to the project site, which is equivalent to offsetting 280 MTCO₂e per year.
- Contribute towards SANDAG’s regional bike-share program in an amount equivalent to providing 12 shared electric bicycles, which is equivalent to offsetting seven MTCO₂e per year.

Alternatively, and only if it can be demonstrated to the City Council that local programs cannot be feasibly implemented to fully offset 651 MTCO₂e annually for 30 years, the project applicant shall purchase California Air Resources Board-approved CO₂e offset credits to satisfy this mitigation requirement. There are currently three approved registries recognized by the State of California that implement established carbon offset programs: Climate Action Reserve; American Carbon Registry; and Verified Carbon Standard. Programs supported by the carbon offset programs include restoring wetlands, avoiding conversion of grasslands to crop production, capturing methane gas from landfills and/or manure, and supporting urban forestry. The applicant shall submit documentation of the offset purchase to the City Manager demonstrating that it mitigates 651 MTCO₂e per year for 30 years, as provided by the approved registry, prior to the issuance of building permits.
Significance After Mitigation
As shown in Table 4.5-7, implementation of mitigation measures GHG-1 and GHG-2 would reduce the proposed project’s operational GHG emissions to 900 MTCO₂e per year, which is the CAPCOA screening level GHG threshold used by the City. Therefore, with implementation of mitigation measures GHG-1 and GHG-2, the proposed project would not exceed the allowable level of project-related GHG emissions. Impacts would be reduced to a less than significant level.

Due to the mixing of GHG emissions in the atmosphere and their global effect on climate change, it is only possible to analyze the impacts of GHG emissions in a cumulative context. Therefore, this section provides an analysis of cumulative GHG emissions. The project would not result in a cumulatively considerable contribution to GHG emissions.

<table>
<thead>
<tr>
<th>Emissions Source or Reduction</th>
<th>Annual Emissions (MTCO₂e) with Mitigation Measures GHG-1 and GHG-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area (Landscape Equipment)</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Natural Gas Usage</td>
<td>149</td>
</tr>
<tr>
<td>Electricity Usage</td>
<td>465</td>
</tr>
<tr>
<td>Mobile (Vehicular Use)</td>
<td>1,375</td>
</tr>
<tr>
<td>Waste</td>
<td>23</td>
</tr>
<tr>
<td>Water</td>
<td>19</td>
</tr>
<tr>
<td>Existing site use</td>
<td>-16</td>
</tr>
<tr>
<td>Net Annual Operational Emissions with Project Design Features</td>
<td>2,016</td>
</tr>
<tr>
<td>Green Power Purchase (MM GHG-1)</td>
<td>(465)</td>
</tr>
<tr>
<td>Carbon Reduction Program (MM GHG-2)</td>
<td>(651)</td>
</tr>
<tr>
<td>Total Annual Mitigated Emissions</td>
<td>900</td>
</tr>
<tr>
<td>Screening Criteria</td>
<td>900</td>
</tr>
<tr>
<td>Significant Impact After Mitigation?</td>
<td>No</td>
</tr>
</tbody>
</table>

MTCO₂e = metric tons of carbon dioxide equivalent.
Source: CalEEMod 2016.3.2. See Appendix B (Harris & Associates 2018), Attachment A for model output.

Horizon Years 2030 and 2050
As described in Section 4.5.2, Executive Order B-30-15 established a statewide emissions reduction target of 40 percent below 1990 levels by 2030, which was codified by SB 32. Executive Order S-3-05 established a statewide emissions reduction target of 80 percent below 1990 levels by 2050, which was codified by AB 32.

It can be difficult to quantitatively forecast future GHG emissions associated with the project, given the uncertainty in future State and federal policies, such as Title 24 energy efficiency regulations. However, in the interest of full disclosure under CEQA, an attempt
has been made to estimate the project’s annual GHG emissions in the years 2030 and 2050. These estimates take into account: (1) Additional reductions in vehicle GHG emissions due to Advanced Clean Cars and increased percentage of electric and low-emission vehicles in the fleet; and (2) Implementation of the City’s Solana Energy Alliance (SEA) Community Choice Aggregation program, which anticipates providing 75 percent GHG-free power to the City in the future. Table 4.5-8 presents the estimated GHG emissions for 2030 and 2050 with these measures in place.

<table>
<thead>
<tr>
<th>Emissions Source or Reduction</th>
<th>Annual Emissions (MTCO$_2$e) Horizon Year 2030</th>
<th>Annual Emissions (MTCO$_2$e) Horizon Year 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area (Landscape Equipment)</td>
<td>&lt;1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Natural Gas Usage</td>
<td>149$^{(1)}$</td>
<td>149$^{(1)}$</td>
</tr>
<tr>
<td>Electricity Usage</td>
<td>131</td>
<td>131</td>
</tr>
<tr>
<td>Mobile (Vehicular Use)</td>
<td>1,036$^{(2)}$</td>
<td>969$^{(2)}$</td>
</tr>
<tr>
<td>Waste</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Water</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Existing site use</td>
<td>-16</td>
<td>-16</td>
</tr>
<tr>
<td><strong>Annual Operational Emissions with Project Design Features</strong></td>
<td><strong>1,332</strong></td>
<td><strong>1,265</strong></td>
</tr>
</tbody>
</table>

Notes:

$^{(1)}$Includes additional 5 percent reduction beyond CalEEMod estimate to account for installation of solar water heaters and programmable thermostats.

$^{(2)}$Includes reduction of 0.87 MT CO$_2$e per electric vehicle parking space (11 spaces) (Dudek 2018).

MTCO$_2$e = metric tons of carbon dioxide equivalent.

Source: CalEEMod 2016.3.2. See Appendix B (Harris & Associates 2018), Attachment A for model output.

These emissions would be reduced further than shown in Table 4.5-8 due to implementation of additional GHG reduction measures and technological advances that cannot be quantified with reasonable certainty at this time. However, the estimate demonstrates that the project’s emissions would continue to decrease due to reasonably foreseeable reductions in vehicular emissions attributable to existing regulatory standards. Although it is likely that the City will increase its targets for GHG-free energy under the Solana Energy Alliance beyond 2020, and that Title 24 standards will be increasingly stringent, no other reductions beyond currently foreseeable regulatory programs were assumed; as such, the future estimates of GHG emissions are conservative and demonstrate that the project would not interfere with implementation of the 2030 or 2050 GHG targets.

### 4.5.5.2 Issue 2 - Consistency with GHG Reduction Plans

Would implementation of the proposed project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG?
Impact Analysis
The plans, policies, and regulations adopted to reduce GHG emissions that are applicable to the proposed project are the statewide emissions reduction goals established in AB 32 and SB 32, the 2017 Scoping Plan, and the City Climate Action Plan. Plans for meeting emissions reduction goals of AB 32 (statewide emissions at 1990 levels by 2020) and SB32 (statewide emissions level that is 40 percent below 1990 levels by 2030) are outlined at the statewide level in the Scoping Plan and locally in the City's CAP. The project’s consistency with each plan is addressed below.

2017 Scoping Plan
The 2017 Scoping Plan includes voluntary guidance and recommendations for local governments to reduce GHG emissions. CARB recommends that, in the absence of a qualified local plan, projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. CARB establishes a goal of achieving net zero emissions, recognizing that this goal is not feasible for all projects. As stated in the Scoping Plan, the inability of a project to mitigate its GHG emissions to net zero does not imply the project would result in a substantial contribution to a cumulatively significant environmental impact of climate change under CEQA. Refer to Section 4.5.3 regarding the City’s use of the CAPCOA screening level of 900 MT CO$_2$e to determine the significance of the proposed project’s GHG emissions. As discussed, the statewide emissions reductions goals were taken into consideration in determining the CAPCOA screening level. However, for the purposes of determining Scoping Plan consistency, the proposed project would be consistent with the plan if the project’s future emissions would continue to decrease beyond 900 MT CO$_2$e, toward the ultimate Scoping Plan goal of net zero emissions.

In order to achieve GHG emissions reductions, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project’s region that contribute potential air quality, health, and economic co-benefits locally. The proposed project includes Project Design Features PDF-GHG-1 through PDF-GHG-5 that would implement on-site GHG reduction features. Project Design Feature PDF-GHG-1 would reduce electricity and natural gas use by requiring energy efficient or solar-powered fixtures and lighting installed onsite. Feature PDF-GHG-2 requires generation of solar energy on-site. Feature PDF-GHG-3 requires water conservation and solid waste recycling programs to reduce water and landfill disposal demand. Features PDF-GHG-4 and PDF-GHG-5 would specifically reduce VMT by incentivizing use of alternative modes of transportation for commuting, promoting alternative work schedules to reduce total commute trips, and providing parking spaces and charging stations for electric vehicles. Further, the proposed project would be required to implement mitigation measures GHG-1 and GHG-2 which support CARB recommendations for GHG reductions through direct investment in local renewable energy programs and City CAP sustainability projects and, if needed, the purchase of carbon offset credits. As demonstrated in Issue 1, implementation of
these Project Design Features and mitigation measures would reduce annual project emissions to 900 MT CO$_2$e, resulting in the reduction of project emissions to a less than significant level.

The proposed project’s GHG estimate is based on the opening year of the project and represents the worst-case scenario for GHG emissions. The project’s actual GHG emissions would be expected to decrease over time as energy-demanding fixtures and appliances become more efficient, vehicle emissions standards become increasingly strict, older vehicles are phased out, and fuel efficiency standards for new vehicles become increasingly strict. Vehicle efficiency standards are largely controlled at the State and federal level, not by the City (e.g., the US EPA national GHG emissions standards under the Clean Air Act, NHTSA CAFE standards, and the Advanced Clean Cars policies). Appliances such as air conditioners, clothes washers and refrigerators have an average life span of 10-15 years and have become increasingly energy efficient over time (Consumer Reports News 2009, ACEEE 2016). The project’s commitment to offsetting emissions as part of mitigation measure GHG-2 would remain the same over the 30 year commitment, even as the project’s emissions would likely decrease due to the reasons stated above, with the result of further decreasing the project’s net emissions over time. In addition, planned regional alternative transportation projects would be expected to reduce vehicle trips in and around the City, including to and from the project site. For example, rapid transit service is planned to be provided to and from Solana Beach in San Diego Forward: The Regional Plan 2019-2050 (SANDAG 2015). The plan also identifies enhanced bicycle lanes in the City that would connect to a county-wide bicycle network. As discussed further below, City planning efforts resulting from implementation of the CAP would reduce citywide GHG emissions and would also decrease project emissions by further encouraging use of alternative modes of transportation and fuel, as well as efficient energy and water use, and reduced solid waste disposal. As such, the proposed project would implement the recommendations of the Scoping Plan and the project’s net GHG emissions would decrease over time, consistent with Scoping Plan’s goals. The proposed project would be consistent with the 2017 Scoping Plan.

Furthermore, as shown in Table 4.5-8, the project’s emissions would continue to decrease due to reasonably foreseeable reductions in vehicular emissions attributable to existing regulatory standards. Although it is likely that the City will increase its targets for GHG-free energy under the Solana Energy Alliance beyond 2020, and that Title 24 standards will be increasingly stringent, no other reductions beyond currently foreseeable regulatory programs were assumed; as such, the future estimates of GHG emissions are conservative. The project would not interfere with implementation of the 2030 or 2050 GHG targets.

Solana Beach Climate Action Plan
The City adopted a CAP on July 12, 2017 to address the challenges of climate change in Solana Beach while supporting the goals of AB 32 and SB 32. Specifically, the CAP sets
the following GHG emissions reduction targets for the City based on the 2010 City emissions inventory and State guidance (the AB 32 Scoping Plan and the trajectory to meet 2050 goals):

- 15 percent below 2010 levels by 2020; and
- 50 percent below 2010 levels by 2035.

The CAP includes a total of 30 specific local GHG emissions reduction measures to enable the City to achieve the above targets (City of Solana Beach 2017). The CAP does not include any requirements for individual projects to implement the CAP. Nonetheless, all CAP reduction measures were considered for the proposed project. Measures deemed applicable and feasible to the proposed project would be implemented as part of Project Design Features PDF-GHG-1 through PDF-GHG-5, and mitigation measures GHG-1 and GHG-2. Table 4.5-9 below demonstrates the project’s consistency with the applicable measures of the City’s CAP.

In addition, the City’s efforts to implement the CAP would reduce the project’s GHG emissions beyond the estimated operational emissions in Table 4.5-6. For example, expansion of the electric vehicle (EV) and alternative fuel vehicle (AFV) infrastructure across the City (CAP Measures T-1 and T-5), including improvements proposed by the project, would increase the likelihood of consumers to use an EV or AFV. CAP Measure T-4 includes advocating for increased transit access to reduce total VMT in the City, including trips to and from the project site. CAP Measures T-9 and T-10 would increase walkability and the bicycle network throughout the entire City, including connections to the sidewalks and bicycle routes fronting the project site and would increase the likelihood of customers and residents walking or bicycling to and from the site rather than driving. CAP Measure W-2 to implement an increase in water rates would discourage water use by individual consumers, including proposed project residents. CAP Measure W-3 would further decrease outdoor water use-related GHG emissions if recycled water infrastructure was expanded to the site.

As shown in Table 4.5-9, the project would assist the City in implementing the CAP strategies to meet the City-wide reduction targets. Additionally, implementation of the CAP strategies at the City level would reduce project-related GHG emissions over time, beyond the emissions reductions achieved by Project Design Features PDF-GHG-1 through PDF-GHG-5, and mitigation measures GHG-1 and GHG-2. The proposed project would not interfere with the implementation of any reductions strategy. Therefore, implementation of the identified Project Design Features and mitigation measures at the project level, and CAP strategies at the City-wide level would reduce project emissions consistent with the reduction goals of the CAP. The proposed project would be consistent with the City’s CAP.
### Table 4.5-9  Project Consistency with CAP Measures

<table>
<thead>
<tr>
<th>CAP Reduction Measure</th>
<th>Project Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation:</strong></td>
<td></td>
</tr>
<tr>
<td>• T-1 Increase electric vehicles (EVs) and alternative fuel vehicles (AFVs) VMT to 30% of total VMT</td>
<td>Project Design Features PDF-GHG-4 and PDF-GHG-5 encourage implementation of the CAP transportation measures by providing infrastructure for EVs and AFVs, encouraging ride share programs, subsidizing transit use, promoting alternative work schedules and telecommuting. Additionally, the project would implement an action item identified for measure T-3 by proposing development consistent with the General Plan to locate mixed-use development along transit corridors and near activity centers.</td>
</tr>
<tr>
<td>• T-2 Increase commuting by vanpools to 20% of labor force</td>
<td></td>
</tr>
<tr>
<td>• T-3 Reduce average commuter trip distance by 1 mile</td>
<td></td>
</tr>
<tr>
<td>• T-4 Increase commuting by mass transit to 10% of labor force</td>
<td></td>
</tr>
<tr>
<td>• T-5 Increase preferred parking for EVs and AFVs to 20% of eligible parking spots</td>
<td></td>
</tr>
<tr>
<td>• T-7 Promote telecommuting to achieve 10% participation</td>
<td></td>
</tr>
<tr>
<td>• T-9 Increase commuting by walking to 5% of labor force</td>
<td></td>
</tr>
<tr>
<td>• T-11 Promote alternative work schedules to achieve participation from 1% of labor force</td>
<td></td>
</tr>
<tr>
<td><strong>Electricity and Natural Gas:</strong></td>
<td></td>
</tr>
<tr>
<td>• E-1 Implement a Community Choice Aggregation Program</td>
<td>Project Design Features PDF-GHG-1 and PDF-GHG-2 would support the City’s goal to reduce energy use by requiring installation of energy efficient or solar powered appliances and fixtures, and by committing to generating on-site renewable solar energy. Mitigation measure GHG-1 requires participation in a City Community Choice Aggregation Program, if it is in place prior to project completion, or other available renewable energy program.</td>
</tr>
<tr>
<td>• E-2 Achieve 10.8 MW residential rooftop solar photovoltaic systems</td>
<td></td>
</tr>
<tr>
<td>• E-3 Achieve 2 MW commercial rooftop solar photovoltaic systems</td>
<td></td>
</tr>
<tr>
<td>• E-4 Solar hot water heating at 20% of existing commercial spaces</td>
<td></td>
</tr>
<tr>
<td>• E-5 Solar hot water heating at 25% of new homes and home retrofits</td>
<td></td>
</tr>
<tr>
<td>• E-6 Reduction in non-space/water heating residential natural gas use by 15%</td>
<td></td>
</tr>
<tr>
<td>• E-7 Residential energy efficiency retrofits to achieve 15% reduction</td>
<td></td>
</tr>
<tr>
<td>• E-8 Commercial energy efficiency retrofits to achieve 15% reduction</td>
<td></td>
</tr>
<tr>
<td><strong>Waste and Water Measures</strong></td>
<td></td>
</tr>
<tr>
<td>• W-1 Divert 90% of waste from landfills and capture 85% of landfill gas emissions</td>
<td>Project Design Feature PDF-GHG-3 would require waste reduction and water conservation measures consistent with the CAP goals. Project Design Feature PDF-GHG-4 would require residents and commercial tenants to institute recycling and composting services to divert waste from landfills.</td>
</tr>
<tr>
<td>• W-5 Water conservation</td>
<td></td>
</tr>
<tr>
<td><strong>Carbon Sequestration</strong></td>
<td></td>
</tr>
<tr>
<td>• U-1 Carbon Sequestration (Urban Tree Planting Program)</td>
<td>The proposed landscape plan for the project would provide at least 19 trees on the project site.</td>
</tr>
</tbody>
</table>

Source: City of Solana Beach 2017

### Significance of Impact
The proposed project would not conflict with the statewide emissions reduction targets, the Scoping Plan, or City’s CAP. A significant impact would not occur.

### Mitigation Measures
No mitigation measures are required.
4.5.5.3 Cumulative Impacts

Due to the mixing of GHG emissions in the atmosphere and their global effect on climate change, it is only possible to analyze the impacts of GHG emissions in a cumulative context. Therefore, Section 4.5.5 provides an analysis of cumulative GHG emissions.
4.6 Hazards and Hazardous Materials

This section describes the existing conditions and the regulatory framework applicable to hazards and hazardous materials, and evaluates project-related impacts on hazards and hazardous materials as a result of project construction and operation. A Phase I Site Assessment was completed in 2015 by First American Contracting, Inc. Previously, a draft Phase I Site Assessment was prepared by Terracon in 2006 and a Phase II Subsurface Investigation was prepared by AEI Consultants in 2006. These reports are included as Appendix E of this EIR.

4.6.1 Environmental Setting

The project site is a rectangular shaped 1.95-acre parcel. The northern half of the project site consists of a former mobile home park, which includes 24 vacant concrete pads that were once used for trailers and mobile homes. This area also contains an access road, a variety of non-native trees, overhead power lines, and debris from the former mobile home park. The eastern portion of the southern half of the project site contains a one-story metal building, which was formerly part of a gas station, and a paved parking area. The gas station building is currently used as a temporary satellite office for a small company with 4-6 employees. Two rusted metal poles that formerly displayed signage and a small, abandoned coffee kiosk are also present in the southeastern portion of the site. The southwestern portion of the site contains two vacated, one-story, single-family residences and a one-story retail commercial building with detached garage. The southern half of the project site also includes asphalt driveways, parking areas, and various non-native trees and shrubs. The topography of the project site varies from an elevation of 61 to 68 feet msl. The closest school is St. James Academy on South Nardo Avenue, located approximately 0.5 mile southeast of the project site. The closest airport is the McClellan-Palomar Airport, located approximately ten miles to the northeast in the City of Carlsbad.

4.6.1.1 Hazardous Materials

Portions of the existing 1.95-acre project site are developed. Specifically a one-story metal building was formerly utilized as a gas station. Five underground storage tanks (USTs) associated with the gas station were removed from the site in 1988. During the removal process, it was discovered that one 5,000-gallon waste oil tank had ruptured. Over-excavation of the site was conducted and contaminated soils were removed and disposed of in an appropriate off-site location. A “No Further Action Required” letter was received from the San Diego Department of Health (First American Contracting 2015). In 2006, AEI Consultants performed a Phase II Subsurface Investigation to determine whether or not a release had occurred from the former on-site gasoline station operations (AEI Consultants 2006). Five soil borings and six vapor probes were
made throughout the site. No evidence of a significant release from the former on-site gasoline station operations was detected (AEI Consultants 2006).

The western portion of the southern half of the proposed project site contains a one-story retail commercial building and two abandoned one-story single-family residences. Due to the age of the structures, a limited asbestos sampling was completed on these buildings in 2006 by Terracon to evaluate the potential presence of asbestos in the building materials (Terracon 2006). Of the 26 samples collected, six samples were identified as containing asbestos containing materials (ACM) (Terracon 2006).

A hazardous site record search was conducted from federal, state, and local databases. No National Priority List or Superfund sites were identified within a one-mile radius of the project site. One Small Quantity Generator of hazardous waste was listed within a one-half mile distance from the proposed project site. Generators of hazardous waste are classified as a Small Quantity Generator if they produce more than 100 kilograms (kg), but less than 1,000 kg of non-acutely hazardous waste per month. No Large Quantity Generators of hazardous waste were identified. Twelve sites were identified on the leaking underground storage tank (LUST) list within a one-mile radius of the proposed project site. All LUST sites were noted as “Status: Case Closed”; therefore, no further potential for contamination is expected. Furthermore, there are no solid waste landfills, treatment, storage or disposal sites within a one-half mile radius of the site.

4.6.2 Regulatory Framework

4.6.2.1 Federal

Chemical Accident Prevention Provisions
The provisions listed under Part 68 of the Code of Federal Regulations sets forth the list of regulated substances and thresholds, the petition process for adding or deleting substances to the list of regulated substances, the requirements for owners or operators of stationary sources concerning the prevention of accidental releases, and the State accidental release prevention programs approved under Section 112(r). The California Accidental Release Prevention (CalARP) Program described below is the State adaptation of this federal regulation. The list of federally regulated substances and flammable substances and their threshold quantities can be accessed online from the State’s Office of Emergency Services website, http://www.oes.ca.gov.

The Resource Conservation and Recovery Act (RCRA)
RCRA establishes a framework for national programs to achieve environmentally sound management of both hazardous and non-hazardous wastes. RCRA was designed to protect human health and the environment, reduce/eliminate the generation of hazardous waste, and conserve energy and natural resources. RCRA also promotes
resource recovery techniques. The Hazardous and Solid Waste Amendments of 1984 both expanded the scope of RCRA and increased the level of detail in many of its provisions. The Hazardous Waste Management subchapter of the RCRA deals with a variety of issues regarding the management of hazardous materials including the export of hazardous waste, State programs, inspections of hazardous waste disposal facilities, enforcement, and the identification and listing of hazardous waste.

**Uniform Fire Code (UFC)**
The UFC is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The UFC regulates the use, handling and storage requirements for hazardous materials at fixed facilities. The UFC and the Uniform Building Code (UBC) use a hazard classification system to determine what protective measures are required for fire protection and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the UFC employs a permit system based on hazard classification.

### 4.6.2.2 State

**The California Health and Safety Code (H&SC), Hazardous Materials Release Response Plans and Inventory**

Two programs found in the California H&SC Chapter 6.95 are directly applicable to the CEQA issue of risk due to hazardous substance release. In San Diego County, these two programs are referred to as the Hazardous Materials Business Plan program and the CalARP program. The County of San Diego Department of Environmental Health (DEH) Hazardous Materials Division (HMD) is responsible for the implementation of the Hazardous Materials Business Plan (HMBP) program and the CalARP program in San Diego County. The HMBP and CalARP Program provide threshold quantities for regulated hazardous substances. When the indicated quantities are exceeded, a HMBP or Risk Management Plan (RMP) is required pursuant to the regulation. Congress requires the U.S. Environmental Protection Agency (USEPA) Region 9 to make RMP information available to the public through USEPA’s Envirofacts Warehouse at [http://www.epa.gov/enviro/](http://www.epa.gov/enviro/).

**The California H&SC, Hazardous Waste Control Act**
The Hazardous Waste Control Act regulates the generation, treatment, storage and disposal of hazardous waste. Hazardous waste is any material or substance that is discarded, relinquished, disposed or burned, or for which there is no intended use or reuse, and the material or substance causes or significantly contributes to an increase in mortality or illness; or the material or substance poses a substantial present or potential hazard to human health or the environment. These materials or substances include: spent solvents and paints (oil and latex), used oil, used oil filters, used acids and corrosives, unwanted or expired products (pesticides, aerosol cans, cleaners, etc.). If the original material or substance is labeled danger, warning, toxic, caution, poison, flammable, corrosive or reactive, the waste is likely to be hazardous.
The California H&SC, Underground Storage Tank (UST) Regulations
Chapter 6.7 of the H&SC outlines the requirements for USTs, identifies requirements for corrective actions, cleanup funds, liability, and the responsibilities of owners and operators of USTs. The UST’s on-site have been removed and the case was closed by DEH.

California Human Health Screening Levels (CHHSLs)
The CHHSLs or “Chisels” are concentrations of 54 hazardous chemicals in soil or soil gas that the California EPA (CalEPA) considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment (OEHHA) on behalf of CalEPA, and are contained in their report entitled “Human-Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs for Contaminated Soil”. The thresholds of concern used to develop the CHHSLs are an excess lifetime cancer risk of one in one million and a hazard quotient of 1.0 for non-cancer health effects. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the USEPA and CalEPA. The CHHSLs can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a chemical in soil, soil gas or indoor air at concentrations below the corresponding CHHSLs can be assumed to not pose a significant health risk to people who may live (residential CHHSLs) or work (commercial/industrial CHHSLs) at the site.

4.6.2.3 Regional

County of San Diego, Air Pollution Control District (APCD)
The mission of the San Diego County APCD is to protect the public from the harmful effects of air pollution, achieve and maintain air quality standards, foster community involvement, and develop and implement cost-effective programs meeting State and federal mandates, considering environmental and economic impacts. The Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP), 40 CFR 61, Subpart M is enforced locally under San Diego Air Pollution Control District Regulation XII, District Rule No. 1206. This regulation requires the owner or operator of a demolition or renovation project to submit an Asbestos Renovation or Demolition Notice of Intention at least 10 working days before any asbestos stripping or removal work begins (such as, site preparation that would break up, dislodge or similarly disturb asbestos containing material). District Rule 1206 describes the procedures that must be followed by the owner or operator of a renovation or demolition operation to control asbestos emissions.

County of San Diego, Underground Storage Tank (UST) Program
The UST Program administers and enforces federal and State laws, regulations, and local ordinances for the construction/installation, modification, upgrade, and removal of USTs in San Diego County. If contamination is discovered or likely to be present,
owners or operators of USTs are required by law to report the contamination to the DEH and Site Assessment and Mitigation Programs and to take corrective action.

**Operational Area Emergency Plan**

In San Diego County, there is a comprehensive emergency plan known as the Operational Area Emergency Plan (OAEP). The OAEP describes a comprehensive emergency management system that provides for a planned response to disaster situations associated with natural disasters, technological incidents, terrorism, and nuclear-related incidents. It delineates operational concepts relating to various emergency situations, identifies the components of a comprehensive emergency management system, and describes the overall responsibilities for protecting life and property and ensuring the overall well-being of the population. The OAEP is used by San Diego County and the 18 incorporated cities within the County to respond to major emergencies and disasters.

**4.6.2.4 Local**

**City of Solana Beach General Plan**

The City of Solana Beach General Plan Safety Element is intended to document potential hazards that must be considered in planning the location, type, and density of development in order to prevent or minimize death, injuries, damage to property, and economic and social dislocation resulting from public safety hazards. The General Plan contains the following goals and policies relative to hazards as they relate to the proposed project:

**Goal 3.1:** To minimize hazards to public health, safety, and welfare resulting from natural and man-made phenomena.

**Objective 4.0:** Establish fire prevention regulations and standards to minimize potential fire hazards and fire losses.

- **Policy 4.a:** The city shall enact an ordinance which establishes criteria for land development in hillside areas with emphasis on fire-retardant construction materials, access for fire-fighting personnel and equipment, removal of combustible vegetation, and minimizing the overall exposure to risks associated with wildfires and adjacent structure fires.

- **Policy 4.d:** The city shall establish appropriate measures to mitigate potential fire hazards in areas of special concern.

**Objective 5.0:** Establish a program to ensure the safe handling, disposal, and cleanup of hazardous materials in conjunction with federal, state, and regional programs and regulations.
4.6 Human Health/Public Safety/ Hazardous Materials

- **Policy 5.a**: The city shall enact an ordinance which sets forth restrictions and safeguards concerning the use, storage, and disposal of specific hazardous materials.

- **Policy 5.b**: The city Fire Department shall establish and periodically update an inventory of hazardous materials produced, stored, or otherwise located within the city for purposes of coordinating emergency response.

**Goal 3.2**: To provide a safe and secure environment for the City’s residents, workers, and visitors.

**Objective 3.0**: Establish an emergency preparedness program and maintain the program through regular practice drills and periodic updating of the program.

- **Policy 3.c**: The emergency response manual shall include a map indicating clearly the city’s designated evacuation routes and an operating plan for evacuation management to ensure safe and orderly evacuation.

### 4.6.3 Impact Significance Criteria

According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on hazards and hazardous materials if it would:

- **Issue 1**: Create a significant hazard to the public or the environment through the routine transport, storage, use, or disposal of hazardous materials or wastes or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

- **Issue 2**: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

- **Issue 3**: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

- **Issue 4**: 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 result in a safety hazard for people residing or working in the project area. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.

- **Issue 5**: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- **Issue 6**: 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.

### 4.6.4 Method of Analysis

The analysis of hazards and hazardous materials is based on the Phase I Environmental Site Assessment prepared by First American Contracting, Inc. in 2015; the Draft Phase I Site Assessment prepared by Terracon in 2006; and the Phase II Subsurface Investigation prepared by AEI Consultants in 2006, included as Appendix E of this EIR.

### 4.6.5 Project Impacts and Mitigation

#### 4.6.5.1 Issue 1 - Hazardous Materials Release

Would implementation of the proposed project create a significant hazard to the public or the environment through the routine transport, storage, use, or disposal of hazardous materials or wastes or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

**Impact Analysis**

The project proposes a mixed-use development to include commercial office space; commercial retail space; commercial restaurant space; 25 multi-family residential units; and 2 floors of underground parking totaling 366 spaces. Construction would require the excavation of approximately 49,200 cubic yards of soil. This material would be exported to an off-site legal disposal location requiring approximately 6,150 truck trips. Five underground storage tanks from the site were successfully closed in 1988. A “No Further Action Required” letter was received from the San Diego Department of Health (First American Contracting 2015). The Phase 1 Site Assessment concluded that there is a minimal possibility of remaining contamination to soils from current or previous site activities (First American Contracting 2015). Furthermore, a 2006 Phase II Subsurface Investigation determined that there was no release of materials from the former gasoline station site. No hazardous materials were evident or in use at the existing site at the time of inspection. Furthermore, in accordance with applicable State and local regulations, the licensed construction contractor would screen export soils generated during construction activities to determine if contamination is present. The export soil would then be removed and disposed of in an appropriate off-site location in accordance with applicable State and local regulations. Therefore, the project’s compliance with existing applicable regulations for off-site disposal of soils would result in less than significant impact.
Construction equipment that would be used to build the proposed project has the potential to release oils, greases, solvents, and other finishing materials through accidental spills. Spill or upset of these materials could have the potential to impact surrounding land uses; however, federal, State, and local controls have been enacted to reduce the effects of such potential hazardous materials spills. Compliance with these requirements is mandatory as standard permitting conditions, and would minimize the potential for the accidental release or upset of hazardous materials, thus ensuring public safety. Therefore, construction-related activities would not result in the release of hazardous materials into the environment.

The project would involve the demolition of approximately 6,500 SF of existing development at the proposed project site. A 2006 asbestos sampling of onsite structures determined that six of the 26 samples contained ACM. Demolition of structures containing ACM could result in the release of hazardous materials into the environment. Improper removal would have the potential to expose construction workers to a hazardous release of asbestos.

As discussed in the 2006 Phase I report, portions of the existing structures were constructed prior to 1978, which is the phase out date for lead based paints (First American Contracting 2015). Lead based paint could be present in the existing on-site structures. During demolition of the existing structures, lead containing materials would be managed in accordance with applicable State and local regulations including hazardous disposal requirements identified in Title 22 of the California Code of Regulations (CCR) Division 4.5. Therefore, the project’s compliance with existing applicable regulations for lead containing materials would result in less than significant impact.

Mercury could occur in the thermostats of existing on-site buildings proposed for demolition. Disposal of mercury-containing thermostats would be handled in accordance with the Mercury Thermostat Collection Act of 2008. Therefore, the project’s compliance with existing applicable regulations for handling of mercury-containing thermostats would result in less than significant impact.

Operation of the proposed project would involve an unquantifiable, but limited, use of potentially hazardous materials typical of residential, commercial office, retail and restaurant uses, including cleaning fluids, detergents, solvents, adhesives, sealers, paints, fuels/lubricants and fertilizers and/or pesticides for landscaping. These materials would be contained, stored, and used on site in accordance with manufacturers’ instructions, applicable standards and federal, State and local regulations. Compliance with applicable regulations would serve to protect against a significant and irreversible environmental change that could result from the accidental release of hazardous materials. Therefore, operation-related activities would not result in the release of hazardous materials into the environment.
Significance of Impact
The project proposes demolition of structures that contain ACM. This impact is potentially significant. Other project construction and operational activities comply with all applicable regulations and would not have the potential to create a significant hazard to the public or the environment through the routine transport, storage, use, or disposal of hazardous materials or wastes or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Mitigation Measures
To reduce the project’s potential impact related to airborne release of asbestos, the following mitigation measures shall be implemented:

HAZ-1 Asbestos Abatement. At least 10 working days prior to demolition or removal of existing on-site structures, the project applicant shall submit an Asbestos Removal, Renovation, and Demolition Operations Notice of Intentions to the County of San Diego Air Pollution Control District. The Notice of Intentions must include:

1. The name and company of the person completing the notification form.
2. The type of notice (i.e., whether the notice is an original notification, a revision to an existing notification, including the type of revision, or a cancellation of an existing notification).
3. Type of operation (i.e., whether the operation(s) is a renovation, demolition, emergency renovation, emergency demolition, or planned renovation).
4. The facility name, address, building number, suite number, room number, city, state, and zip code.
5. The facility owner’s name, address, city, state, zip code, contact person and title, and phone number.
6. The removal contractor’s name, address, city, state, zip code, contractor’s license number, contact person and title, and phone number.
7. The demolition contractor’s name, address, city, state, zip code, contractor’s license number, contact person and title, and phone number.
8. A description of the facility, including the number of floors, the number of dwelling units, age of the facility, and the past and present use of the facility.
9. Scheduled start and completion dates of renovation operations and/or of demolition operations.
10. The work practices, equipment, and engineering controls to be used in demolition operations.
11. Description of procedures to be followed in the event that unexpected regulated asbestos-containing material (RACM) is found or any Category I Nonfriable asbestos-containing material (ACM) or Category II Nonfriable ACM becomes crumbled, pulverized, broken into smaller pieces, or reduced to powder.

12. The name, address, city, state, zip code, contact person and title, and phone number of the waste transporter for all demolition debris containing no asbestos.

13. A certification that at least one person trained in accordance with San Diego Air Pollution Control District Regulation XII, District Rule No. 1206 Subsection (f)(8) will supervise the stripping and removal described by this notification.

14. Information about the individual conducting the facility survey including: name, company, title, mailing address and phone number, and the certification number for the Environmental Protection Agency (EPA) approved Building Inspector Course passed by the individual.

15. The condition of each ACM identified by the facility survey to be removed, stripped, or disturbed, or a statement that no ACM to be disturbed by renovation or demolition operations has been identified at the facility.

16. The procedure(s), including analytical methods, used to detect the presence of RACM, Category I Nonfriable ACM, and Category II Nonfriable ACM.

17. For all ACM to be removed, stripped, or disturbed, the categorization of each material containing more than one percent asbestos as friable ACM, Category I Nonfriable ACM, or Category II Nonfriable ACM.

18. A description of the facility components containing ACM to be removed, stripped, or disturbed.

19. An estimate for the total amount of ACM to be removed, stripped, or disturbed from the facility including the surface area in square feet of other facility components, or volume in cubic feet if square footage cannot be established in the course of renovation or demolition operations regulated by this rule.

20. The specific work practices, equipment, and engineering controls that will be used to remove each ACM.

21. The name, address, city, state, zip code, contact person and title, and phone number of the waste transporter for all ACWM.

22. The name, address, city, state, zip code, and phone number of the waste disposal site for all ACWM.

In addition, a copy of the Asbestos Survey must be maintained on site for the duration of the project.
Significance After Mitigation
With implementation of mitigation measure HAZ-1, potential impacts related to airborne release of asbestos during demolition of existing onsite structures would be reduced to a less than significant level.

4.6.5.2 Issue 2 – Hazards to Schools

Would the implementation of the proposed project emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Impact Analysis
No existing or proposed schools are located within one-quarter mile of the project site. The nearest school to the project site is St. James Academy which is located approximately one-half mile from the project site. St. James Academy is a private Catholic elementary school serving kindergarten through 8th grade. The project proposes a mixed-use development to include commercial office space; commercial retail and restaurant space; 25 multi-family residential units; and 2 floors of underground parking totaling 366 spaces. Operation of the proposed residential and commercial uses would entail routine cleaning and maintenance activities using common hazardous materials, such as cleaning fluids, detergents, solvents, adhesives, sealers, paints, fuels/lubricants and pesticides/herbicides, etc. However, the types and amounts of potentially hazardous materials used and stored for operation of the proposed project would be limited and below reportable quantities and would be handled in compliance with applicable federal, State, and local regulations pertaining to their transport, use, or disposal.

Significance of Impact
The project is not located within one-quarter mile of an existing or proposed school. Therefore, the proposed project would result in no impact associated with hazardous emissions or handling of hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

Mitigation Measures
No mitigation measures are required.

4.6.5.3 Issue 3 - Hazardous Materials Sites

Would implementation of the proposed project result in a significant hazard to the public or the environment due to the presence of hazardous materials sites identified pursuant to Government Code Section 65962.5?

Impact Analysis
As part of the Phase 1 Environmental Site Assessment, a hazardous materials site record search was conducted for the project site from federal, State, and local databases.
Pursuant to Government Code Section 65962.5, no National Priority List or Superfund sites were identified on or within a one-mile radius of the project site (Terracon 2006). One Small Quantity Generator of hazardous waste was listed within a one-half mile distance from the proposed project site. Generators of hazardous waste are classified as a Small Quantity Generator if they produce more than 100 kg, but less than 1,000 kg of non-acutely hazardous waste per month. No Large Quantity Generators of hazardous waste were identified. Twelve sites were identified on the leaking underground storage tank (LUST) list within a one-mile radius of the proposed project site. All LUST sites were noted as “Status: Case Closed”; therefore, no further potential for contamination is expected. Furthermore, there are no solid waste landfills, treatment, storage or disposal sites within a one-half mile radius of the project site. Therefore, the proposed project would not result in a significant hazard to the public or the environment due to the presence of hazardous materials sites identified pursuant to Government Code Section 65962.5.

Five underground storage tanks from the project site were successfully closed in 1988. A “No Further Action Required” letter was received from the San Diego Department of Health (First American Contracting 2015). The Phase 1 Site Assessment concluded that there is a minimal possibility of remaining contamination to soils from current or previous site activities (First American Contracting 2015). Furthermore, a Phase II Subsurface Investigation determined that there was no release of materials from the former gasoline station on the project site. Therefore, there is no potential for contamination from the previous use of the site for a gas station.

**Significance of Impact**

The project site is not located on or within one mile of a hazardous materials site pursuant to Government Code Section 65962.6. Therefore, the proposed project would not result in a significant hazard to the public or the environment due to the presence of hazardous materials sites identified pursuant to Government Code Section 65962.5. No impact would occur.

**Mitigation Measures**

No mitigation measures are required.

### 4.6.5.4 Issue 4 - Airport Safety Hazard

*Would implementation of the proposed project result in a safety hazard for people residing or working in the project area where the project is 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, or within the vicinity of a private airstrip?*

**Impact Analysis**

The closest airport to the proposed project site is the McClellan-Palomar Airport which is located about 12.7 miles to the northeast of the project site in the City of Carlsbad. The
property is not located within the Airport Influence Area of the airport (McClellan-Palomar Airport - Airport Land Use Compatibility Plan, January 25, 2010). It is also sufficiently distanced from it so that it would not affect the safe operation of the airport, and the proposed project would not be affected by noise created through airport operations. Consequently, construction and operation of the proposed project would not create significant impacts.

In addition, there are no private airstrips located within the vicinity of the project site. Therefore, development of the proposed project would not result in a safety hazard for people residing or working in the project area. The proposed project is also not located within a Federal Aviation Administration Height Notification Surface. The project does not propose construction of any structure equal to or greater than 150 feet in height, constituting a safety hazard to aircraft and/or operations from an airport or heliport. The maximum height of the proposed buildings is 35 feet.

**Significant of Impact**
The proposed project is not located within an airport land use plan, within two miles of a public airport or within the vicinity of a private airstrip. Therefore, the proposed project would not result in a safety hazard for people residing or working in the project area. No impact would occur.

**Mitigation Measures**
No mitigation measures are required.

### 4.6.5.5 Issue 5 - Emergency Response or Evacuation Plan

**Would implementation of the proposed project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**Impact Analysis**
The proposed project would be located on a 1.95-acre site in the City of Solana Beach. The project site is located west of Highway 101, north of Dahlia Drive, and east of South Sierra Avenue. The City of Solana Beach does not identify specific evacuation routes and does not have an adopted emergency response plan or emergency evacuation plan. However, the San Diego County Operational Area Emergency Plan (OAEP) identifies Highway 101 and Lomas Santa Fe Drive as major transportation thoroughfares in the city. The project proposes sidewalk improvements to Highway 101 that would include closing the two existing driveways and improve the existing sidewalk, curb, and gutter. No improvements are proposed along Lomas Santa Fe Drive. It is not anticipated that road or lane closures along Highway 101 would be required for construction of the proposed project. Construction staging would be accommodated within the project site and would not affect surrounding roads. Therefore, construction of the proposed project would not impede access of emergency vehicles to the project site or any surrounding areas. Further, the project would provide emergency access in
accordance with the requirements of the Solana Beach Fire Department (SBFD). Therefore, operation of the proposed project would not impede access of emergency vehicles to the project site or any surrounding areas.

**Significance of Impact**
Implementation of the proposed project would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts would be less than significant.

**Mitigation Measures**
No mitigation measures are required.

4.6.5.6 **Issue 6 - Wildland Fires**

Would implementation of the proposed project 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?

**Impact Analysis**
The project site is completely surrounded by developed areas and/or irrigated lands. No wildland areas are adjacent to the project site. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires.

**Significant of Impact**
The proposed project would not expose people or structures to a significant risk of loss, injury or death involving hazardous wildland fires. No impact would occur.

**Mitigation Measures**
No mitigation measures are required.

4.6.6 **Cumulative Impacts**

4.6.6.1 **Issue 1 - Hazardous Materials Release**

The geographic context for the analysis of cumulative impacts relative to the transport, use and disposal of hazardous materials, and associated accidental releases, encompasses nearby facilities that regularly require the use of disposal of hazardous materials and the roadways and freeways used by vehicles transporting hazardous materials to and from the project area. Cumulative projects within the proposed project area may include facilities that use, store, dispose of, or transport hazardous materials. This could potentially result in a significant hazard to the public or the environment. Cumulative projects would be required to comply with regulations applicable to the use, disposal, and transportation of hazardous materials, including the RCRA, CERCLA, Hazardous Materials Transportation Act, IFC, and CCRs Title 22 and Title
27. Any potentially significant impacts would be reduced to a less than significant level through compliance with applicable regulations, and cumulative projects would not result in a significant cumulative impact. Therefore, implementation of the proposed project would not contribute to a significant cumulative impact.

The implementation of various cumulative projects may increase the likelihood of hazards to the public or the environment through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Generally, as the population increases, services and industries that commonly store, use and dispose of hazardous materials (e.g., dry cleaners and industrial manufacturing) would increase to service the expanding population. As the services and industries that use hazardous materials increase, the risk of accidental release associated with these services and industries would also increase. In addition, the presence of asbestos in older buildings could result in the risk of accidental release during demolition activities required for new construction. Cumulative projects would be subject to applicable federal, State and local regulations that govern the transport, storage, use and disposal of hazardous substances. This would reduce the risks associated with an accidental release of hazardous materials from cumulative projects, and a potentially significant cumulative impact would not occur. Therefore, implementation of the proposed project would not contribute to a significant cumulative impact.

4.6.6.2 Issue 2 - Hazards to Schools

The implementation of some cumulative projects would be located within one-quarter mile of an existing or proposed school. This includes the Solana Beach School District Office and Child Development Center Modular Building Replacement, Skyline Elementary School Reconstruction, Santa Fe Christian Schools Master Plan, Genevieve Street 99-bed Senior Care Facility Specific Plan, Ocean Ranch Estates, Solana Highlands, the Earl Warren Middle School Reconstruction and La Colonia Skate Park project. Cumulative projects would be required to comply with regulations applicable to the use, disposal, and transportation of hazardous materials, including the RCRA, CERCLA, Hazardous Materials Transportation Act, IFC, and CCRs Title 22 and Title 27. Any potentially significant impacts would be reduced to a less than significant level through compliance with applicable regulations, and cumulative projects would not result in a significant cumulative impact. Therefore, implementation of the proposed project would not contribute to a significant cumulative impact associated with the handling of or emissions from hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

4.6.6.3 Issue 3 - Hazardous Materials Sites

Impacts relative to listed hazardous materials sites are generally specific to the project site. None of the cumulative projects listed in Table 2-2 are known to be located on a
hazardous materials site identified pursuant to Government Code Section 65962.5 (CALEPA 2018). Therefore, a potentially significant cumulative impact would not occur and the proposed project would not make a cumulatively considerable contribution to a significant cumulative impact.

### 4.6.6.4 Issue 4 - Airport Safety Hazard

The geographic context for the cumulative analysis of airport hazards is the area within the McClellan-Palomar Airport Land Use Compatibility Plan (ALUCP) Area of Influence. None of the cumulative projects listed in Table 2-2 is located within the ALUCP Area of Influence. The closest cumulative project is the I-5 North Coast Corridor project located 3.2 miles from the airport. None of the cumulative projects is located within two miles of a public use airport or private airstrip. Therefore, a potentially significant cumulative impact would not occur and the proposed project would not make a cumulatively considerable contribution to a significant cumulative impact.

### 4.6.6.5 Issue 5 - Emergency Response or Evacuation Plan

The geographic context for the analysis of cumulative impacts relative to emergency response and evacuation plans is the City of Solana Beach. The City of Solana Beach does not identify specific evacuation routes and does not have an adopted emergency response plan or emergency evacuation plan. However, the San Diego County Emergency Operations Plan (EOP) identifies Highway 101 and Lomas Santa Fe Drive as major transportation thoroughfares in the city. Cumulative projects have the potential to impair existing emergency and evacuation plans if they block evacuation or access roads, or if necessary offsite road improvements were to result in the closure of roads. However, cumulative projects would be required to comply with the San Diego County EOP, requirements of the SBFD and the City’s Traffic Control requirements. Compliance with applicable regulations would ensure that cumulative projects do not result in a significant cumulative impact associated with the impairment of an emergency response and evacuation plans. Therefore, the proposed project would not make a cumulatively considerable contribution to a significant cumulative impact.

### 4.6.6.6 Issue 6 - Wildland Fires

Wildland fire cumulative impacts are considered for the City of Solana Beach. The proposed project site and the cumulative project sites identified in Table 2-2 are not located in a high hazard area for wildland fires because they are not located by canyons or open space areas or in areas considered to be high Fire Hazard Severity Zones as shown on the City’s Wildland Urban Interface Map. Therefore, cumulative projects would not result in a significant cumulative impact associated with significant risk of loss, injury or death involving wildland fires. Therefore, the proposed project would not make a cumulatively considerable contribution to a significant cumulative impact.
4.7 Hydrology and Water Quality

This section describes the existing conditions related to hydrology and water quality in the project area, and evaluates the potential physical environmental effects resulting from development of the proposed project. Information in the following section is based, in part, on the Drainage Report (Project Design Consultants 2017a), Water Quality Technical Report (Project Design Consultants 2017b), and Preliminary Hydromodification Management Study (Project Design Consultants 2017e) prepared for the proposed project, which are included in Appendices F and G.

4.7.1 Environmental Setting

4.7.1.1 Hydrologic Setting

The project site lies within the San Dieguito watershed (referred to as a hydrologic unit), which encompasses approximately 345 square miles in west-central San Diego County. The San Dieguito watershed extends from its eastern headwaters in the Vulcan Mountains to its outlet at the San Dieguito Lagoon and Pacific Ocean. The San Dieguito watershed includes portions of the cities of Solana Beach, Del Mar, Escondido, Poway, San Diego, and unincorporated San Diego County, with the majority of land area within the unincorporated jurisdiction (Project Clean Water 2017). The San Dieguito watershed is currently divided into undeveloped/open space (61 percent), residential (18 percent), agriculture (14 percent), and other (7 percent) land uses. The watershed is further divided into five hydrologic areas: Solana Beach, Hodges, San Pasqual, Santa Maria Valley, and Santa Ysabel (Project Clean Water 2017). The proposed project site is located within the Solana Beach Hydrologic Subarea and Rancho Santa Fe Subarea.

4.7.1.2 Water Quality

Surface Waters

There are no major surface waters located on or adjacent to the project site. The project site does not receive drainage from surrounding areas. Portions of the project area drain directly into the Pacific Ocean at Fletcher Cove. Other portions drain to the Seascape Sur Stair access storm drain system and then into the Pacific Ocean.

The Water Quality Control Plan for the San Diego Basin (Basin Plan) designates beneficial uses for water bodies in the San Diego Region, and establishes water quality objectives and implementation plans to protect those beneficial uses. The designated beneficial uses in the San Dieguito Watershed for the inland surface waters include MUN (Municipal and Domestic Supply), AGR (Agricultural Supply), IND (Industrial Service Supply), PRO (Industrial Process Supply), REC1 (Contact Recreation), REC2 (Non-Contact Recreation), COLD (Cold Freshwater Habitat), WARM (Warm Freshwater Habitat), RARE (Rare, Threatened, or Endangered Species), WILD (Wildlife Habitat) and BIOL (Preservation of
The designated beneficial uses for groundwater include MUN (Municipal), AGR (Agricultural Supply), PRO (Industrial Process Supply), and PROC (Industrial Service Supply) (Project Clean Water 2017).

**4.7.1.3 Flooding**

Flood hazards include direct flooding due to overtopping of nearby rivers or streams, secondary flooding from dam inundation due to seismic activity, or flooding as a result of wave and tidal action from the Pacific Ocean. Seiches or tsunamis can result from abrupt movements of large volumes of water due to earthquakes, landslides, volcanic eruptions, meteoric impacts, wind, or onshore slope failure. The project is located less than 0.25 miles from the Pacific Ocean and at an elevation of 61 to 68 msl. According to the City’s General Plan, the project site is not located within the 100-year storm event flood zone (City of Solana Beach 2014b). In addition, according to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRMs) for the project area, the project site is located within Flood Zone X, which represents areas of 0.2 percent annual chance flood; areas of one percent annual chance flood with average depths of less than one foot or with drainage areas less than one square mile; or areas...
protected from levees from one percent annual chance flood (FEMA 2017). The proposed project site is also not located within a dam inundation zone.

4.7.1.4 Urban Runoff

Urban runoff discharged via municipal separate storm sewer systems (MS4s) has been identified as one of the principal causes of water quality problems in most urban areas. The City of Solana Beach’s stormwater drainage system, which collects runoff from streets, rooftops, driveways, parking lots, and other impervious areas, flows directly into receiving waters without receiving treatment. Thus, urban runoff has the potential to discharge pollutants into receiving waters, thereby affecting water quality, associated wildlife, and public health. Potential pollutants contained in urban runoff and associated environmental effects include the following:

- **Sediments.** Sediments are soils or other surficial materials eroded and then transported or deposited by the action of wind, water, ice, or gravity. Sediments can increase turbidity, clog fish gills, reduce spawning habitat, lower young aquatic organism survival rates, smother bottom dwelling organisms, and suppress aquatic vegetation growth.

- **Nutrients.** Nutrients are inorganic substances, such as nitrogen and phosphorus. They commonly exist in the form of mineral salts that are either dissolved or suspended in water. Primary sources of nutrients in urban runoff are fertilizers and eroded soils. Excessive discharge of nutrients to water bodies and streams can cause excessive aquatic algae and plant growth. Such excessive production, referred to as eutrophication, may lead to excessive decay of organic matter in the water body, loss of oxygen in the water, release of toxins in sediment, and the eventual death of aquatic organisms.

- **Metals.** Metals are raw material components in non-metal products such as fuels, adhesives, paints, and other coatings. Primary sources of metal pollution in stormwater are typically commercially available metals and metal products. Metals of concern include cadmium, chromium, copper, lead, mercury, and zinc. Lead and chromium have been used as corrosion inhibitors in primer coatings and cooling tower systems. At low concentrations that naturally occur in soils, metals are not toxic. However, at higher concentrations, certain metals can be toxic to aquatic life. Humans can be impacted from contaminated groundwater resources and bioaccumulation of metals in fish and shellfish. Environmental concerns regarding the potential for release of metals to the environment have already led to restricted metal usage in certain applications.

- **Organic Compounds.** Organic compounds are carbon-based. Commercially available or naturally occurring organic compounds are found in pesticides, solvents, and hydrocarbons. Organic compounds can at certain concentrations, indirectly or directly constitute a hazard to life or health. When rinsing off objects,
toxic levels of solvents and cleaning compounds can be discharged to storm drains. Dirt, grease, and grime retained in the cleaning fluid or rinse water may also adsorb levels of organic compounds that are harmful or hazardous to aquatic life.

- **Trash and Debris.** Trash (such as paper, plastic, polystyrene packing foam, and aluminum materials) and biodegradable organic matter (such as leaves, grass cuttings, and food waste) are general waste products on the landscape. The presence of trash and debris may have a significant impact on the recreational value of a water body and aquatic habitat. Excess organic matter can create a high biochemical oxygen demand in a stream and thereby lower its water quality. Also, in areas where stagnant water exists, the presence of excess organic matter can promote conditions that result in the growth of undesirable organisms and the release of odorous and hazardous compounds such as hydrogen sulfide.

- **Oxygen Demanding Substances.** Oxygen demanding substances include biodegradable organic material as well as chemicals that react with dissolved oxygen in water to form other compounds. Proteins, carbohydrates, and fats are examples of biodegradable organic compounds. Compounds such as ammonia and hydrogen sulfide are examples of oxygen demanding compounds. The oxygen demand of a substance can lead to depletion of dissolved oxygen in a water body and possibly the development of septic conditions.

- **Oil and Grease.** Primary sources of oil and grease are petroleum hydrocarbon products, motor products from leaking vehicles, oils, fats, waxes, and high molecular-weight fatty acids. Introduction of these pollutants to water bodies is very possible due to the wide uses and applications of some of these products in municipal, residential, commercial, industrial, and construction areas. Elevated oil and grease content can decrease the aesthetic value of the water body, as well as the water quality.

- **Bacteria and Viruses.** Bacteria and viruses are ubiquitous microorganisms that thrive under certain environmental conditions. Their proliferation is typically caused by the transport of animal or human fecal wastes from the watershed. Water containing excessive bacteria and viruses can alter the aquatic habitat and create a harmful environment for humans and aquatic life. Also, the decomposition of excess organic waste causes increased growth of undesirable organisms in the water.

- **Pesticides.** Pesticides (including herbicides) are chemical compounds commonly used to control nuisance growth or prevalence of organisms. Excessive application of a pesticide may result in runoff containing toxic levels of its active component.

### 4.7.1.5 Existing Site Drainage

Under existing conditions, stormwater runoff flows off the project site in three directions. The easterly third of the site flows to Highway 101, where the surface runoff is conveyed...
either to an existing curb inlet near the southeast corner of the project site or to an existing curb inlet just south of Dahlia Drive. Both of these curb inlets connect to a storm drain system that discharges to the railroad corridor just east of Highway 101. Stormwater runoff from the westerly two-thirds of the project site flows to South Sierra Avenue. A high point exists in South Sierra Avenue approximately midway along the project site frontage, which splits the flow to the north and south. Stormwater runoff north of the high point is conveyed northerly along South Sierra Avenue to a curb inlet near Fletcher Cove, which connects to a storm drain system that ultimately discharges into the Pacific Ocean at Fletcher Cove. Stormwater runoff south of the high point is conveyed southerly along South Sierra Avenue to a curb inlet approximately 640 feet south of the project site, which connects to a storm drain system that discharges directly west into the Pacific Ocean.

### 4.7.2 Regulatory Framework

#### 4.7.2.1 Federal

**Clean Water Act**

The federal Clean Water Act (CWA) established the basic structure for regulating discharges of pollutants into “waters of the U.S.” The act specifies a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Relevant parts of the CWA include Sections 303; Section 401, which is administered by the SWRCB; Section 402; and Section 404. These are described in more detail below.

**Clean Water Act Section 303(d) Impaired Waters List**

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that would not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that the state develop a TMDL for each of the listed pollutants. The TMDL is the amount of loading that the water body can receive and still be in compliance with water quality objectives. The TMDL can also act as a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. The TMDL prepared by the state must include an allocation of allowable loadings to point and nonpoint sources, with consideration of background loadings and a margin of safety. The TMDL must also include an analysis that shows the linkage between loading reductions and the attainment of water quality objectives. The U.S. Environmental Protection Agency (EPA) must either approve a TMDL prepared by the state or, if it disapproves the state’s TMDL, issue its own. National Pollutant Discharge Elimination System (NPDES) permit limits for listed pollutants must be consistent with the waste load allocation prescribed in the TMDL. After implementation of the TMDL, it is anticipated that the problems that led to placement of a given pollutant on the Section 303(d) list would be remediating. In California, preparation and management of the Section 303(d) list is administered by the Regional Water Quality Control Boards (RWQCBs).
Clean Water Act Section 404
Section 404 of the Clean Water Act establishes a program to regulate the discharge of dredge and fill material into waters of the U.S., including wetlands. Responsibility for administering and enforcing Section 404 is shared by the U.S. Army Corps of Engineers (USACE) and EPA. The USACE administers the day-to-day program, including individual permit decisions and jurisdictional determinations; develops policy and guidance; and enforces Section 404 provisions. EPA develops and interprets environmental criteria used in evaluating permit applications, identifies activities that are exempt from permitting, reviews/comments on individual permit applications, enforces Section 404 provisions, and has authority to veto USACE permit decisions.

Federal Water Pollution Control Act/National Pollutant Discharge Elimination System
The 1972 CWA was designed to restore and maintain the chemical, physical, and biological integrity of the waters of the U.S. The CWA also directs states to establish water quality standards for all waters of the U.S. and to review and update such standards on a triennial basis. The EPA has delegated responsibility for implementation of portions of the federal CWA in California to the SWRCB and to the RWQCBs. This includes water quality control planning and programs such as the NPDES, which seek to protect water quality through the issuance of permits regulating the discharge of pollutants into waters of the U.S. Section 303 of the CWA requires states to adopt water quality standards for all intrastate waters of the U.S.

National Flood Insurance Act
The National Flood Insurance Act, enacted in 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. The Federal Emergency Management Agency (FEMA) is the agency that administrates the National Flood Insurance Program. Special Flood Hazard Areas are defined as areas that have a one percent chance of flooding within a given year. This is also referred to as the 100-year flood. FIRMs were developed to identify areas of flood hazards within a community.

Safe Drinking Water Act
Under the Safe Drinking Water Act (SDWA, Public Law 93-523), passed in 1974, the EPA regulates contaminants of concern to domestic water supply. Contaminants of concern relevant to domestic water supply are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA primary and secondary Maximum Contaminant Levels (MCLs) that are applicable to treated water supplies delivered to the distribution system. MCLs and the process for setting these standards are reviewed triennially. Amendments to the SDWA enacted in 1986 established an accelerated schedule for setting MCLs for drinking water. The applicable state primary and secondary MCLs are set forth in Title 22, Division 4, Chapter 15, Article 4 of the California Code of Regulations.
4.7.2.2 State

California Coastal Commission

The California Coastal Commission (CCC) 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 CCC supports a three-pronged approach to water quality management: site design, source control, and treatment control BMPs. New development and redevelopment projects that are within the coastal zone are required to apply for a Coastal Development Permit through the CCC prior to construction. As part of the Coastal Development Permit process, projects must demonstrate water quality protection with the implementation of site design, source control, and treatment control BMPs within a Local Coastal Plan (LCP). Once the LCP is certified, most projects will not need to go to CCC.

NPDES General Permit for Discharges of Stormwater Associated with Construction Activity

Construction activities disturbing one acre or more of land are subject to the permitting requirements of the NPDES General Construction Activity Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit). In order to apply for coverage under the General Construction Permit, a project applicant must submit a Notice of Intent for coverage under the General Construction Permit to the RWQCB and the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) prior to initiating construction activities. Implementation of the SWPPP continues through the completion of the project when an applicant must submit a Notice of Termination to the RWQCB notifying the agency that construction is completed. The disturbance to areas associated with construction of structures and facilities for the project would require coverage under a General Construction Permit. Acquiring coverage under the permit requires a risk-based permitting approach, dependent upon the likely level of risk imparted by a project. The permit also contains several additional compliance items, including: (1) additional mandatory Best Management Practices (BMPs) to reduce erosion and sedimentation, which may include incorporation of vegetated swales, setbacks and buffers, rooftop and impervious surface disconnection, bioretention cells, rain gardens, rain cisterns, implementation of pollution/sediment/spill control plans, training, and other structural and nonstructural actions; (2) sampling and monitoring for non-visible pollutants; (3) effluent monitoring and annual compliance reports; (4) development and adherence to a rain event action plan; (5) requirements for the post-construction period; (6) numeric action levels and effluent limits for pH and turbidity; (7) monitoring of soil characteristics on site; and (8) mandatory training under a specific curriculum.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne), enacted in 1969, authorizes the SWRCB to adopt, review, and revise policies for all waters of the State
(including both surface and ground waters), and directs the RWQCBs to develop region-specific basin plans. Section 13170 of the California Water Code also authorizes the SWRCB to adopt water quality control plans on its own initiative. The purpose of these plans is to designate beneficial uses of the region’s surface and ground waters, designate water quality objectives for the reasonable protection of those uses, and establish an implementation plan to achieve the objectives.

**State Water Resources Control Board**

Created by the California State Legislature in 1967, the SWRCB holds authority over water resources allocation and water quality protection within the state. The five-member SWRCB allocates water rights, adjudicates water right disputes, develops statewide water protection plans, establishes water quality standards, and guides the nine RWQCBs. The mission of SWRCB is to, “preserve, enhance, and restore the quality of California’s water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.” As of July 1, 2014, the EPA has delegated to the SWRCB the responsibility for administering California’s drinking water program. SWRCB is accountable to EPA for program implementation and for adopting standards and regulations that are at least as stringent as those developed by EPA.

### 4.7.2.3 Regional

**San Diego Basin Plan**

The San Diego Basin Plan (SDBP), adopted in 1994 and most recently amended in 2016, sets forth water quality objectives for constituents that could potentially cause an adverse effect or impact on the beneficial uses of water. The basin is composed of 11 major Hydrologic Units, 54 Hydrologic Areas, and 147 Hydrologic Subareas (RWQCB 2011), extending from Laguna Beach to the U.S.–Mexico border. Specifically, the SDBP is designed to accomplish the following: 1) designate beneficial uses for surface and ground waters; 2) set the narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State’s anti-degradation policy; 3) describe implementation programs to protect the beneficial uses of all waters within the region; and 4) describe surveillance and monitoring activities to evaluate the effectiveness of the SDBP. The SDBP incorporates by reference all applicable SWRCB and RWQCB plans and policies.

**San Diego Regional Water Quality Control Board**

The proposed project area is located within the jurisdiction of the San Diego Regional Water Quality Control Board (SDRWQCB). As authorized by Porter-Cologne, the SDRWQCB’s primary function is to protect the quality of the waters within its jurisdiction, including the proposed project area, for all beneficial uses. State law defines beneficial uses of California’s waters that may be protected against quality degradation to include, but not be limited to: domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.
The SDRWQCB implements water quality protection measures by formulating and adopting water quality control plans (referred to as basin plans) for specific groundwater and surface water basins, and by prescribing and enforcing requirements on all agricultural, domestic, and industrial waste discharges. The SDRWQCB oversees many programs to support and provide benefit to water quality, including the following major programs: agricultural regulatory; above-ground tanks; basin planning; California Bay-Delta Authority; confined animal facilities; landfills and mining; non-point source; spills, leaks, investigations, and cleanups (SLIC); stormwater; TMDL; underground storage tanks (UST), wastewater discharges (including the NPDES); water quality certification; and watershed management.

Order No. R9-2015-0001 (NPDES Permit No. CAS0109266) was adopted on February 11, 2015 by the SDRWQCB and prescribes requirements for the control of pollutant discharges from MS4s within San Diego County. SDRWQCB Order No. R9-2015-01 directs the County and other co-permittees to design and implement requirements of the Hydromodification Management Plan (HMP) and Low Impact Development (LID) BMPs to reduce stormwater runoff from project sites by promoting infiltration and minimizing impervious areas. Further, Order No. R9-2015-0001 extended coverage of the Regional MS4 Permit jurisdiction to cover 39 municipal, county government, and special district entities in Southern Orange County, Southwestern Riverside County, and San Diego County who own and operate large MS4s that discharge stormwater runoff and non-stormwater runoff to surface waters throughout the San Diego region.

**San Dieguito River Watershed Management Area Water Quality Improvement Plan**

The San Dieguito River Watershed Management Area Water Quality Improvement Plan was developed in accordance with the requirements of the San Diego RWQCB Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 (NPDES Permit #CAS0109266, Municipal Permit). The Water Quality Improvement Plan was developed in partnership with the Cities of San Diego, Del Mar, Escondido, Poway, and Solana Beach and the County of San Diego, who are the responsible agencies in the San Dieguito Watershed. The Water Quality Improvement Plan is a comprehensive watershed-based program intended to improve surface water quality within the San Dieguito River Watershed Management Area, in receiving waters in the San Dieguito River, and at nearby beaches. The Water Quality Improvement Plan implements the Federal Clean Water Act’s objectives to protect, preserve, enhance, and restore water quality for beneficial recreational, wildlife, and other users by identifying goals and strategies to correct impairments in the quality of urban runoff waters. The goals of the Water Quality Improvement Plan will be accomplished through an adaptive planning and management process that identifies the highest and focused priority water quality conditions within the watershed in order to implement strategies, both watershed-level or jurisdiction-specific, to achieve improvements in the quality of discharges from the responsible agencies’ storm drain systems.
4.7.2.4 Local

City of Solana Beach General Plan
The City of Solana Beach General Plan Safety Element is intended to document potential hazards that must be considered in planning the location, type, and density of development in order to prevent or minimize death, injuries, damage to property, and economic and social dislocation resulting from public safety hazards. The Safety Element contains the following goal and policies related to hydrology, drainage, and flooding:

Goal 3.1: To minimize hazards to public health, safety, and welfare resulting from natural and man-made phenomena.

- **Policy 2.a:** The city shall cooperate with the Federal Emergency Management Agency in defining flood hazard areas within the city.
- **Policy 2.b:** The city shall enter into the U.S. Department of Housing and Urban Development’s Flood Insurance Program.
- **Policy 2.c:** The city shall enact an ordinance which specifies the types of land uses to be permitted within 100-year flood hazard areas and which requires all structures proposed within 100-year flood zones to be elevated at least one foot above the 100-year flood level.
- **Policy 2.d:** The city shall require the submittal of information prepared by a qualified civil or hydrological engineer which certifies compliance with development standards established for 100-year flood zones.
- **Policy 3.a:** The city shall require the implementation of adequate erosion control measures for development projects to minimize sedimentation damage to drainage facilities.
- **Policy 3.b:** The city shall maintain its open space preserves and shall require developers to provide adequate open space pursuant to the standards established in the Conservation and Open Space Element of the General Plan and the city’s zoning ordinance as a measure to minimize impermeable surfaces throughout the city.
- **Policy 3.c:** The city shall cooperate with the San Diego County Flood Control District to ensure that citywide development does not lead to significant adverse effects upon the county’s flood control facilities.

City of Solana Beach Jurisdictional Runoff Management Program
A requirement of the NPDES permit program is the implementation of the Jurisdictional Runoff Management Program (JRMPS). The purpose of the City of Solana Beach JRMP is to implement the programs intended to reduce pollution in urban runoff, including programs to regulate new public and private land development during planning.
construction, and existing development phases. The JRMP is revised as necessary to reflect the changes in the City’s urban runoff management programs, such as revised or new BMPs or new educational or training programs.

City of Solana Beach Local Coastal Plan (LCP)
The City of Solana Beach City Council adopted a Local Coastal Plan Land Use Plan (LUP) on February 27, 2013 (amended and certified on June 11, 2014). Although the LUP has been certified by the California Coastal Commission, the Local Implementation Plan (LIP) portion of the LCP has not yet been certified; as such, the provisions of the LUP are considered by the Coastal Commission to be advisory rather than mandatory at this time. The purpose of the LIP is to implement the State’s goals for the coastal zone. The purpose of the LCP is to establish a long-term comprehensive land use planning and policy blueprint for the utilization, management, and preservation of coastal resources within the city. The LCP identifies the following policies associated with hydrology and water quality as they relate to the proposed project:

- **Policy 3.108:** Priority Development Projects, as defined on page 18 of the Stormwater Permit 2007-0001, shall be required to implement Low Impact Development (LID) BMPs. Priority Development Project Categories include:
  
a. Housing subdivisions of ten or more dwelling units. This category includes single-family homes, multi-family homes, condominiums, and apartments.

b. Commercial developments greater than one acre. This category is defined as any development on private land that is not for heavy industrial or residential uses where the land area for development is greater than one acre. The category includes, but is not limited to hospitals, laboratories and other medical facilities, educational institutions, recreational facilities, municipal facilities, commercial nurseries, multi-apartment buildings, car wash facilities, mini-malls and other business complexes, shopping malls, hotels, office buildings, public warehouses, automotive dealerships, airfields, and other light industrial facilities.

c. Developments of heavy industry greater than one acre. This category includes, but is not limited to, manufacturing plants, food processing plants, metal working facilities, printing plants, and fleet storage areas (bus, truck, etc.).

d. Automotive repair shops. This category is defined as a facility that is categorized in any one of the following Standard Industrial Classification (SIC) codes: 5013, 5014, 5541, 7532-7534, or 7536-7539.

e. Restaurants. This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), where the land area for development is greater than 5,000 square
feet. Restaurants where land development is less than 5,000 square feet shall meet all BMP Design Manual requirements except for structural treatment BMP and numeric sizing criteria requirement D.1.d.(6)(c) and hydro modification requirement D.1.g.

f. All hillside development greater than 5,000 square feet. This category is defined as any development which creates 5,000 square feet of impervious surface which is located in an area with known erosive soil conditions, where the development will grade on any natural slope that is twenty-five percent or greater.

City of Solana Beach Municipal Code (SBMC)
Chapter 13.10 of the SBMC addresses stormwater management and discharge control provisions and requirements. The purpose of Chapter 13.10 of the SBMC is to ensure the health, safety, and general welfare of the citizens of the City of Solana Beach by controlling non-stormwater discharges to the stormwater conveyance system; by eliminating discharges to the stormwater conveyance system from spills, dumping, or disposal of materials other than stormwater; and by reducing pollutants in urban stormwater discharges to the maximum extent practicable. Chapter 13.10 promotes these purposes by:

- Prohibiting polluted non-stormwater discharges to the stormwater conveyance system;
- Establishing minimum requirements for stormwater management, including source control requirements, to prevent and reduce pollution;
- Establishing requirements for development project site design to reduce stormwater pollution and erosion;
- Establishing requirements for the management of stormwater flows from development projects, both to prevent erosion and to protect and enhance existing water-dependent habitats;
- Establishing standards for the use of off-site facilities for stormwater management to supplement on-site practices at new development sites; and
- Establishing notice procedures and standards for adjusting stormwater and non-stormwater management requirements where necessary.

Chapter 3.10 provides discharge restrictions and BMP requirements and maintenance requirements for residential, commercial, industrial, agricultural, and municipal facility projects as well as land disturbance activity, and land development/redevelopment.
Section 15.40.150 of the SBMC outlines drainage requirements for excavations and grading in the City. The requirements discussed in this section of the SBMC pertain to the following drainage issues: disposal, site drainage, drainage terraces, and overflow protection.

**City of Solana Beach Standard Urban Storm Water Mitigation Plan**
The City of Solana Beach Standard Urban Storm Water Mitigation Plan (SUSMP) provides guidance for the preparation of stormwater development plans for development projects. All new developments and significant redevelopment projects as defined in the City’s SUSMP must comply with regulations contained in the City’s adopted Best Management Practices (BMP) Design Manual. All development projects must incorporate control measures to reduce discharge of stormwater pollutants to the maximum extent practicable. In general, this includes: (1) the inclusion of Low Impact Development (LID) features that conserve natural features, set development back from natural water bodies, minimize imperviousness, maximize infiltration, and retain and slow runoff; (2) implementation of source control BMPs; and (3) compliance with requirements for construction-phase controls of sediment and other pollutants, including the preparation of an erosion control plan and installation of construction BMPs.

### 4.7.3 Impact Significance Criteria

Thresholds used to evaluate potential hydrology and water quality impacts are based on applicable criteria in Appendix G of the CEQA Guidelines. A significant impact would occur if the proposed project would:

- **Issue 1:** Violate any water quality standards or waste discharge requirements.
- **Issue 2:** Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a new 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).
- **Issue 3:** 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.
- **Issue 4:** 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.
- **Issue 5:** 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.
- **Issue 6:** Substantially degrade water quality.
- **Issue 7**: 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.
- **Issue 8**: Place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- **Issue 9**: 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.
- **Issue 10**: Inundation by seiche, tsunami, or mudflow.

### 4.7.4 Method of Analysis

This section of the EIR gives full consideration to the development of the proposed project and acknowledges the physical changes that would occur to the existing setting from implementation of the proposed project. Hydrology and water quality impacts were determined by comparing the proposed project with the objectives of the NPDES General Construction Permit, NPDES MS4 Permit, City’s General Plan, City’s Municipal Code, City’s BMP Design Manual, and City’s JRMP. In addition to all applicable plans, information for this section is based on the following analyses prepared for the proposed project: Drainage Report (Project Design Consultants 2017a), the Water Quality Technical Report (Project Design Consultants 2017b), and Preliminary Hydromodification Management Study (Project Design Consultants 2017e).

### 4.7.5 Project Impacts and Mitigation

#### 4.7.5.1 Issue 1 - Water Quality Standards

**Would implementation of the proposed project violate any water quality standards or waste discharge requirements?**

**Impact Analysis**

**Construction**

Construction of the proposed project would generate pollutants that could potentially degrade the surface water quality of downstream receiving waters. Common pollutants, such as sediments; hydrocarbons, such as fuels; asphalt materials; oils; debris and trash; and hazardous materials, such as paints and concrete slurries, may be discharged from construction sites. Stormwater and non-stormwater runoff could potentially carry these pollutants into the on-site drainage facilities, which would ultimately discharge to downstream receiving waters, including the Pacific Ocean (Project Design Consultants 2017b). The proposed project is required to comply with the NPDES Construction General Permit and the City’s BMP Design Manual, which require the preparation and implementation of a SWPPP in order to obtain grading and building permits. The SWPPP would identify site-specific construction BMPs to reduce or eliminate the discharge of
sediment and other pollutants in stormwater and non-stormwater runoff from the project site. Construction BMPs would include, but not be limited to, the following:

- Minimization of disturbed areas by limiting disturbance to the portions of the project site necessary for construction;
- Stabilization of exposed or stockpiled soils and cleared or graded slopes;
- Establishment of permanent re-vegetation or landscaping as early as feasible;
- Removal of sediment from surface runoff before it leaves the project site by silt fences or other similar devices around the site perimeter;
- Diversion of upstream runoff around disturbed areas of the project site;
- Protection of all storm drain inlets on site or downstream of the project site to eliminate entry of sediment;
- Prevention of tracking of soil through use of a gravel strip or wash facilities at exits from the project site;
- Proper storage, use, and disposal of construction materials; and
- Continual inspection and maintenance of all specified BMPs through the duration of construction.

As discussed in Section 4.4.1.3, historic groundwater at the proposed project site could be as high as 41 feet msl. Construction excavation activities would extend to a max depth of approximately 31 feet, which would be below the groundwater level of 41 feet. Therefore, dewatering would be required during construction. The project is required to comply with the requirements outlined in the NPDES administered by the San Diego Regional Water Quality Control Board for dewatering activities. Dewatering requirements are addressed in mitigation measure GEO-1. Discharging of groundwater would require a Report of Waste Discharge from the RWQCB in order to obtain Waste Discharge Requirements. Before starting dewatering operations, the contractor would obtain the required permits and authorizations. All groundwater would be treated and disposed of in compliance with all federal, State and local regulations. Therefore, the proposed project would not result in a significant impact related to wastewater treatment requirements.

Additionally, the proposed project would align with the Solana Beach General Plan Open Space and Conservation Element Goal 3.1, Objective 1.0, Policy 1.a stating that development within the City will cooperate with the Regional Water Quality Control Board to ensure that the quality of water resources will not violate State and federal water quality standards as a result of development.
Therefore, with the inclusion of appropriate construction stormwater BMPs and mandatory compliance with the NPDES Construction General Permit, the City’s BMP Design Manual, and General Plan policies, the proposed project would not violate water quality standards.

Operation
Operation of the proposed project would have the potential to generate pollutants that could degrade the surface water quality of downstream receiving waters. In developed areas, storm water runoff is commonly transported through municipal separate storm sewer systems (MS4s) and discharged into local receiving water bodies. Pollutant sources for the proposed project would include landscaping, rooftops, parking/driveways, general use areas, and trash storage areas. Anticipated pollutants would include: chemicals from household cleaners, pathogens from pet wastes, nutrients from fertilizer, pesticides from landscaping, trash and debris, and oil and grease from vehicles. Erosion and sedimentation are not considered to represent substantial operational concerns due to the proposed installation of stabilizing pavement, structures and landscaping.

The proposed project is required to comply with the City’s JRMP, BMP Design Manual and Municipal Code which establish the conditions under which the pollutants can be discharged from the storm drain system to local streams, coastal lagoons and the ocean. The requirements include low impact development (LID) techniques to reduce pollutants in storm water runoff from sites through more natural processes such as infiltration and biofiltration closer to the source. Hydromodification management requirements are necessary to mitigate the potential for increased erosion in receiving waters due to increased runoff rates and durations often caused by development and increased impervious surfaces.

The proposed project is also required to comply with the City’s JRMP. The JRMP requires each development project in the City meet minimum BMP requirements of incorporating both source control BMPs and LID BMPs. Some projects are Priority Development Projects (PDP) and require additional Structural BMPs to be incorporated into the project. As defined by the City’s BMP Design Manual the proposed project is classified as a PDP because it is a redevelopment project that would create and/or replace 5,000 square feet or more of impervious surface (collectively over the entire project site on an existing site of 10,000 square feet or more of impervious surfaces). This includes commercial, industrial, residential, mixed-use, and public development projects on public or private land (City of Solana Beach 2016c).

Table 4.7-1 describes the operational BMPs that would be implemented for the proposed project.
The proposed project would include seven raised biofiltration planter BMPs with nutrient sensitive media (BF-2) proposed to treat the onsite runoff (Figure 4.7-1). The BMP planters would be located on the outside edge of the project boundary. The proposed project design of the commercial and residential buildings being constructed over the proposed parking structure limits the opportunity to gravity drain runoff towards the adjacent street gutters. The proposed treatment control biofiltration BMPs would treat 100 percent of the on-site runoff before it drains toward the adjacent street gutters via curb outlets or directly into the existing storm drains.

The BMPs would also provide hydromodification management flow by controlling the peak flow rates from the project site (Project Design Consultants 2017a). The proposed drainage patterns and drainage improvements have been designed to mimic existing drainage patterns (Project Design 2017a). Under post-project conditions, storm runoff will be conveyed away from the site in three directions similar to the existing conditions as described in Section 4.7.2. The on-site drainage would be divided into three drainage systems, System 100, System 200, and System 300. Onsite drainage improvements would be designed to pump storm water into the proposed biofiltration planters located along the outside edge of the project boundary limits (Figure 4.7-1). The pumped storm water will drain out towards the adjacent street gutters via curb outlets or directly into an existing storm drain line (on Highway 101) after treatment (Project Design Consultants 2017a). Table 4.7-2 shows a summary of the peak flow rates in pre- and post-construction conditions. Under the proposed development the peak flow rates post-construction would be less than those in the pre-development condition.
Figure 4.7-1
Proposed Drainage Management Areas

Source: Project Design Consultants 2017

Legend:
- Property Boundary
- Drainage Subarea
- Infiltration Planter
- Underground HMP Stor (Min Ext)
- De Minimis Areas
- Flow Direction
- Self-Mitigating Area

Harris & Associates

0 30 60 Feet

Source: Project Design Consultants 2017
### Table 4.7-2 Summary of Peak Flow Rates Pre- and Post-Construction

<table>
<thead>
<tr>
<th>Drainage Area</th>
<th>Existing Condition (cfs)</th>
<th>Proposed Condition (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>System 100</td>
<td>2.8</td>
<td>2.6</td>
</tr>
<tr>
<td>System 200</td>
<td>2.0</td>
<td>4.0 (undetained)(^1)</td>
</tr>
<tr>
<td>System 300</td>
<td>3.5</td>
<td>1.4 (detained)(^1)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8.3</strong></td>
<td><strong>7.2(^2)</strong></td>
</tr>
</tbody>
</table>

Notes:
\(^1\) Flow rate includes the use of biofiltration basins but not detention system.
\(^2\) Total flow rates include System 200 in the detained condition since this represents the flow rates upon project completion.

cfs = cubic feet per second

Source: Project Design Consultants 2017a

In the post construction condition, System 200 drainage area would result in a peak flow rate of 4.0 cfs which is higher than the existing condition. In order to self-mitigate this increase, the proposed project would implement a detention system located on the bottom floor of the underground parking structure as a project design feature. A sump pump system would pump the water from the detention system to the biofiltration planters along South Sierra Avenue and Dahlia Drive (Project Design Consultants 2017b). Stormwater would then be released into the existing storm drains to be carried off site. Therefore the peak flow rate in the System 200 drainage area in the post construction condition would be 1.4 cfs which is less than the predevelopment condition. Therefore, the total peak flow rates for all three drainage areas would be less than the pre-existing condition. The proposed drainage system, including the BMP biofiltration planters and detention system, would therefore control the velocity and amount of runoff to ensure that runoff does not exceed pre-development conditions.

Therefore, with mandatory compliance with the applicable NPDES MS4s permit, the San Dieguito River Watershed Management Area Water Quality Improvement Plan, and the City’s JRMP through the use of BMP biofiltration planters and the proposed detention system, the operation of the proposed project would not violate water quality standards or waste discharge requirements.

**Significance of Impact**

Implementation of the proposed project would not violate water quality standards or waste discharge requirements because it would comply with all applicable regulations including the NPDES General Construction Permit, City’s BMP Design Manual, City’s Municipal Code, and the City’s JRMP. Therefore, impacts associated with the violation of...
any water quality standards or waste discharge requirements would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.7.5.2 Issue 2 – Groundwater Supplies and Recharge

Would implementation of the proposed 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)?

Impact Analysis
The project site is located within the Solana Beach Hydrologic Subarea. The proposed project does not propose to use groundwater as a potable source of water or construct or operate any groundwater wells. Therefore, implementation of the proposed project would not result in the depletion of the existing groundwater supplies within the Solana Beach Hydrologic Subarea.

As discussed in Section 4.4.1.3, the historic groundwater at the proposed project site could be as high as 41 feet msl. Under existing conditions, the total impervious area of the project site is 1.09 acres or approximately 60 percent of the project site (Project Design Consultants 2017b). The site is currently disturbed with an abandoned mobile home park, commercial uses, abandoned single-family residential units and associated driveways and parking lots. Implementation of the proposed project would increase the amount of impervious surface to 1.81 acres or approximately 88 percent of the project site. The proposed pervious features that make up the remaining 12 percent of the post-project condition would include planted areas in and around the project development and areas of decomposed granite and synthetic turf within the main walkway of the development (Project Design Consultants 2017b). These features would still allow stormwater runoff to infiltrate the soil and permeate into the underlying groundwater basin, which would continue to contribute to groundwater recharge. Therefore, it is not anticipated that the volume of the local groundwater table would be significantly lowered as a result of the project’s 28 percent increase in impervious surfaces due to the BMPs and design features that would allow for onsite retention and infiltration.

Significance of Impact
Implementation of the proposed project would not deplete groundwater recharge or supplies within the Solana Beach Hydrologic Subarea due to the proposed stormwater infiltration features of the project. Impacts would be less than significant.
Mitigation Measures
No mitigation measures are required.

4.7.5.3 Issues 3 – Drainage Alteration – Erosion/Siltation

Would implementation of the proposed 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?

Impact Analysis
The project site does not include, and is not adjacent to, a stream or river. Thus, impacts related to alteration of the course of a stream or river would not occur. The following describes the impacts related to the alteration of the existing drainage pattern of the project site or area.

Construction
Construction of the proposed project would require grading and excavation of soils of 49,200 CY of soil. Construction activities would temporarily alter the existing drainage pattern of the site or area which could loosen sediment and result in erosion or siltation. However, the proposed project is required to comply with the NPDES Construction General Permit, and the City’s SWMP, which require the preparation and implementation of a SWPPP in order to obtain grading and building permits. As discussed in Section 4.7.5.1, the proposed project is required to comply with the NPDES Construction General Permit, and the City’s SWMP, which require the preparation and implementation of a SWPPP in order to obtain grading and building permits. Typical BMPs are discussed in Section 4.7.5.1. Adherence to the existing requirements and implementation of the required BMPs per the grading permit process would ensure that erosion and siltation associated with construction activities would be minimized.

Operation
The proposed drainage patterns and drainage improvements have been designed to mimic existing drainage patterns (Project Design Consultants 2017a). Under post-project conditions, storm runoff would be conveyed away from the site in three directions similar to the existing conditions as described in Section 4.7.2. As discussed above in Section 4.7.5.1 the proposed detention system and biofiltration BMPs would control the velocity and amount of runoff post-development to ensure that runoff does not exceed pre-development conditions. As a result, implementation of the proposed project would not substantially alter the existing drainage pattern of the site in a manner which would result in erosion or siltation.
Significance of Impact
Implementation of the proposed project would not substantially alter the existing drainage patterns resulting in erosion or siltation and impacts would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.7.5.4 Issue 4 – Drainage Alteration - Flooding

Would implementation of the proposed 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 the site?

Impact Analysis
The project site does not include, and is not adjacent to, a stream or river. Thus, impacts related to alteration of the course of a stream or river would not occur. The following describes the impacts related to the alteration of the existing drainage pattern of the project site or area.

Construction
Construction of the proposed project would require grading and excavation of 49,200 cubic yards of soil. Construction activities, could temporarily alter the existing drainage pattern of the site or area and result in flooding on- or offsite. However, as described in Section 4.7.5.1, implementation of the project construction requires preparation of a SWPPP by a Qualified SWPPP Developer. The SWPPP would include construction BMPs identified in Section 4.7.5.1 to limit an increase in stormwater flows during construction and reduce the potential for construction related flooding to occur.

In addition, the project site does not receive offsite drainage (Project Design Consultants 2017b), and according to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) for the project area (06073C0778G), the project site is located within “Zone X,” which is an area determined to be outside of the 0.2 percent annual chance of flood. Therefore, there is a low potential for on or off-site flooding to occur during construction activities.

Operation
The proposed drainage patterns and drainage improvements have been designed to mimic existing drainage patterns (Project Design Consultants 2017a). Under post-project conditions, storm runoff would be conveyed away from the site in three directions similar to the existing conditions as described in Section 4.7.2. As discussed above in Section 4.7.5.1 the proposed detention system and biofiltration BMPs would control the velocity...
and amount of runoff post-development to ensure that runoff does not exceed pre-
development conditions. As a result, implementation of the proposed project would not
substantially alter the existing drainage pattern of the site nor substantially increase the
rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

**Significance of Impact**
Implementation of the proposed project would not substantially alter the existing
drainage pattern of the site increase the rate or amount of surface runoff in a manner
which would result in flooding on- or off-site and impacts would be less than significant.

**Mitigation Measures**
No Mitigation Measures would be required.

### 4.7.5.5 Issue 5 – Exceed Capacity of Existing Stormwater Drainage System

*Would implementation of the proposed 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?*

**Impact Analysis**

**Construction**
Construction of the proposed project would require grading and excavation of soils,
which could result the temporary alteration of the project site’s drainage patterns
creating additional runoff from the site. However, the proposed project is required to
comply with the NPDES Construction General Permit, and the City’s SWMP, which require
the preparation and implementation of a SWPPP in order to obtain grading and building
permits. As discussed in in Section 4.7.5.1, the proposed project is required to comply with
the NPDES Construction General Permit, and the City’s SWMP, which require the
preparation and implementation of a SWPPP in order to obtain grading and building
permits. Typical construction BMPs are discussed in Section 4.7.5.1. Adherence to existing
requirements and implementation of applicable BMPs would ensure that project
construction would not create or contribute to an increase runoff from the project site
that would exceed the capacity of the existing stormwater drainage system.

**Operation**
The proposed drainage patterns and drainage improvements have been designed to
mimic existing drainage patterns (Project Design Consultants 2017a). Under post-project
conditions, storm runoff would be conveyed away from the site in three directions similar
to the existing conditions as described in Section 4.7.2. As discussed above in Section
4.7.5.1 the proposed detention system and biofiltration BMPs would control the velocity
and amount of runoff post-development to ensure that runoff does not exceed pre-
development conditions. Therefore, the existing storm drainage system would be sufficiently sized to convey the post-development condition.

**Significance of Impact**
Construction and operation of the proposed project would not contribute or create runoff that would exceed the capacity of the existing stormwater drainage facilities and impacts would be less than significant.

**Mitigation Measures**
No mitigation measures are required.

### 4.7.5.6 Issue 6 – Degrade Water Quality

Would implementation of the proposed project otherwise substantially degrade water quality?

**Impact Analysis**

**Construction**
Construction of the proposed project is not expected to pose any additional threats to water quality not already discussed in Section 4.7.5.1. The proposed project is required to comply with the NPDES Construction General Permit, and the City’s SWMP, which require the preparation and implementation of a SWPPP in order to obtain grading and building permits which would include construction BMPs to minimize the potential for construction related sources of pollution, which would be implemented during construction to protect water quality.

**Operation**
Operation of the proposed project may have the potential to generate pollutants that could degrade the surface water quality of downstream receiving waters. Pollutant sources would include landscaping, rooftops, parking/driveways, general use areas, and trash storage areas. Anticipated pollutants would include: chemicals from household cleaners, pathogens from pet wastes, nutrients from fertilizer, pesticides from landscaping, trash and debris, and oil and grease from vehicles.

The proposed project would include seven raised biofiltration planter BMPs with nutrient sensitive media (BF-2) proposed to treat onsite runoff (Figure 4.7-1). All BMPs would be located on the outside edge of the project site boundary. There would be four BMP planters located along Highway 101 to treat the eastern third of the site. Runoff collected via roof drains and area drains throughout the plaza would be pumped or drained via gravity into these biofiltration planters. Additionally, there would be two biofiltration planters along Dahlia Drive and another biofiltration planter along South Sierra Avenue. These BMP planters would collect runoff from roof/area drains and would discharge towards adjacent street gutters via curb outlets.
The proposed biofiltration planters would treat the on-site runoff before it drains toward the adjacent street gutters via curb outlets or directly into existing storm drains. The bio-retention planters would treat runoff water through the removal of coarse sediment, trash, and pollutants (i.e., sediments, nutrients, heavy metals, oxygen demanding substances, oil and grease, bacteria, and pesticides).

**Significance of Impact**
The incorporation of construction and permanent treatment control BMPs as part of the proposed project would ensure that the project would not otherwise substantially degrade water quality. Impacts would be less than significant.

**Mitigation Measures**
No mitigation measures are required.

**4.7.5.7 Issue 7 – Place Housing in 100-Year Flood Area**

**Would implementation of the proposed 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?**

**Impact Analysis**
As stated in Section 4.7.1.6, according to the City’s General Plan, the project site is not located within the 100-year storm event flood zone (City of Solana Beach 2014b). In addition, according to the FEMA FIRMs for the project area, the project site is located within Flood Zone X, which represents areas of 0.2 percent annual chance flood; areas of one percent annual chance flood with average depths of less than one foot or with drainage areas less than one square mile; or areas protected from levees from one percent annual chance flood (FEMA 2017). Therefore, implementation of the proposed project would not construct housing or other structures within a 100-year flood hazard area.

**Significance of Impact**
The project site is not located within a 100-year flood zone area and, as such, development of the proposed project would not result in the placement of housing or other structures within a 100-year flood hazard area. No impact would occur.

**Mitigation Measures**
No mitigation measures are required.
4.7.5.8 Issue 8 – Redirect or Impede 100-Year Flood

Would implementation of the proposed project place structures within a 100-year flood hazard area which would impede or redirect flood flows?

Impact Analysis
As stated in Section 4.7.1.6, according to the City’s General Plan, the project site is not located within the 100-year storm event flood zone (City of Solana Beach 2014b). In addition, according to the FEMA FIRMs for the project area, the project site is located within Flood Zone X, which represents areas of 0.2 percent annual chance flood; areas of one percent annual chance flood with average depths of less than one foot or with drainage areas less than one square mile; or areas protected from levees from one percent annual chance flood (FEMA 2017). Therefore, implementation of the proposed project would not place structures within a 100-year flood hazard area which would impede or redirect flows.

Significance of Impact
The project site is not located within a 100-year flood zone area and, as such, development of the proposed project would not result in the placement of structures within a 100-year flood hazard area which would impede or redirect flows. No impact would occur.

Mitigation Measures
No mitigation measures are required.

4.7.5.9 Issue 9 – Dam Failure

Would implementation of the proposed 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?

Impact Analysis
The City is not located in an area that would be impacted by any dam or levee failure, as the closest dam to the city is Lake Hodges, which is approximately 13.4 miles east of the project site (City of Solana Beach 2014a). Therefore, impacts associated with inundation from dam or levee failure would not occur.

Significance of Impact
Implementation of the proposed project would not result in the impacts associated with flooding. No impact would occur.

Mitigation Measures
No mitigation measures are required.
4.7.5.10 Issue 10 – Inundation by Seiche, Tsunami or Mudflow

Would implementation of the proposed project result in a substantial increase in risk of exposure to inundation by seiche, tsunami, or mudflow?

Impact Analysis
A seiche is a wave on the surface of a lake or landlocked bay that is caused by atmospheric or seismic disturbances. According to the Geotechnical Investigation Report for the proposed project, the potential of seiche to occur is considered to be very low due to the distance between the project site and the nearest inland body of water, which is the San Elijo Lagoon, located approximately five miles north of the project site (NOVA 2012).

A tsunami is a very large ocean wave caused by an underwater earthquake, landslide, or volcanic eruption. According to the Tsunami Inundation Map - Del Mar Quadrangle, the project site is not located within the potential tsunami inundation area (NOVA 2012).

Mudflows are shallow water-saturated landslides that travel rapidly down slopes carrying rocks, brush, and other debris. Typically, mudflows occur during or soon after periods of heavy rainfall on slopes that contain loose soil or debris. According to the City’s General Plan, areas of concern regarding slope stability and steepness are the coastal bluff (City of Solana Beach 2014b). The project site does not include a coastal bluff and has a relatively flat topography. Therefore, impacts associated with mudflows would be less than significant.

Significant Impacts
Implementation of the proposed project would not result in a substantial increase in the risk of exposure to inundation from seiche, tsunami or mudflows. Therefore, impacts would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.7.6 Cumulative Impacts

Would implementation of the proposed project have a cumulatively considerable contribution to a cumulative hydrology, water quality, drainage, groundwater, flooding, or inundation impact considering past, present, and probable future projects?

4.7.6.1 Issue 1 - Water Quality Standards

The geographic context for the analysis of cumulative impacts with regard to water quality standards is the San Dieguito Hydrological Unit. Future growth and redevelopment in the project area would result in an increase in impermeable surfaces and an increase of runoff of stormwater pollutants contributing to a cumulative increase in impacts to
water quality. However, future development is subject to federal, state and local applicable regulations described in Section 4.7.2 and would be designed to reduce the discharge of stormwater pollutants and to improve water quality. With the cumulative projects’ compliance with applicable laws and regulations and their incorporation of required construction and operational BMPs, a significant cumulative impact would not occur. Therefore, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact associated with a violation of water quality standards or waste discharge requirements.

4.7.6.2 Issue 2 - Groundwater Supplies and Recharge

The geographic context for the analysis of cumulative impacts with regard to groundwater supplies and recharge San Dieguito Valley groundwater basin. A significant cumulative impact related to groundwater supplies and recharge would occur if development within the Solana Beach Hydrologic Subarea would increase the amount of impervious surface in the area, which would decrease the amount of recharge received by the groundwater table and decrease groundwater supplies. Therefore, increased impervious areas associated with construction of cumulative development projects would result in a significant cumulative impact to groundwater supplies and recharge. Implementation of the proposed project would increase the amount of impervious surface to 1.81 acres or 88 percent of the project site. However, the proposed project would implement a landscape plan as well as construct bioretention planters that would allow for stormwater runoff to infiltrate into the underlying groundwater basin. As such, development of the proposed project would not inhibit groundwater recharge. Therefore, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact associated with groundwater supply or recharge.

4.7.6.3 Issue 3 – Drainage Alteration – Erosion/Siltation

The geographic context for the analysis of cumulative impacts with regard to drainage alteration is the San Dieguito Hydrological Unit. Future growth and redevelopment in the project area would result in an increase in impervious surfaces which has the potential to result in an increase in stormwater flows. However, future development would be subject to federal, state and local regulations including the NPDES permit that are designed to reduce stormwater runoff from project sites by promoting infiltration, minimizing impervious, and requiring a no net increase in flows over the existing condition through hydromodification processes. The proposed project would not increase the post-project flow rate above the pre-project condition. The use of the proposed biofiltration BMPs and detention system would ensure that implementation of the proposed project would not result in drainage alteration of the site that would cause substantial erosion/siltation. Therefore, the proposed project would not make a cumulatively considerable contribution to a significant cumulative flooding impact associated with erosion or siltation.
4.7.6.4 Issue 4 – Drainage Alteration - Flooding

The geographic context for the analysis of cumulative impacts with regard to drainage alterations is the San Dieguito Hydrological Unit. Future growth and redevelopment in the project area would result in an increase in impermeable surfaces which has the potential to result in an increase of stormwater flows that could cause flooding. However, future development would be subject to federal, state and local regulations including the NPDES permit that are designed to reduce stormwater runoff from project sites by promoting infiltration, minimizing impervious, and requiring a no net increase in flows over the existing condition through hydromobilization processes. The implementation of the proposed project would not increase the post-project flow rate above the pre-project condition. The use of the proposed biofiltration BMPs and detention system would ensure that implementation of the proposed project would not result in drainage alteration of the site that would cause substantial flooding. Therefore, the proposed project would not make a cumulatively considerable contribution to a significant cumulative impact associated with flooding.

4.7.6.5 Issue 5 – Exceed Capacity of Stormwater Drainage Facilities

The geographic context for the analysis of cumulative impacts with regard to drainage facility capacity is the area that drains into the same stormwater facilities. Future growth and redevelopment in the project area from the cumulative projects listed in Table 2-2 would result in an increase in impermeable surfaces which has the potential to result in an increase of stormwater runoff which could exceed the capacity of the existing stormwater drainage facilities. However, future development would be subject to federal, state and local regulations including the NPDES permit that are designed to reduce stormwater runoff from project sites by promoting infiltration, minimizing impervious, and requiring a no net increase in flows over the existing condition through hydromobilization processes. The implementation of the proposed project would not increase the post-project flow rate above the pre-project condition. The use of the proposed biofiltration BMPs and detention system would ensure that implementation of the proposed project would not create or contribute runoff that would exceed the capacity of the existing stormwater drainage facilities. Therefore, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact associated with runoff.

4.7.6.6 Issue 6 – Degrade Water Quality

The geographic context for the analysis of cumulative impacts with regard to water quality is the San Dieguito Hydrological Unit. Future growth and redevelopment in the project area would result in an increase in impermeable surfaces and an increase of runoff of stormwater pollutants contributing to a cumulative increase in impacts to water quality. However, future development is subject to federal, state and local applicable
regulations described in Section 4.7.2 and would be designed to reduce the discharge of stormwater pollutants and to improve water quality. With the cumulative projects' compliance with applicable laws and regulations and their incorporation of treatment control structural BMPs, a significant cumulative impact would not occur and implementation of the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact associated with degradation of water quality.

4.7.6.7 Issue 7 – Place Housing in 100-year Flood Area

The geographic context for the analysis of cumulative impacts for placing housing in a 100-year flood area is site specific and not cumulative in nature. The location of one project in a flood hazard area would not affect the location of another cumulative project. Future development projects that would be constructed within a FEMA-designated 100-year floodplain or floodway would be required to incorporate all applicable building standards related to flood hazards in order to minimize the impacts from these types of events. As stated above in Section 4.7.5.7, the proposed project would not place housing in a 100-year flood area. Therefore, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact associated with the placement of housing in a 100-year flood area.

4.7.6.8 Issue 8 – Redirect or Impede 100-year Flood Area

The geographic context for the analysis of cumulative impacts for placing structures in a 100-year flood area that would redirect or impede flood flows is site specific and not cumulative in nature. The location of one project in a flood hazard area would not affect the location of another cumulative project. Future development projects that would be constructed within a FEMA-designated 100-year floodplain or floodway would be required to incorporate all applicable building standards related to flood hazards in order to minimize the impacts from these types of events. As stated above in Section 4.7.5.8, the proposed project would not place structures in a 100-year flood area. Therefore, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact associated with the placement of structures in a 100-year flood area that would redirect or impede flood flows.

4.7.6.9 Issue 9 – Dam Failure

The geographic context for the analysis of cumulative impacts for dam or levee failure is site specific and not cumulative in nature. The exposure of a significant risk associated from dam or levee failure of one project inundation would not affect the location of another cumulative project. Future development projects that would be constructed within a dam or levee failure risk area would be required to incorporate all applicable building standards in order to minimize the impacts from these types of events. As stated above in Section 4.7.5.9, the proposed project is not located in an area with a significant risk associated from dam or levee failure. Therefore, the proposed project would not
result in a cumulatively considerable contribution to a substantial increase in risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

4.7.6.10 Issue 10 – Inundation by Seiche, Tsunami or Mudflow

The geographic context for the analysis of cumulative impacts for exposure inundation by seiche, tsunami or mudflow is site specific and not cumulative in nature. The exposure of one project to inundation is based on the upstream location of a seiche or mudflow or location on the coast for a tsunami and would not affect the location of another cumulative project. Future development projects that would be constructed within an inundation area would be required to incorporate all applicable building standards related to flood hazards in order to minimize the impacts from these types of events. As stated above in Section 4.7.5.10, the proposed project is not located in an area with a significant risk associated from inundation by a seiche, tsunami or mudflow. Therefore, the proposed project would not result in a cumulatively considerable contribution to a substantial increase in risk of exposure to inundation by seiche, tsunami, or mudflow.
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4.8 Land Use and Planning

Land use and planning issues refer to the proposed project’s compatibility with surrounding land uses and its consistency with land use plans and policies that have regulatory jurisdiction over the project site. This section describes the existing land uses that could be adversely affected by the proposed project, outlines the applicable laws and regulations related to land use and planning, and analyzes the proposed project’s compatibility with surrounding development; consistency with applicable plans and regulations; and potential to conflict with any applicable habitat conservation plan or natural community conservation plan.

4.8.1 Existing Conditions

4.8.1.1 Existing On-Site Land Uses

The proposed project site is approximately 1.95 acres located within the City of Solana Beach, California. The topography of the project site varies from 61 to 68 feet above msl (Nova 2012). The northern half of the project site consists of a former mobile home park, which includes 24 vacant concrete pads that were once used for trailers and mobile homes. This area also contains an access road, a variety of non-native trees, overhead power lines, and debris from the former mobile home park. The eastern portion of the southern half of the project site contains a one-story metal building, which was formerly part of a gas station, and a paved parking area. The former gas station building is currently used as a temporary satellite office for a small company with 4-6 employees. Two rusted metal poles that formerly displayed signage and a small, abandoned coffee kiosk are also present in the southeastern portion of the site. The southwestern portion of the site contains two vacated, one-story, single-family residences and a vacated one-story retail commercial building with a detached garage. The southern half of the project site also includes asphalt driveways, parking areas, and various non-native trees and shrubs.

The location of the existing structures are shown on Figure 2-3. The project site is located within the City of Solana Beach Highway 101 Corridor Specific Plan (Specific Plan). Under both the General Plan and the Specific Plan, the proposed project site is presently designated as General Commercial.

4.8.1.2 Existing Adjacent Land Uses

The project site is located west of Highway 101, the Coastal Rail Trail, and the NCTD ROW, north of Dahlia Drive, east of South Sierra Avenue, and south of Lomas Santa Fe Drive (Figure 2-2).
North
The land located to the north of the proposed project site consists primarily of office/commercial development. Uses include a CVS Pharmacy, a seasonal shaved ice stand, small single-story office buildings, the UPS Store, a nail salon, and a pet store. North of the CVS Pharmacy is a multi-family residential building that is accessed from South Sierra Avenue. Each existing development includes parking and landscaping. The General Plan and the Specific Plan designate this land as General Commercial.

East
Highway 101, the Coastal Rail Trail, and the NCTD ROW are located immediately east of the proposed project site. The Coastal Rail Trial is located on the east side of Highway 101 opposite the project site. Commercial development, referred to as the “Cedros Avenue Design District,” is located east of the NCTD ROW and includes retail stores, restaurants, a photography studio, a hair salon, and other commercial uses. A bridge located on the eastern side of Highway 101 opposite the project site provides pedestrian access over the NCTD ROW to the commercial district. The existing development includes parking and landscaping. The Specific Plan designates this land as Special Commercial.

South
Dahlia Drive is located immediately south of the proposed project site. Land located south of Dahlia Drive consists of primarily of office/commercial development. Uses include a Bank of America with drive-through ATM and an office building with associated surface parking areas and landscaping. The “Beachwalk” commercial development is located approximately 250 feet south of the project site, which includes a variety of restaurant and retail uses, as well as an underground parking structure. The General Plan and the Specific Plan designate this land as General Commercial.

West
South Sierra Avenue is located immediately west of the proposed project site. Land located west of South Sierra Avenue consists of multi-family residential housing and a City public parking lot with associated landscaping. The General Plan and the Specific Plan designate this land as High Density Residential (13-20 dwelling units per acre).

4.8.2 Regulatory Framework

4.8.2.1 Regional

North County Multiple Habitat Conservation Program
The North County Multiple Habitat Conservation Program (MHCP) is a comprehensive conservation planning process that addresses the needs of multiple plants and animal species in northwestern San Diego County. The North County MHCP encompasses the cities of Solana Beach, Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, and Vista. Its goal is to conserve approximately 19,000 acres of habitat, of which roughly 8,800 acres (46 percent) are already in public ownership and contribute toward the habitat.
preserve system for the protection of more than 80 rare, threatened, or endangered species. The City of Solana Beach does not anticipate the need to issue take authorizations given the level of build-out and small amount of native habitat remaining within the city and low potential for significant impacts to sensitive biological resources. Therefore, the City of Solana Beach does not have an MHCP subarea implementation plan.

San Diego Forward: The Regional Plan
SANDAG adopted San Diego Forward: The Regional Plan (Regional Plan) on October 9, 2015, which combines and updates the region’s two big picture planning documents: the Regional Comprehensive Plan (RCP) for the San Diego Region and the 2050 Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS). The Regional Plan reflects a strategy for a more sustainable future which includes investing in a transportation network that will provide people more travel choices, protects the environment, creates healthy communities, and stimulates economic growth to benefit all San Diegans. The SCS charts a course toward lower greenhouse gas emissions related to vehicles and proposes other measures to make the San Diego region more environmentally sustainable.

4.8.2.2 Local

City of Solana Beach General Plan
The City of Solana Beach General Plan consists of a series of development policies setting forth objectives, principles, standards, and plan policies. The General Plan is the City’s constitution for future development and the foundation for all local government land use decisions. The General Plan includes the six state-mandated elements: Land Use, Open Space and Conservation, Housing, Circulation, Noise, and Safety as summarized below. In addition, the General Plan includes Economic Development, an optional element.

Land Use Element
The Land Use Element establishes the land use categories and generalized land use patterns for development in the City of Solana Beach. The element establishes the City’s goals, objectives, and policies to promote the development of a well-balanced and compatible mix of land uses that are consistent with the City’s character and image. Future development in the city will primarily involve the redevelopment or reuse of currently developed parcels and infill development on the City’s few remaining vacant parcels. As new development occurs, one of the highest priorities of the City of Solana Beach is to maintain the small town coastal community charm by respecting the beachside setting, considering scenic views, minimizing conflicts among adjacent land uses, and ensuring that new development is compatible with existing community character. Other key issues of the Land Use Element include environmental and community sustainability. The City also aims to promote public health by expanding its network of bicycle and pedestrian pathways to enhance the walkability and livability of its neighborhoods, maintain a high sense of safety and security, increase recreational
opportunities and raise awareness about the importance of healthy behaviors and physical fitness. The City’s Land Use Element supports the implementation of the Circulation and Housing Elements.

**Housing Element**
The Housing Element identifies the housing needs of the City and establishes an eight-year action plan to meet those needs. The primary goal of the City is to ensure that decent, safe housing is available at a cost that is affordable to all current and future residents of the City. To achieve this goal, the following sub-goals and policies are addressed in the Housing Element: 1) encourage the adequate provision of housing opportunities; 2) ensure that housing is maintained and preserved; and 3) promote equal access to housing opportunities.

**Circulation Element**
The Circulation Element is intended to provide a balanced circulation system that will provide adequate capacity to support the travel demands of the land uses included in the Land Use Element, while at the same time maintaining an acceptable quality of life for the residents of Solana Beach. The Circulation Element states general policies that will serve to guide the development of future, more detailed circulation system implementation programs. The key issues underlying the circulation of the City include connectivity between I-5 and the railroad tracks, traffic-calming methods to slow down vehicular traffic, maximizing the benefits and reducing the negative effects of visitors to the area and the local attractions. In addition, the ability of the City to make the required infrastructure improvements is constrained by the residents' desires to preserve the quality of life in residential areas of the city while at the same time providing accessibility to and local routes around I-5 and Highway 101.

**Noise Element**
The Noise Element is a comprehensive program for including noise control in the planning process. The element is a tool for planners to use in achieving and maintaining compatible land use with environmental noise levels. The Noise Element identifies noise sensitive land uses and noise sources, and defines areas of noise impact for the purpose of developing programs to ensure that residents would be protected from excessive noise intrusion. The Noise Element includes goals, objectives, policies, and an implementation program to reduce the number of people exposed to excessive noise and minimize the future effect of noise in the city.

**Safety Element**
The Safety Element identifies existing conditions and issues involving potential hazards and public safety considerations affecting land development in the city. The Safety Element sets forth goals, objectives, and policies to provide for public health, safety, and welfare. The key issues affecting the health and safety of the City’s residents and visitors are hazards associated with seismicity, coastal bluff erosion and stability problems,
flooding in the Stevens Avenue area, potential septic system problems, and potential fire hazards. The goals and policies within the Safety Element minimize potential hazards and provide a safe and secure environment for the public.

Open Space and Conservation Element
The Conservation and Open Space Element of the General Plan is a combined element that describes existing conditions and issues related to water resources, air resources, cultural resources, energy resources, and open space/visual resources. The key issues related to conservation and open space in the city involve the potential effects of buildout on natural and cultural resources. Further, the scenic quality of Solana Beach’s open spaces and visual features is important. The element contains goals, objectives, and policies established to ensure that natural resources within the city are managed wisely.

City of Solana Beach Highway 101 Corridor Specific Plan
Adopted in 2003 and amended in 2006, the Specific Plan is a plan for physical development and redevelopment of land uses along Highway 101 that significantly defines the City of Solana Beach. Highway 101 serves as a vital commercial corridor for the region, and the adopted plan envisions revitalization of land uses along Highway 101 as the heart or downtown of the City. The Specific Plan identifies urban design concepts, land use type and intensity, parking requirements, development standards, and implementation measures for directing future growth. The Specific Plan is intended to integrate open space, the beach, community facilities, residential neighborhoods, retail businesses, and transit access. The vision includes a more attractive, pedestrian-oriented commercial core, improved landscaping, and development quality along the Highway 101 Corridor.

City of Solana Beach Municipal Code
Title 15 of the SBMC states that the 2016 California Building Code, Title 24, of the California Code of Regulations, has been adopted as the City Building Code. The City Building Code prescribes regulations for the construction, alteration, repair, removal, occupancy, equipment, use, height, area, and maintenance of buildings and structures within the city.

Title 17 of the SBMC identifies the land use zones for the City of Solana Beach. The zoning ordinance identifies citywide zones that specify permitted land use; development standards, such as density and floor area ratio; overlay zones; and other supplemental regulations.

City of Solana Beach Local Coastal Plan (LCP)
The Solana Beach City Council adopted a LCP Land Use Plan (LUP) on February 27, 2013 (amended and certified on June 11, 2014). Although the LUP has been certified by the California Coastal Commission, the Local Implementation Plan (LIP) portion of the LCP
has not yet been certified; as such, the provisions of the LUP are considered by the Coastal Commission to be advisory rather than mandatory at this time. The purpose of the LUP is to implement the State’s goals for the coastal zone. The City’s LUP provides long-term goals that promote the beneficial use of lands in the city and the beach and shoreline for residents and visitors alike. The LUP addresses public access and recreation, marine and land uses, hazards shoreline bluff development, scenic and visual resources, and public works. The eastern portion of the proposed project site is located within the designated Scenic Area Overlay Zone, as shown on Figure 4.1-1.

### 4.8.3 Impact Significance Criteria

The following significance criteria are based on Appendix G of the CEQA Guidelines and provide the basis for determining significance of impacts associated with land use and planning resulting from the implementation of the proposed project. Impacts are considered significant if the proposed project would result in any of the following:

- **Issue 1**: Physically divide an established community (incompatibility with adjacent and surrounding uses).
- **Issue 2**: 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.
- **Issue 3**: Conflict with any applicable habitat conservation plan or natural community habitat conservation plan.

### 4.8.4 Method of Analysis

This section discusses and analyzes potential land use conflicts of the proposed project in relation to the physical division of an existing community, existing land use plans, and applicable habitat conservation plans. The analysis considers whether the proposed project would result in a physical division of an established community by constructing physical barriers or obstacles to circulation that would restrict existing patterns of movement in the city or surrounding area. It also analyzes the proposed project’s potential impacts on existing land use character, including consideration of the character or the proposed change of use relative to the existing land use context. An adverse effect would occur if a new use were placed next to an incompatible existing use, such that the basic function of either the existing use or the new use would be impaired.
4.8.5 Project Impacts and Mitigation

4.8.5.1 Issue 1 – Divide an Established Community

Would implementation of the proposed project physically divide an established community?

Impact Analysis
The proposed project would replace a vacant existing site containing several existing residential and commercial structures with a new mixed-use development project. The proposed uses would complement and be consistent with the existing pattern of development and range of existing uses in the surrounding area. The proposed mixed-use development would include commercial office space, commercial retail and restaurant space, 25 multi-family residential units, and underground parking spaces adequate to serve the project. As described in Section 4.8.1, the surrounding area includes a mix of retail, commercial, restaurants, and multi-family residential buildings along Highway 101 and South Sierra Avenue. In addition, no roads traverse the proposed project site and the project would not impede the passage of people or vehicles within the development area. The project would provide a new east-west pedestrian walkway through the site that would connect Highway 101 to South Sierra Avenue. Therefore, the proposed project would not physically divide an established community or present a barrier to movement through the surrounding area. Thus, impacts would be less than significant.

Significance of Impact
No significant impacts related to physically dividing an established community would occur.

Mitigation Measures
No mitigation measures are required.

4.8.5.2 Issue 2 – Land Use Plans, Policies, and Regulations

Would implementation of the proposed project conflict with any applicable land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Impact Analysis
The following discussion addresses the project’s consistency with applicable land use plans, policies and regulations.

City of Solana Beach General Plan
As discussed in Section 4.8.2.2, the Solana Beach General Plan provides the framework for the City’s long range planning vision. Table 4.8-1 identifies those goals, objectives and policies found in the various elements of the General Plan that are relevant to the
proposed project. The table also provides an evaluation of the proposed project’s consistency with these objectives and policies. As identified in Table 4.8-1, the proposed project would be consistent with the General Plan.

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<thead>
<tr>
<th>General Plan Goal/Objective/Policy</th>
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<tbody>
<tr>
<td><strong>Circulation Element</strong></td>
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<tr>
<td><strong>Goal C-1.0:</strong> Correlated land use and circulation planning.</td>
<td><strong>Consistent.</strong> The project proposes a mixed-use, infill development along Highway 101 approximately 0.5 mile south of the Solana Beach Transit Station. The proposed development would provide new sidewalks along South Sierra Avenue and Dahlia Drive. It would also provide an east-west pedestrian walkway that would connect South Sierra Avenue to Highway 101 through the project site. In addition, the project proposes 32 bicycle parking spaces. Regional pedestrian access is provided via the perimeter sidewalks along Highway 101, the Coastal Rail Trail, and a pedestrian bridge over the NCTD ROW connecting Highway 101 and the Coastal Rail Trail to South Cedros Avenue. An existing crosswalk is located at the intersection of Dahlia Drive and Highway 101. Regional bicycle access is provided by an existing class II bike lane along northbound Highway 101 and a class III bike lane on southbound Highway 101, adjacent to the project site. Pedestrian access onto the project would be available from Highway 101, South Sierra Avenue, Dahlia Drive, along the project’s northern boundary, and the on-site east-west public walkway that would bisect the development. The bus stop and associated shelter on southbound Highway 101 adjacent to the project site would remain. The bus stop and shelter would be centrally located relative to the proposed restaurants and retail uses, as well as the existing crosswalks and pedestrian bridge at the Dahlia Drive-Highway 101 intersection.</td>
</tr>
<tr>
<td><strong>Policy C-1.1</strong> Allow, encourage, and facilitate transit-oriented development, mixed-use, and infill projects in appropriate locations, especially near the transit station and along key corridors such as Highway 101.</td>
<td><strong>Consistent.</strong> Implementation of the proposed project would include street dedications and sidewalk improvements to Dahlia Drive, South Sierra Avenue, and Highway 101. All sidewalk improvements would occur entirely within existing roadway ROW and/or existing utilities easements. Sidewalk improvements to Dahlia Drive would include half-width improvements</td>
</tr>
<tr>
<td><strong>Policy C-1.2</strong> Require new development to provide and enhance connectivity to existing transportation facilities via the provision of key roadway connections, sidewalks (where appropriate or desired in residential neighborhoods), and bicycle facilities.</td>
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<tr>
<td><strong>Policy C-1.3</strong> Require new development and redevelopment to provide good internal circulation facilities that meet the needs of pedestrians, bicyclists, children, seniors, and persons with disabilities.</td>
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<tr>
<td><strong>Goal C-2.0:</strong> A comprehensive circulation network to move people and goods safely and efficiently for all modes of travel.</td>
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<tr>
<td><strong>Policy C-2.2</strong> Roadway facilities shall be constructed or upgraded, where feasible, to meet the design guidelines described in Table C-1. For streets that are not currently built to their ultimate</td>
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### Table 4.8-1 General Plan Consistency

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<td>design, the City may require the dedication of right-of-way or other improvements as a condition of land development consistent with SBMC regulations.</td>
<td>consisting of pavement, sidewalk, gutter, curb, and a curb cut/driveway entrance to the underground parking garage for commercial users. Improvements to South Sierra Avenue would include half-width improvements consisting of sidewalk, gutter, curb, off-street parking, and a curb cut/driveway entrance to the underground parking garage for commercial users. Improvements to Highway 101 would include closing the two existing driveways and improvements to the existing sidewalk, curb, and gutter.</td>
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<tr>
<td><strong>Policy C-2.3</strong> Require new developments to be served by roads of adequate capacity and design standards to provide reasonable access by cars, trucks, transit, pedestrians, and/or bicycles.</td>
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<tr>
<td><strong>Policy C-2.5</strong> Pursue measures to reduce congestion at intersections, while also balancing the needs of pedestrians, cyclists and transit riders.</td>
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As discussed in Section 4.12, Transportation and Traffic, all street segments and intersections within the project area are projected to operate at an acceptable level of service when project traffic is added to existing traffic levels. Roads serving the project have adequate capacity and design standards to provide reasonable access by cars, trucks, transit, pedestrians and/or bicycles. Perimeter sidewalks would be provided along Highway 101, South Sierra Avenue, and Dahlia Drive. The site is also accessible to the Coastal Rail Trail located across Highway 101. Bicycle access is provided by an existing class II bike lane located along northbound Highway 101 and a class III “sharrow” bike lane along southbound Highway 101. Transit access would be provided by a bus stop on Highway 101 and the Solana Beach Transit Station located across Highway 101.

**Goal C-3.0** – Adequate measures to ensure traffic safety.

- **Policy C-3.1** Ensure that the development of new private driveways does not pose significant traffic hazards for major arterials and residential collector roads.
- **Policy C-3.3** Enhance connectivity by eliminating gaps and barriers in roadway, bikeway, and pedestrian networks.
- **Policy C-3.6** Maintain a roadway circulation system with multiple alternative routes, to the extent feasible, to ensure mobility in the event of emergencies, and to minimize the need for capacity increases on particular streets. As needed, use signage to direct traffic to alternative routes during peak periods.

**Consistent.** Vehicle access to the project site would be provided to the underground parking structure via one driveway on Dahlia Drive and one driveway on South Sierra Avenue. Both entrances would be unsignalized, full movement driveways allowing inbound and outbound movements. The driveway on South Sierra Avenue would be for the project residents and the driveway on Dahlia Drive would be for the commercial retail, office and restaurant patrons and employees. As discussed in Section 4.12, Transportation and Traffic, both new driveway entrances are expected to operate at LOS A. The driveway at Dahlia Drive would be located across from an existing driveway that provides access to the current businesses located immediately south of the project site, including...
Table 4.8-1 General Plan Consistency

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<td><strong>Policy C-3.7</strong> Consider traffic circles as an intersection traffic control option, where feasible and appropriate.</td>
<td>a bank and office building. The new driveways would meet the City’s design criteria for safety. Both of the new project driveways would be designed to provide adequate sight distances to drivers utilizing the driveways and would not result in a design feature that would cause increased hazards, including conflicts with the driveway across the street on the south side of Dahlia Drive.</td>
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<tr>
<td><strong>Policy C-3.8</strong> Maintain safety throughout the circulation system by taking opportunities to introduce a safe design speed to any new roadways or during improvements to existing roads or intersections.</td>
<td>The project proposes the addition of sidewalks along Dahlia Drive and South Sierra Avenue to provide continuous pedestrian access to and through the project site. Furthermore, the proposed project has been designed to provide an east-west pedestrian walkway through the project to allow for access between Highway 101 and South Sierra Avenue without the need to walk along Dahlia Drive. Striped pedestrian crossings are available at the intersection of Highway 101 and Dahlia Drive, allowing safe pedestrian access to the project site and existing, adjacent businesses. No gaps or barriers would occur in adjacent roadways or bikeways.</td>
</tr>
<tr>
<td><strong>Policy C-3.9</strong> Reduce accident risk on arterial streets by consolidating and minimizing driveways whenever possible.</td>
<td>Consistent. Bicycle access is provided by an existing class II bike lane located along northbound Highway 101. Along southbound Highway 101, there is a class III bike lane, or “sharrow,” where the entire lane can be used by bicycles. Bicycles would also be able to access South Sierra Avenue from the project site, which is regularly traveled by cyclists, although there are no designated bicycle lanes on South Sierra Avenue. The proposed project would provide a total of 32 outdoor bicycle parking spaces in at least six locations fronting Highway 101 and Dahlia Drive to serve the proposed commercial retail and restaurant uses. In addition, at least two outdoor bicycle parking areas would be provided to serve the proposed commercial office uses in the middle of the project. The residential portion of the parking garage would also provide a dedicated bike storage area to serve the proposed residential uses. No personal lockers or shower rooms would be provided for the proposed commercial uses at the project site.</td>
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Goal C-8.0: Safe alternatives to motorized transportation that meet the needs of all city residents, reduce vehicle trips, save energy, and improve air quality.

- **Policy C-8.3** Require new or expanded uses to provide adequate bicycle parking and support facilities.
- **Policy C-8.7** Seek opportunities to reduce vehicle trips before requiring physical roadway improvements.

Goal C-9.0: A comprehensive and integrated bikeway system, which provides for the safe and efficient movement of cyclists.

- **Policy C-9.6** Require new development and redevelopment to provide safe, secure bicycle parking facilities.
- **Policy C-9.7** Require new commercial development and redevelopment to provide connections to existing and proposed bicycle routes, where appropriate.
- **Policy C-9.8** Encourage existing businesses and
### Table 4.8-1 General Plan Consistency

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<tr>
<td>new development or redevelopment projects to promote bicycling and provide bike rack facilities, personal lockers, and shower rooms.</td>
<td><strong>Consistent.</strong> An east-west pedestrian corridor would provide a pathway through the project site that would provide access between Highway 101 and South Sierra Avenue. ADA ramps would be located throughout the internal onsite walkways. Regional pedestrian access is currently provided via sidewalks along Highway 101, the west side of South Sierra Avenue, the south side of Dahlia Drive, and a pedestrian bridge over the NCTD ROW connecting Highway 101 and the Coastal Rail Trail to South Cedros Avenue. Existing crosswalks are located at the intersection of Dahlia Drive and Highway 101, which would provide pedestrians access to the project’s restaurant, retail, and office spaces. Pedestrian access to the multi-family residential units would be available along South Sierra Avenue, Dahlia Drive, and Highway 101. Sidewalks are not currently provided along the entire project frontage. The project would create sidewalks along Dahlia Drive and South Sierra Avenue, and would make sidewalk improvements along Highway 101 along the project perimeter which would facilitate pedestrian movement.</td>
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**Goal C-10.0:** A universally accessible, safe, and convenient system of sidewalks or pathways throughout the city that encourages walking and is harmonious with the surrounding neighborhood.

- **Policy C-10.4** Require new development and redevelopment to provide adequate pedestrian access and, where appropriate, incorporate pedestrian-oriented street designs that provide a pleasant environment for walking.

**GOAL C-11.0:** An adequate supply of private off-street and public parking to meet the needs of residents and visitors to the city in a way that balances economic development, livable neighborhoods, environmental health, and public safety.

- **Policy C-11.1** In general, maintain parking requirements for specified land uses, but allow for a reduction in parking requirements for existing buildings that change uses and cannot accommodate current parking standards without significantly altering the site. In determining what constitutes sufficient parking under these circumstances, the City may take into consideration: 1) the overall effectiveness of the circulation system as a whole (i.e., pedestrians, bicyclists, motorized vehicles, etc.); 2) the particular needs of a specific location and/or project; 3) the parking generation demand of the proposed use; 4) the availability of public parking.

**Consistent.** A two-level subterranean parking garage is proposed for residential and commercial tenants, guests, employees, and patrons of the office, restaurant, and retail uses. The parking garage would include a total of 366 parking spaces. Additionally, ten handicapped accessible spaces would be provided, two of which would be van-accessible. In addition, seven new reverse-diagonal parking spaces would be provided on South Sierra Avenue along the project’s western boundary. The total number of parking spaces required by SBMC 17.52 for the proposed development is 361. The total number of required ADA-accessible stalls is eight, with two of those being van-accessible. The proposed project would exceed the parking requirements.
### Table 4.8-1 General Plan Consistency

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<td>spaces; and 5) the ability of the project to aid in the reduction of personal vehicle use and the corresponding reduction in air pollution, energy consumption, greenhouse gas emissions, and other environmental effects.</td>
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<tr>
<td><strong>Policy C-11.6</strong> Require the use of universal design standards in parking design and compliance with the Americans with Disabilities Act accessibility guidelines.</td>
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<tr>
<td><strong>Policy C-11.7</strong> Provide clearly marked pedestrian paths between on-street parking, off-street parking facilities, and the buildings they serve, where feasible.</td>
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#### Noise Element

**Goal 3.1** – To protect public health and welfare by eliminating existing noise problems and by preventing significant degradation of the future acoustic environment.

**Objective 2.0** – Establish measures to control noise impacts from transportation related noise sources.

- **Policy 2.a** – The City shall require the construction of barriers to mitigate sound emissions where necessary and feasible.

**Consistent.** See discussions below for each applicable objective and related policies.

**Consistent.** An operational noise technical analysis was completed by ABC Acoustics in 2018. As discussed in Section 4.9, Noise, project-generated traffic would increase noise levels along surrounding roadways. However, noise levels would not exceed the normally acceptable noise compatibility levels of 65 dBA CNEL at residential uses or 70 dBA CNEL at commercial uses. The proposed parking garage would be underground, reducing the noise exposure from parking automobiles.

The proposed project design includes barrier walls (parapet) around each proposed HVAC equipment bay, which would mitigate the equipment sound emissions. New noise-sensitive receptors introduced to the site would not be exposed to excessive noise levels because each residential unit would include installation of an air-conditioning system that allows for closed-window conditions. A temporary barrier would be installed around the construction site along with other noise-reducing measures to mitigate temporary construction related sound emissions (see Mitigation Measure NOI-4).
### Table 4.8-1 General Plan Consistency

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<tr>
<td><strong>Objective 4.0</strong> - Integrate the adopted community noise ordinance and related considerations into the city’s ongoing land use planning process.</td>
<td><strong>Consistent.</strong> An operational noise technical analysis was completed by ABC Acoustics in 2017. As discussed in Section 4.9, Noise, implementation of the proposed project would potentially result in excessive noise levels if truck deliveries and use of restaurant patios would occur during nighttime hours. The project would incorporate mitigation measures NOI-1 and NOI-2 to reduce the potentially excessive noise levels to a less than significant level.</td>
</tr>
<tr>
<td><strong>Policy 4.a</strong> The city shall require that potential noise impacts be addressed for all projects as part of the initial study per CEQA to determine if unacceptable noise levels will be created or experienced. Depending on the level of impact, a noise impact evaluation may be required to be undertaken. Should noise abatement be necessary, the city shall require the implementation of mitigation measures based on a detailed technical study prepared by a qualified acoustical engineer.</td>
<td><strong>Consistent.</strong> A geotechnical report was prepared for the proposed project by NOVA in 2012. Section 4.4, Geology and Soils, identifies that the project would comply with the Uniform Building Code. The proposed development would be engineered to withstand the expected ground acceleration that may occur in the project area from regional active faults. The proposed project is not located on a hillside and does not require compliance with the Hillside Development Ordinance. Excavations for the proposed project may result in unstable soils. Applicable recommendations in the Geotechnical Investigation have been incorporated into mitigation measure GEO-1, which would reduce the potential impact to a less than significant level.</td>
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<tr>
<td><strong>Policy 4.b</strong> The city shall not approve projects that do not comply with the standards established in the community noise ordinance concerning noise/land use compatibility unless all practical measures have been taken to mitigate potential noise impacts and the City Council adopts a “Statement of Overriding Considerations” which provides the rationale for approving such a project.</td>
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<tr>
<td><strong>Policy 4.c</strong> The city shall establish a noise monitoring program to identify progress in achieving noise abatement objectives and to perform necessary updating of the noise element and community noise ordinance.</td>
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### Safety Element

| Goal 3.1 - To minimize hazards to public health, safety, and welfare resulting from natural and man-made phenomena. | **Consistent.** As discussed in Section 4.9 Noise, noise resulting from construction activities, including ground-borne vibration, has the potential to produce noise levels in excess of established standards. The project has incorporated mitigation measure NOI-3 to reduce the level of significance. Implementation of mitigation measure NOI-3 would allow surrounding land uses to prepare for potential vibration exposure. Implementation of mitigation measure NOI-3 would reduce nuisance impacts related to construction vibration to a less than significant level. |
| Objective 1.0 – Ensure that geologic hazards in all areas for human use or habitation are mitigated properly or avoided prior to or during development. | |
| **Policy 1.a** – The City shall require geotechnical evaluations by a certified engineering geologist for all grading and construction proposed within any area of significant erosion, slope instability, and/or areas subject to severe seismic hazards, including inland and coastal bluffs. | |
| **Policy 1.c** – The City shall require construction to be in conformance with the Uniform Building Code, specifically Chapter 23 as it provides for earthquake resistant design, Chapter 70 as it |
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<tr>
<td>provides for excavation and grading, and with the city’s adopted hillside development ordinance.</td>
<td>Consistent. As discussed in Section 4.7, Hydrology and Water Quality, the project site is not located in a 100-year flood hazard area. According to the FEMA Flood Insurance Rate Map for the project site, the project site is located within Flood Zone X, which represents areas of 0.2 percent annual chance of flood. Therefore, the proposed project does not propose land uses within the 100-year flood hazard area.</td>
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**Objective 2.0 - Establish siting and development standards to reduce risk and damage from flood hazards.**

- **Policy 2.c** The city shall enact an ordinance which specifies the types of land uses to be permitted within 100-year flood hazard areas and which requires all structures proposed within 100-year flood zones to be elevated at least one foot above the 100-year flood level.

- **Policy 2.d** The city shall require the submittal of information prepared by a qualified civil or hydrological engineer which certifies compliance with development standards established for 100-year flood zones.

**Objective 3.0 – Minimize the adverse effects of urbanization upon drainage and flood control facilities.**

- **Policy 3.a** The city shall require the implementation of adequate erosion control measures for development projects to minimize sedimentation damage to drainage facilities.

**Conservation and Open Space Element**

- **Goal 3.1 - To protect and conserve the city’s natural and cultural resources.** Consistent. As discussed in Section 4.7, Hydrology and Water Quality, the proposed project would not violate state and federal
### Table 4.8-1 General Plan Consistency

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<tr>
<td><strong>Objective 1.0</strong> – Ensure that the quality of water resources do not violate state and federal water quality standards as a result of development within the City of Solana Beach.</td>
<td>water quality standards. The project has incorporated construction-related and permanent BMPs in the design of the project. Construction BMPS would include: stabilization of exposed or stockpiled soils and cleared or graded slopes, minimization of disturbed areas to the portion of the project site necessary for construction, protection of all storm drain inlets on site or downstream of the project site to eliminate entry of sediment. Prior to discharge, the majority of the site drainage would be pumped into biofiltration planters before flowing into the adjacent streets. The biofiltration planters would function as flow-through planters which remove pollutants as runoff passes through the soil layer. The project also includes a stormwater detention system in the bottom of the parking garage.</td>
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<tr>
<td>▪ <strong>Policy 1.b</strong> – The city shall require the incorporation of adequate erosion control measures into development projects that may otherwise impact water resources adversely. Such measures shall be reviewed by the Planning and Engineering Departments and shall include sandbagging of newly graded slopes, prompt planting of disturbance areas, phasing of grading and construction activities to minimize exposed areas susceptible to erosion, and the routing of runoff flows through desilting basins prior to discharge into any watercourse.</td>
<td><strong>Consistent.</strong> A letter was received from the Santa Fe Irrigation District advising that adequate water supplies are available to serve the proposed project. The project proposes high-efficiency indoor plumbing fixtures. The project includes a conceptual landscape plan that incorporates the use of drought-tolerant plant species. The planted areas would be watered by an automatic, underground, high-efficiency, low-flow irrigation system. The project design would incorporate water conservation equipment that includes rain sensors, check valves and low flow irrigation heads.</td>
</tr>
<tr>
<td><strong>Objective 2.0</strong> – Maintain adequate domestic water supplies for all residents and uses within the city.</td>
<td><strong>Consistent.</strong></td>
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<tr>
<td>▪ <strong>Policy 2.a</strong> – The city shall require all new developments to incorporate water conservation measures into project design to the greatest extent possible. Such measures may include, but are not limited to, the use of plumbing fixtures which reduce water usage (in accordance with Title 24 of the California Administrative Code) and xeriscape landscaping which maximizes the use of drought-tolerant plant species and drip irrigation systems.</td>
<td><strong>Consistent.</strong> The environmental impacts associated with the proposed project have been evaluated in this EIR pursuant to CEQA. No unavoidable impacts would result from implementation of the proposed project. All technical reports prepared for the proposed project have been summarized in this EIR with language for laypersons and have been included as appendices to the EIR.</td>
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<tr>
<td><strong>Objective 4.0</strong> - Encourage sound environmental planning practices in all developments.</td>
<td><strong>Consistent.</strong></td>
</tr>
<tr>
<td>▪ <strong>Policy 4.a</strong> - The city shall use the environmental review procedures established by the California Environmental Quality Act (CEQA) to ensure that potential adverse effects upon natural and cultural resources are identified.</td>
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<tr>
<td>▪ <strong>Policy 4.b</strong> - The city shall not permit land uses that would have unavoidable significant adverse impacts upon natural or cultural resources unless a statement of overriding considerations is adopted by the Solana Beach City Council.</td>
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<tr>
<td>▪ <strong>Policy 4.c</strong> - Technical reports made available to the public in conjunction with environmental</td>
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**Harris & Associates**

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<td>documentation shall include summaries written for laypersons (e.g., soils and geology reports that minimize the use of technical jargon).</td>
<td>Consistent. The project site consists of non-native trees and shrubs, existing buildings, cement and asphalt. The project site does not contain any important biological habitat or rare and endangered species. As discussed in Section 4.14, Biological Resources, the existing non-native trees provide nesting opportunities for protected birds. The project incorporates mitigation measure BIO-1 to reduce potentially significant impacts to protected nesting birds to a less than significant level. No other impacts to biological resources would occur.</td>
</tr>
<tr>
<td><strong>Objective 5.0</strong> – Preserve important biological habitat and protect sensitive, rare, and endangered species of flora and fauna.</td>
<td>Consistent. As discussed in Section 4.3, Cultural Resources, a pedestrian archaeological survey of the proposed project area was conducted on July 18, 2015 by a certified archaeologist. No important historical or archaeological resources were found on site. However, construction activities may have the potential to disturb unknown subsurface materials. A construction monitoring program has been included in the project (mitigation measures CUL-1 and CUL-2) to prevent the loss of unknown subsurface cultural materials.</td>
</tr>
<tr>
<td>▪ <strong>Policy 5.a</strong> – The city shall require that all development proposals provide adequate mitigation measures for identified significant biological resources, including selective preservation, replanting, sensitive site planning techniques, the provision of replacement habitat, and/or other appropriate measures.</td>
<td>Consistent. The site is underlain with Quaternary undivided paralic (Qop6) deposits which have high to moderate potential to contain paleontological resources. A construction monitoring program has been included in the project (mitigation measure CUL-3) to prevent the loss of important paleontological resources.</td>
</tr>
<tr>
<td><strong>Objective 6.0</strong> – Prevent the loss of important historical, archaeological, and paleontological resources.</td>
<td>Consistent. The proposed project is designed to be visually compatible with the character of the surrounding area and minimize obstruction of significant views. Existing site character would be improved by implementation of the proposed project. The site would change from a mostly vacant lot with a number of abandoned buildings which lack distinctive architectural characteristics to an occupied mixed-use development which would be visually compatible with the surrounding land uses. The proposed project’s color palette would include warm earth tones, accented balconies,</td>
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<tr>
<td>▪ <strong>Policy 6.b</strong> – The city shall require that sites proposed for future development are to be evaluated by certified archaeologists and/or paleontologists in accordance with CEQA. Where potentially significant adverse impacts are identified, the city shall require appropriate mitigation measures such as in situ preservation or professional retrieval.</td>
<td></td>
</tr>
<tr>
<td><strong>Goal 3.2</strong> - To protect and enhance sensitive open space areas and viewsheds.</td>
<td>Consistent. The proposed project is designed to be visually compatible with the character of the surrounding area and minimize obstruction of significant views. Existing site character would be improved by implementation of the proposed project. The site would change from a mostly vacant lot with a number of abandoned buildings which lack distinctive architectural characteristics to an occupied mixed-use development which would be visually compatible with the surrounding land uses. The proposed project’s color palette would include warm earth tones, accented balconies,</td>
</tr>
<tr>
<td><strong>Objective 3.0</strong> – Maintain the quality of scenic views in the city as well as the overall visual quality of the city’s landscape.</td>
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<tr>
<td>▪ <strong>Policy 3.a</strong> – The city shall require new developments to be subjected to visual impact analyses where potential impacts upon sensitive locations are identified.</td>
<td></td>
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<tr>
<td>▪ <strong>Policy 3.b</strong> – The city shall require that new structures and improvements be integrated with</td>
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Table 4.8-1 General Plan Consistency

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<tr>
<th>General Plan Goal/Objective/Policy</th>
<th>Project Consistency Analysis</th>
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<tr>
<td>the surrounding environment to the greatest possible extent.</td>
<td>wooden trellises, stone or tile finish, and metal roofing, similar to the existing surrounding development along Highway 101. The proposed project is not located in the City’s Dark Sky Overlay.</td>
</tr>
<tr>
<td>• Policy 3.c – The city shall enforce its adopted design guidelines as specified in the community design element of the General Plan.</td>
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<tr>
<td>• Policy 3.d – The city shall encourage the preservation of private views, including policies for tree trimming and removal.</td>
<td></td>
</tr>
<tr>
<td>• Policy 3.e – The city shall designate areas that will be subject to a dark sky policy.</td>
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</table>

Economic Development Element

| Goal 3.2 – To promote the City’s economic health by upgrading its commercial base.                  | Consistent. The proposed mixed-use development would allow vehicular access via two driveways. The driveway on Dahlia Drive would be for patrons and employees of the proposed office, restaurant, and retail uses. Regional access is provided via Highway 101, and to/from Interstate 5 (I-5) via Lomas Santa Fe Drive and Via De La Valle. As discussed in Section 4.12, Transportation and Traffic, the project proposes a two-level subterranean parking garage with a total of 366 spaces, 313 of which would be to serve the proposed commercial uses. On the first floor of the parking garage, a total of 111 stalls would be dedicated for the commercial uses; on the second floor 202 parking spaces would be dedicated to the commercial uses. The required number of parking spaces to serve the new commercial development is 308. Therefore, the proposed project would provide more than the required number of spaces for the proposed commercial uses. |
| Objective 2.0 – Ensure adequate access to accommodate existing and future levels of commercial visitors and employees, through the Circulation Element of the Solana Beach General Plan. |                                                                                              |
| • Policy 2.a – The city shall ensure the provision of adequate parking facilities to serve new commercial development. |                                                                                              |

City of Solana Beach Highway 101 Corridor Specific Plan

As discussed in Section 4.8.2.2, the Specific Plan identifies land use type and intensity, parking requirements, development standards, and design guidelines for the Highway 101 Corridor, which includes the proposed project site. The proposed project is located within the South Highway 101/South Sierra District. Table 4.8-2 identifies the policies found in the various sections of the Specific Plan that are relevant to the proposed project. This table also provides an evaluation of the proposed project’s consistency with these sections of the Specific Plan. As identified in Table 4.8-2, the proposed project would be consistent with the Highway 101 Corridor Specific Plan.
### 2.2 Urban Design Guidelines

Concept #5: Improve site planning to minimize the dominance of traffic and asphalt in the Specific Plan area.

- **Restricting Access:** The community wishes to improve traffic flow without increasing speeds and to eliminate the visual blight of automobiles in the corridor at the same time. Limiting automobile access from Highway 101 and South Sierra Avenue, and emphasizing cross-streets and shared driveways for access, can improve flow by limiting disruptions. This also provides for greater landscape continuity and pedestrian walkways.

- **Parking:** Parking requirements are established in Section 3.0 – Development Plan. Requirements are standard City-wide for all districts except the Plaza. The Plaza District has reduced requirements based on shared use and transit access.

### Consistent

The proposed project would provide two new garage entrances via driveways on Dahlia Drive and South Sierra Avenue. Both entrances would be unsignalized, full movement driveways allowing inbound and outbound movements. The South Sierra Avenue entrance would be for residents only and the Dahlia Drive entrance would be for the commercial office, retail and restaurant patrons and employees. The two existing driveways to the site along Highway 101 would be removed and no automobile access would be provided to the project site from Highway 101. Landscaping along Highway 101 would include the use of street trees, planters, built-in benches, concrete walkways, paver tiles, and steps.

As discussed in Section 4.12, Transportation and Traffic, the project proposes a two-level subterranean parking garage with a total of 366 spaces, 313 of which would serve the proposed commercial uses. On the first floor of the parking garage, a total of 111 stalls would be dedicated for the commercial uses; on the second floor 202 parking spaces would be dedicated to the commercial uses. The required number of parking spaces to serve the new commercial development is 308. Therefore, the proposed project would provide more than the required number of spaces for the proposed commercial uses.

For residential uses, a total of 53 parking spaces would be dedicated on the first floor of the parking garage, including 47 stalls for residents and six stalls for residential guest parking. None of the parking stalls on the second floor would be reserved for the residential uses. The required number of parking spaces to serve the new residential development is 53 (47 for the residents and six guest spaces). Therefore, the project would provide adequate parking to serve the proposed uses.

### 5.1.1 Area Wide Guidelines

**Area-wide Landscaping:** Create an overall unity for the Specific Plan area through coordination of landscape character of public and private areas, including design of planting and irrigation, as well as

### Consistent

The proposed project has developed a conceptual landscape plan as shown in Figures 3-5 through 3-8. Landscaping would include a variety of trees, shrubs, groundcover, seat walls, a rainwater element, raised BMP planters, modular planters, and green screen vertical walls. The landscape plan...
Table 4.8-2 Highway 101 Corridor Specific Plan Consistency

<table>
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<tr>
<td>hardscape design for paving, walls, landscape structures and street furniture.</td>
<td>includes street trees and flowering shrubs around the buildings and courtyard areas, as well as a bocce court and synthetic turf area in the on-site plaza walkway. Groundcover would include ornamental plants. Concrete pavers, built-in benches, and wood patios would also be installed. The landscape plan would include only water-efficient drip irrigation systems, low to moderate water use plants, and does not include any turf.</td>
</tr>
<tr>
<td><strong>Area-wide Site Planning:</strong> Improve the overall appearance and function of properties by creating public edges, greater accessibility, public activity areas, and screened service areas.</td>
<td>The proposed project would include sidewalk, curb and gutter improvements to Dahlia Drive, South Sierra Avenue, and Highway 101 along the perimeter of the proposed project. The proposed project would provide two garage entrances via driveways on Dahlia Drive and South Sierra Avenue. Both entrances would be unsignalized, full movement driveways allowing inbound and outbound movements. The South Sierra Avenue entrance would be for residents only and the Dahlia Drive entrance would be for the commercial office, retail and restaurant patrons and employees. The existing driveways to the site from Highway 101 would be removed and no automobile access would be provided to the project site from Highway 101.</td>
</tr>
<tr>
<td><strong>Sidewalks:</strong> Provide sidewalks adjacent to all public streets, and by easement on some private sites, to provide access points at South Sierra Avenue.</td>
<td>The project proposes additional streetlights and residential lighting, commercial and mixed-use signage, as well as light from vehicle headlights, as described in further detail in Section 4.1.5.4. All lighting would be designed to illuminate specific areas of the project site. Although the lighting would be visible from off-site locations and would contribute to the overall ambient glow of the project site and surrounding areas, lighting from on-site uses would be designed so as not to spill directly onto other areas.</td>
</tr>
<tr>
<td><strong>Driveway Locations:</strong> Eliminate driveway openings for commercial uses on South Sierra Avenue and minimize the number of openings on Highway 101 and Cedros to improve traffic flow. Sites with access to cross streets will take access from the cross street. No new access should be permitted from South Sierra Avenue to commercial uses.</td>
<td><strong>Consistent.</strong> The proposed project’s conceptual landscape plan incorporates plant materials and tree canopy character within the building setback areas visible from Highway 101. The residential and office buildings that would face South Sierra Avenue would incorporate trees and planters and would be consistent with the residential character on the west side of the street. Each of the street-facing residential units would include patios and balconies enclosed</td>
</tr>
<tr>
<td><strong>Area-wide Lighting:</strong> Provide lighting on all streets, parking areas, and public walkways. Incandescent or other white lighting can be used for features such as outdoor dining, and other enclosed architectural elements, store fronts, and signs.</td>
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5.1.5 South Highway 101/South Sierra District Landscaping: Create a distinct southern entry by developing:

- **Rustic Parkway Character:** Incorporate the plant materials and tree canopy character of the Linear Park within building setback areas and parking areas visible from Highway 101 for development west of the highway.
- **Sierra Residential Character:** Create a residential character along the east side of South Sierra.
Table 4.8-2 Highway 101 Corridor Specific Plan Consistency

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<tr>
<td>Avenue that is similar to that of the residential development on the west side of South Sierra Avenue. This includes varied trees, lawn areas, and semiprivate gardens and entries. Screening with hedges, trees, and shrubs shall be used to fully screen parking adjacent to South Sierra Avenue.</td>
<td>with a metal or wood railing system or planters. The exterior of the residential units would consist of stone or tile wall finish. The multi-family housing units would be partially obstructed with street trees lining South Sierra Avenue.</td>
</tr>
<tr>
<td>The proposed project would provide two garage entrances via driveways on Dahlia Drive and South Sierra Avenue. The existing driveways to the site from Highway 101 would be removed and no automobile access or parking would be provided to the project site from Highway 101. Additionally, seven new reverse-diagonal parking spaces would be provided for the public on South Sierra Avenue.</td>
<td>The proposed project would include the construction and/or improvement of sidewalks along the perimeter of the project, including along Highway 101, Dahlia Drive, and South Sierra Avenue.</td>
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<tr>
<td>The proposed project would maintain a landscaped parkway of approximately 10 feet wide and a walkway approximately six feet wide along Highway 101 consisting of concrete pavers and concrete colored pavement plus an at-grade parkway planter that would be between the road and the sidewalk. The project also proposes a sidewalk of approximately six feet wide along Dahlia Drive and South Sierra Avenue. A parkway planting area would also be provided along the frontage on Dahlia Drive and South Sierra Avenue. A paved pedestrian walkway would be provided to each building with frontage along Highway 101. See Conceptual Landscape Plan for more details (Figure 3-5). Final landscape and sidewalk dimensions would be subject to City Council approval.</td>
<td>As discussed in Section 4.12, Transportation and Traffic, the project proposes a two-level subterranean parking garage with a total of 366 spaces, to serve the proposed residential and commercial uses. As currently designed, no parking would be provided along the project frontage on Highway 101. A total of seven new reverse-diagonal parking spaces would be</td>
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Site Planning: Create a distinct southern entry by utilizing the site planning approaches described below:

Vehicular Access: Limit access to parcels from Highway 101 to one driveway opening per parcel or 100 feet of linear frontage.
- Sharing of access between parcels at points opposite existing median openings on Highway 101 is encouraged.
- No site with 50 feet or more of frontage on a cross street shall take access from Highway 101 or South Sierra Avenue.
- Parking areas for commercial uses shall have no access to South Sierra Avenue.
- Residential uses provided under mixed-use guidelines may take access from South Sierra Avenue, but shall have circulation separated from adjacent commercial and office uses.

Site Pedestrian Access: Provide a paved pedestrian walkway a minimum of four feet wide from the parkway walk on Highway 101 to all buildings within a site with highway frontage.


Other Walkways: Provide a six-foot-wide landscaped parkway and a six-foot-wide concrete parkway walk on cross streets and South Sierra Avenue.

South Highway 101/South Sierra District Parking: Create a distinct southern entry to the Specific Plan area by providing parking either on-site or in consolidated areas shared by two or more parcels. No parking will be provided at the curb on either side of Highway 101, but is encouraged on South Sierra Avenue and cross streets.

As discussed in Section 4.12, Transportation and Traffic, the project proposes a two-level subterranean parking garage with a total of 366 spaces, to serve the proposed residential and commercial uses. As currently designed, no parking would be provided along the project frontage on Highway 101. A total of seven new reverse-diagonal parking spaces would be
Table 4.8-2 Highway 101 Corridor Specific Plan Consistency

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<td>provided along the project frontage on South Sierra Avenue.</td>
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5.2 Architectural Guidelines

Architectural Guidelines for mixed-use residential development include:

- Residential units in mixed-use projects should have different architectural character than office and retail uses.
- Materials and forms used for residential uses should be compatible with the architectural character of adjoining uses.
- Awnings, trellises, and canopies are encouraged for use with mixed-use residential uses.
- Balconies and decks are encouraged.
- Mansard roofs are not permitted.
- Flat roofs, gabled roofs, and hip roofs are permitted.
- All mechanical equipment shall be hidden from view by walls which are architecturally integrated within the building design.

Architectural Guidelines for building “shell” design include:

- New building projects should be sited to orient toward the Street.
- New building projects should concentrate automobile parking so that it does not conflict with the opportunity for a pedestrian experience within the project. Whenever possible, parking should be arranged in “pockets” between and behind buildings as opposed to between buildings and the street.
- Rather than creating one large monotonous structure, buildings should be grouped to provide pedestrian plazas and outdoor eating areas.
- Buildings that are sidewalk adjacent, or “satellite” buildings, should house functions that are oriented toward the sidewalk pedestrian experience and should comply with the architectural guidelines for pedestrian-oriented development.

Consistent. The proposed residential component would be comprised of two separate buildings. The residential buildings would be two stories tall with a maximum height of 33.2 feet. An open east-west pedestrian walkway is proposed between the residential and commercial land uses. The residential component of the mixed-use development is designed to be compatible with the architectural character of adjacent land uses. The residential component would have private patios or balconies; wood patios; and a combination of tile and stone siding, with the incorporation of reclaimed materials. The retail uses would have an industrial architectural character. The project includes awnings and vertical planted walls. The roof lines would consist of both flat and sloped lines. All rooftop mechanical equipment would be screened with parapet walls.

The proposed project has been sited to orient toward the street. Commercial restaurant/retail space at ground level would front Highway 101 and Dahlia Drive. The project proposes subterranean parking and no parking at grade or between buildings. Regional pedestrian access is provided via the perimeter sidewalks along Highway 101 and a pedestrian bridge over the NCTD ROW connecting the project site, Highway 101 and the Coastal Rail Trail to South Cedros Avenue. An existing crosswalk is located at the intersection of Dahlia Drive and Highway 101. The intersection of Dahlia Drive and Highway 101 would provide pedestrian access to the commercial restaurant/retail space on the first floor. Pedestrian access to the multi-family residential units would be available along South Sierra Avenue and Dahlia Drive. Sidewalk improvements to Dahlia Drive, South Sierra Avenue, and Highway 101 along the perimeter of the project would facilitate pedestrian movement. An east-west pedestrian corridor and plaza would provide pedestrian access to the on-site restaurant/retail uses, outdoor eating areas, and connectivity between South Sierra Avenue and Highway 101.
City of Solana Beach LCP/LUP

As discussed in Section 4.8.2.2, the LUP establishes long-term goals that promote the beneficial use of lands in the city and the beach and shoreline. The proposed project is located within the designated Scenic Area Overlay Zone, as shown on Figure 4.1-1. Table 4.8-3 identifies the policies found in the various sections of the LUP that are relevant to the proposed project. This table also provides an evaluation of the proposed project’s consistency with these sections of the LUP. As identified in Table 4.8-3, the proposed project would be consistent with the LUP.

<table>
<thead>
<tr>
<th>Table 4.8-3 Local Coastal Plan LUP Consistency</th>
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<tbody>
<tr>
<td><strong>Section</strong></td>
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<tr>
<td>Chapter 5 – New Development</td>
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<tr>
<td>3. General Policies</td>
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<tr>
<td>Policy 5.10: Assess the potential for environmental effects of new development or redevelopment before receiving City approval in accordance with CEQA and to avoid, reduce and/or mitigate impacts where feasible.</td>
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<tr>
<td>10. Archaeology</td>
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<tr>
<td>The following City policies are designed to apply Coastal Act policy to conditions in Solana Beach:</td>
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<tr>
<td>Policy 5.51: Identify and mitigate potential impacts of development on archaeological, paleontological and historic resources.</td>
</tr>
<tr>
<td>Policy 5.52: New development shall protect and preserve archaeological, historical and paleontological resources from destruction, and shall avoid, and minimize impacts to such resources.</td>
</tr>
<tr>
<td>Policy 5.53: Where development would adversely impact historical, archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.</td>
</tr>
<tr>
<td>Policy 5.54: The City shall coordinate with appropriate agencies to identify archaeologically sensitive areas. Such information should be kept confidential to protect archaeological resources.</td>
</tr>
<tr>
<td>Policy 5.55: Coastal Development Permits (CDPs) for new development within archaeologically sensitive areas shall be conditioned upon the implementation of the appropriate mitigation measures.</td>
</tr>
<tr>
<td>Policy 5.56: New development on sites identified as archaeologically sensitive shall include on-site monitoring of all grading, excavation, and site preparation that involve earth moving</td>
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### Table 4.8-3 Local Coastal Plan LUP Consistency

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<th>Project Consistency Analysis</th>
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<td>operations by a qualified archaeologist(s), and appropriate Native American consultant(s).</td>
<td><strong>Consistent.</strong> No rock outcroppings or historical buildings exist at the project site. The key open space areas within the city, including the City’s beaches, parks, golf courses, San Elijo Lagoon, Holmwood Canyon, and Pacific Ocean, are not visible from the proposed project site. However, the proposed project is located along Highway 101, a City-designated scenic roadway and is located within the Highway 101 Corridor Scenic Area Overlay Zone. Commercial retail/restaurant uses would dominate the view of the project site along Highway 101. The exterior of the proposed commercial restaurant/retail space would consist of a stone or tile wall finish and plastered wall surfaces, with aluminum or vinyl door and window systems adorned with awnings. The exterior of the second level office space would consist of plastered wall surfaces and vertical batten siding. Landscaping along Highway 101 would include the use of street trees, planter areas and seat walls, which would partially obstruct the view of the buildings. The building design and project landscaping would protect the scenic and visual qualities of Highway 101.</td>
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1. **Scenic and Visual Resource Identification**

   - **Policy 6.1:** The City of Solana Beach contains scenic resources of local, regional and national importance. The scenic and visual qualities of these areas shall be protected and where feasible enhanced.
   - **Policy 6.2:** Protect the scenic and visual qualities of Solana Beach, including the unique character of the Highway 101 Railway Corridor, the Cedros Design District, and the shoreline.
   - **Policy 6.4:** Locations along public roads, railways, trails, parklands, and beaches that offer views of scenic resources are considered public viewing areas. Existing public roads where there are major views of the ocean and other scenic resources are considered Scenic Roads and include:
     - Highway 101/Pacific Coast Highway and Railway Corridor
     - I-5
     - Lomas Santa Fe Drive
     - Public views to scenic resources from Scenic Roads shall also be protected.
   - **Policy 6.5:** Regulate development in areas with high scenic value to preserve and enhance the scenic resources within and adjacent to such areas to the extent feasible, as well as, to assure exclusion of incompatible uses and structures.
   - **Policy 6.7:** Fences, walls, and landscaping shall not block major public views of scenic resources or views of other public viewing areas.
   - **Policy 6.8:** Proposed development that unreasonably interferes with or degrades natural or man-made visual features of sites, or adjacent sites, which contribute to the City’s scenic attractiveness, as viewed from either a scenic road or scenic resources, including the San Elijo Lagoon Ecological Reserve and its watershed, shall be prohibited.
   - **Policy 6.9:** The impacts of proposed development on existing public views of scenic resources shall be assessed by the City prior to approval of proposed development or redevelopment to preserve the existing character of established neighborhoods. Existing public views of the ocean and designated scenic resources would not be impacted by development of the proposed project.
### Table 4.8-3 Local Coastal Plan LUP Consistency

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<td>public views of the ocean and scenic resources shall be protected.</td>
<td><strong>Consistent.</strong> See response to Policies 6.1, 6.2 and 6.4 above. The proposed building design and landscaping have incorporated the guidelines identified in the Highway 101 Corridor Specific Plan and would protect the scenic and visual qualities of Highway 101. Existing public views of the ocean and scenic resources would not be impacted.</td>
</tr>
<tr>
<td><strong>Policy 6.10:</strong> New development shall be sited and designed to minimize adverse impacts on scenic resources visible from scenic roads or major public viewing areas. If there is no feasible building site location on the proposed project site where development would not be visible then the development shall be sited and designed to minimize impacts on scenic areas visible from scenic roads or major public viewing areas, through measures including, but not limited to, siting development in the least visible portion of the site, breaking up the mass of new structures, designing structures to blend into the natural hillside setting, restricting the building maximum size, reducing maximum height standards, clustering development, minimizing grading, incorporating landscape elements, and where appropriate berthing.</td>
<td><strong>Consistent.</strong> Project alternatives have been developed for the proposed project. Additional analysis on the project alternatives can be found Section 6.0. See response to Policies 6.1, 6.2 and 6.4 above. The proposed building design and project landscaping have incorporated the guidelines identified in the Highway 101 Specific Plan and would protect the scenic and visual qualities of Highway 101. Existing public views of the ocean and designated scenic resources would not be impacted by development of the proposed project. As such, the proposed project design would avoid impacts to scenic resources and mitigation would not be required.</td>
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<tr>
<td><strong>Policy 6.11:</strong> Avoidance of impacts to scenic resources through site selection and design alternatives is the preferred method over landscape screening. Landscape screening, as mitigation of visual impacts shall not substitute for project alternatives including re-siting, or reducing the height, or bulk of structures.</td>
<td><strong>Consistent.</strong> The project site is generally flat, varying in elevation from 61 to 68 feet above msl. The project requires the excavation of 49,200 cy of soil for the construction of the subterranean parking structure. This material would be exported off-site. Grading for the underground parking structure would not substantially alter the existing topography of the site.</td>
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</table>
| **Policy 6.12:** All new development shall be sited and designed to minimize alteration of natural landforms by:  
  o Conforming to the natural topography.  
  o Preventing substantial grading or reconfiguration of the project site.  
  o Eliminating flat building pads on slopes and utilizing split level or stepped-pad designs.  
  o Requiring that man-made contours mimic the natural contours to and blend with the existing terrain of the site and surrounding area.  
  o Minimize grading outside of the building footprint. | **Consistent.** |
### Table 4.8-3 Local Coastal Plan LUP Consistency

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<td>o Clustering structures to minimize site disturbance and to minimize development area.</td>
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<td>o Minimizing height and length of cut and fill slopes.</td>
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<tr>
<td>o Minimizing the height and length of retaining walls.</td>
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<tr>
<td>o Cut and fill operations may be balanced onsite, where the grading does not substantially alter the existing topography and blends with the surrounding area.</td>
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<tr>
<td>o Export of cut material may be required to preserve the natural topography</td>
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- **Policy 6.13**: New development, including a building pad, if provided, shall be sited on the flattest area of the project site, except where there is an alternative location that would be more protective of scenic resources or environmentally sensitive habitat areas (ESHAs).
  
  **Consistent.** The proposed mixed-use development would be located on a 1.95-acre parcel which is relatively flat. No environmentally sensitive habitat areas or native vegetation exist within the project site.

- **Policy 6.14**: All new structures shall be sited and designed to minimize impacts to scenic resources by:
  
  o Ensuring visual compatibility with the character of surrounding areas.
  o Avoiding large cantilevers or under stories.
  o Setting back higher elements of the structure toward the center or uphill portion of the building.

  **Consistent.** The project has been designed to ensure visual compatibility with the surrounding areas. Implementation of the proposed project would change the landscape of the site from a mostly vacant lot containing non-native trees, vegetation and a number of abandoned buildings, which lack distinctive architectural characteristics, to an occupied mixed-use development, which would be visually compatible with the surrounding land uses. The proposed project’s color palette would include warm earth tones, accentuated with balconies, stone or tile finish, and metal roofing that is consistent with the Highway 101 Corridor Specific Plan.

### Development Review Criteria for Projects within Scenic Overlay

- **Policy 6.15**: The general criterion of development review is that the proposed development shall not, to the maximum extent feasible, interfere with or degrade those visual features, natural or manmade, of the site or adjacent sites which contribute to its scenic attractiveness, as viewed from either the scenic highway or the adjacent scenic, historic, or recreational resource. In applying this general criterion, the following policies shall be evaluated when they are applicable as listed below:

  **Consistent.** See responses to Policies 6.1, 6.2, 6.4 and 6.12 above. The project site is located within the Highway 101 Corridor Scenic Area Overlay Zone. Commercial retail/restaurant uses would dominate the view of the project site along Highway 101. The exterior of the proposed commercial restaurant/retail space would consist of a stone or tile wall finish and plastered wall surfaces, with aluminum or vinyl door and window systems adorned with awnings. The exterior of the second level office space would consist of plastered wall surfaces and vertical batten siding. Landscaping along Highway 101 would include the use of street trees, planter areas and built-in benches that would partially obstruct the view of the buildings. The building...
Table 4.8-3 Local Coastal Plan LUP Consistency

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<td><strong>Policy 6.16:</strong> All development shall be compatible with the topography, vegetation, and colors of the natural environment, and with the scenic, historic, and recreation resources of the designated areas.</td>
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**Figures**

- **Figure 4.8-1:** Conceptual Landscape Plan.
- **Figure 4.8-2:** Project Site Plan.

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**Table 4.8-3**

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### Table 4.8-3 Local Coastal Plan LUP Consistency

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<thead>
<tr>
<th>Section</th>
<th>Project Consistency Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>landscaping and plantings which harmonize with the natural landscape of the designated area.</td>
<td></td>
</tr>
<tr>
<td><strong>Policy 6.22</strong>: The alteration of the natural topography of the site shall be minimized and shall avoid adverse effects to the visual setting of the designated area and the existing natural drainage system. Alterations of the natural topography shall be screened from view from either the scenic highway or the adjacent scenic, historic, or recreational resource by landscaping, and plantings which harmonize with the natural landscape of the designated area, except when such alterations add variety to or otherwise enhance the visual setting of the designated area. However, design emphasis shall be placed on preserving the existing quality of scenic resources rather than concealment of disturbances or replacement in kind. In portions of the Scenic Area Overlay, containing sensitive lands grading may be severely restricted or prohibited.</td>
<td>Consistent. The project does not propose the construction of off-site signs. Signs have been incorporated into the design of the project and would comply with height and width limitations. No signs would obstruct views to the ocean or beaches as none of these views exist from the project site. The proposed project is required to prepare a comprehensive sign plan that would be considered by the City Council with other project approvals.</td>
</tr>
<tr>
<td><strong>Policy 6.23</strong>: The interior and exterior lighting of the buildings and structures and the lighting of signs, roads, and parking areas shall be compatible with the lighting permitted in the designated area.</td>
<td></td>
</tr>
<tr>
<td><strong>Policy 6.27</strong>: Off-site signs shall be prohibited in areas subject to the Scenic Area Overlay except signs that are a part of the City’s way finding signage program and temporary real estate signs. The number, size, location, and design of all other signs shall not detract from the visual setting of the designated area or obstruct significant views.</td>
<td></td>
</tr>
<tr>
<td><strong>Policy 6.28</strong>: Signs shall be designed and located to minimize impacts to visual resources. Signs approved as part of commercial development shall be incorporated into the design of the project and shall be subject to height and width limitations that ensure that signs are visually compatible with surrounding areas and protect scenic views. Permitted monument signs shall not exceed eight feet in height. Free-standing pole or roof signs are prohibited. Advertising signs and banners shall be prohibited in public beaches and beach parks.</td>
<td></td>
</tr>
<tr>
<td><strong>Policy 6.29</strong>: Placement of signs other than traffic or public safety signs, which obstruct views to the ocean or beaches from public viewing areas, and scenic roads shall be prohibited.</td>
<td></td>
</tr>
</tbody>
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Table 4.8-3 Local Coastal Plan LUP Consistency

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<td>▪ <strong>Policy 6.30:</strong> The Pacific Coast/Highway 101 and Railway Corridor shall be protected as a Scenic Road and major public viewshed.</td>
<td><strong>Consistent.</strong> A conceptual landscape plan has been prepared and is shown in Figure 3-5. Landscaping would include a variety of trees, shrubs, groundcover, seat walls, a rainwater element, BMP planters, and vertical green screen planters in compliance with the City of Solana Beach standards. The landscape plan would include street trees and flowering shrubs around the buildings and courtyard areas. Groundcover would include ornamental plants. The plant pallet would consist primarily of native, non-invasive, drought-tolerant and salt-tolerant plants. The proposed landscaping would complement the character of the area and would not block ocean or lagoon views as none exist at the project site.</td>
</tr>
<tr>
<td>▪ <strong>Policy 6.31:</strong> Landscape improvements, including median plantings, may be permitted along Pacific Coast Highway/Highway 101. Any proposed landscaping shall be comprised primarily of native non-invasive, drought tolerant, salt-tolerant, and fire resistant plant species. Landscaping shall be designed and maintained to complement the character of the area, and designed not to block ocean, or lagoon views at maturity.</td>
<td></td>
</tr>
</tbody>
</table>

**Significance of Impact**

The proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purposes of avoiding an environmental effect. Therefore, no significant land use impacts would occur.

**Mitigation Measures**

No mitigation measures are required.

**4.8.5.3 Issue 3 – Habitat Conservation Plans or Natural Community Conservation Plans**

*Would the proposed project conflict with any applicable habitat conservation plan or natural community conservation plan?*

**Impact Analysis**

The North County MHCP is a comprehensive conservation planning process that addresses the needs of multiple plant and animal species in northwestern San Diego County. The North County MHCP encompasses the cities of Solana Beach, Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, and Vista. Its goal is to conserve approximately 19,000 acres of habitat, of which roughly 8,800 acres (46 percent) are already in public ownership and contribute toward the habitat preserve system for the protection of more than 80 rare, threatened, or endangered species. The City does not anticipate the need to issue take authorizations for endangered species given the level of build-out, small amount of native habitat remaining within the city and low potential to impact sensitive biological resources. Thus, the City does not have an adopted MHCP subarea plan and is not subject to the provisions of an adopted HCP, NCCP or other approved local, regional or state habitat conservation plan.
In addition, the project site contains developed and disturbed/ornamental land cover types. According to the Citywide Biological Resources Map from the City's LCP, the project site is designated as “developed” and does not support any sensitive habitat communities or species that would require conservation. Therefore, the proposed project would not conflict with any applicable HCP or NCCP.

**Significance of Impact**
No sensitive species or habitat communities occur on the project site. Further, the City has not adopted an HCP or NCCP to protect sensitive species or habitat. Therefore, the proposed project would not conflict with the provisions of an applicable HCP or NCCP. No impact would occur.

**Mitigation Measures**
No mitigation measures are required.

### 4.8.6 Cumulative Impacts and Mitigation

*Would implementation of the proposed project have a cumulatively considerable contribution to a cumulative land use and planning impact considering past, present, and probable future projects?*

#### 4.8.6.1 Issue 1 – Divide an Established Community

The geographic context for the analysis of cumulative impacts relative to the division of an established community is the City of Solana Beach. Of the cumulative projects listed identified in Table 2-2, most would involve infill development on currently developed parcels, and would not introduce new roads or impede the passage of pedestrians or vehicles. The North Bluff Resort Specific Plan project, NCTD Train Station Project, Genevieve Street 99-bed Senior Care Facility project, Ocean Ranch Estates project, and Del Mar Surfside Race Place project would all involve substantial changes in the existing land uses of the sites. However, each of these project sites is presently surrounded by existing development and roadways, to which access is not expected to be altered by the proposed cumulative projects. Therefore, development of cumulative projects within the City would not result in a significant cumulative impact.

As discussed in Section 4.8.5.1, the project would replace an existing disturbed, mostly vacant lot with a new mixed-use development. The surrounding area includes a mix of retail, commercial, restaurants, and multi-family residential buildings. The project does not propose new or modified roads and would not impede the passage of people or vehicles within the project area. Therefore, the project would not contribute to a significant cumulative impact related to the physical division of an established community.
4.8.6.2 Issue 2 – Land Use Plans, Policies, and Regulations

The geographic context for the analysis of cumulative impacts relative to land use conflicts is defined as the City of Solana Beach. It is anticipated that development of future cumulative projects, such as those identified in Table 2-2, would undergo CEQA review, which would require a consistency analysis with applicable plans and policies. As required by CEQA, cumulative projects would be consistent with the existing adopted plans, or require mitigation measures or design review to ensure consistency, in order for project approvals to occur. Therefore, it is anticipated that cumulative development would be consistent with applicable plans or policies, which would result in a less than significant cumulative impact. In addition, the proposed project is consistent with all applicable plans, policies and regulations pertaining to land use. Therefore, the proposed project would not make a cumulatively considerable contribution to a cumulative land use impact.

4.8.6.3 Issue 3 – Habitat Conservation Plans or Natural Community Conservation Plans

The geographic context for the analysis of cumulative impacts relative to habitat conservation plans is defined as the North County MHCP area. Cumulative projects include those identified by the City and listed in Table 2-2, as well as the planned buildout under the General Plans of other jurisdictions within the North County MHCP area.

At present time, only the City of Carlsbad has an adopted subarea plan implementing the MHCP. The remaining jurisdictions, including Solana Beach, have not adopted MHPA subarea plans. It is anticipated that development of future cumulative projects would undergo CEQA review, which would require a consistency analysis with applicable HCPs and NCCPs. As required by CEQA, cumulative projects would be consistent with the existing adopted plans, or require mitigation measures or design review to ensure consistency, in order for project approvals to occur. Therefore, it is anticipated that cumulative development would be consistent with applicable HCPs and NCCPs, which would result in less than significant cumulative impacts.

The City of Solana Beach does not have an adopted North County MHCP subarea plan and is not subject to the provisions of an adopted HCP or NCCP. Furthermore, the proposed project consists of developed areas and disturbed non-native ornamental and annual plant species, which are not sensitive and do not require conservation. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with conflicts with HCPs or NCCPs.
4.9 Noise

This section describes the existing noise conditions, the regulatory framework applicable to noise, and evaluates project-related and cumulative noise impacts as a result of project construction and operation. A project-specific noise analysis is included as Appendix H of this EIR, prepared by ABC Acoustics in April 2018. The following information is based on this report, unless otherwise referenced.

4.9.1 Environmental Setting

4.9.1.1 Noise Basics

Quantification of Noise
Noise is commonly defined as unwanted sound. Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels (dB). Sound pressures in the environment have a wide range of values and the sound pressure level was developed as a convenience in describing this range as a logarithm of the sound pressure. The sound pressure level is the logarithm of the ratio of the unknown sound pressure to a reference quantity of the same kind. To account for the pitch of sounds and the corresponding sensitivity of human hearing to them, the raw sound pressure level is adjusted with an A-weighting scheme based on frequency that is stated in units of decibels (dBA). Typical A-weighted noise levels are listed in Table 4.9-1.

<table>
<thead>
<tr>
<th>Common Outdoor Activities</th>
<th>Noise Level (dBA)</th>
<th>Common Indoor Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jet fly-over at 1000 feet</td>
<td>110</td>
<td>Rock band</td>
</tr>
<tr>
<td>Gas lawn mower at 3 feet</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Diesel truck at 50 feet at 50 mph</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Noisy urban area, daytime</td>
<td>80</td>
<td>Food blender at 3 feet</td>
</tr>
<tr>
<td>Gas lawn mower, 100 feet</td>
<td>70</td>
<td>Garbage disposal at 3 feet</td>
</tr>
<tr>
<td>Commercial area</td>
<td></td>
<td>Vacuum cleaner at 10 feet</td>
</tr>
<tr>
<td>Heavy traffic at 300 feet</td>
<td>60</td>
<td>Normal speech at 3 feet</td>
</tr>
<tr>
<td>Quiet urban daytime</td>
<td>50</td>
<td>Large business office</td>
</tr>
<tr>
<td>Quiet urban nighttime</td>
<td>40</td>
<td>Theater, large conference room (background)</td>
</tr>
</tbody>
</table>
Table 4.9-1 Typical A-Weighted Noise Levels

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<th>Common Indoor Activities</th>
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</thead>
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<tr>
<td>Quiet suburban nighttime</td>
<td>— 30 —</td>
<td>Library</td>
</tr>
<tr>
<td>Quiet rural nighttime</td>
<td>— 20 —</td>
<td>Bedroom at night, concert</td>
</tr>
<tr>
<td></td>
<td>— 10 —</td>
<td>Broadcast/recording studio</td>
</tr>
<tr>
<td>Lowest threshold of human hearing</td>
<td>— 0 —</td>
<td>Lowest threshold of human hearing</td>
</tr>
</tbody>
</table>

Source: Caltrans 1998

A given level of noise may be more or less tolerable depending on the sound level, duration of exposure, character of the noise sources, the time of day when the noise is experienced, and the activity affected by the noise. For example, noise that occurs at night tends to be more disturbing than that which occurs during the day because sleep may be disturbed. Additionally, rest at night is a critical requirement in the recovery from exposure to high noise levels during the day. In consideration of these factors, different measures of noise exposure have been developed to quantify the extent of the effects anticipated from these activities. For example, some indices consider the 24-hour noise environment of a location by using a weighted average to estimate its habitability on a long-term basis. Other measures consider portions of the day and evaluate the nearby activities affected by it as well as the noise sources. The most commonly used indices for measuring community noise levels are the Equivalent Energy Level ($L_{eq}$), and the Community Noise Equivalent Level (CNEL).

- $L_{eq}$, the Equivalent Energy Level, is the average acoustical or sound energy content of noise, measured during a prescribed period, such as 1 minute, 15 minutes, 1 hour, or 8 hours. It is the decibel sound level that contains an equal amount of energy as a fluctuating sound level over a given period of time.

- CNEL, Community Noise Equivalent Level, is the average equivalent A-weighted sound level over a 24-hour period. This measurement applies weights to noise levels during evening and nighttime hours to compensate for the increased disturbance response of people at those times. CNEL is the equivalent sound level for a 24-hour period with a +5 dBA weighting applied to all sound occurring between 7:00 p.m. and 10:00 p.m. and a +10 dBA weighting applied to all sound occurring between 10:00 p.m. and 7:00 a.m. Similar to the CNEL, $L_{dn}$, the day-night average noise level, is a 24-hour average $L_{eq}$ with a +10 dBA weighting applied to noise during the hours of 10:00 p.m. to 7:00 a.m. $L_{dn}$ and CNEL are typically within one dBA of each other and, for most intents and purposes, are interchangeable.
The decibel level of a sound decreases (or attenuates) exponentially as the distance from the source of that sound increases. For a single point source such as a piece of mechanical equipment, the sound level normally decreases by about 6 dBA for each doubling of distance from the source. Sound that originates from a linear, or “line” source such as a heavily traveled traffic corridor, attenuates by approximately 3 dBA per doubling of distance, provided that the surrounding site conditions lack ground effects or obstacles that either scatter or reflect noise. Noise from roadways in environments with major ground effects due to vegetation and loose soils may either absorb or scatter the sound yielding attenuation rates as high as 4.5 dBA for each doubling of distance. Other contributing factors that affect sound reception include meteorological conditions and the presence of manmade obstacles such as buildings and sound barriers.

### Noise Effects
Noise has a significant effect on the quality of life. An individual’s reaction to a particular noise depends on many factors such as the source of the noise, its loudness relative to the background noise level, and the time of day. The reaction to noise can also be highly subjective; the perceived effect of a particular noise can vary widely among individuals in a community. Because of the nature of the human ear, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 5 dBA change in community noise levels is clearly noticeable, and a 3 dBA change is the smallest increment that is perceivable by most receivers. Generally, 1 to 2 dBA changes are not detectable. Although the reaction to noise may vary, it is clear that noise is a significant component of the environment, and excessively noisy conditions can affect an individual’s health and well-being. The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on a community can be organized into six broad categories: sleep disturbance; permanent hearing loss; human performance and behavior; social interaction or communication; extra-auditory health effects; and general annoyance.

### 4.9.1.2 Environmental Vibration Basics
Vibration is defined as dynamic excitation of an elastic system, such as the ground or a structure, which results in oscillatory movement of the system (Caltrans 2013b). Typical manmade causes of earth borne vibration include trains and construction activities such as blasting, pile-driving, and operation of heavy earth-moving equipment (FTA 2006). The resulting waves transmitted through solid material are referred to as structure-borne or ground-borne vibration. Vibration energy spreads out as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. The vibration levels inside a building depend on the vibration energy that reaches the building foundation and the characteristics of the building that affect propagation of the vibration through the building. A heavier building will typically experience lower vibration levels. The most common impact associated with vibration is annoyance resulting from the effects of vibration such as building movement, rattling of windows, shaking of items on shelves or walls, and rumbling sounds. In more extreme cases, building
damage may occur. Because the effects of vibration elicit a greater response than the vibration itself, vibration is typically only perceptible to people inside buildings (FTA 2006).

Vibration levels are typically expressed in terms of the peak particle velocity (PPV) and root mean square (rms) amplitude, both in inches per second (in/sec). PPV is most appropriate for evaluating building damage potential. Caltrans estimates that continuous vibration levels of less than 0.08 PPV and single-event vibration levels of less than 0.12 PPV do not result in damage to even the most fragile historic buildings (Caltrans 2013b). PPV does not account for human response to vibration. The rms amplitude is used to represent average vibration amplitude, which accounts for the time it takes for the human body to respond to vibration signals. The rms amplitude is also given in decibel notation, referenced as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration relative to human response (FTA 2006).

The rumbling sound caused by the vibration of room surfaces is called ground-borne noise. Like broadband noise, ground-borne noise is measured in dBA. The sound level accompanying vibration is generally 25 to 40 dBA lower than the vibration velocity level in VdB. Due to the low-frequency components of ground-borne noise, it sounds louder than broadband noise with the same noise level (FTA 2006). The background vibration velocity level in residential areas is usually around 50 VdB, which is below the 65 VdB threshold of human perception (FTA 2006).

4.9.1.3 Existing Noise Conditions

As described in Chapter 3, the northern half of the project site consists of abandoned former, vacant mobile home park. A small, abandoned coffee kiosk is also present in the southeastern portion of the site. The southwestern portion of the site contains two vacant, one-story, single-family residences and a vacant one-story retail commercial building with detached garage. The southern half of the project site also includes asphalt driveways, parking areas, and various trees and shrubs. These former uses do not currently include any noise generating equipment. The eastern portion of the southern half of the project site contains a one-story metal building, which was formerly part of a gas station, and a paved parking area. The small metal building is currently used as a temporary office and operates an HVAC system.

The site is bordered by commercial development to the north and south, multi-family units to the west, and Highway 101, the Coastal Rail Trail and the North County Transit District Right-of-Way (NCTD ROW) to the east, with commercial development further east. Businesses in the developments surrounding the site include banks, offices, restaurants, pharmacies, fitness facilities, and dental offices. These land uses do not require machinery that would generate noise levels beyond those typical of general office and retail use. The CVS pharmacy located to the north of the project would generate delivery truck trips on a regular basis, but does not have the high volume loading docks or other access necessary to accommodate the truck traffic typical of a distribution center.
General office use, small-scale retail, and residences are not sources of substantial operational noise. Occasional nuisance noise may result from residences and parking lots, such as loud music or car alarms.

An ambient sound level survey was conducted by ABC Acoustics, Inc., to quantify the noise environment on the project site and in the surrounding area. A total of four measurements were taken. The monitoring locations are shown on Figure 4.9-1. Measurements were taken during the daytime at all four sites and at nighttime at Site 1 and Site 3. Site 1 is located closest to the residences across South Sierra Avenue, and Site 3 is adjacent to Highway 101, which is the primary source of noise on the project site. A Type I Precision Integrating Sound Level Meter was used to record ambient sound levels. Table 4.9-2 summarizes the measured L<sub>eq</sub> and noise sources for the daytime and nighttime monitoring locations.

<table>
<thead>
<tr>
<th>Site</th>
<th>Location</th>
<th>Daytime L&lt;sub&gt;eq&lt;/sub&gt;</th>
<th>Nighttime L&lt;sub&gt;eq&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>On project boundary with South Sierra Avenue</td>
<td>59</td>
<td>55</td>
</tr>
<tr>
<td>2</td>
<td>On project boundary with Dahlia Drive</td>
<td>62</td>
<td>--</td>
</tr>
<tr>
<td>3</td>
<td>On project boundary with Highway 101</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>4</td>
<td>On project boundary with commercial development north of project site</td>
<td>60</td>
<td>--</td>
</tr>
</tbody>
</table>

Source: ABC Acoustics, 2018
Note: Ambient measurements were 15 minutes in duration.

The results of the ambient noise surveys reflect noise levels that range between 59 dBA and 65 dBA L<sub>eq</sub> on the project site during the day, and 55 dBA to 65 dBA during nighttime. The primary noise source at all locations was traffic on the adjacent roadways, including Highway 101, Dahlia Drive, and South Sierra Avenue. The Solana Beach General Plan considers noise levels up to 60 dBA CNEL to be clearly compatible, and noise levels up to 70 dBA CNEL normally compatible with single- and multi-family residences. Noise levels up to 70 dBA CNEL are considered clearly compatible with general commercial development, with noise levels up to and above 80 dBA CNEL considered normally compatible. Based on the City of Solana Beach noise compatibility guidelines, ambient noise levels measured within the project site are compatible with existing land uses on the project site and surrounding area.
Figure 4.9-1
Noise Survey Locations

Source: ABC Acoustics 2018

LEGEND

Noise Survey Locations

Source: Dropbox (Harris & Associates)/MarCom/CLIENT PROJECTS/Environmental/Solana Beach 170-0050-001

Path: Dropbox (Harris & Associates)/MarCom/CLIENT PROJECTS/Environmental/Solana Beach 170-0050-001

Harris & Associates
no scale
Transportation Noise Sources

Aviation
The nearest airport to the project site is the McClellan-Palomar Airport, a public airport, located approximately ten miles northeast of the project site in the City of Carlsbad. Due to distance, the project site is not located within the Airport Land Use Compatibility Plan (ALUCP) 60 dBA CNEL noise contour for the airport, or within the airport’s area of influence (SDCRAA 2011).

Roadways
The project site is bordered by Dahlia Drive to the south, Highway 101 to the east, and South Sierra Avenue to the west. Lomas Santa Fe Drive is located approximately 0.25 mile north of the project site, and Via De La Valle is located approximately 0.5 mile south of the project site. The project site is approximately 0.8 mile west of Interstate 5 (I-5). Two existing access driveways to the project site are located along Highway 101, three driveways are located along Dahlia Drive, and one driveway is located along South Sierra Avenue. Based on the results of the ambient noise monitoring detailed above in Table 4.9-2, traffic noise levels do not exceed the clearly compatible noise standard of 70 dBA for commercial use or the normally compatible noise standard of 70 dBA for residential use. However, roadway noise levels in the project vicinity exceed the clearly compatible noise standard of 60 dBA for residential use.

Railroads
The NCTD railroad line that serves the COASTER and Amtrak runs parallel to Highway 101, located approximately 150 feet east of the proposed project site. Typical commuter train noise produces a noise level of 80 dBA at 50 feet from the tracks, while a stopped commuter train produces a noise level of 65 dBA. Noise levels associated with trains tend to attenuate at a rate of 4.5 dBA for each doubling of distance (FRA 2017). Therefore, typical railway noise would attenuate to approximately 72 dBA at the project site. Furthermore, the rail line is located below ground level, which could shield up to 12 dBA of noise at the project site (FTA 2006). Therefore, typical train noise at the proposed project site would generate a noise level of approximately 60 dBA CNEL.

4.9.1.4 Nearby Sensitive Land Uses

Noise Sensitive Land Uses
Noise sensitive land uses (NSLUs) are land uses that may be subject to stress and/or interference from excessive noise, such as residences, schools, hospitals, libraries, parks, and places of worship. Industrial and commercial land uses are generally not considered sensitive to noise. The City of Solana Beach generally considers noise sensitive receptors to be humans engaged in activities such as talking, reading, and sleeping that may be subject to the stress of significant interference from noise (City of Solana Beach 2014b). A sensitive receptor is an individual noise receptor located in a noise-sensitive area. Sensitive land uses in the project area include high-density residential dwellings located
west of the proposed project site (Figure 2-2). The existing noise sensitive receptors closest to the project area include the following:

1. Solana Beach & Tennis Club, a multi-family residential complex, located at 441 South Sierra Avenue, approximately 55 feet west of the southwest corner of the project site; and

2. Seascape Shores, a multi-family residential complex, located at 325 South Sierra Avenue, approximately 55 feet west of the northwest corner of the project site.

**Vibration Sensitive Land Uses**
Land uses in which ground-borne vibration could potentially interfere with operations or equipment, such as research, manufacturing, hospitals, and university research operations are considered vibration-sensitive (FTA 2006). The degree of sensitivity depends on the specific equipment that would be affected by the ground borne vibration. Excessive levels of ground borne vibration of either a regular or an intermittent nature can result in annoyance to residential uses. The land uses north, south, and east of the project site consist of commercial uses that are not considered to be vibration-sensitive. However, the residential uses listed above may be sensitive to excessive levels of vibration of either a regular or intermittent nature.

**4.9.2 Regulatory Framework**

**4.9.2.1 Federal**

**Federal Aviation Administration Standards**
Enforced by the Federal Aviation Administration (FAA), Code of Federal Regulations (CFR) Title 14, Part 150 prescribes the procedures, standards and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving those programs. Title 14 also identifies those land uses which are normally compatible with various levels of exposure to noise by individuals. The FAA has determined that interior sound levels up to 45 dBA Ldn (or CNEL) are acceptable within residential buildings. The FAA also considers residential land uses to be compatible with exterior noise levels at or less than 65 dBA Ldn (or CNEL).

**Federal Noise Control Act**
The Noise Control Act of 1972 establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. Section 42 U.S.C. 4903, Federal Programs, states that federal agency activities that may result in emission of noise shall comply with applicable federal, state, interstate, and local requirements related to control and abatement of environmental noise. Additionally, the Noise Control Act states that it is the primary responsibility of state and local governments to control noise.
Federal Transit Administration and Federal Railroad Administration Standards

Although the Federal Transit Administration (FTA) standards are intended for federally funded mass transit projects, the impact assessment procedures and criteria included in the FTA Transit Noise and Vibration Impact Assessment Manual (FTA 2006) are routinely used for projects proposed by local jurisdictions. The FTA and Federal Railroad Administration have published guidelines for assessing the impacts of ground-borne vibration associated with rail projects, which have been applied by other jurisdictions to other types of projects. The vibration criteria established by the FTA in the Transit Noise Impact and Vibration Assessment is provided in Table 4.9-3.

<table>
<thead>
<tr>
<th>Table 4.9-3 FTA Ground-borne Vibration Impact Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land Use Category</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Category 1: Buildings where vibration would interfere with interior operations</td>
</tr>
<tr>
<td>Category 2: Residences and buildings where people normally sleep</td>
</tr>
<tr>
<td>Category 3: Institutional land uses with primarily daytime uses</td>
</tr>
</tbody>
</table>

Vibration levels are measured in or near the vibration-sensitive use.

(1) “Frequent Events” is defined as more than 70 vibration events of the same source per day.

(2) “Occasional Events” is defined as between 30 and 70 vibration events of the same source per day.

(3) “Infrequent Events” is defined as fewer than 30 vibration events of the same source per day.

Source: FTA 2006

4.9.2.2 State

California Noise Control Act of 1973

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, finds that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also finds that there is a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

4.9.2.3 Local

City of Solana Beach General Plan Noise Element

The Noise Element of the General Plan establishes noise compatibility standards for different land use categories. The Noise Element noise/land use compatibility matrix is shown in Table 4.9-4, which presents the criteria used to assess the compatibility of
proposed land uses with the noise environment (City Solana Beach 2014b). These criteria are the basis for the development of specific noise standards.

### Table 4.9-4 General Plan Noise/Land Use Compatibility Matrix

<table>
<thead>
<tr>
<th>Category</th>
<th>Land Use</th>
<th>Uses</th>
<th>CNEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>55</td>
<td>60</td>
</tr>
<tr>
<td>Residential</td>
<td>Single Family, Duplex, Multiple Family</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Residential</td>
<td>Mobile Home</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Commercial – Regional, District</td>
<td>Hotel, Motel, Transient Lodging</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Commercial – Regional, Village District, Special</td>
<td>Commercial Retail, Bank, Restaurant, Movie Theater</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Commercial, Industrial, Institutional</td>
<td>Office Building, Research and Development, Professional Offices, City Office Building</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Commercial – Recreation Institutional – Civic Center</td>
<td>Amphitheater, Concert Hall, Auditorium, Meeting Hall</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Commercial – Recreation</td>
<td>Children’s Amusement Park, Miniature Golf Course, Go-cart Track, Equestrian Center, Sports Club</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Commercial – General, Special Industrial, Institutional</td>
<td>Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Institutional – General</td>
<td>Hospital, Church, Library, Schools’ Classroom</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Open Space</td>
<td>Parks</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Open Space</td>
<td>Golf Course, Cemeteries, Nature Centers, Wildlife Reserves, Wildlife Habitat</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Agriculture</td>
<td>A</td>
<td>A</td>
</tr>
</tbody>
</table>

**Zone A:** Clearly Compatible. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

**Zone B:** Normally Compatible. New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

**Zone C:** Normally Incompatible. New construction or development generally should be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

**Zone D:** Clearly Incompatible. New construction or development should generally not be undertaken.

*Source: City of Solana Beach 2014b*

The existing noise standards, presented in Table 4.9-5, represent City policies related to land uses and acceptable noise levels. These tables are the primary tools that allow the City to ensure integrated planning for compatibility between land uses and outdoor noise.
### Table 4.9-5 Existing Interior and Exterior Noise Standards

<table>
<thead>
<tr>
<th>Category</th>
<th>Land Use</th>
<th>CNEL Interior&lt;sup&gt;(1)&lt;/sup&gt;</th>
<th>CNEL Exterior&lt;sup&gt;(2)&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>Single Family, Duplex, Multiple Family</td>
<td>45&lt;sup&gt;(3)&lt;/sup&gt;, 55&lt;sup&gt;(4)&lt;/sup&gt;</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Mobile Home</td>
<td>--</td>
<td>65&lt;sup&gt;(5)&lt;/sup&gt;</td>
</tr>
<tr>
<td>Commercial</td>
<td>Hotel, Motel, Transient Lodging</td>
<td>45</td>
<td>65&lt;sup&gt;(6)&lt;/sup&gt;</td>
</tr>
<tr>
<td>Industrial</td>
<td>Commercial Retail, Bank, Restaurant</td>
<td>55</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Office Building, Research and</td>
<td>50</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Development, Professional Offices,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>City Office Building</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Amphitheater, Concert Hall, Auditorium, Meeting Hall</td>
<td>45</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Gymnasium (Multipurpose)</td>
<td>50</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Sports Club</td>
<td>55</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Manufacturing, Warehousing, Wholesale, Utilities</td>
<td>65</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Movie Theatres</td>
<td>45</td>
<td>--</td>
</tr>
<tr>
<td>Institutional</td>
<td>Hospitals, School’s Classroom</td>
<td>45</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Church, Library</td>
<td>45</td>
<td>--</td>
</tr>
<tr>
<td>Open Space</td>
<td>Parks</td>
<td>--</td>
<td>65</td>
</tr>
</tbody>
</table>

<sup>(1)</sup> Indoor environment excluding: bathrooms, toilets, closets, corridors

<sup>(2)</sup> Outdoor environment limited to: private yard of single family, multi-family private patio or balcony which is served by a means of exit from inside, mobile home park, hospital patio, park’s picnic area, school’s playground, hotel and motel recreation area.

<sup>(3)</sup> Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided as of Title 24 of the California Code of Regulations.

<sup>(4)</sup> Noise level requirement with open windows, if they are used to meet natural ventilation requirement.

<sup>(5)</sup> Exterior noise level should be such that interior noise level will not exceed 45 CNEL.

<sup>(6)</sup> Except those areas affected by aircraft noise.

Source: City of Solana Beach 2014b

### City of Solana Beach Municipal Code

**Property Noise Level Limits**

Section 7.34.040 of the Solana Beach Municipal Code (SBMC) Noise Abatement and Control Ordinance specifies maximum one-hour average sound level limits at the boundary of a property. These maximum one-hour sound level limits are the maximum noise levels allowed at any point on or beyond the property boundaries due to activities occurring on the property. Where two or more zones adjoin, the sound level limit is the arithmetic mean of the respective limits for the two zones. Table 4.9-6 shows the exterior noise limits specified in the City’s Noise Abatement and Control Ordinance.
### Table 4.9-6 SBMC Exterior Noise Limits

<table>
<thead>
<tr>
<th>Zone</th>
<th>One Hour Average Noise Level Limit [dB(A)]</th>
<th>7 a.m. to 10 p.m.</th>
<th>10 p.m. to 7 a.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential (ER 1, ER 2, LR, LMR, MR)</td>
<td></td>
<td>50</td>
<td>45</td>
</tr>
<tr>
<td>Residential (MHR, HR)</td>
<td></td>
<td>55</td>
<td>45</td>
</tr>
<tr>
<td>Commercial Office (C, LC, OP)</td>
<td></td>
<td>60</td>
<td>55</td>
</tr>
<tr>
<td>Light Industrial and Special Commercial (LI SC)</td>
<td></td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>[Public/Institutional (PI, ROW)]</td>
<td></td>
<td>60</td>
<td>45</td>
</tr>
<tr>
<td>Park/Recreational (OSR)</td>
<td></td>
<td>60</td>
<td>45</td>
</tr>
</tbody>
</table>

Source: SBMC Chapter 7.34

### Construction Noise Level Limits
The SBMC Noise Abatement and Control Ordinance also regulates construction hours and noise levels. Section 7.34.100 states:

A. The erection, demolition, alteration or repair of any building structure or the grading or excavation of land in such a manner as to create disturbing, excessive or offensive noise during the following hours, except as hereinafter provided, is a violation of this code:

1. Before 7:00 a.m. or after 7:00 p.m., Monday through Friday, and before 8:00 a.m. or after 7:00 p.m. on Saturday;

B. Exceptions

1. An owner/occupant or resident/tenant of residential property may engage in home improvement or a home construction project involving the erection, demolition, alteration or repair of a building or structure or the grading or excavation of land on any weekday between the hours of 7:00 a.m. and 7:00 p.m., and on weekends between the hours of 8:00 a.m. and 7:00 p.m.; provided such project is for the benefit of the residential property and is personally carried out by said owner/occupant or resident/tenant.
2. The City manager may grant exceptions of this section by issuing a permit in the following circumstances:
   i. When emergency repairs are required to protect the health and safety of any member of the community;
ii. In nonresidential zones, provided there are not inhabited dwellings within 1,500 feet of the building or structure being erected, demolished, altered or repaired or the exterior boundaries of the site being graded or excavated.

C. Construction noise levels shall not exceed 75 decibels for more than eight hours \([L_{eq}(8)]\) during any 24-hour period when measured at or within property lines of any property which is developed and used either in part or in whole for residential purposes.

General Noise Regulations

Section 7.34.140(B)(3) (Radios, Television Sets, Phonographs and Similar Devices) states that devices for the production or reproduction of sound may not operate in such a manner as to disturb the peace, quiet and comfort of neighboring residents or persons of normal sensitivity residing in the area.

Section 7.34.140(B)(5) (Yelling, Shouting, Etc.) states that disturbing or raucous yelling, shouting, hooting, whistling or singing on the public streets, particularly between the hours of 10:00 p.m. and 8:00 a.m. or at any other time or place so as to annoy or disturb the quiet, comfort or repose of neighboring residents or persons of normal sensitivity within the area for whatever reason, is prohibited.

4.9.3 Impact Significance Criteria

According to Appendix G of the CEQA Guidelines, the project would have a significant impact related to noise if it would:

- **Issue 1:** Expose people to or generate noise levels in excess of standards established in the Solana Beach General Plan or Noise Ordinance, or applicable standards of other agencies.
- **Issue 2:** Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- **Issue 3:** Expose people to or generate excessive ground-borne vibration or ground-borne noise levels.
- **Issue 4:** Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- **Issue 5:** Expose people residing or working in the project area to excessive aircraft noise levels (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 and for a project within the vicinity of a private airstrip).
4.9.4 Method of Analysis

The increased ambient noise levels as a result of project-related traffic was assessed using the SoundPlan computer model. To assess the “point source” noise impacts due to loading dock activities and rooftop equipment at the project site, noise levels were measured by ABC Acoustics, Inc. at a similar existing loading dock during unloading activities. Ground-borne vibration impacts were assessed based on the vibration source levels provided by the FTA. Typical noise levels for construction equipment published by the FHWA were used to evaluate impacts related to temporary increases in ambient noise levels from construction of the proposed project. Impacts related to aircraft noise are assessed based on the ALUCP for the McClellan-Palomar Airport.

The significance of continuous ambient noise (e.g. traffic) was evaluated using the County of San Diego Guidelines for Determining Significance for Noise (County of San Diego 2009), which stipulates that the maximum allowable exterior noise level at outdoor usable areas for residential and commercial land uses is 60 dBA CNEL or an increase in 10 dBA CNEL over preexisting noise.

The significance of intermittent noise was evaluated using the thresholds in the SBMC. A substantial increase in noise would occur if the project would generate a noise level that exceeds the one-hour average noise level limit of 55 dBA Leq in a high-density residential zone during the day (45 dBA at night), or 60 dBA Leq in a commercial zone during the day (55 dBA at night).

A significant ground-borne vibration impact would occur if the proposed project would exceed the standards recommended in San Diego County Guidelines for Determining Significance for Noise (County of San Diego 2009), listed in Table 4.9-7.

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Ground-borne Vibration Impact Levels (inches/second)</th>
<th>Ground-borne Noise Impact Levels (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequent Events&lt;sup&gt;(1)&lt;/sup&gt;</td>
<td>Occasional or Infrequent Events&lt;sup&gt;(2)&lt;/sup&gt;</td>
</tr>
<tr>
<td>Category 1: Buildings where vibration would interfere with interior operations</td>
<td>0.0040</td>
<td>0.010</td>
</tr>
<tr>
<td>Category 2: Residences and buildings where people normally sleep</td>
<td>0.0056</td>
<td>0.014</td>
</tr>
</tbody>
</table>

<sup>[1]</sup> “Frequent Events” is defined as more than 70 vibration events of the same source per day.

<sup>[2]</sup> Vibration levels are measured in or near the vibration-sensitive use.
Construction activity would be considered significant if it violates the limits established in the SBMC. Construction noise would be considered significant if it would exceed an eight-hour average sound level greater than 75 dBA during a 24-hour period. In addition, construction activity is limited to 7:00 a.m. and 7:00 p.m. Monday through Friday and on Saturdays between the hours of 8:00 a.m. and 7:00 p.m.

See the project-specific noise analysis, included as Appendix H, for additional details on methodology and model assumptions.

4.9.5 Project Impacts and Mitigation

4.9.5.1 Issue 1 – Excessive Noise Levels

Would implementation of the proposed 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?

Impact Analysis
The analysis in this issue addresses the potential for noise to be generated on the project site, primarily from intermittent noise sources resulting from human activity rather than continuous noise sources such as traffic noise. The permanent increase in noise levels that would potentially occur as a result of increased traffic on roadways is addressed in Section 4.9.5.2, Issue 2 - Permanent Increase in Noise Levels. The potential for the project to result in excessive noise levels during temporary construction activities is addressed in Section 4.9.5.4, Issue 4 – Temporary Noise Levels.

The proposed project would develop new stationary sources of noise and increase human activity throughout the project site. NSLU both on and off the project site may be affected by the proposed project. Furthermore, the proposed project would place new NSLU (residential dwellings) within the project site, which would be as close as 20 feet from the nearest new on-site commercial land use. Potential noise generating activities on the proposed project site include rooftop equipment, commercial truck deliveries, and increased human activity associated with the proposed commercial uses, and residential nuisance noise.

Table 4.9-7 San Diego County Ground-borne Vibration Impact Criteria

<table>
<thead>
<tr>
<th>Source: County of San Diego 2009</th>
</tr>
</thead>
</table>

(2) "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

(3) This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes.

Vibration sensitive manufacturing or research will require detailed evaluation to define acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.

(4) Vibration-sensitive equipment is not sensitive to ground-borne noise.
Commercial Development
Commercial development would cover approximately 65 percent of the project site, located on the northern and eastern portions of the project site. The proposed commercial component would comprise 45,587 SF of commercial office space, 4,142 SF of commercial retail space, 10,562 SF of indoor commercial restaurant space consisting of high turnover and quality restaurant, 2,920 SF of outdoor patio space, and an enclosed loading dock with a roll up door and commercial service area. Potential operational noise sources associated with commercial development within the project site include rooftop equipment, commercial truck deliveries at the loading dock, operation of the loading dock door, the parking garage, and increased human activity.

Mechanical HVAC and refrigeration units located on rooftops of new buildings would generate noise and may run continuously during the day and night. A total of 113 HVAC units are anticipated to be installed across the project site. Noise impacts due to rooftop equipment were modeled for two scenarios: 1) Daytime with all 113 HVAC units in operation, and 2) nighttime with 50 percent of HVAC units in operation. The results of the modeling are provided in Figure 4.9-2 and Figure 4.9-3. As shown in these figures, daytime noise levels would not exceed an hourly average of 55 dBA, and nighttime noise levels would not exceed an hourly average of 45 dBA. Consequently, weighted 24-hour average noise levels generated by the HVAC equipment would not typically exceed 65 dBA CNEL on the project site. Impacts would be less than significant.

Truck deliveries to the proposed project site would involve deliveries of supplies and products to commercial uses. The project includes a loading dock on the ground floor of the site, accessible through a roll-up door from a driveway on Dahlia Drive. The dock would be adjacent to the restaurant/retail space, and separated from residential uses by the parking garage entrance. Delivery trucks would be completely enclosed in the loading dock following entry of the truck and closing the roll-up door, similar to a home garage. The California Code of Regulations Section 2485 currently prohibits heavy-duty diesel delivery trucks from idling more than five minutes. Therefore, noise from idling would be limited to five minutes during truck deliveries. Beeping from trucks would not be continuous and would only occur while the truck is backing up. Operation of the roll-up door would be brief and would only occur during truck entry and exit. Once inside the loading garage area, the roll-up door would be shut to enclose the truck and loading activities. Given the intermittent and short duration of noise from individual truck deliveries, truck deliveries would not be a source of excessive ambient noise. Noise levels during loading activities at a similar loading dock were measured by ABC Acoustics in 2012 to evaluate the proposed project impacts. Noise levels at the similar loading dock registered 78 dBA Leq at a distance of five feet outside the roll-up door, when the door was open (ABC Acoustics 2018). As a project design feature, the project proposes a roll-up door with no openings or gaps that would provide a minimum 25 dBA noise reduction (Project Design Feature PDF-NOI-1). Consequently, the noise level from loading dock
Figure 4.9-2
HVAC Noise Contours - All Units in Operation

Legend
- < 40 dBA
- 40 - 43 dBA
- 43 - 46 dBA
- 46 - 49 dBA
- 49 - 52 dBA
- 52 - 55 dBA
- 55 - 58 dBA
- 58 - 61 dBA
- 61 - 64 dBA
- 64 - 67 dBA
- 67 - 70 dBA
- 70 - 73 dBA
- 73 - 76 dBA
- 76 - 79 dBA
- >= 79 dBA

* Modeled HVAC unit

Source: ABC Acoustics 2018
Figure 4.9-3
HVAC Noise Contours - 50 Percent of Units in Operation

Legend

- < 40 dBA
- 40 - 43 dBA
- 43 - 46 dBA
- 46 - 49 dBA
- 49 - 52 dBA
- 52 - 55 dBA
- 55 - 58 dBA
- 58 - 61 dBA
- 61 - 64 dBA
- 64 - 67 dBA
- 67 - 70 dBA
- 70 - 73 dBA
- 73 - 76 dBA
- 76 - 79 dBA
- >= 79 dBA
- Modeled HVAC unit
activities would be approximately 53 dBA $L_{eq}$ with the door closed, at five feet outside the roll-up door (ABC Acoustics 2018). The proposed project loading dock would, therefore, generate noise levels of 41 dBA $L_{eq}$ at the nearest sensitive receptors, which would be the on-site residential units located approximately 20 feet from the loading dock. As shown in Table 4.9-8, impacts related to truck deliveries and loading inside the loading dock would be less than the 55 dBA $L_{eq}$ daytime intermittent noise threshold and the more conservative 45 dBA $L_{eq}$ nighttime intermittent noise threshold and would not exceed the City’s Noise Ordinance. However, if deliveries were to regularly occur late at night or early morning (between 10:00 p.m. and 7:00 a.m.), even the short duration of truck beeping outside the dock area and door operation may be considered a significant nuisance to residents. Nighttime deliveries would be a potentially significant impact.

The parking garage for the proposed project would be underground, so noise generated from parking is expected to be shielded to a less than significant level. Noise from increased human activity within outdoor seating areas, restaurants, and public gathering places would be limited to normal conversation noise levels, which would generally not be audible over ambient daytime traffic-related noise (ABC Acoustics 2018). However, the project would accommodate restaurant uses that may include bars and operate into late night hours (past 10:00 p.m.). If these establishments would include outdoor areas, nighttime use could result in loud conversation or amplified music that would be annoying or disturbing to nearby residents and violate Section 7.34.140 of the City’s Noise Ordinance (Disturbing, Excessive and Offensive Noises). A potentially significant impact would occur.

<table>
<thead>
<tr>
<th>Commercial Land Use Noise Source</th>
<th>Estimated Noise Levels at NSLU (dBA)</th>
<th>Impact Threshold</th>
<th>Significant Impact?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing Off-site Residential</td>
<td>Proposed On-site Residential</td>
<td></td>
</tr>
<tr>
<td>Stationary Equipment (HVAC System)</td>
<td>48</td>
<td>63</td>
<td>65 dBA CNEL</td>
</tr>
<tr>
<td>Day Truck Unloading (inside dock with door closed)</td>
<td>32</td>
<td>41</td>
<td>55 dBA $L_{eq}$</td>
</tr>
<tr>
<td>Night Truck Unloading (inside dock with door closed)</td>
<td>32</td>
<td>41</td>
<td>45 dBA $L_{eq}$</td>
</tr>
</tbody>
</table>

Source: ABC Acoustics 2018

Residential Development
Multi-family residential development is proposed and would be located on the southern portion of the project site. Noise generated from residential uses is generally described as nuisance noise, with the exception of the roof-mounted HVAC units which was addressed.
above for all proposed residential and commercial HVAC systems under Commercial Development. Nuisance noise is defined as intermittent or temporary neighborhood noise from sources such as amplified music, barking dogs, or landscape maintenance equipment that may be disturbing to other residents. Nuisance noise impacts are more likely to occur in more densely developed areas where residences are closer together and neighbors would be more likely to hear a neighbor’s dog or music. The SBMC Section 7.34.040 prohibits nuisance noise from exceeding the noise standards at any time. Compliance with the noise ordinance would limit exposure to excessive nuisance noise. Additionally, nuisance noises would be different from each other in kind, duration, and location, so that the overall effects would be separate and in most cases would not affect the receptors at the same time. Therefore, nuisance noise from the residential component of the proposed project would not result in a significant impact.

**Significance of Impact**

Implementation of the proposed project would potentially result in excessive noise levels if truck deliveries and use of restaurant patios would occur during nighttime hours. Limiting these uses to daytime hours, as required in mitigation measures NOI-1 and NOI-2, would reduce these impacts to a less than significant level.

**Mitigation Measures**

To reduce the project’s potential impact related to excessive noise levels, the following mitigation measures shall be implemented:

**NOI-1 Limitations on Truck Deliveries.** Commercial truck deliveries to the project shall be prohibited between the hours of 10:00 p.m. and 8:00 a.m. Limitations on truck deliveries shall be required as part of all commercial tenant agreements. A sign shall be posted at the loading dock entrance that includes the loading dock hours and a phone number for receptors to report any violations to the City of Solana Beach Code Compliance Department Division. The Code Compliance Department Division shall be responsible for issuing a fine or similar penalty for any violations.

**NOI-2 Limitations on Commercial Outdoor Patios.** Use of outdoor patios associated with commercial restaurant and retail uses or operation of devices for amplifying sound or music on the project site shall be limited to the hours of 8:00 a.m. to 10:00 p.m., in accordance with SBMC Section 7.34.140(B)(5). Hours of patio operation shall be required to be posted on restaurant and retail use storefronts as a notice to customers. Limitations on outdoor patio use shall be required as part of all commercial tenant agreements. Hours of patio operation and a phone number for receptors to report any violations to the City of Solana Beach Code Compliance Department Division shall be posted in the public plaza. The Code Compliance Department Division shall be responsible for issuing a fine or similar penalty for any violations.
Significance After Mitigation
Implementation of mitigation measures NOI-1 and NOI-2 would reduce the project’s potential impact related to excessive noise levels to a less than significant level.

4.9.5.2 Issue 2 – Permanent Increase in Noise Levels

Would implementation of the proposed project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Impact Analysis
Implementation of the proposed project would result in a significant impact if it would cause noise levels along a roadway to exceed 60 dBA CNEL, result in an increase in noise levels of 10 dBA CNEL over preexisting noise, or expose on-site uses to noise levels in excess of the City’s compatibility guidelines.

Traffic Noise Levels
Traffic noise levels were calculated for three scenarios with and without the proposed project: existing, near-term, and future (2035). Noise contour results for all scenarios are provided in Appendix H.

Daytime noise levels are approximately 59 dB Leq along South Sierra Avenue, 62 dB Leq along Dahlia Drive, and 65 dB Leq along Highway 101. Existing nighttime noise levels at the project site range between 55 dBA Leq along South Sierra Avenue and 65 dBA Leq along Highway 101. A noise level of 60 dBA is assumed for Dahlia Drive because daytime noise levels are between the noise levels experienced along South Sierra Avenue and Highway 101. Based on the day and nighttime noise levels, the CNEL is approximately 62.5 dBA CNEL along South Sierra Avenue, 67 dBA CNEL along Dahlia Drive, and 72 dBA CNEL along Highway 101. The estimated noise levels provide a reference to determine the applicable significance threshold. The noise contour results provided in Appendix H provide actual estimated noise level contours for individual receptors and surrounding land uses. Existing noise levels exceed 60 dBA CNEL. As such, the project would result in a significant impact if it would result in an increase in noise level of 10 dBA CNEL or more.

Project-generated traffic would increase noise levels along Highway 101 and South Sierra Avenue by less than 1 dBA CNEL in all three scenarios. A 1 dBA increase in the noise level is not noticeable. The worst-case increase in noise level on Dahlia Drive would be 4.2 dBA CNEL, which is less than the clearly noticeable change in noise level (5 dBA) and the 10 dBA significance threshold. The proposed project would not result in an increase in noise level that would exceed the significance threshold of 10 dBA CNEL or greater. Therefore, the increase in traffic noise levels as a result of the proposed project would be less than significant.
On-site Noise Exposure

Although the effects of the environment on a proposed project are not typically a CEQA issue, in the case of noise impacts, a potential noise-related land use impact could occur as a result of siting new sensitive noise receptors on the project site. A potential impact would occur if on-site receptors would be exposed to permanent noise levels in excess of the noise compatibility standards identified in Table 4.9-4. As such, potential impacts to future residential and commercial receptors on the project site are addressed in this section. As traffic noise is the dominant source of ambient noise in the project area, a significant impact would occur if the proposed residential and commercial uses were exposed to noise levels in excess of the City’s compatibility guidelines from existing and future traffic. Based on the noise contour modeling conducted by ABC Acoustics, Inc. (Appendix H), on-site residences would not be exposed to noise levels that would exceed the exterior standard of 65 dBA CNEL. The proposed commercial uses would not be exposed to exterior noise levels in excess of 70 dBA CNEL. Proposed residences in the building located in the southeast corner of the site closest to Highway 101 would potentially be exposed to interior noise levels in excess of 45 dBA CNEL. However, as a project design feature, all residential units would include installation of an air-conditioning system that allows for closed-window conditions (Project Design Feature PDF-NOI-2). Under closed-window conditions, interior noise levels would be 45 dBA CNEL or below. Therefore, the project would be self-mitigating and a significant impact would not occur.

Significance of Impact

Implementation of the proposed project would not result in a significant permanent increase in noise levels in the project area. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

4.9.5.3 Issue 3 - Ground-borne Vibration

Would the project result in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?

Impact Analysis

The main concerns associated with ground borne vibration from a mixed-use project are annoyance and damage; however, vibration-sensitive instruments and operations can be disrupted at much lower levels than would typically affect other uses. In extreme cases, the vibration can cause damage to buildings, particularly those that are old or otherwise fragile. There are no existing sources of substantial ground-borne vibration surrounding the project site and as such the proposed project would not be exposed to excessive ground-borne vibration. Therefore, this analysis focuses on the potential for the project to generate vibration at surrounding land uses. Ground-borne vibration occurring as part of the project would result from construction equipment. Following construction,
the proposed residences and commercial uses would not generate ground-borne vibration.

The City utilizes the County of San Diego ground-borne vibration impact criteria, provided in Table 4.9-7, to determine whether vibration impacts would be significant. Criteria are specified for three land use categories. Land Use Category 1 is for buildings where vibration would interfere with interior operations. Land Use Category 2 is for residences and buildings where people normally sleep and Land Use Category 3 is for institutional land uses with primarily daytime uses.

Construction vibration is subject to the infrequent event criterion because operation of vibration-generating equipment is anticipated to be intermittent throughout the day in the vicinity of an individual receptor. The project site is surrounded by residences where people normally sleep (Land Use Category 2) and commercial uses (Land Use Category 3). In accordance with the City’s Noise Ordinance, construction would only occur during the daytime (7:00 a.m. to 7:00 p.m., Monday through Friday) and would not disturb sleep; however, residences may be occupied during daytime construction and construction may result in a nuisance to daily activities. Therefore, an impact would occur if project construction would generate vibration levels greater than 0.010 inches/second or 43 dBA at the nearest residence, or 0.014 inches per second or 48 dBA at the nearest commercial use.

Ground-borne vibration is progressively reduced as the distance from the source increases. The nearest Category 2 receptors to the project site are the multi-family residential complexes (Solana Beach & Tennis Club and Seascape Shores), approximately 55 feet west of the project site and commercial land uses approximately 40 feet south and approximately 25 feet north of the project site. Typical vibration levels at these distances for construction equipment similar to the equipment that would be used for the proposed project are provided in Table 4.9-9. As shown in this table, ground-borne vibration and noise from proposed project construction would exceed the applicable County of San Diego threshold for Category 2 land uses up to 95 feet from the construction area, and Category 3 land uses up to 80 feet from the construction area. This would include residences in the Solana Beach & Tennis Club and Seascape Shores complexes, and commercial development directly north and south of the project site. The surrounding land uses are not vibration sensitive; therefore, damage and disruption to normal activities is not anticipated to occur. However, these vibration levels would result in a potentially significant nuisance impact.
### Table 4.9-9 Vibration Source Levels for Similar Construction Equipment

<table>
<thead>
<tr>
<th>Construction Equipment</th>
<th>Approximate PPV (inches/second) /dBA at 25 feet</th>
<th>Approximate PPV (inches/second) /dBA at 40 feet</th>
<th>Approximate PPV (inches/second) /dBA at 55 feet</th>
<th>Approximate PPV (inches/second) /dBA at 80 feet</th>
<th>Approximate PPV (inches/second) /dBA at 95 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jackhammer</td>
<td>0.035/54 dBA</td>
<td>0.017/46 dBA</td>
<td>0.011/44 dBA</td>
<td>0.006/39 dBA</td>
<td>0.005/37 dBA</td>
</tr>
<tr>
<td>Loaded Trucks</td>
<td>0.076/61 dBA</td>
<td>0.038/55 dBA</td>
<td>0.023/51 dBA</td>
<td>0.013/46 dBA</td>
<td>0.010/44 dBA</td>
</tr>
<tr>
<td>Small Bulldozer</td>
<td>0.003/33 dBA</td>
<td>0.001/27 dBA</td>
<td>0.001/23 dBA</td>
<td>0.0005/18 dBA</td>
<td>0.0004/16 dBA</td>
</tr>
<tr>
<td>Receptor Land Use Category (Applicable Threshold)</td>
<td>Category 3 (0.014/48 dBA)</td>
<td>Category 3 (0.014/48 dBA)</td>
<td>Category 2 (0.010/43 dBA)</td>
<td>Category 3 (0.014/48 dBA)</td>
<td>Category 2 (0.010/43 dBA)</td>
</tr>
<tr>
<td>Potentially Significant Impact?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*Ground-borne noise level is generally 25 dB less than the VdB (FTA 2006)*

*Source: FTA 2006 (Reference Vibration Levels), County of San Diego 2009 (Thresholds), ABC Acoustics 2018 (Construction Equipment)*

#### Significance of Impact

Ground-borne vibration and noise from proposed project construction would exceed the applicable County of San Diego thresholds and have the potential to result in ground-borne vibration nuisance impacts from construction activities at adjacent residential and commercial uses that are in close proximity to the project site. Therefore, a significant impact would occur. No damage is expected because existing residential land uses within 95 feet of the project site and existing commercial uses within 80 feet of the project site do not contain vibration-sensitive equipment.

#### Mitigation Measures

Implementation of NOI-3 would minimize temporary ground-borne vibration nuisance impacts from construction activities at adjacent residential and commercial uses that are in close proximity to the project site. Construction activities would vary in location across the project site throughout the construction period. As such, construction vibration levels would exceed the vibration significant criteria at a particular receptor only periodically during the construction duration. The following measure would reduce impacts by minimizing the potential nuisance of vibration by allowing surrounding uses time to prepare.

#### NOI-3 Construction Vibration Notification

The construction contractor shall provide written notification to all residential units located within 95 feet of the property boundary and commercial land uses within 80 feet of the property boundary at least three weeks prior to the start of construction activities informing them of the estimated start date and duration of daytime vibration-generating construction activities. This notification shall include information warning about the potential for impacts related to vibration-sensitive equipment.
Significance After Mitigation
Implementation of mitigation measure NOI-3 would allow surrounding land uses to prepare for potential vibration exposure. Implementation of mitigation measure NOI-3 would reduce nuisance impacts related to construction vibration to a less than significant level.

4.9.5.4 Issue 4 - Temporary Noise Levels

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?

Impact Analysis
Construction of the proposed project would generate noise that could disrupt communication and routine activities. The magnitude of the impact would depend on the type of construction activity, equipment, duration of the construction phase, distance between the noise source and receiver, and intervening structures. Anticipated construction equipment for the project includes an excavator, trucks, loader, backhoe, concrete mixer truck, crane, and forklift. Typical sound levels from such equipment range from 74 dBA $L_{max}$ to 81 dBA $L_{max}$ at 50 feet from the source, as shown in Table 4.9-10 (FHWA 2008). Noise from construction equipment generally attenuates at a rate of 6 dBA per doubling of distance from the source.

<table>
<thead>
<tr>
<th>Construction Equipment</th>
<th>Typical Noise Level at 50 feet (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backhoe</td>
<td>78</td>
</tr>
<tr>
<td>Concrete Mixer Truck</td>
<td>79</td>
</tr>
<tr>
<td>Dump Truck</td>
<td>76</td>
</tr>
<tr>
<td>Crane</td>
<td>81</td>
</tr>
<tr>
<td>Dump Truck</td>
<td>76</td>
</tr>
<tr>
<td>Excavator</td>
<td>81</td>
</tr>
<tr>
<td>Flat Bed Truck</td>
<td>74</td>
</tr>
<tr>
<td>Front Loader</td>
<td>79</td>
</tr>
<tr>
<td>Source: ABC Acoustics 2018</td>
<td></td>
</tr>
</tbody>
</table>

Construction of the proposed project would have the potential to generate temporary increases in the ambient noise level as a result of operation of construction equipment and temporary increases in vehicle trips.

Construction noise would be considered significant if it would exceed an eight-hour average sound level greater than 75 dBA during a 24-hour period. Noise generated by project construction equipment would vary greatly throughout the construction period.
depending upon factors such as the type and specific model of the equipment, location of operation on the project site, the types of equipment operating simultaneously, total operating hours for each piece of equipment, the condition of the equipment, and the prevailing wind direction. The highest noise levels associated with construction of the proposed project would occur during the nine weeks of grading which includes excavating machinery (excavator, loader, and export trucks). Simultaneous and continuous operation of these three pieces of equipment at their maximum capacity would result in an unattenuated noise level of 84 dBA at 50 feet. However, this scenario assumes that all three pieces of equipment would be in operation at the same location. Construction equipment typically move around the site. Actual unattenuated construction equipment noise impacts are anticipated to be 3 dBA lower.

Based on the proposed project’s construction assumptions for air quality and greenhouse gas emissions, the CalEEMod model estimates that construction activities would add approximately 136 heavy truck trips to the existing daily traffic volume along area roadways during the most hauling-intensive construction phase (grading) (see the modeling output in Appendix B, Harris & Associates 2018). Anticipated existing plus construction traffic noise levels during the 45 days of grading would be 68-69 dBA Leq on the roadways surrounding the project site during construction hours. Operation of construction equipment, combined with the worst-case truck volume would result in a noise level of approximately 80 dBA at the closest residential property line.

Therefore, noise levels would have the potential to exceed the City’s noise ordinance standard of 75 dBA during construction and the project would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Significance of Impact
A potentially significant impact regarding construction noise levels at adjacent multi-family residences and commercial uses would occur.

Mitigation Measures
Implementation of mitigation measure NOI-4 would minimize temporary construction noise impacts on adjacent receptors.

NOI-4 Construction Noise Best Management Practices. The project applicant shall implement the following measures during construction of the proposed project:

1. Prior to issuance of any construction permits, an 8-foot-height construction noise barrier shall be constructed along the western property line to reduce construction noise. The noise barrier shall be continuous with no openings or gaps within its entirety. It will be constructed of “Quilted Barrier Absorber" Type: BBC-13X
manufactured by Sound Seal, or equivalent. Product specification for Type BBC-13X is presented in the ABC Acoustics noise technical study (April 2018) provided in Appendix H to the EIR.

2. During construction, idling time for all equipment shall be limited to five minutes or less.

3. Prior to the start of each phase of construction, the staging area for the phase shall be sited to maximize the distance between construction equipment staging areas and occupied residential areas.

4. During construction, use of electric air compressors and similar power tools, rather than diesel equipment, shall be used.

5. During construction, stationary construction equipment shall be placed such that emitted noise is directed away from or shielded from sensitive noise receivers.

6. During construction, stockpiling and vehicle staging areas shall be located as far as practical from noise-sensitive receptors.

**Significance After Mitigation**

The identified barrier is capable of reducing noise levels by approximately 15 dBA (see Appendix H for product specifications), which would reduce noise levels during the most noise intensive construction phase (grading) to below the significance threshold of 75 dBA at 50 feet from the construction area. See Appendix H for noise contours during construction with and without a noise barrier, including construction equipment and traffic. Implementation of mitigation measure NOI-4 would reduce impacts related to construction noise levels to a less than significant level.

### 4.9.5.5 Issue 5 - Aircraft Noise

*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?*

*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?*

**Impact Analysis**

The nearest airport or airstrip (public or private) to the project site is the McClellan-Palomar Airport, a public airport, located approximately ten miles northeast of the project site in the City of Carlsbad. Due to distance, the project site is not located within the Airport Land Use Compatibility Plan (ALUCP) 60 dBA CNEL noise contour for this or any airport, or within the airport’s area of influence (SDCRAA 2011). The proposed project site is not anticipated to be exposed to excessive noise levels from any public or private
airport or airstrip in excess of city standards. Therefore, impacts would be less than significant.

**Significance of Impact**
Implementation of the proposed project would not result in significant impacts related to exposure to excessive aircraft noise levels.

**Mitigation Measures**
No mitigation measures are required.

### 4.9.6 Cumulative Impacts

**Would implementation of the proposed project have a cumulatively considerable contribution to a cumulative noise impact considering past, present, and probable future projects?**

#### 4.9.6.1 Issue 1 - Excessive Noise Levels

The geographic limit that would be considered for the noise cumulative analysis includes only those projects in close proximity to the proposed project. There are three cumulative projects proposed in the vicinity of the project site that would have the potential to permanently increase noise levels in the area as a result of increased human activity or new stationary sources of operational noise. The remainder of cumulative projects are located too far from the project site to cause a cumulative noise impact. The first cumulative project is the Pearl project, consisting of a three-level building with 795 SF of commercial office space and 10 apartment units located about 2,000 feet south of the proposed project. The second is the 330 S. Cedros Mixed Use Project located 500 feet east of the project site, consisting of a new 26,408 SF two-story, mixed-use project with eight dwelling units, five office suites, four retail suites, and one restaurant. The third project is the Ocean Ranch Estates project, which consists of eight new residences and would be located approximately 2,000 feet from the project site. Potential cumulative impacts that would result from the proposed project and the cumulative projects are addressed below.

The cumulative projects in the vicinity of the proposed project would have the potential to result in permanent increases in the ambient noise level as a result of operational noise, as well as introduce new receptors to the area. Similar to the proposed project, residential land uses would generate nuisance noise levels that would not be considered a significant impact. The Pearl and S. Cedros Mixed Use projects would potentially result in truck deliveries and nighttime activity on site that would be a significant nuisance, similar to the proposed project. However, while these noises would potentially be a nuisance to immediately surrounding uses, the projects are too far from each other for individual receptors to be exposed to noise from multiple projects. For example, loading dock noise, estimated to be approximately 78 dBA at five feet from the source, would
attenuate to 38 dBA at 500 feet and would not be audible above ambient noise levels. A cumulative impact would not occur.

Commercial development would also potentially include HVAC systems with the potential to result in significant impacts to NSLU, including single- and multi-family residences, up to 275 feet from the source. The closest cumulative project is about 500 feet from the proposed project, so a cumulatively significant impact of excessive ambient noise from on-site operations would not occur due to noise attenuation.

The proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact related to exposure of receptors to significant noise levels.

**4.9.6.2 Issue 2 – Permanent Increase in Noise Level**

A cumulative impact related to a permanent increase in ambient noise would occur if development associated with cumulative regional land use projects would result in an increase in ambient noise that would exceed the city’s noise standards. Buildout of the proposed project, along with future regional growth, would result in increases in traffic that would cumulatively increase traffic noise. The analysis of traffic noise levels in Appendix H includes project traffic as well and future cumulative traffic in the project area (Year 2035).

The proposed project would result in a maximum increase in noise level of 4.2 dBA CNEL on any roadway (Dahlia Drive). The proposed project would not result in a more than 10 dBA CNEL increase in traffic noise levels above existing conditions on any roadway immediately serving project traffic. Therefore, the proposed project would not result in a cumulatively considerable contribution to a potentially significant cumulative impact related to a permanent increase in ambient noise levels.

**4.9.6.3 Issue 3 - Ground-borne Vibration**

Ground-borne vibration is a localized phenomenon that is progressively reduced as the distance from the source increases. The area of cumulative impacts that would be considered for the vibration cumulative analysis would be limited to projects within the immediate vicinity of the proposed project area. Ten potential cumulative projects may be under construction concurrently with the proposed project which could contribute to a cumulative ground-borne vibration impact. From closest to farthest, they are: the 330 S. Cedros Mixed Use project, located approximately 500 feet from the proposed project; the Pearl and Ocean Ranch Estates projects, both located approximately 2,000 feet from the proposed project; the Solana Highlands, Solana Beach School District Office and Child Development Center Modular Building Replacement, La Colonia Skate Park and Stevens Avenue Comprehensive Active Transportation Strategy (CATS) projects, all located approximately 3,000 feet from the proposed project; the Santa Fe Christian School Master Plan Update and the Skyline Elementary School Reconstruction projects.
both located approximately 4,000 feet from the proposed project; and the I-5 North Coast Corridor and Via de la Valle Underground Utilities District projects, both located approximately one mile from the proposed project. These projects would likely require heavy construction equipment and would have the potential to generate vibration levels in excess of the County’s vibration significance criteria. A cumulative impact would occur if the proposed project, combined with the cumulative project, would have the potential to exceed vibration significance criteria at existing and planned sensitive receptors.

The proposed project would have the potential to exceed applicable vibration criteria up to 95 feet from the project site. The nearest relevant cumulative projects to the project site are located at least 500 feet from the proposed project. As such, the vibration from the proposed project combined with vibration from construction of the cumulative projects would not exceed the ground-borne vibration significance threshold. Therefore, the project would not result in a cumulatively considerable contribution to a significant construction vibration impact.

4.9.6.4 Issue 4 - Temporary Noise Levels

Construction noise impacts are also localized in nature because they are limited to the construction site where construction equipment is operating. One potential cumulative project is located in close proximity to the proposed project and may be under construction simultaneously with the proposed project: the 330 S. Cedros Mixed-Use project, located 500 feet from the proposed project. This project would also require heavy construction equipment and truck trips and would have the potential to generate noise levels in excess of the City’s construction noise level limit. The proposed project would result in a cumulatively considerable contribution to this impact if construction of the proposed project would have the potential to exceed 75 dBA $L_{eq}(8)$ at existing and cumulative construction noise receptors.

The proposed project would result in an unattenuated noise level of 80 dBA at 50 feet. Noise levels would attenuate to approximately 66 dBA at the halfway point between the two cumulative projects (250 feet from the project boundary). The 330 S. Cedros Mixed-Use project is anticipated to require similar construction practices as the proposed project. Therefore, construction noise from the two project sites is unlikely to combine to exceed the threshold of 75 dBA. Therefore, the project would not result in a cumulatively considerable contribution to a significant construction noise impact.

4.9.6.5 Issue 5 - Aircraft Noise

No additional aviation uses are planned to be introduced in the vicinity of the project site. In addition, the project does not propose, and would not result in, additional air traffic. No NSLU’s would be exposed to excessive noise levels from aviation as a result of the project. Therefore, a cumulative impact related to aviation-related noise would not occur.
4.10 Population and Housing

This section describes the existing conditions related to housing and population and growth projections in the project area, and evaluates the potential for impacts to housing and population due to implementation of the proposed project.

4.10.1 Environmental Setting

The project site is currently vacant. The northern half of the project site consists of a former mobile home park, which includes 24 vacant concrete pads that were once used for trailers and mobile homes. This area also contains an access road, a variety of landscape trees, overhead power lines, and debris from the former mobile home park. The eastern portion of the southern half of the project site contains a one-story metal building, which was formerly part of a gas station, and a paved parking area. The gas station building is currently used as a temporary satellite office for a small company with 4-6 employees. Two rusted metal poles that formerly displayed signage and a small, abandoned coffee kiosk are also present in the southeastern portion of the site. The southwestern portion of the site contains two vacated, one-story, single-family residences and a vacated, one-story retail commercial building with detached garage. The southern half of the project site also includes asphalt driveways, parking areas, and non-native landscape trees and shrubs (Figure 2-3).

4.10.1.1 Population

The following discussion focuses on projected population and housing growth in the County of San Diego (County) and the City. Table 4.10-1 displays the populations of the County and the City from 1970 through 2010 as well as shows the percent change of the populations between these decades. As shown in Table 4.10-1, the County experienced a relatively large amount of growth between 1970 and 1990, with an average population increase of approximately 35 percent per decade. While the region’s population continued to increase from 1990 to 2010, the rate of growth has been declining over the last 20 years. Over the last 40 years, the County’s population has increased by approximately 128 percent or by approximately 1,737,459 residents.

The City has the second smallest population of all jurisdictions within the County, which was approximately 12,867 residents in 2010. The City was incorporated in 1986 and experienced most of its population growth before incorporation between 1970 and 1980, when the population grew dramatically from 5,023 to 13,047, or approximately 160 percent. Since 1980, the population has remained fairly constant, declining only slightly between 1980 and 1990, and again between 2000 and 2010 (City of Solana Beach 2014b). Additionally, Table 4.10-1 compares the City’s population growth rate with the County’s, which shows slower growth within the City compared to the region overall.
Future population growth forecasts are shown in Table 4.10-4. The City is forecast to add 1,870 additional people between 2012 and 2050, a 14 percent increase. Among the North County coastal cities, only Carlsbad is expected to have a greater percent population growth (16 percent) than Solana Beach. Regional growth forecasts expect the total population in the San Diego region to increase by 29 percent, or 925,330 people, by 2050.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Solana Beach</td>
<td>5,023</td>
<td>13,047</td>
<td>12,950</td>
<td>12,979</td>
<td>12,867</td>
</tr>
<tr>
<td>San Diego County</td>
<td>1,357,854</td>
<td>1,861,846</td>
<td>2,480,100</td>
<td>2,813,833</td>
<td>3,095,313</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Solana Beach</td>
<td>160%</td>
<td>-1%</td>
<td>0%</td>
<td>-1%</td>
</tr>
<tr>
<td>San Diego County</td>
<td>37%</td>
<td>33%</td>
<td>13%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Sources: US Census Bureau & Department of Finance Population Estimates, Historical Data

4.10.1.2 Employment and Housing

Table 4.10-2 shows the housing and employment characteristics of the County and the City between the 2009-2013 survey period for the American Community Survey (ACS) 5-year Survey. According to the 2009-2013 ACS, the County had a population of 3,138,265 residents by 2013. Over the five year survey period from 2009-2013, the median household income for the County was reported as $62,962 with a median age of 35 years old. The County had an unemployment rate of 6.2 percent with approximately 14 percent of the population below the poverty line. The housing inventory of the County in 2013 consisted of a total of 1,169,496 housing units, with 53.8 percent of the total housing units being owner-occupied.

Also shown in Table 4.10-2, the 2009-2013 ACS 5-year Survey reported a City population of 12,867 residents by 2013, which represents approximately 0.4 percent of the County’s total population. Over the five year survey period from 2009-2013, the median household income for the City was reported as $86,452 with a median age of 44 years old. The City’s median household income and median age are greater than reported for the County as a whole, with an approximate $23,000 income difference and ten year age difference, respectively. The City has a lower unemployment rate than the County with 5.8 percent of the population being unemployed and a significantly lower percentage of the population below the poverty line, with 8.9 percent compared to 14.4 percent for the County. In addition, the housing inventory of the City in 2013 consisted of a total of
5,650 housing units, with 60.2 percent of the total housing units being owner-occupied, which is approximately six percent higher than the County.

Table 4.10-2 2009-2013 ACS Housing and Employment Characteristics

<table>
<thead>
<tr>
<th>Study Area</th>
<th>City of Solana Beach</th>
<th>County of San Diego</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 Population</td>
<td>12,867</td>
<td>3,138,265</td>
</tr>
<tr>
<td>Median Age</td>
<td>44</td>
<td>35</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>$86,451</td>
<td>$62,962</td>
</tr>
<tr>
<td>Total Employment (16 years and over)</td>
<td>6,210</td>
<td>1,390,197</td>
</tr>
<tr>
<td>Unemployment Rate (16 years and over)</td>
<td>5.8%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Percentage of Population Below Poverty Level</td>
<td>8.9%</td>
<td>14.4%</td>
</tr>
<tr>
<td>2013 Total Housing Units</td>
<td>6,540</td>
<td>1,169,496</td>
</tr>
<tr>
<td>Total Occupied Units</td>
<td>5,650</td>
<td>1,076,483</td>
</tr>
<tr>
<td>Owner-Occupied Housing</td>
<td>60.2%</td>
<td>53.8%</td>
</tr>
<tr>
<td>Renter-Occupied</td>
<td>39.8%</td>
<td>46.2%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2009-2013 5-year American Community Survey

San Diego Association of Governments (SANDAG) is the regional agency responsible for preparing housing, and employment projections for the San Diego region. In October 2013, the Series 13 2050 Regional Growth Forecast (RGF) was accepted by the SANDAG Board of Directors for planning purposes. This forecast serves as the foundation for San Diego Forward: The Regional Plan, which was adopted by the SANDAG Board of Directors on October 9, 2015. The RGF provides a projection of regional population, housing, land use and economic growth expected by 2050. Table 4.10-3 displays the 2050 RGF rates for regional population, housing, and job counts. Within the scope of the 2050 RGF, SANDAG anticipates that the population of the County will continue to increase to 2050, with a projected increase of 29 percent from 2012 to 2050. Additionally, the 2050 RGF anticipates that regional housing and job counts will also increase by 28 percent and 32 percent, respectively, during the same period.

Table 4.10-3 Preliminary 2050 Regional Growth Forecast

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2020</th>
<th>2035</th>
<th>2050</th>
<th>Percent Change from 2012-2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>3,143,429</td>
<td>3,435,713</td>
<td>3,853,698</td>
<td>4,068,759</td>
<td>29%</td>
</tr>
<tr>
<td>Housing</td>
<td>1,165,818</td>
<td>1,249,684</td>
<td>1,394,783</td>
<td>1,491,935</td>
<td>28%</td>
</tr>
<tr>
<td>Jobs</td>
<td>1,450,913</td>
<td>1,624,124</td>
<td>1,769,938</td>
<td>1,911,405</td>
<td>32%</td>
</tr>
</tbody>
</table>

Source: Series 13, SANDAG 2050 Regional Growth Forecast, October 2013

Table 4.10-4 shows the projected population, housing and employment changes that are anticipated to occur throughout the San Diego region and the City by 2050. The 2050
RGF anticipates that job opportunities will increase in the region by 32 percent from 2012 to 2050, with an additional 460,492 jobs anticipated to be generated throughout the region. In addition, the 2050 RGF projects that the San Diego region’s housing stock will increase by approximately 28 percent; by 2050 the County is expected to add an additional 326,117 housing units to the housing stock.

In addition, as shown in Table 4.10-4, the 2050 RGF projects that an additional 1,235 job opportunities will be generated within the City by 2050, which represents an 16 percent increase in the City’s job market. The City’s Housing Element reports that, along with Encinitas, the City has the lowest percentage increase in employment of the North County coastal cities (City of Solana Beach 2014b); however the RGF forecasts that employment growth in Del Mar will be even lower (five percent). In addition, the 2050 RGF projects that the City’s housing stock will increase by approximately nine percent by 2050. The City’s housing stock is anticipated to increase by an additional 600 housing units by the year 2050. The City’s Housing Element reports that all of the North County coastal cities are expected to have slower growth rates than the County between 2008 and 2050 (City of Solana Beach 2014b), and this is consistent with the SANDAG RGF forecast.

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>2012 (Actual)</th>
<th>2020</th>
<th>2035</th>
<th>2050</th>
<th>Numeric Change 2012-2050</th>
<th>Percent Change 2012-2050</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Projected Population Changes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carlsbad</td>
<td>107,674</td>
<td>118,450</td>
<td>124,351</td>
<td>124,518</td>
<td>16,844</td>
<td>16%</td>
</tr>
<tr>
<td>Del Mar</td>
<td>4,194</td>
<td>4,399</td>
<td>4,672</td>
<td>4,732</td>
<td>538</td>
<td>13%</td>
</tr>
<tr>
<td>Encinitas</td>
<td>60,346</td>
<td>62,908</td>
<td>65,264</td>
<td>66,670</td>
<td>6,324</td>
<td>10%</td>
</tr>
<tr>
<td>Oceanside</td>
<td>169,319</td>
<td>177,840</td>
<td>188,597</td>
<td>189,377</td>
<td>20,058</td>
<td>12%</td>
</tr>
<tr>
<td>Solana Beach</td>
<td>13,000</td>
<td>13,376</td>
<td>14,207</td>
<td>14,870</td>
<td>1,870</td>
<td>14%</td>
</tr>
<tr>
<td>San Diego Region</td>
<td>3,143,429</td>
<td>3,435,713</td>
<td>3,853,698</td>
<td>4,068,759</td>
<td>925,330</td>
<td>29%</td>
</tr>
<tr>
<td><strong>Projected Housing Changes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carlsbad</td>
<td>45,171</td>
<td>48,448</td>
<td>40,261</td>
<td>50,505</td>
<td>5,334</td>
<td>12%</td>
</tr>
<tr>
<td>Del Mar</td>
<td>2,637</td>
<td>2,646</td>
<td>2,653</td>
<td>2,674</td>
<td>37</td>
<td>1%</td>
</tr>
<tr>
<td>Encinitas</td>
<td>25,586</td>
<td>26,146</td>
<td>26,765</td>
<td>27,686</td>
<td>2,100</td>
<td>8%</td>
</tr>
<tr>
<td>Oceanside</td>
<td>65,469</td>
<td>67,817</td>
<td>70,395</td>
<td>70,942</td>
<td>5,473</td>
<td>8%</td>
</tr>
<tr>
<td>Solana Beach</td>
<td>6,521</td>
<td>6,583</td>
<td>6,833</td>
<td>7,121</td>
<td>600</td>
<td>9%</td>
</tr>
<tr>
<td>San Diego Region</td>
<td>1,165,818</td>
<td>1,249,684</td>
<td>1,394,783</td>
<td>1,491,935</td>
<td>326,117</td>
<td>28%</td>
</tr>
</tbody>
</table>
### Table 4.10-4  Projected Population Housing and Employment Changes

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>2012 (Actual)</th>
<th>2020</th>
<th>2035</th>
<th>2050</th>
<th>Numeric Change 2012-2050</th>
<th>Percent Change 2012-2050</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Projected Employment Changes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carlsbad</td>
<td>66,279</td>
<td>77,422</td>
<td>84,589</td>
<td>85,757</td>
<td>19,478</td>
<td>29.0%</td>
</tr>
<tr>
<td>Del Mar</td>
<td>4,521</td>
<td>4,542</td>
<td>4,704</td>
<td>4,726</td>
<td>205</td>
<td>5%</td>
</tr>
<tr>
<td>Encinitas</td>
<td>26,165</td>
<td>27,275</td>
<td>28,467</td>
<td>29,551</td>
<td>3,386</td>
<td>13%</td>
</tr>
<tr>
<td>Oceanside</td>
<td>41,974</td>
<td>48,199</td>
<td>53,277</td>
<td>53,992</td>
<td>12,018</td>
<td>29%</td>
</tr>
<tr>
<td>Solana Beach</td>
<td>7,568</td>
<td>8,156</td>
<td>8,533</td>
<td>8,803</td>
<td>1,235</td>
<td>16%</td>
</tr>
<tr>
<td>San Diego Region</td>
<td>1,450,913</td>
<td>1,624,124</td>
<td>1,769,938</td>
<td>1,911,405</td>
<td>460,492</td>
<td>32%</td>
</tr>
</tbody>
</table>

Source: Series 13, SANDAG 2050 Regional Growth Forecast, October 2013

### 4.10.1.3 Regional Housing Needs Assessment

The Regional Housing Needs Assessment (RHNA), monitored by the Department of Housing and Community Development (HCD), is a minimum projection of additional housing units needed to accommodate projected household growth of all income levels by the end of a housing element’s statutory planning period. Each jurisdiction’s RHNA is distributed among four income categories to address the required provision for planning for all income levels. SANDAG, as the regional planning agency, is responsible for allocating the RHNA to each local jurisdiction within its region. Based on a methodology that weighs a number of factors (i.e., projected population growth, employment, commute patterns, and available sites), SANDAG determined quantifiable needs for housing units in the region according to various income categories. As show in Table 4.10-5, SANDAG’s official regional housing need for the County for the 2010-2020 planning period is 161,980 units. Further, Table 4.10-5 separates the regional housing allocation for the 2010-2020 planning period by the four income categories as well as by the 18 cities and unincorporated area of San Diego County. The City’s housing need is 340 additional housing units by 2020, with the majority of housing units needed for the above moderate income level.

### Table 4.10-5 SANDAG 11-Year RHNA Allocation (2010-2020)

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>11 Year RHNA Allocation (2010-2020)</th>
<th>RHNA Allocation by Income Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Very Low</td>
</tr>
<tr>
<td>Carlsbad</td>
<td>4,999</td>
<td>912</td>
</tr>
<tr>
<td>Chula Vista</td>
<td>12,861</td>
<td>3,209</td>
</tr>
</tbody>
</table>
Table 4.10-5 SANDAG 11-Year RHNA Allocation (2010-2020)

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>11 Year RHNA Allocation (2010-2020)</th>
<th>RHNA Allocation by Income Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Very Low</td>
</tr>
<tr>
<td>Coronado</td>
<td>50</td>
<td>13</td>
</tr>
<tr>
<td>Del Mar</td>
<td>61</td>
<td>7</td>
</tr>
<tr>
<td>El Cajon</td>
<td>5,805</td>
<td>1,448</td>
</tr>
<tr>
<td>Encinitas</td>
<td>2,353</td>
<td>587</td>
</tr>
<tr>
<td>Escondido</td>
<td>4,175</td>
<td>1,042</td>
</tr>
<tr>
<td>Imperial Beach</td>
<td>254</td>
<td>63</td>
</tr>
<tr>
<td>La Mesa</td>
<td>1,722</td>
<td>430</td>
</tr>
<tr>
<td>Lemon Grove</td>
<td>309</td>
<td>77</td>
</tr>
<tr>
<td>National City</td>
<td>1,863</td>
<td>465</td>
</tr>
<tr>
<td>Oceanside</td>
<td>6,210</td>
<td>1,549</td>
</tr>
<tr>
<td>Poway</td>
<td>1,253</td>
<td>201</td>
</tr>
<tr>
<td>San Diego</td>
<td>88,096</td>
<td>21,977</td>
</tr>
<tr>
<td>San Marcos</td>
<td>4,183</td>
<td>1,043</td>
</tr>
<tr>
<td>Santee</td>
<td>3,660</td>
<td>914</td>
</tr>
<tr>
<td>Solana Beach</td>
<td>340</td>
<td>85</td>
</tr>
<tr>
<td>Vista</td>
<td>1,374</td>
<td>343</td>
</tr>
<tr>
<td>Unincorporated</td>
<td>22,412</td>
<td>2,085</td>
</tr>
<tr>
<td>Regional</td>
<td>161,980</td>
<td>36,450</td>
</tr>
</tbody>
</table>

Source: SANDAG Regional Housing Needs Assessment 2011

4.10.2 Regulatory Framework

4.10.2.1 State

California State Housing Law Program

The State Housing Law (SHL) Program, which is implemented by the HCD, was established to assure the availability of affordable housing and uniform statewide code enforcement; to protect the health, safety, and general welfare of the public and occupants of housing and buildings accessory thereto. To fulfill this obligation the SHL Program may propose legislation and regulations. The program oversees the application of state laws, regulations, and code enforcement by a city, county, city and county building, housing, health, and fire department or fire district. The SHL Program develops statewide building standards for new construction of hotels, motels, lodging houses, apartments, dwellings, and buildings accessory thereto. The building standards are published in the California Code of Regulations, Title 24, known as the California Building Standards Code. The SHL Program also adopts regulations for maintenance, use, occupancy, repair, alteration, moving, and demolition of existing hotels, motels, lodging houses, apartments, dwellings, and buildings accessory thereto. These regulations are published in California Code of Regulations Title 25, Division 1, Chapter 1.
4.10.2.2 Regional

SANDAG 2050 Regional Growth Forecast
On October 15, 2013, the SANDAG Board of Directors accepted the Series 13: 2050 RGF for planning purposes. This forecast serves as the foundation for San Diego Forward: The Regional Plan and other planning documents (e.g., water, general plans) across the region. The RGF provides a projection of regional population, housing, land use and economic growth expected by 2050.

SANDAG Regional Housing Needs Assessment
In accordance with the California State Housing Law Program, California councils of governments are mandated to identify existing and future housing needs in a Regional Housing Needs Assessment (RHNA) in support of each jurisdictions’ general plan housing element. State law requires every city and county to prepare a housing element as part of its general plan, which are reviewed by the California Department of Housing and Community Development (HCD). Jurisdictions are required to identify adequate sites to address their very low, low, moderate, and above moderate income housing needs based on their RHNA allocations. The RHNA provides recommendations and guidelines to identify housing needs within cities and unincorporated areas, but does not impose requirements as to housing development. SANDAG is responsible for the preparation of the San Diego Region’s RHNA, which was completed on October 28, 2011, with the adoption of the RHNA Plan. The RHNA Plan describes the methodology developed to allocate the region’s housing needs in four income categories (very low, low, moderate, and above moderate) to the 18 cities and the unincorporated area of the County in accordance with the objectives and factors contained in the SHL. Further, the RHNA discusses housing issues in the San Diego region, the 2050 RGF, and the relationship of the RHNA to the 2050 Regional Transportation Plan (RTP) and its Sustainable Communities Strategies (SCS). See additional discussion of the RTP and its SCS below.

San Diego Forward: The Regional Plan
San Diego Forward: The Regional Plan is a comprehensive roadmap to guide planning in San Diego County through 2050. It integrates the RTP, its SCS, and the Regional Comprehensive Plan (RCP) into one document to chart the region’s future growth and transportation investments. The Regional Plan incorporates local land use plans. It envisions a region that will grow more strategically than in the past, concentrating new housing and jobs in existing urban areas and preserving today’s open land for tomorrow. The Regional Plan reflects a strategy for a more sustainable future which includes investing in a transportation network that will provide people with more travel choices, protect the environment, create healthy communities, and stimulate economic growth to benefit all San Diegans.
4.10.2.3 Local

City of Solana Beach General Plan
The City of Solana Beach General Plan consists of a series of development policies setting forth objectives, principles, standards, and plan policies. The Housing Element consists of a series of goals, policies, and programs for the 2013-2020 housing element cycle related to population and housing. The purpose of the Housing Element is to continue to ensure that safe and quality housing is available at a cost that is affordable to current and future residents. The City has developed numerous policies to better guide decisions and achieve the desired outcomes. The Housing Element contains the following policies relative to population and housing that relate to the proposed project:

Goal H-1.0: The adequate provision of a range of safe and decent housing opportunities that will meet Solana Beach’s share of the existing and future housing needs of the region.

- **Policy H-1.1**: Maintain sufficient land designated and zoned for housing to achieve a mix of single-family and multi-family development that will accommodate the housing needs established by the Regional Housing Needs Assessment Plan.
- **Policy H-1.2**: Encourage a variety of individual choices of tenure, type, and location of housing throughout the community.
- **Policy H-1.3**: Maintain a reasonable balance between rental and ownership opportunities.
- **Policy H-1.4**: Encourage the consolidation of smaller parcels to facilitate more effective multi-family residential development.
- **Policy H-1.5**: Encourage development of housing for local workers to meet the needs of the workforce and their families and to generate economic activity.
- **Policy H-1.6**: Encourage accessory living units as a way to provide additional affordable housing opportunities in existing single-family neighborhoods.

Goal H-3.0: Minimize constraints in the development, improvement, preservation, and maintenance of housing for all income levels.

- **Policy H-3.1**: Support applications for financial assistance for the development and/or purchase of housing affordable to extremely low income, very low income, low income, and moderate-income households.
- **Policy H-3.2**: Facilitate affordable housing through advocacy, education, and support.
- **Policy H-3.3**: Take into consideration where housing is planned or likely to be built when preparing plans for capital improvements and expand or improve...
infrastructure and public facilities to support new residential development and ensure adequate facilities, as needed.

- **Policy H-3.4**: Explore incentives, bonuses, and flexibility in standards and requirements that could benefit affordable housing development, such as density bonuses, flexible development standards, reduced permit fees, and streamlined permit processing.

- **Policy H-3.5**: Encourage remodeling, maintenance, repair, and rehabilitation of existing housing to meet special needs, prevent deterioration, and ensure that housing is kept in a safe and sanitary condition.

- **Policy H-3.6**: Strive to preserve the existing affordable housing stock and seek to replace affordable units that may be lost as a result of redevelopment.

- **Policy H-3.7**: Grant priority water and sewer service to housing with units affordable to lower income households.

**Goal H-4.0**: Equal access to housing opportunities for all persons regardless of age, race, religion, sex, marital status, sexual orientation, ancestry, national origin, or disability.

- **Policy H-4.1**: Seek to accommodate housing for residents with special needs through appropriate zoning standards and permit processes.

- **Policy H-4.2**: Strive to maintain a reasonable balance between senior and family housing.

- **Policy H-4.3**: Ensure equal access to housing by providing reasonable accommodation for persons with disabilities consistent with Americans with Disabilities Act (ADA) and Fair Housing Act (FHA) requirements.

- **Policy H-4.4**: Support and enforce anti-discrimination laws and practices.

- **Policy H-4.5**: Encourage new development and redevelopment to utilize universal design standards to create environments that are usable to the greatest extent possible by everyone, regardless of age, ability, or situation.

- **Policy H-4.6**: Support efforts to provide services that facilitate aging in place such as senior transportation, recreational activities, and other means to help older adults connect to the services they need to live independently in their own homes.

**City of Solana Beach Local Coastal Plan**

The City of Solana Beach City Council adopted a Local Coastal Program (LCP) Land Use Plan (LUP) on February 27, 2013 (amended and certified on June 11, 2014). Although the LUP has been certified by the California Coastal Commission, the Local Implementation Plan (LIP) portion of the LCP has not yet been certified; as such, the provisions of the LUP are considered by the Coastal Commission to be advisory rather than mandatory at this
time. The purpose of the LUP is to implement the State’s goals for the coastal zone. The LUP establishes long-term comprehensive land use planning goals and policies that promote the beneficial use of land in the City and the beach and shoreline for residents and visitors alike. The LUP identifies the following policy associated with population and housing related to the proposed project:

- **Policy 7.16**: Encourage a variety of housing types throughout the City to minimize commuting needs of all socioeconomic sectors.

**City of Solana Beach Municipal Code (SBMC)**

Chapter 17.70 of the SBMC establishes the regulations and standards regarding the provision of affordable housing units in the city and implements the city’s General Plan relative to the provision of housing units for all economic sectors of its population. New housing contributes to the demand for goods and services in the City, increasing local employment at wage levels which often do not permit employees to afford housing in the City. Further, new housing construction which does not include affordable units aggravates the existing shortage of affordable housing by absorbing the supply of available residential land. Chapter 17.70.020 of the SBMC requires for sale residential projects to provide affordable housing units to ensure that part of the city’s remaining developable land is used to provide affordable housing.

In accordance with Chapter 17.70.025 of the SBMC, rental residential projects of five or more dwelling units have the option of paying an affordable housing impact fee in lieu of providing affordable housing units. The fees must be paid prior to the issuance of a building permit for each market-rate rental dwelling unit in order to mitigate the rental project’s impact on the need for affordable housing in the City. All affordable housing impact fees shall be deposited into a separate account to be designated to the City of Solana Beach housing fund. The fees collected and all earnings from investment of the fees shall be expended exclusively to provide or assure continued provision of affordable housing in the City through acquisition, construction, development assistance, rehabilitation, financing, rent or other subsidies, provision of supportive services, or other methods, and for costs of administering programs which serve those ends.

### 4.10.3 Impact Significance Criteria

According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact on population and housing if it would:

- **Issue 1**: Induce substantial population growth in an area, either directly (for example, by proposing new homes or businesses) or indirectly (for example, through the extension of roads or other infrastructure).
• **Issue 2:** Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

• **Issue 3:** Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

### 4.10.4 Method of Analysis

This section of the EIR gives full consideration to the development of the proposed project and acknowledges the physical changes that would occur to the existing setting from implementation of the proposed project. Population and housing impacts were determined by comparing the proposed project with the objectives of the City’s General Plan, specifically the Housing Element.

### 4.10.5 Project Impacts and Mitigation

#### 4.10.5.1 Issue 1 – Population Growth

**Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes or businesses) or indirectly (for example, through the extension of roads or other infrastructure)?**

**Impact Analysis**

Implementation of the proposed project would result in the construction of a mixed-use development, which would consist of two floors of underground parking; commercial office space; retail and restaurant space; and 25 multi-family residential units. The projected residential population of the project is based on a population generation factor of 2.28 persons per household, which was the City’s average household size in 2010 as reported in the City’s Housing Element (City of Solana Beach 2014b). Based on the population factor of 2.28 persons, the proposed project is expected to provide housing for approximately 57 residents. As the composition of future residents is unknown, this analysis conservatively assumes that 57 additional residents would be added to the City’s population as a result of the proposed project. However, the proposed project may be partially or fully inhabited by existing Solana Beach residents who have relocated.

The projected growth for the site is consistent with the City’s General Plan Housing Element related to population and household growth. The City’s Housing Element projected that the City’s population would increase by five percent, or approximately 687 residents, as well as projected that the housing stock would increase by approximately three percent, or 197 households, between 2008 and 2020 (City of Solana Beach 2014b). The proposed project would increase the City’s population by approximately 57 residents, which represents approximately eight percent of the total anticipated population growth by 2020. The proposed project would result in 25 new
households, which represents approximately 13 percent of the total expected household growth within the city by 2020. Thus, the City’s General Plan Housing Element has adequately accounted for the population growth from the proposed project and the proposed project would be in compliance with the City’s General Plan.

Population growth can also be induced indirectly by nonresidential uses in an area. The proposed project includes the development of commercial office space and retail and restaurant space that would primarily serve residents within and around the project site and would also provide employment opportunities near homes. Some employment opportunities associated with the proposed project may be filled by residents of the new residential component of the project. Due to the central location within North County and easy access to a major freeway and transit, it is anticipated that jobs would also be filled by commuters from the surrounding areas. However, it is not anticipated that the new commercial office space and retail and restaurant space would provide a significant number of highly-skilled employment opportunities which would require employees to relocate to the area and result in an increase in population. Therefore, the proposed project would not result in a significant population increase that was not accounted for in the City’s General Plan. Impacts related to population growth would be less than significant.

Significance of Impact
The proposed project would result in population growth consistent with the population growth projections of the City’s General Plan Housing Element. Therefore, the proposed project would not induce substantial direct or indirect population growth and impacts would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.10.5.2 Issue 2 – Displacement of Housing

Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Impact Analysis
Currently, the northern half of the project site consists of a former mobile home park with 24 vacant concrete pads formerly used for trailers and mobile homes. The eastern portion of the southern half of the site contains a one-story metal building, which was formerly used as a gas station, and a small abandoned coffee shop kiosk. The southwestern portion of the site contains two, abandoned, one-story, single-family residential homes and a vacated, one-story retail commercial building.
The former mobile home park has been decommissioned and no longer provides residential uses at the site. In addition, the two single-family residences are vacant. The mobile home park and single-family residential structures have not been occupied since approximately 2004 (Terracon 2006). Therefore, the demolition of these structures would not require the construction of replacement housing elsewhere. Further, the proposed project would construct 25 new multi-family housing units which would replace the 26 former residential units (24 mobile home sites and 2 single-family residences). The site does not currently support housing needs within the city. The site currently supports one small temporary satellite business operating out of the former gas station building. This is a commercial business use and does not provide housing.

**Significance of Impact**
Implementation of the proposed project would not result in the displacement of any occupied housing units and would not require the construction of replacement housing elsewhere. No impact would occur.

**Mitigation Measures**
No mitigation measures are required.

### 4.10.5.3 Issue 3 – Displacement of People

**Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

**Impact Analysis**
As explained in Section 4.10.5.2, the former mobile home park has been decommissioned and no longer provides residential uses at the site. In addition, the two on-site single-family residences are vacant. The mobile home park and single-family residential structures have not been occupied since approximately 2004 (Terracon 2006). Therefore, no existing residents would be displaced with implementation of the proposed project.

**Significance of Impact**
Implementation of the proposed project would not result in the displacement of any people necessitating the construction of replacement housing elsewhere. No impact would occur.

**Mitigation Measures**
No mitigation measures are required.
4.10.6 Cumulative Impacts

Would implementation of the proposed project have a cumulatively considerable contribution to a cumulative population or housing impact considering past, present, and probable future projects?

4.10.6.1 Issue 1 - Population Growth

The geographic context for the analysis of cumulative impacts in regards to population growth is defined as the City of Solana Beach. A significant cumulative impact related to population growth would occur if the development of cumulative projects would induce a population increase not accommodated by the City’s General Plan. If future development projects were approved that induced population which surpassed the anticipated growth rate of the General Plan, then a considerable cumulative impact would occur.

As a worst case, the proposed project may increase the City’s population by an additional 57 residents, which represents approximately eight percent of the total anticipated population growth by 2020. The proposed project’s worst-case, induced population increase is consistent with the City’s General Plan Housing Element and would not result in an exceedance of population projections for the proposed project site.

Of the 18 cumulative projects listed in Table 2-2, five would construct residential housing. The Pearl project would construct 10 housing units with 23 people; the 330 S. Cedros project would construct eight dwelling units with 18 people; the NCTD Train Station Project would construct approximately 30 multi-family units with 68 people; the Ocean Ranch Estates project would construct eight homes with 18 people on a site that currently has three occupied residential units; and the Solana Highlands redevelopment project would replace 194 multi-family units with 260 multi-family units, which would add a net of 151 people. The City’s Housing Element projected that the City’s population would increase by five percent, or approximately 687 residents, as well as projected that the housing stock would increase by approximately three percent, or 197 households, between 2008 and 2020 (City of Solana Beach 2014b). The addition of approximately 119 housing units and approximately 271 people associated with the cumulative projects plus the addition of 25 housing units and 57 people that would be added by the proposed project would not be inconsistent with the City’s Housing Element forecasts for 2020. The cumulative growth would also be consistent with the 312 units and 1,207 people that the City is expecting to add by 2035 and the 600 units and 1,870 people that the City is expecting to add by 2050, according to SANDAG (see Table 4.10-4). Therefore, the proposed

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1 Population estimated based on the average occupancy rate of 2.28 people per household from the City’s Housing Element (City of Solana Beach 2014b).
4.10.6.2 Issue 2 - Displacement of Housing

The geographic context for the analysis of cumulative impacts with regard to displacement of housing is San Diego County. A significant cumulative impact related to displacement of housing would occur if cumulative projects would displace existing housing within the County. As shown in Table 2-2 in Section 2.6, there are five proposed development projects within the city that would add residential land uses. These projects would create more housing opportunities within the city and would not result in the net displacement of housing. Buildout associated with the General Plans of other jurisdictions in San Diego County may result in the displacement of substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. However, as shown in Table 4.10-4, the San Diego region is expected to add 83,866 additional housing units by 2020 and 326,117 by 2050. Overall, the region’s housing stock is expected to grow in the future to accommodate existing and planned population increases. Therefore, a significant cumulative impact is not anticipated to occur.

The proposed project would not displace a substantial number of houses necessitating replacement housing elsewhere. As discussed in Section 4.10.5.2 above, the proposed project would displace two abandoned single-family residences and a former mobile home park with 24 vacant pads; however, it would replace them with 25 new, multi-family units. Therefore, the proposed project would not make a cumulatively considerable contribution to a cumulative impact associated with the displacement of housing.

4.10.6.3 Issue 3 - Displacement of People

The geographic context for the analysis of cumulative impacts with regard to displacement of people is San Diego County. A significant cumulative impact related to the displacement of people would occur if cumulative projects would displace a substantial number of people within the County. As summarized in Table 2-2 in Section 2.6, there are three projects within the city that would displace existing land uses: the 330 S. Cedros project would replace existing commercial uses with a mixed-use development including housing; the Ocean Ranch Estates project would replace three existing occupied residential units with eight new residential units; and the Solana Highlands project would replace an existing multi-family development with a new multi-family development. Because these three cumulative projects would largely replace existing uses with larger, similar land uses, they would not displace a substantial number of people necessitating replacement housing elsewhere. The other cumulative projects in Table 2-2 include utilities and roadway improvements, improvements to existing school facilities, recreational area improvements, and infill development on sites currently occupied by
parking lots and/or vacant structures. These cumulative projects are not expected to result in the displacement of people necessitating replacement housing elsewhere. Additional cumulative development within the County would occur associated with buildout of other jurisdictions' General Plans, which may displace people, necessitating the construction of replacement housing. As shown in Table 4.10-4, the San Diego region is expected to add 83,866 additional housing units by 2020 and 326,117 by 2050. Overall, the region's housing stock is expected to grow in the future to accommodate existing and planned population increases. Therefore, a significant cumulative impact is not anticipated to occur.

The proposed project site does not currently support any persons living on the site. Development of the proposed project would not displace any people. Therefore, the proposed project would not make a cumulatively considerable contribution to a cumulative impact associated with the displacement of people.
4.11 Public Services and Recreation

This section describes the existing conditions and regulations pertaining to public services and recreational facilities in the project area, and evaluates the potential for direct and cumulative impacts to public services and recreational facilities due to implementation of the proposed project.

4.11.1 Environmental Setting

4.11.1.1 Existing Public Services

Fire Protection Services
In October 2009, the cities of Encinitas, Del Mar, and Solana Beach entered into a Cooperative Fire Management Services Agreement, along with the Rancho Santa Fe Fire Protection District. In 2013, Rancho Santa Fe Fire Protection District withdrew from the agreement. Through this agreement, senior fire staff members provide operational oversight for the Encinitas, Del Mar, and Solana Beach fire departments on a shared basis.

The Solana Beach Fire Department (Fire Department) provides fire protection services, emergency services, and technical training to approximately 13,000 residents within a four square mile area (City of Solana Beach 2017a). The Fire Department is staffed 24-hours a day and has a total of 18 line firefighters and six private paramedics; the station operates with two fire crews, three personnel on each of two fire trucks (City of Solana Beach 2017a). Additionally, the Fire Department coordinates the community emergency response team (CERT) for the City, which is a team that educates people about disaster preparedness, potential hazards, fire safety, light search and rescue, team organization and disaster medical operations. The CERT program uses life-and-property-saving skills to assist the community in the event of a disaster when professional services have not yet arrived.

The closest fire station to the project site is the Solana Beach Fire Department Station, located at 500 Lomas Santa Fe Drive, which is approximately 0.5 miles northeast of the project site. The Fire Department has a response time goal of eight minutes or less 90 percent of the time (from time of dispatch); the Fire Department has met their response time goals from 2009 through 2014 (City of Solana Beach 2014b). The City’s public facilities fee, which is imposed on new development, helps cover the cost of providing and maintaining adequate levels of fire service (City of Solana Beach 2014a).

Police Protection Services
The City contracts with the San Diego County Sheriff’s Department (Sheriff’s Department) to provide law enforcement and other related services for the City. The Sheriff’s
Department is the chief law enforcement agency in San Diego County. The Sheriff’s Department is comprised of approximately 4,000 employees and provides law enforcement services for the Cities of Solana Beach, Del Mar, Encinitas, Imperial Beach, Lemon Grove, Poway, San Marcos, Santee, and Vista (San Diego County Sheriff’s Department 2015). The Sheriff’s Department provides general law enforcement, detention and court services for a service area of approximately 4,200 square miles of both incorporated and unincorporated San Diego County (San Diego County Sheriff’s Department 2015). The closest police station to the proposed project site is the Encinitas Sheriff’s Station, located at 175 North El Camino Real, which is approximately 4.2 miles northeast of the project site. There is also a Sheriff’s substation at La Colonia Park, approximately two-thirds of a mile east of the project site. To help cover the cost of providing and maintaining adequate levels of police services, new development within the City is subject to a public facilities fee.

**Schools**
The Solana Beach School District (SBSD) was founded in 1925 and serves approximately 3,000 students in grades Pre K through 6 in the areas of the City of Solana Beach, Carmel Valley, Fairbanks Ranch, and Rancho Santa Fe. SBSD operates the Solana Beach Child Development Center, which houses the district’s preschool program as well as school support and services. SBSD operates seven elementary schools, which include Solana Vista (K-3), Skyline (4-6 and K-6 Global Education Program), Solana Santa Fe (K-6), Carmel Creek (K-3), Solana Highlands (K-3), Solana Pacific (4-6) and Solana Ranch (K-6) (Solana Beach School District 2015). SBSD offers programs for before and after school enrichment activities at most of its elementary school campuses. The closest SBSD School to the project site is Skyline Elementary School, located at 606 Lomas Santa Fe Drive, which is approximately 0.75 miles northeast of the project site. Skyline Elementary School has a total current enrollment of approximately 500 students (Solana Beach School District 2015). During the 2017-2018 academic school year, however, the Skyline Elementary School campus is undergoing construction and students are temporarily attending classes across Lomas Santa Fe Drive at Earl Warren Middle School.

The San Dieguito Union High School District (SDUHSD) serves students from five elementary school districts in North County: Encinitas, Rancho Santa Fe, Cardiff, Solana Beach, and Del Mar. Students from the elementary districts matriculate through the SDUHSD middle schools and high schools, with the exception of those from the Rancho Santa Fe District, who enter the school system as freshmen (SDUHSD 2017a). SDUHSD serves a student body of approximately 13,000 students with four middle schools and five high schools (SDUHSD 2017b). The closest SDUHSD middle school to the project site is Earl Warren Middle School, located at 155 Stevens Street, which is approximately 0.5 miles northeast of the project site. Earl Warren Middle School reported a total enrollment of 537 students in the 2016-2017 school year (SDUHSD 2017b). Torrey Pines High School is the closest SDUHSD high school to the project site, located at 3710 Del Mar Heights Road, which is approximately
six miles southeast of the project site, Torrey Pines High School reported a total enrollment of 2,574 students in the 2016-2017 school year (SDUHSD 2017b).

Santa Fe Christian Schools is a private school serving grades preschool through 12th grade. The K-12 campus is located approximately 0.75 miles east of the project site at 838 Academy Drive in Solana Beach, while the preschool campus is located in the City of Encinitas, approximately 6.3 miles north of the project site. The school has a total enrollment of approximately 1,000 students (SchoolDigger.com 2017).

The closest school to the proposed project site is St. James Academy. St. James Academy is a private, Catholic school located approximately 0.5 mile southeast of the project site at 623 South Nardo Avenue. It enrolls approximately 210 students grades preschool through eight, with one class per grade (St. James Academy 2017).

**Other Public Services**

The Solana Beach branch of the San Diego County Library is located on the Earl Warren Middle School campus at 157 Stevens Avenue, approximately 0.5 miles east of the project site. The Solana Beach branch recently underwent a renovation and re-opened in October 2017. There are also San Diego County Library branch locations in Del Mar (two miles south of the project site), Cardiff (two miles north), and Encinitas (four miles north). Each of the branches are open Monday through Friday and hold events for preschoolers, seniors, adults, as well as after-school programs. The Solana Beach and Cardiff branches are open Saturdays, the Del Mar branch is open Sundays, and the Encinitas branch is open on Saturdays and Sundays. In fiscal year 2015-2016, the entire San Diego County Library system had 33 branches, two bookmobiles, and two 24/7 Library To Go kiosks; circulated over 11.5 million books, CDs, DVDs, and other material formats; recorded 5.4 million visits to library branches; and hosted 34,890 library programs (San Diego County Library 2018).

**4.11.1.2 Existing Recreational Facilities**

There are no existing recreational facilities located on the project site. However, the City has 103 acres of recreational facilities, which consist of public parks, beach areas, and open space. The City has 1.7 miles of beach, which is divided into four beach parks: Fletcher Cove Park, Tide Park, Seascape Sur Public Access Stairway, and Del Mar Shores Public Access Stairway. Other City parks and community centers include La Colonia Park, the Coastal Rail Trail, La Colonia Community Center, and Fletcher Cove Community Center. Other recreational spaces include San Dieguito County Park, the Boys and Girls Club, the Lomas Santa Fe Country Club, and the Lomas Santa Fe Executive Golf Course. Open spaces used for recreational activities nearby the area include the Holmwood Canyon area and San Elijo Lagoon. The closest beach access is the Seascape Sur Public Access Stairway approximately 0.1 mile to the south of the project site. The closest parks to the project site are the Coastal Rail Trail (linear park) located immediately east of
Highway 101, and Fletcher Cove Park, located at 111 South Sierra Avenue, which is approximately 0.2 miles north of the project site.

### 4.11.2 Regulatory Framework

#### 4.11.2.1 Federal

**Federal Fire Protection Standards**

The National Fire Protection Association (NFPA) Code Section 1710 contains minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by substantially all career fire departments. The requirements address functions and objectives of fire department emergency service delivery, response capabilities, and resources. The code also contains general requirements for managing resources and systems, such as health and safety, incident management, training, communications, and pre-incident planning. The code addresses the strategic and system issues involving the organization, operation, and deployment of a fire department and does not address tactical operations at a specific emergency incident.

#### 4.11.2.2 State

**California Fire Code**

The California Fire Code is based on the 2007 International Fire and Building Codes, and contains regulations relating to construction and maintenance of buildings and the use of premises. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist first responders, industrial processes, and many other general and specialized fire safety requirements for new and existing buildings and premises. The code contains specialized technical regulations related to fire and life safety.

**California Health and Safety Code**

State fire regulations are set forth in California Health and Safety Code Sections 13000 et seq., which include regulations concerning building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.
Assembly Bill 2926
The State of California has traditionally been responsible for the funding of local public schools. The State passed Assembly Bill 2926 (AB 2926) in 1986 to assist in providing facilities to serve students generated by new development projects. This bill allowed school districts to collect impact fees from developers of new residential and commercial/industrial building space. Development impact fees were also referenced in the 1987 Leroy Greene Lease-Purchase Act, which required school districts to contribute a matching share of project costs for construction, modernization, or reconstruction. Development within the City shall pay school impact fees in accordance with state regulation.

California Education Codes
California Senate Bill 50 (SB 50) modifies Government Code Section 65995 to limit the acquisition of development fees by local agencies to three levels set in Government Code Sections 65995, 65995.5, and 65995.7 and prohibits local agencies from denying a legislative or adjudicative action under CEQA involving real estate development on the basis of the inadequacy of school facilities.

California Education Code Section 17620 gives school districts the authority to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities, subject to any limitations set forth in Government Code Title 7, Division 1, Chapter 4.9 (commencing with Section 65995).

Mitigation Fee Act
California Government Code Sections 66000 through 66008, the Mitigation Fee Act, gives cities the authority to impose a fee, other than a tax, that is charged to the applicant in connection with approval of a development project for the purpose of offsetting all or a portion of the cost of public facilities related to the development project, such as wear and tear of public recreational facilities.

Quimby Act
The Quimby Act (California Government Code Section 66477) was passed in 1975 and allows cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. The Quimby Act allows local agencies to establish ordinances requiring developers of residential subdivisions to provide impact fees for land and/or recreational facilities. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. In 1982, the act was substantially amended, further defining the uses of or restrictions on Quimby funds, provided acreage-to-population standards and formulas for determining the exaction, and indicated that the extractions must be closely tied to a project’s impacts. Local ordinances must now include definite standards for
determining the proportions of the subdivision to be dedicated and the amount of the fee to be paid.

**State Public Park Preservation Act**
The primary instrument for protecting and preserving parkland is the state Public Park Preservation Act. Under the Public Resource Code, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This provides no net loss of parkland and facilities.

### 4.11.2.3 Local

**City of Solana Beach General Plan**
The City of Solana Beach General Plan consists of a series of development policies setting forth objectives, principles, standards, and plan policies. The Safety Element consists of a series of goals, policies, and programs related to potential hazards and public safety considerations affecting land development within the city. The Safety Element contains the following policies relative to the population and housing as they relate to the proposed project:

**Goal 3.1:** To minimize hazards to public health, safety, and welfare resulting from natural and man-made phenomena.

- **Policy 4.c:** The City shall ensure that development is phased properly in relation to the city’s ability to provide an adequate level of fire protection.
- **Policy 4.e:** The City Fire Department shall review proposed site plans to ensure that adequate fire safety measures are provided.

**Goal 3.2:** To provide a safe and secure environment for the city’s residents, workers and visitors.

- **Policy 1.a:** The City shall provide a minimum of one 24-hour police patrol per 13,275 residents.
- **Policy 1.c:** The City shall require new developments and improvements to employ defensible space concepts into site design and building specifications (e.g., appropriate setbacks, adequate lighting of walkways and parking lots, and the use of burglary-resistant hardware and fixtures in buildings).
- **Policy 1.d:** The City shall encourage the use of state-of-the-art design concepts and technological improvements for the prevention of crime.
The Conservation and Open Space Element contains the following policies relative to recreational resources as they relate to the proposed project:

**Goal 3.3:** To meet the needs of the entire community by providing an adequate level of parks and recreational opportunities.

- **Policy 3.a:** The city shall adopt a park funding program based on general revenue funds, user fees, state and federal grants, and developer contributions of land, facilities, and in lieu fees.
- **Policy 3.b:** The city shall require developers of residential land to dedicate land or fees for parks to ensure the continued provision of at least 3 acres of park land for every 1,000 residents.

**City of Solana Beach Local Coastal Plan (LCP)**
The Solana Beach City Council adopted a LCP Land Use Plan (LUP) on February 27, 2013 (amended and certified on June 11, 2014). Although the LUP has been certified by the California Coastal Commission, the Local Implementation Plan (LIP) portion of the LCP has not yet been certified; as such, the provisions of the LUP are considered by the Coastal Commission to be advisory rather than mandatory at this time. The purpose of the LUP is to implement the State's goals for the coastal zone. The City's LUP establishes long-term comprehensive land use planning goals and policies that promote the beneficial use of land in the city and the beach and shoreline for residents and visitors alike. The LUP addresses public services and recreational issues through the inclusion of goals and policies. The LUP identifies the following policy associated with recreation related to the proposed project:

- **Policy 2.4:** The City shall assure that the recreational needs resulting from any proposed development will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition at three acres per 1,000 residents, and/or development plans with the provision of onsite recreational facilities to serve new development.

**City of Solana Beach Municipal Code (SBMC)**
Section 17.72.020 of the SBMC establishes public facilities fees for new development:

- A public facilities fee is hereby established to pay for improvements related to new development within the city and are not otherwise financed by any fee, charge or tax on development, or are not installed by a developer as a condition of a building permit, land use permit (pursuant to Chapter 17.68 SBMC), or subdivision or zoning approval.
The amount of the fee shall be set by city council resolution.

Before a land use permit is considered by the city council, the applicant shall execute an agreement to pay the public facilities fee. The fee shall be paid before issuance of building permits for the project. (Ordinance 185 § 2, 1993).

In addition, Chapter 3.20 of the SBMC specifically establishes a fire services mitigation fee. This applies to any new or additional building or structure requiring a building permit or other permit for development, or any land use change that creates a fire protection or prevention impact, which may be mitigated by the provision of new or different fire facilities and equipment. The City Council, or other final decision-making authority, may impose a mitigation fee as a condition of issuance or approval of other permits for development. The mitigation fee shall be in an amount reasonably necessary to mitigate the impact on fire facilities or equipment created or contributed to by the development.

### 4.11.3 Impact Significance Criteria

According to Appendix G of the CEQA Guidelines, impacts to public services would be significant if the project would:

- **Issue 1**: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.
- **Issue 2**: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services.
- **Issue 3**: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for educational facilities services.
- **Issue 4**: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities, including libraries.
According to Appendix G of the CEQA Guidelines, impacts to recreation would be significant if the project would:

- **Issue 5**: Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility occur or be accelerated.
- **Issue 6**: Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

### 4.11.4 Method of Analysis

This section of the EIR gives full consideration to the development of the proposed project and acknowledges the physical changes that would occur to the existing setting from implementation of the proposed project. Public services and recreation impacts were determined by comparing the proposed project with the objectives of the City’s General Plan, specifically the Safety, and Conservation and Open Space Elements.

### 4.11.5 Project Impacts and Mitigation

#### 4.11.5.1 Issue 1 – Fire Protection Services

*Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services?*

**Impact Analysis**

Implementation of the proposed project would result in an increase in demand for fire protection services because of the development of additional residential and commercial uses on the primarily vacant project site. The proposed project would add approximately 61,998 SF of commercial use and approximately 33,473 SF (25 units) of residential uses. As discussed in Section 4.10.5.1, as a worst-case, the proposed project would increase the City’s population by approximately 57 residents. The City’s General Plan Housing Element has adequately accounted for the population growth from the proposed project (City of Solana Beach 2014b). Therefore, the increase in population that would result from implementation of the proposed project is not considered to be a significant increase in the population. In accordance with Policy 4.e in the City’s General Plan Safety Element, the City Fire Department has reviewed the proposed site plans to ensure that adequate fire safety measures are provided. According to the City’s General Plan Program EIR (City of Solana Beach 2014b), the Fire Department met its response time...
goal between 2009-2014. Furthermore, the Fire Department has determined that it would continue to meet its response time goal with the addition of the proposed project. Therefore, implementation of the proposed project would not require the construction of new or expanded fire protection facilities in order to maintain the acceptable service response times.

**Significance of Impact**
The proposed mixed-use development would not result in a substantial population increase that would require the development of new fire protection facilities which could cause significant environmental impacts. Therefore, impacts would be less than significant.

**Mitigation Measures**
No mitigation measures are required.

### 4.11.5.2 Issue 2 – Police Protection Services

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services?

**Impact Analysis**
The San Diego County Sheriff’s Department provides law enforcement and other related services for the City from the La Colonia Park Substation and the North Coastal Sheriff’s Station in Encinitas. The Sheriff’s Department typically responds to population growth within a city by assigning additional deputies to the area in direct proportion to its increase in population. Implementation of the proposed project would result in an increase in demand for police services because it would replace a primarily vacant 1.95 acre site with new residential and commercial uses. As discussed in Section 4.10.5.1, the proposed project would add approximately 61,998 SF of commercial use and approximately 33,473 SF (25 units) of residential uses. The proposed project is anticipated to generate up to an additional 57 residents based on the City’s occupancy rate. As discussed in Section 4.10.5.1, the addition of 57 people is considered to be planned growth that was previously accounted for in the City’s General Plan. According to the City’s General Plan Program EIR (City of Solana Beach 2014b), the City of Solana Beach contracted with the San Diego County Sheriff’s Department for 15,308 staff for the July 2011 – June 2012 contract period. This level of staffing was for the City’s population of approximately 13,000 (i.e., 1.18 staff per 1,000 people). Assuming the same rate of staffing, the proposed project would require an additional 0.067 police staff to serve the proposed population increase of 57 residents. The incremental increase in demand for police staff would not require the Sheriff’s Department to hire another officer to serve the project. The Sheriff’s Department has confirmed that its current staffing is adequate to
serve the proposed project and no additional officers or facilities would be required (Captain John Maryon, San Diego County Sheriff’s Department North Coastal Station, March 24, 2018).

Significance of Impact
The proposed project would not result in a substantial population increase that would require the development of new police facilities which could cause significant environmental impacts. Therefore, impacts would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.11.5.3 Issue 3 – Schools

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 governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for educational facilities services?

Impact Analysis
As stated in Section 4.11.1.1.C, according to the SDUHSD’s boundaries map, the project site is within the SBSD and SDUHSD jurisdictions. The SBSD would accommodate students from the proposed project from kindergarten through third grade at Solana Vista Elementary school and fourth through sixth grade at Skyline Elementary School. In the 2016-17 school year, the enrollment was 405 students at Solana Vista Elementary and 516 at Skyline Elementary. The SDUHSD would accommodate students from the proposed project at Earl Warren Middle School (Grades 7th and 8th) and Torrey Pines High School (Grades 9th through 12th). In the 2016-17 school year, the enrollment was 537 at Earl Warren Middle School and 2,574 at Torrey Pines High School.

As discussed in Section 4.10.5.1, the population growth accommodated by the proposed project would be consistent with the City’s General Plan and would not result in a significant unplanned increase in population. The proposed project would add 25 multi-family residential dwelling units, which could house school-age children. An estimated 23.1 percent of households in Solana Beach have children under the age of 18 (City of Solana Beach 2014a); therefore, it is estimated that approximately six of the multi-family residential dwelling units would house school-age children. As cited previously in this EIR, the average occupancy rate in Solana Beach is 2.28 people per household. Conservatively assuming only one of those persons was an adult, the estimated number of school-age children associated with the proposed project would be approximately seven.
The addition of seven children to the SBSD and SDUHSD public schools would be small compared to the total enrollment at each of the four campuses. Therefore, the proposed project is not anticipated to result in the need for additional school facilities. Additionally, school district planning involves conservative projections of student population increases; thus, the modest addition of seven project-generated students is not expected to over-burden school capacity.

The proposed project would adhere to both Assembly Bill 2926 and the California Education Code Section 17620, as previously described in the regulatory framework, and pay the applicable impact fees associated with new residential and commercial development projects. These fees would contribute to funding and maintenance for the surrounding public school districts and decrease impacts from the additional school facility services needed from future residents.

Significance of Impact
Implementation of the proposed project would not result in a substantial population increase that would require the development of new school facilities which could cause significant environmental impacts. Impacts would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.11.5.4 Issue 4 – Other Public Facilities

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 governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?

Impact Analysis
The proposed project is anticipated to add up to 57 additional residents to the City’s population, based on the City’s average occupancy factor of 2.28 people per household (City of Solana Beach 2014a). This additional population would increase the utilization of nearby public facilities, including libraries. As explained in Section 4.11.1.1, the project site is served by the San Diego County Library which has branches in Solana Beach, Del Mar, Cardiff, and Encinitas. The addition of 57 people is small compared to the total 5.4 million annual visits recorded at the San Diego County Library system. Additionally, while future residents of the project would use existing library facilities within the city, the proposed project would be required to pay an associated public facilities fee, in compliance with SBMC Section 17.72.020, to contribute funding towards maintenance of these facilities. Furthermore, the proposed project is consistent with the growth anticipated under the City’s General Plan. Therefore, implementation of the
CHAPTER 4 ENVIRONMENTAL ANALYSIS
4.11 Public Services and Recreation

proposed project is not expected to result in unacceptable service ratios at public libraries necessitating the need for new or physically altered library facilities that could cause significant environmental impacts.

**Significance of Impact**
Implementation of the proposed project would not result in a substantial population increase that would require the development of new library facilities which could cause significant environmental impacts. Impacts would be less than significant.

**Mitigation Measures**
No mitigation measures are required.

**4.11.5.5 Issue 5 – Impacts on Existing Recreational Facilities**

*Would implementation of the proposed project result in the increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

**Impact Analysis**
According to the Conservation and Open Space Element of the City’s General Plan, the City has adopted an objective to provide at a minimum three acres of public parkland and recreational facilities per every 1,000 residents (City of Solana Beach 2014b). As of the 2010 Census, the City had a population of 12,867 residents (U.S. Census Bureau 2010). Based on the parkland and recreational facilities factor, the City should provide approximately 39 acres of parkland for the city’s total population. The City currently has a parkland and recreational facilities inventory consisting of 103 acres (City of Solana Beach 2014b), composed of 1.7 miles of beaches and numerous parks and open space lands. Thus the existing city parkland and recreational facilities exceed the minimum parkland acreage required per the City’s total population by approximately 64 acres (City of Solana Beach 2014a). As stated above, the proposed project is anticipated to add up to 57 additional residents based on the City’s average occupancy factor. Implementation of the proposed project would result in a small increase (less than one-half of one percent) in the City’s overall population and would not result in the increased use of existing parks or recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. Additionally, while future residents of the project would use existing parks and recreational facilities within the city, the proposed project would be required to pay an associated public facilities fee, in compliance with SBMC Section 17.72.020, to contribute funding towards maintenance of these facilities. Therefore, in compliance with Section 17.72.020 of the SBMC, implementation of the proposed project would not physically deteriorate existing parkland and recreational facilities within the city.
Significance of Impact
Implementation of the proposed project would not result in the substantial physical deterioration of existing parks and other recreational facilities. Impacts would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.11.5.6 Issue 6 – Adverse Effects from Recreational Facilities

Would implementation of the proposed project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Impact Analysis
Implementation of the proposed project does not include the development of any recreational facilities on the project site. Further, as stated above, implementation of the proposed project would result in a small increase (less than one-half of one percent) in the City’s overall population and the City currently exceeds the General Plan parkland standard by more than 50 percent. Therefore, no new parkland or recreational facilities would need to be constructed or expanded to serve the proposed project. Therefore, development of the proposed project would not require the construction or expansion of recreational facilities within the city.

Significance of Impact
Implementation of the proposed project would not result in the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Impacts would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.11.6 Cumulative Impacts

Would implementation of the proposed project have a cumulatively considerable contribution to a cumulative public services or recreation impact considering past, present, and probable future projects?

4.11.6.1 Issue 1 - Fire Protection Services

The geographic context for the analysis of cumulative impacts in regards to fire protection services is defined as the service area for the SBFD, which is the City of Solana Beach. A significant cumulative impact related to adverse effects to existing fire
protection services would occur if growth associated with cumulative projects would outpace the Fire Department’s ability to expand and serve new development resulting in adverse effects to the Fire Department from either increased response times, physical deterioration of existing facilities, or lack of funding for the development of future facilities. As described in Section 4.10.6.1, the estimated population increase associated with the cumulative projects listed in Table 2-2 is 278. In addition to the 57 people that would be added by the proposed project, the cumulative population increase would not be inconsistent with the 1,385 people that the City is expecting to add by 2050. Development in accordance with the City’s General Plan is considered planned growth and impacts associated with the provision of fire protection services to serve this growth has been addressed in the General Plan EIR. Therefore, new development consistent with the General Plan, including the proposed project, would not result in a significant cumulative impact associated with the construction of new or expanded fire protection facilities. The proposed project would not make a cumulatively considerable contribution to a cumulative impact associated with fire protection services.

4.11.6.2 Issue 2 - Police Protection Services

The geographic context for the analysis of cumulative impacts in regards to police services is defined as the jurisdiction of the Sheriff’s Department, which is San Diego County. A significant cumulative impact related to adverse effects on existing police services would occur if the development of future cumulative projects were to result in adverse effects on the Sheriff’s Department from either increased response times, physical deterioration of existing facilities, or lack of funding for the development of future facilities. The Sheriff’s Department plans for expansion and growth based on the adopted planning documents of the jurisdictions that it serves, including Solana Beach. Therefore, cumulative projects would not result in a significant cumulative associated with provision of new or expanded fire protection facilities if they are consistent with adopted planning documents. As described in Section 4.10.6.1, the estimated population increase associated with the cumulative projects listed in Table 2-2 would be consistent with planned growth in the City of Solana Beach. The majority of cumulative projects in other jurisdictions would also be consistent with adopted planning documents, or they would require a plan amendment that would be evaluated as part of the CEQA process. Therefore, cumulative development projects consistent with adopted plans, including the proposed project, would not result in a significant cumulative impact associated with the construction of new or expanded police protection facilities. The proposed project would not make a cumulatively considerable contribution to a cumulative impact associated with police protection services.
4.11.6.3 Issue 3 - Schools

The geographic context for the analysis of cumulative impacts in regards to school services is defined as the SBSD and SDUHSD service areas. A significant cumulative impact related to adverse effects on existing school services would occur if future cumulative projects generated an increase in population that would exceed the SBSD or SDUHSD educational standards and result in degraded school facilities and services. As discussed in Section 4.10.6.1, the number of housing units anticipated to be added by the cumulative projects in Table 2-2 is 119, which could add approximately 35 total children under the age of 18 to the City’s population.\(^1\) The addition of 35 children is not expected to result in a degradation of the public school facilities that serve the City because the number is small compared to the overall enrollment (the SBSD’s total enrollment is approximately 3,100 students in grades Pre K-6, [SBSD 2017], Earl Warren Middle School enrollment was 537 in 2016 in grades 7-8, and Torrey Pines High School enrollment was 2,574 in 2016 in grades 9-12 [SDUHSD 2017a]). Furthermore, similar to the proposed project, the cumulative projects would pay the applicable school impact fees associated with new residential and commercial development. Finally, development in accordance with the City’s General Plan is considered to be planned growth and is not expected to result in a significant increase in the population (City of Solana Beach 2014b). Therefore, new cumulative development, including the proposed project, would not result in a significant cumulative impact associated with the construction of new or expanded school facilities. The proposed project would not make a cumulatively considerable contribution to a cumulative impact associated with school facilities.

4.11.6.4 Issue 4 – Other Public Facilities

The geographic context for the analysis of cumulative impacts in regards to library services is defined as the service area for the San Diego County Library system, which is San Diego County. In fiscal year 2015-2016, the entire San Diego County Library system had 33 branches, two bookmobiles, and two 24/7 Library To Go kiosks; circulated over 11.5 million books, CDs, DVDs, and other material formats; recorded 5.4 million visits to library branches; and hosted 34,890 library programs (San Diego County Library 2018). A significant cumulative impact related to adverse effects on existing libraries would occur if the development of future cumulative projects were to result in adverse effects on the San Diego County Library facilities from physical deterioration of existing facilities, or lack of funding for the development of future facilities. The County of San Diego plans for expansion and growth of its library system based on the adopted planning documents of the jurisdictions that it serves, including Solana Beach. Therefore, cumulative projects

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\(^1\) In Solana Beach, 23.1% of households have children under the age of 18 (City of Solana Beach 2014a). It was conservatively assumed that, for households with school-age children, one of the persons in the household was an adult and the remaining 1.28 persons were children under the age of 18.
would not result in a significant cumulative associated with provision of new or expanded library facilities if they are consistent with adopted planning documents. As described in Section 4.10.6.1, the estimated population increase associated with the cumulative projects listed in Table 2-2 would be consistent with planned growth in the City of Solana Beach. The majority of cumulative projects in other jurisdictions served by the San Diego County library system would also be consistent with adopted planning documents, or they would require a plan amendment that would be evaluated as part of the CEQA process. Therefore, cumulative development projects consistent with adopted plans, including the proposed project, would not result in a significant cumulative impact associated with the construction of new or expanded library facilities. The proposed project’s contribution would not be cumulatively considerable.

4.11.6.5 Issue 5 - Impacts on Existing Recreational Facilities

The geographic context for the analysis of cumulative impacts in regards to existing recreational facilities is defined as the City of Solana Beach. A significant cumulative impact related to existing parks and recreational facilities would occur if future cumulative projects generated an increase in population that would exceed the City’s parkland standard and in turn result in the physical deterioration of existing parks and recreational facilities.

As described in Section 4.11.5.5, the City has adopted an objective to provide at a minimum three acres of public parkland and recreational facilities per every 1,000 residents (City of Solana Beach 2014b). As of the 2010 Census, the City had a population of 12,867 residents (U.S. Census Bureau 2010). The City currently has a parkland and recreational facilities inventory consisting of 103 acres (City of Solana Beach 2014b), composed of 1.7 miles of beaches and numerous parks and open space lands (City of Solana Beach 2014a). As described in Section 4.10.6.1, the estimated population increase associated with the cumulative projects is 271, which, in addition to the 57 people that would be added by the proposed project, would not be inconsistent with the 1,870 people that the City is expecting to add by 2050. An additional 328 people from the proposed project and cumulative projects would be added to the estimated existing population of 12,867, resulting in a need for 39.6 acres of public parkland to meet the City’s objective. With the addition of the proposed project and the cumulative projects, the City would still exceed its parkland objective by 63.4 acres. Furthermore, similar to the proposed project, cumulative development projects would be required to pay the associated public facilities fees, in accordance with the SBMC, which would ensure funding to maintain existing recreational facilities and to acquire additional parkland, if necessary. Therefore, compliance with the SBMC would ensure that a significant cumulative impact related to the deterioration of existing parkland and recreational facilities would not occur. The proposed project’s impacts would not be cumulatively considerable.
4.11.6.6 Issue 6 - Adverse Effects from Recreational Facilities

The geographic context for the analysis of cumulative impacts in regards to the provision of new or expanded recreational facilities is defined as the City of Solana Beach. A significant cumulative impact related to the construction or expansion of recreational facilities would occur if cumulative projects were to require or construct new recreational facilities which would have an adverse physical effect on the environment. As described in Section 4.10.6.1, the estimated population increase associated with the cumulative projects is 271, which, in addition to the 57 people that would be added by the proposed project, would not be inconsistent with the 1,870 people that the City is expecting to add by 2050. Furthermore, as described in Section 4.11.6.5, with the addition of the proposed project and cumulative projects, the City would still exceed its parkland objective by more than 50 percent. Therefore, the construction of the proposed project and cumulative projects would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

One of the cumulative projects listed in Table 2-2 would add new public parkland: the Harbaugh Trails Public Open Space and Trails project. The potential adverse physical effects on the environment from this cumulative project would be subject to project-specific CEQA review and mitigation, if necessary. Therefore, impacts from the proposed project, taken into consideration with this cumulative project, would not be cumulatively considerable.
4.12 Transportation/Traffic

This section describes the existing conditions related to transportation, traffic and parking in the project area, identifies relevant federal, State and local regulations and evaluates the potential for significant impacts to transportation, traffic and parking due to implementation of the proposed project. The discussion in this section is summarized from the Traffic Impact Analysis (TIA) for the proposed project prepared by Urban Systems Associates, Inc. (USAI) (July 2017). In addition, the TIA uses information and data from the roadway capacities and corresponding level of service (LOS) taken from the City’s General Plan Circulation Element (City of Solana Beach 2014b). Existing traffic and circulation conditions are described, as well as intersection analysis methodologies, standards, and thresholds. Potential impacts resulting from implementation of the proposed project were evaluated under the following scenarios: Existing, Existing With Project, Near-Term (2020) Without Project, Near-Term With Project, Horizon Year 2035 Without Project, and Horizon Year 2035 With Project. Cumulative impacts were evaluated under Horizon Year 2035 Plus Project Conditions. The TIA for the proposed project is included as Appendix I of this EIR.

4.12.1 Environmental Setting

4.12.1.1 Existing Roadways Serving the Project Area

The project site is located north of Dahlia Drive, west of Highway 101, east of South Sierra Avenue, and south of Lomas Santa Fe Drive (Figure 2-2). The study area was determined based on the regional guidelines that 50 trips in one direction during a peak hour be used as a threshold to define study area intersections and street segments. The primary roadway facilities in the study area are described as follows:

Highway 101
Highway 101 runs north/south and is constructed as a four lane divided roadway. It is classified as a Multi-Modular Boulevard within the project study area. It has a raised median with select median breaks. A class II bike lane is provided on the east side of the highway and a sharrow lane, shared by motorists and bicyclists, is provided on the west side. Parking is only allowed on the west side of the roadway. The posted speed limit is 45 miles per hour (MPH). Currently there are two existing driveways along Highway 101 that provide access to the project site.

Lomas Santa Fe Drive
Lomas Santa Fe drive runs east/west and is constructed as a four lane undivided roadway connecting Highway 101 and Interstate 5. This roadway is classified as a four lane Major Arterial within the project study area. Bike lanes are provided on both sides of the street with a posted speed limit of 35 MPH.
Dahlia Drive
Dahlia Drive runs east/west connecting South Sierra Avenue and Highway 101. Dahlia Drive is constructed as a two lane undivided roadway along the project frontage. This roadway is considered a Local Street (comparable to a Sub-Collector). No bike lanes are provided on either side of the street. There are three existing project driveways along Dahlia Drive that provide access to the project site.

South Sierra Avenue
South Sierra Avenue runs north/south and is parallel to and west of Highway 101. It is a two-lane roadway with a posted speed limit of 25 mph. Although there is no designated bicycle facility along this roadway, it is heavily traveled by cyclists as it provides a strong north–south connection parallel to Highway 101 with relative low vehicular traffic volumes. There are no existing project driveways along South Sierra Avenue.

Via De La Valle
Via De La Valle runs east/west and is located in the City of Del Mar. It is functionally classified as a two lane Major roadway. This roadway also provides access to Interstate 5 to the east. Bike lanes are provided along both sides of the street with a speed limit of 45 MPH.

TIA Study Area Roadway Segments
Five roadway segments were analyzed in the TIA (USAI 2017) to assess the proposed project’s potential impacts on local and regional traffic systems (Figure 4-12.1). These existing roadway segments include the following:

- Highway 101
  - Lomas Santa Fe Drive to Dahlia Drive
  - Dahlia Drive to Via de la Valle
- Dahlia Drive
  - South Sierra Avenue to Highway 101
- Sierra Avenue
  - Plaza Street to Dahlia Drive
- Via de la Valle
  - Highway 101 to Jimmy Durante Boulevard
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4.12.1.2 Existing Intersections Serving the Project Area

The following five key study area intersections were analyzed in the TIA (USAI 2017) to assess the proposed project’s potential impacts to local and regional traffic systems:

- Highway 101/ Lomas Santa Fe Drive
- Cedros Avenue/ Lomas Santa Fe Drive
- South Sierra Avenue/ Dahlia Drive
- Highway 101/ Dahlia Drive
- Highway 101/ Via de la Valle

4.12.1.3 Existing Roadway Levels of Service

Traffic generation of the proposed project was based on trip generation rates from the (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (SANDAG 2002) and was used as the basis for the roadway capacities and corresponding levels of service for the study area roadway segments analysis in the TIA (USAI 2017). Roadway system operating conditions are typically described in terms of Level of Service (LOS), which is a measure of a roadway operating performance and the motorists’ perception of roadway performance. Roadway segment LOS is based on the functional classification of the roadway, the maximum capacity, roadway geometrics, and existing or forecast Average Daily Traffic (ADT) volumes. LOS is expressed as a letter designation from A to F, with A representing the best operating condition, and F representing the worst. Table 4.12-1 shows the existing roadway levels of service in the study area.

<table>
<thead>
<tr>
<th>Road(1)</th>
<th>Segment(1)</th>
<th># of Lanes</th>
<th>Classification(1)</th>
<th>Capacity</th>
<th>Volume</th>
<th>V/C</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway 101</td>
<td>Lomas Santa Fe Drive to Dahlia</td>
<td>4</td>
<td>4-M</td>
<td>40,000</td>
<td>18,127</td>
<td>0.45</td>
<td>B</td>
</tr>
<tr>
<td>Drive</td>
<td>Drive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highway 101</td>
<td>Dahlia Drive to Via De La Valle</td>
<td>4</td>
<td>4-M</td>
<td>40,000</td>
<td>18,604</td>
<td>0.47</td>
<td>B</td>
</tr>
<tr>
<td>Dahlia Drive</td>
<td>South Sierra Avenue to</td>
<td>2</td>
<td>2-Cc</td>
<td>8,000</td>
<td>2,405</td>
<td>0.30</td>
<td>A</td>
</tr>
<tr>
<td>Highway 101</td>
<td>Highway 101</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Table 4.12-1  Existing Roadway Segment Levels of Service

<table>
<thead>
<tr>
<th>Road(1)</th>
<th>Segment(1)</th>
<th># of Lanes</th>
<th>Classification(1)</th>
<th>Capacity</th>
<th>Volume</th>
<th>V/C</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sierra Avenue</td>
<td>Plaza Street to Dahlia Drive</td>
<td>2</td>
<td>2-Cd</td>
<td>8,000</td>
<td>4,070</td>
<td>0.51</td>
<td>C</td>
</tr>
</tbody>
</table>

Notes: Via De La Valle between Highway 101 and Jimmy Durante Boulevard was analyzed using the peak hour analysis of the current Highway Capacity Manual (HCM) and the segment was found to operate at an acceptable LOS D or better.

(1) Classifications
4-M = 4 lane major arterial
2-Cc = 2 Lane Collector (w/ commercial-industrial property)
2-Cd = 2 Lane Collector (multi-family)

Source: USAI 2017

Figure 4.12-2 shows the existing average weekday 24-hour traffic volumes for street segments in the project study area. As indicated in the footnote, the Via De La Valle segment between Highway 101 and Jimmy Durante Boulevard was analyzed in both eastbound and westbound directions using the peak hour arterial analysis method, which mirrors the Highway Capacity Manual (HCM) 2000 arterial LOS methodology. The results of the analysis indicated that the eastbound direction operates at LOS C in the AM peak hour and LOS D in the PM peak hour. The westbound direction operates at LOS C in both the AM and PM peak hours. As shown in Table 4.12-1 all street segments operate at an acceptable LOS (D or better) under existing conditions (USAI 2017).

4.12.1.4   Existing Intersection Levels of Service

The 2000 HCM methodology for signalized intersections was used to determine the operating LOS of the study area intersections. The HCM methodology describes the operation of an intersection using a range of LOS from LOS A (free-flowing conditions) to LOS F (severely congested conditions), based on corresponding stopped delay experienced by motorists.
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Figure 4.12-4
Existing Plus Project AM/PM Peak Hour Traffic at Study Area Intersections

As shown in Table 4.12-2, under existing conditions all intersections currently operate at a LOS D or better during the AM and PM peak hour periods.

<table>
<thead>
<tr>
<th>Number</th>
<th>Intersection</th>
<th>Control</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Average Delay (Sec.)</td>
<td>LOS</td>
</tr>
<tr>
<td>1</td>
<td>Highway 101/Lomas Santa Fe Drive</td>
<td>Signalized</td>
<td>33.9</td>
<td>C</td>
</tr>
<tr>
<td>2</td>
<td>Cedros Avenue/Lomas Santa Fe Drive</td>
<td>Signalized</td>
<td>24.3</td>
<td>C</td>
</tr>
<tr>
<td>3</td>
<td>South Sierra Avenue/Dahlia Drive</td>
<td>Unsignalized</td>
<td>8.0</td>
<td>A</td>
</tr>
<tr>
<td>4</td>
<td>Highway 101/Dahlia Drive</td>
<td>Signalized</td>
<td>7.2</td>
<td>A</td>
</tr>
<tr>
<td>5</td>
<td>Highway 101/Via De La Valle</td>
<td>Signalized</td>
<td>31.0</td>
<td>C</td>
</tr>
</tbody>
</table>

Source: USAI 2017

### 4.12.2 Regulatory Framework

#### 4.12.2.1 Federal

**Americans with Disabilities Act**

The Americans with Disabilities Act (ADA 1990) is a wide-ranging civil rights law that prohibits, under certain circumstances, discrimination based on disability. The design of the proposed parking garage and onsite pedestrian facilities must comply with the accessibility standards identified in the ADA, which applies to all projects involving new or altered pedestrian facilities. The scoping and technical provisions for new construction and alterations identified in the ADA Accessibility Guidelines (Sections 4.3, 4.7 and 4.8 of the Act) can be used to help design pedestrian facilities that are ADA compliant. For example, Title II-6.600 of the Technical Assistance Manual states: “When streets, roads, or highways are newly built or altered, they must have ramps or sloped areas whenever there are curbs or other barriers to entry from a sidewalk or path.”

**Highway Capacity Manual**

The HCM, prepared by the federal Transportation Research Board, is the result of a collaborative multi-agency effort between the agency, Federal Highway Administration, and the American Association of State Highway and Transportation Officials. The HCM contains concepts, guidelines, and procedures for computing the capacity and quality of transportation systems.
of service of various transportation facilities, including freeways, signalized and
unsignalized intersections, and rural highways, and the effects of transit, pedestrians, and
bicycles on the performance of these systems.

Title 23, Code of Federal Regulations
Revised in April 1, 2005, the Code of Federal Regulations (CFR) Section 450.220 of Title 23
requires each state to carry out a continuing, comprehensive, and intermodal statewide
transportation planning process. This planning process must include the development of
a statewide transportation plan and transportation improvement program that facilitates
the efficient, economic movement of people and goods in all areas of the state.

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
On August 10, 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act:
A Legacy for Users (SAFETEA-LU) was signed into law. SAFETEA-LU addresses the many
challenges facing transportation systems and sets funding and programs to improve
safety, reduce traffic congestion, improve efficiency in freight movement, increase
intermodal connectivity, and protect the environment. SAFETEA-LU promotes more
efficient and effective federal surface transportation programs by focusing on
transportation issues of national significance, while giving state and local transportation
decision makers more flexibility for solving transportation problems in their communities.

4.12.2.2 State

Caltrans Standards
Caltrans is responsible for planning, designing, building, operating, and maintaining
California’s transportation system. Caltrans sets standards, policies, and strategic plans
that aim to do the following: 1) provide the safest transportation system for users and
workers; 2) maximize transportation system performance and accessibility; 3) efficiently
deliver quality transportation projects and services; 4) preserve and enhance California’s
resources and assets; and 5) promote quality service. Caltrans has the discretionary
authority to issue special permits for the use of State highways for other than normal
transportation purposes. Caltrans also reviews all requests from utility companies,
developers, volunteers, nonprofit organizations, and others desiring to conduct various
activities within the State Highway right-of-way. The Caltrans Highway Design Manual,
prepared by the Office of Geometric Design Standards (Caltrans 2008), establishes
uniform policies and procedures to carry out the highway design functions of Caltrans.
Caltrans has also prepared a Guide for the Preparation of Traffic Impact Studies (Caltrans
2002) to provide consistency and uniformity in the identification of traffic impacts
generated by local land use proposals.

Statewide Transportation Improvement Program
The California 2010 Statewide Transportation Improvement Plan (STIP), approved by the
U.S. Department of Transportation in October 2009, is a multiyear, intermodal program of
transportation projects that is consistent with the statewide transportation planning
processes, metropolitan plans, and Title 23 of the CFR. The STIP is prepared by Caltrans in cooperation with the Metropolitan Planning Organizations (MPOs) and the Regional Transportation Planning Agencies. In San Diego County, the MPO and Regional Transportation Planning Agency is SANDAG. The STIP contains all capital and non-capital transportation projects or identified phases of transportation projects for funding under the federal Transit Act and CFR Title 23, including federally funded projects.

### 4.12.2.3 Regional

SANDAG serves as the forum for decision-making on regional issues such as growth, transportation, land use, the economy, the environment, and criminal justice. SANDAG builds consensus, makes strategic plans, obtains and allocates resources, and provides information on a broad range of topics pertinent to the region’s quality of life. SANDAG is governed by a Board of Directors composed of mayors, council members, and supervisors from each of the San Diego region’s 19 local governments.

As the San Diego County MPO and Regional Transportation Planning Agency, SANDAG has produced the following documents that identify transportation plans and policies in the San Diego area:

**2016 Regional Transportation Improvement Program**

SANDAG is required by state and federal laws to develop and adopt a Regional Transportation Improvement Program (RTIP). The RTIP is a multi-billion dollar, multi-year program of proposed transportation projects in the San Diego region. The RTIP covers five fiscal years and incrementally implements San Diego Forward: The Regional Plan, the long-range transportation plan for the San Diego region. At its meeting on September 23, 2016, the SANDAG Board of Directors adopted the 2016 RTIP.

**San Diego Forward: The Regional Plan**

SANDAG adopted the San Diego Forward: The Regional Plan on October 9, 2015. This regional transportation plan combines the Regional Comprehensive Plan, and the Regional Transportation Plan and Its Sustainable Communities Strategy. The future focus is on smart growth and sustainable development, with the provision of transportation choices. This planning effort combines land use planning with transportation goals and state-mandated greenhouse gas reduction targets.

### 4.12.2.4 Local

**City of Solana Beach General Plan Circulation Element**

The City of Solana Beach General Plan consists of a series of development policies setting forth objectives, principles, standards, and plan policies. The General Plan is the City’s constitution for future development and the foundation for all local government land use decisions. The General Plan includes a series of objectives, standards, and plan policies related to transportation and traffic within the Circulation Element. The following General
Plan goals and policies are intended to guide future circulation improvements within the City as they relate to the proposed project:

**Goal C-1.0:** Correlated land use and circulation planning.

- **Policy C-1.1:** Allow, encourage, and facilitate transit-oriented development, mixed-use, and infill projects in appropriate locations, especially near the transit station and along key corridors such as Highway 101.
- **Policy C-1.2:** Require new development to provide and enhance connectivity to existing transportation facilities via the provision of key roadway connections, sidewalks (where appropriate or desired in residential neighborhoods), and bicycle facilities.
- **Policy C-1.3:** Require new development and redevelopment to provide good internal circulation facilities that meet the needs of pedestrians, bicyclists, children, seniors, and persons with disabilities.
- **Policy C-1.4:** Require new development and redevelopment to apply universal design standards to the extent feasible.

**Goal C-2.0:** A comprehensive circulation network to move people and goods safely and efficiently for all modes of travel.

- **Policy C-2.3:** Require new developments to be served by roads of adequate capacity and design standards to provide reasonable access by cars, trucks, transit, pedestrians, and/or bicycles.

**Goal C-3.0:** Adequate measures to ensure traffic safety.

- **Policy C-3.1:** Ensure that the development of new private driveways does not pose significant traffic hazards for major arterials and residential collector roads.

**Goal 5.0:** Adequate funding to support build-out of the City’s multi-modal transportation system, linked to the capital improvements program.

- **Policy C-5.1:** Develop and maintain a transportation impact fee (TIF) program that collects fees from development projects based on the number of additional trips (across all modes of transportation) the development is projected to generate. The fees collected from the TIF program will be used to fund the construction of CIP projects as well as to administer and maintain the TIF program. In support of the TIF program, a comprehensive nexus study will be required to determine the cost required to adequately build-out the City’s transportation system, develop a fee structure that fairly collects the funds required to build-out the City’s
transportation system from development projects and demonstrate that participation in the TIF program will mitigate a development project’s transportation related impacts.

**Goal C-9.0:** A comprehensive and integrated bikeway system, which provides for the safe and efficient movement of cyclists.

- **Policy C-9.6:** Require new development and redevelopment to provide safe, secure bicycle parking facilities.
- **Policy C-9.7:** Require new commercial development and redevelopment to provide connections to existing and proposed bicycle routes, where appropriate.
- **Policy C-9.8:** Encourage existing businesses and new development or redevelopment projects to promote bicycling and provide bike rack facilities, personal lockers, and shower rooms.

**Goal 10.0:** A universally accessible, safe, and convenient system of sidewalks or pathways throughout the city that encourages walking and is harmonious with the surrounding neighborhood.

- **Policy C-10.4:** Require new development and redevelopment to provide adequate pedestrian access and, where appropriate, incorporate pedestrian-oriented street designs that provide a pleasant environment for walking.

**Goal C-11.0:** An adequate supply of private off-street and public parking to meet the needs of residents and visitors to the city in a way that balances economic development, livable neighborhoods, environmental health, and public safety.

- **Policy C-11.1:** In general, maintain parking requirements for specified land uses, but allow for a reduction in parking requirements for existing buildings that change uses and cannot accommodate current parking standards without significantly altering the site. In determining what constitutes sufficient parking under these circumstances, the City may take into consideration: 1) the overall effectiveness of the circulation system as a whole (i.e., pedestrians, bicyclists, motorized vehicles, etc.); 2) the particular needs of a specific location and/or project; 3) the parking generation demand of the proposed use; 4) the availability of public parking spaces; and 5) the ability of the project to aid in the reduction of personal vehicle use and the corresponding reduction in air pollution, energy consumption, greenhouse gas emissions, and other environmental effects.
- **Policy C-11.3:** Encourage new development and redevelopment to locate off-street parking facilities behind storefronts to create a more inviting environment adjacent to the street, where feasible.
- **Policy C-11.6:** Require the use of universal design standards in parking design and compliance with the Americans with Disabilities Act accessibility guidelines.

- **Policy C-11.7:** Provide clearly marked pedestrian paths between on-street parking, off-street parking facilities, and the buildings they serve, where feasible.

- **Policy C-11.10:** Encourage shared parking, valet parking, special district parking, and joint development of parking facilities to the maximum extent feasible.

**Goal C-12.0:** Efficient, high quality public infrastructure, facilities, and services and assurance that new, upgraded, or expanded facilities and services are phased in conjunction with the development they are intended to service.

- **Policy C-12.4:** Require new development and redevelopment to provide fair share contributions toward the costs of the public facilities, services, and infrastructure necessary to serve the development, including, but not limited to, transportation, water, sewer and wastewater treatment, solid waste, flood control and drainage, schools, fire and law enforcement protection, and parks and recreation.

- **Policy C-12.5:** Ensure that development impact fees reflect the costs of improvements.

**Highway 101 Specific Plan**

Adopted in 2003 and amended in 2006, the Specific Plan is a plan for physical development and redevelopment of Highway 101 that significantly defines the City of Solana Beach. Highway 101 serves as a vital commercial corridor for the region, and the adopted plan envisions revitalization of Highway 101 as the heart or downtown of the City. The Specific Plan identifies urban design concepts, land use type and intensity, parking requirements, development standards, and implementation measures for directing future growth. The Specific Plan is intended to integrate open space, the beach, community facilities, residential neighborhoods, retail businesses, and transit access. The vision includes a more attractive, pedestrian-oriented commercial core, improved landscaping, and development quality along the Highway 101 Corridor.

The following Urban Design Concept related to transportation/traffic issues applies to the proposed project.

**Urban Design Concept #5:** Improve site planning to minimize the dominance of traffic and asphalt in the Specific Plan area.

- **Pedestrian and Auto-Oriented Areas:** Site planning guidelines within districts will be coordinated with emphasis in that area on providing a walkable or driveable environment. This will affect the location of access points, parking and service areas, and the type of ground floor uses.
Restricting Access: The community wishes to improve traffic flow without increasing speeds and to eliminate the visual blight of automobiles in the corridor at the same time. Limiting automobile access from Highway 101 and Sierra Drive, and emphasizing cross-streets and shared driveways for access, can improve flow by limiting disruptions. This also provides for greater landscape continuity and pedestrian walkways.

Parking: Parking requirements are established in Section 3.0 – Development Plan. Requirements are standard City-wide for all districts except the Plaza. The Plaza District has reduced requirements based on shared use and transit access.

The following Design Guidelines related to transportation/traffic issues would apply to the proposed project.

Area-wide Site Planning: Improve the overall appearance and function of properties by creating public edges, greater accessibility, public activity areas, and screened service areas.

- Sidewalks: Provide sidewalks adjacent to all public streets, and by easement on some private sites to provide access points at Sierra Avenue.

- Driveway Locations: Eliminate driveway openings for commercial uses on Sierra Avenue and minimize the number of openings on Highway 101 and Cedros Avenue to improve traffic flow. Sites with access to cross streets will take access from the cross street. No new access should be permitted from Sierra Avenue to commercial uses. Access to otherwise land-locked sites may have a minimum of one curb cut, and additional curb cuts for each 100 linear feet of frontage on Plaza Street, Highway 101 or Sierra Avenue.

South Highway 101/South Sierra District Site Planning: Create a distinct southern entry by utilizing the site planning approaches described below:

- Vehicular Access: Limit access to parcels from Highway 101 to one driveway opening per parcel or 100 feet of linear frontage.
  - Sharing of access between parcels at points opposite existing median openings on Highway 101 is encouraged.
  - No site with 50 feet or more of frontage on a cross street shall take access from Highway 101 or Sierra Avenue.
  - Parking areas for commercial uses shall have no access to Sierra Avenue.
  - Residential uses provided under mixed use guidelines may take access from Sierra Avenue, but shall have circulation separated from adjacent commercial and office uses.
- **Site Pedestrian Access**: Provide a paved pedestrian walkway a minimum of four feet wide from the parkway walk on Highway 101 to all buildings within a site with highway frontage.

- **Highway 101 Walkways**: Provide a minimum 10-foot-wide landscaped parkway and a six-foot-wide concrete parkway walk adjacent to Highway 101.

- **Other Walkways**: Provide a six-foot-wide landscaped parkway and a six-foot-wide concrete parkway walk on cross streets and Sierra Avenue.

**South Highway 101/South Sierra District Parking**: Create a distinct southern entry to the Specific Plan area by providing parking either on-site or in consolidated areas shared by two or more parcels. No parking will be provided at the curb on either side of Highway 101, but is encouraged on Sierra Avenue and cross streets.

### 4.12.3 Impact Significance Criteria

Implementation of the proposed project would result in a significant impact to transportation and traffic if it would:

- **Issue 1**: 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.

- **Issue 2**: 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.

- **Issue 3**: 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 risk.

- **Issue 4**: Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

- **Issue 5**: Result in inadequate emergency access.

- **Issue 6**: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

- **Issue 7**: Result in inadequate amount of parking to serve the proposed uses.
### 4.12.4 Method of Analysis

The TIA prepared by USAI (July 2017) uses information and data from the roadway capacities and corresponding LOS taken from the *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego* (SANDAG 2002).

The City’s significance thresholds are summarized in Table 4.12-3. These thresholds are used along with LOS to determine if the proposed project would result in a significant impact and if mitigation is required.

<table>
<thead>
<tr>
<th>Level of Service with Project&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Allowable Increase Due to Project Impacts&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Freeways</th>
<th>Roadway Segments</th>
<th>Intersections</th>
<th>Ramp Metering</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>V/C&lt;sup&gt;d&lt;/sup&gt;</td>
<td>Speed (MPH)</td>
<td>V/C</td>
<td>Speed (MPH)</td>
<td>Delay (sec.)</td>
</tr>
<tr>
<td>D, E, &amp; F (or ramp meter delays above 15 minutes)</td>
<td>0.01</td>
<td>1</td>
<td>0.02</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<sup>a</sup> All level of service measurements are based upon HCM procedures for peak-hour conditions. However, V/C ratios for Roadway Segments may be estimated on an ADT/24-hour traffic volume basis. The acceptable LOS for freeways, roadways, and intersections is "D". For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

<sup>b</sup> If a proposed project’s traffic causes the values shown in the table to be exceeded, the impacts are deemed to be significant. These impact changes may be measured from appropriate computer programs or expanded manual spreadsheets. The project applicant shall then identify feasible mitigations that will maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable, or if the project adds a significant amount of peak hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating significant impacts.

<sup>c</sup> The impact is only considered significant if the total delay exceeds 15 minutes.

<sup>d</sup> V/C – Volume to Capacity Ratio

Source: USAI 2017

For the purposes of this analysis, direct impacts are evaluated for the following scenarios: Existing Plus Project and Near-Term Plus Project conditions. Cumulative impacts are evaluated for the Year 2035 Plus Project condition.

### 4.12.5 Project Impacts and Mitigation

#### 4.12.5.1 Issue 1 – Circulation System Performance

Would implementation of the proposed 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?
Impact Analysis

Project Trip Generation

The proposed project is anticipated to generate 1,930 ADT with 140 AM peak hour trips and 204 PM peak hour trips (USAI 2017). This ADT generation is based on the type and size of land uses proposed by the project, mixed-use and transit credits applicable to the various proposed land uses and the existing ADT from the project site (assumed to be 31 ADT). Table 4.12-4 shows the ADT that would be generated by the proposed project by land use.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Intensity</th>
<th>Rate(^{(1)})</th>
<th>ADT</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Peak %</td>
<td>Vol</td>
</tr>
<tr>
<td>Proposed Project with Transit and Mixed Use Credits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apartment</td>
<td>25 DU</td>
<td>5/DU</td>
<td>150</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Transit Reduction % (^{(3)})</td>
<td>3%</td>
<td>3%</td>
<td></td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Transit Reduction Subtotal</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mixed-Use Reduction %(^{(2)})</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Use Reduction Subtotal</td>
<td>87</td>
<td>10</td>
<td>2</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Office Space</td>
<td>45,632 SF</td>
<td>20/KSF</td>
<td>913</td>
<td>14</td>
<td>128</td>
</tr>
<tr>
<td>Transit Reduction %(^{(3)})</td>
<td>8%</td>
<td>8%</td>
<td></td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Transit Reduction Subtotal</td>
<td>74</td>
<td>10</td>
<td>9</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Mixed Use Reduction %(^{(2)})</td>
<td>9%</td>
<td>73%</td>
<td></td>
<td></td>
<td>43%</td>
</tr>
<tr>
<td>Mixed Use Reduction Subtotal</td>
<td>82</td>
<td>20</td>
<td>10</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Driveway Trips</td>
<td>756</td>
<td>98</td>
<td>96</td>
<td>2</td>
<td>106</td>
</tr>
</tbody>
</table>
### Table 4.12-4 Project Trip Generation

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Intensity</th>
<th>Rate(^{(1)})</th>
<th>ADT</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Peak %</td>
<td>Vol</td>
</tr>
<tr>
<td>Restaurant (Sit Down – High Turnover)</td>
<td>3000 SF</td>
<td>160/KSF</td>
<td>480</td>
<td>8%</td>
<td>38</td>
</tr>
<tr>
<td>Mixed Use Reduction %(^{(2)})</td>
<td></td>
<td></td>
<td></td>
<td>35%</td>
<td>36%</td>
</tr>
<tr>
<td>Mixed Use Reduction Subtotal</td>
<td>136</td>
<td>14</td>
<td>7</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Driveway Trips</td>
<td>344</td>
<td>25</td>
<td>12</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>Restaurant (Quality – Sit Down)</td>
<td>9,204 SF</td>
<td>100/KSF</td>
<td>920</td>
<td>1%</td>
<td>9</td>
</tr>
<tr>
<td>Mixed Use Reduction %(^{(2)})</td>
<td></td>
<td></td>
<td></td>
<td>35%</td>
<td>36%</td>
</tr>
<tr>
<td>Mixed Use Reduction Subtotal</td>
<td>250</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Driveway Trips</td>
<td>671</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>60</td>
</tr>
<tr>
<td>Retail</td>
<td>5,331 SF</td>
<td>40/KSF</td>
<td>213</td>
<td>3%</td>
<td>6</td>
</tr>
<tr>
<td>Mixed-Use Reduction %(^{(2)})</td>
<td></td>
<td></td>
<td></td>
<td>43%</td>
<td>40%</td>
</tr>
<tr>
<td>Mixed-Use Reduction Subtotal</td>
<td>111</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Driveway Trips</td>
<td>103</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Total Proposed Driveway Trips</td>
<td>1,961</td>
<td>144</td>
<td>1116</td>
<td>28</td>
<td>208</td>
</tr>
</tbody>
</table>

#### Existing Land Use Trip Generation

| Standard Commercial | 1,550 SF | 20/KSF | 31 | 14% | 4 | 4 | 0 | 4 | 1 | 3 |

#### Total Net New Trips (Proposed – Existing)

| Total Proposed Minus Existing Uses | 1,930 | 140 | 112 | 28 | 204 | 92 | 112 |

Source: USAI 2017

(1) Rates are used from SANDAG, “Not so Brief Guide of Vehicular Traffic Generation Rates from San Diego Region”, April 2002.

(2) Mixed Use Reductions are calculated using ITE Trip Generation Handbook 3rd Edition Spreadsheet Tool

(3) Transit Reductions are used from ITE Trip Generation Handbook 3rd Edition Appendix E (Tables E1 & E2)
Trip distribution is the process of determining traffic percentage splits on regional and local roadways. These percentages are based on a SANDAG Series 12 Select Zone Full Forecast Model dated August 2015. Based on the percentages of trip distribution from the traffic model, the average daily peak hour volumes from the proposed project were assigned to the study area roadway segments and intersections. The analysis for the proposed project included six roadway segments. The same five intersections were analyzed in addition to the proposed driveways at Dahlia Drive and South Sierra Avenue.

Existing Plus Project Conditions

Roadway Segments
Street segment LOS with project traffic was determined by adding expected proposed project only daily volumes to the existing daily volumes for the study area street segments. As shown in Table 4.12-5 all study area street segments are projected to operate at an acceptable LOS D or better when project traffic is added to existing traffic. Via de la Valle was analyzed in both directions using the peak hour analysis contained in Chapter 11 of the current HCM and the segment was found to operate at an acceptable LOS D or better. The eastbound direction was calculated to operate at LOS C during the AM peak hour and LOS D during the PM peak hour. The westbound direction was calculated to operate at LOS C during both the AM and PM peak hours.

It should be noted that the proposed project would change the existing access to the site from the existing Highway 101 and Dahlia Drive driveways to the proposed driveways along Dahlia Drive and South Sierra Avenue. The South Sierra Avenue entrance would be for residents only and the Dahlia Drive entrance would be for the commercial office, retail and restaurant uses. Table 4.12-5 shows that project would cause the roadway volumes along Dahlia Drive from South Sierra Avenue to Highway 101 to increase from existing conditions, from 2,405 to 4,295 ADT. The project would also cause the roadway volumes along South Sierra Avenue from Plaza Street to Dahlia Drive to increase from existing conditions, from 3,966 to 4,074 ADT. However, the Traffic Impact Analysis looked at the worst case scenario by adding all of the proposed project’s ADTs to both Dahlia Drive and South Sierra Avenue, without consideration of which land uses would access each project driveway (USAI 2017). Therefore, the actual vehicular trips on Dahlia Drive may be less as some of the residential use traffic associated with the proposed project would likely utilize South Sierra Avenue for access to the underground parking facility limiting trips on Dahlia Drive. Similarly, the actual vehicular trips on South Sierra Avenue may be less as some of the commercial traffic associated with the proposed project would likely utilize Highway 101 to Dahlia Drive for access to the underground parking facility. However, the total volume increase shown in Table 4.12-4 would not result in a significant impact per the City’s thresholds to Dahlia Drive or South Sierra Avenue, as outlined in Table 4.12-2.
Table 4.12-5 Existing Plus Project Condition Roadway Segment Levels of Service

<table>
<thead>
<tr>
<th>Segment</th>
<th>Number of Lanes</th>
<th>Classification(1)</th>
<th>LOS E Capacity</th>
<th>Without Project</th>
<th>With Project</th>
<th>Impact Significant?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Highway 101</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lomas Santa Fe Drive to Dahlia Drive</td>
<td>4</td>
<td>4-M</td>
<td>40,000</td>
<td>B 18,127</td>
<td>B 18,719</td>
<td>No</td>
</tr>
<tr>
<td>Dahlia Drive to Via De La Valle</td>
<td>4</td>
<td>4-M</td>
<td>40,000</td>
<td>B 18,604</td>
<td>B 19,545</td>
<td>No</td>
</tr>
<tr>
<td><strong>Dahlia Drive</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Sierra Avenue to Highway 101</td>
<td>2</td>
<td>2-Cc</td>
<td>8,000</td>
<td>A 2,405</td>
<td>C 4,295</td>
<td>No</td>
</tr>
<tr>
<td><strong>South Sierra Avenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plaza Street to Dahlia Drive</td>
<td>2</td>
<td>2-Cd</td>
<td>8,000</td>
<td>C 3,966</td>
<td>C 4,074</td>
<td>No</td>
</tr>
</tbody>
</table>

Notes: Via de la Valle between Jimmy Durante Boulevard and Highway 101 was analyzed using the peak hour analysis contained in Chapter 11 of the current HCM and the segment was found to operate at an acceptable LOS D or better.

(1) Classifications:
- 4-M = 4 lane major arterial
- 2-Cc = 2 Lane Collector (w/ commercial-industrial property)
- 2-Cd = 2 Lane Collector (multi-family)

Source: USAI 2017

Intersections
The proposed project’s traffic for the AM and PM peak hours was added to the existing traffic at the study area intersections. Intersection delays were determined by adding the proposed project’s traffic to the existing conditions. The analysis also evaluated the two proposed project driveway intersections at Dahlia Drive and South Sierra Avenue. Table 4.12-6 shows the intersection delays and LOS for the Existing with Proposed Project peak hour traffic. All five intersections and two project driveways were determined to operate at an acceptable LOS D or better with the addition of proposed project traffic.
### Table 4.12-6 Existing Plus Proposed Project Condition Intersection Levels of Service

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Without Project</th>
<th>With Project</th>
<th>Impact Significant?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Peak Hour</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delay(1)</td>
<td>LOS</td>
<td>Delay(1)</td>
</tr>
<tr>
<td>Highway 101/Lomas Santa Fe Drive</td>
<td>AM 33.9</td>
<td>C</td>
<td>34.1</td>
</tr>
<tr>
<td></td>
<td>PM 41.3</td>
<td>D</td>
<td>41.8</td>
</tr>
<tr>
<td>Cedros Avenue/Lomas Santa Fe Drive</td>
<td>AM 24.3</td>
<td>C</td>
<td>24.5</td>
</tr>
<tr>
<td></td>
<td>PM 23.7</td>
<td>C</td>
<td>23.8</td>
</tr>
<tr>
<td>South Sierra Avenue/Dahlia Drive</td>
<td>AM 8.0</td>
<td>A</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>PM 8.3</td>
<td>A</td>
<td>8.4</td>
</tr>
<tr>
<td>Highway 101/Dahlia Drive</td>
<td>AM 7.2</td>
<td>A</td>
<td>11.3</td>
</tr>
<tr>
<td></td>
<td>PM 9.0</td>
<td>A</td>
<td>15.1</td>
</tr>
<tr>
<td>Highway 101/Via De La Valle</td>
<td>AM 31.0</td>
<td>C</td>
<td>31.0</td>
</tr>
<tr>
<td></td>
<td>PM 35.9</td>
<td>D</td>
<td>50.0</td>
</tr>
<tr>
<td>South Sierra Avenue/Project</td>
<td>AM N/A</td>
<td>N/A</td>
<td>0.4</td>
</tr>
<tr>
<td>Driveaway A</td>
<td>PM N/A</td>
<td>N/A</td>
<td>0.1</td>
</tr>
<tr>
<td>Dahlia Drive/Project Driveaway B</td>
<td>AM N/A</td>
<td>N/A</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PM N/A</td>
<td>N/A</td>
<td>3.4</td>
</tr>
</tbody>
</table>

(1) Seconds per vehicle

Source: USAI, 2017

Near Term Plus Project Conditions

Near term is defined as the first year that the project would be fully operational (opening day), which would be 2019. For the near term impact analysis, an examination of the immediate area surrounding the project including projects that were approved, pending approval or planned in the area and assumed to be constructed and occupied at the project’s opening day were evaluated. The “other projects” daily and peak hour traffic volumes assumed in this analysis include the Pearl project, 330 Cedros project, and a five percent growth factor onto the seasonal existing traffic volumes to account for any unforeseen future other projects that may contribute traffic to the study area. See Table 2-2 for a description of these cumulative projects. These volumes were added to the seasonal existing traffic volumes to obtain near term traffic volumes.

Roadway Segments

Under the Near Term Conditions, as shown in Table 4.12-7, all study area street segments are projected to operate at an acceptable LOS. Via de la Valle was analyzed in both directions using the peak hour analysis contained in Chapter 11 of the current HCM and the segment was found to operate at an acceptable LOS D or better. The eastbound direction was calculated to operate at LOS C during the AM peak hour and LOS D during
the PM peak hour. The westbound direction was calculated to operate at LOS C during both the AM and PM peak hours.

Table 4.12-7  Near Term Plus Project Condition Roadway Segment Levels of Service

<table>
<thead>
<tr>
<th>Segment</th>
<th>Number of Lanes</th>
<th>Current Classification</th>
<th>LOS E Capacity</th>
<th>Without Project</th>
<th>With Project</th>
<th>Impact Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LOS</td>
<td>Volume</td>
<td>V/C</td>
</tr>
<tr>
<td>Highway 101</td>
<td></td>
<td></td>
<td></td>
<td>B</td>
<td>18,127</td>
<td>0.45</td>
</tr>
<tr>
<td>Lomas Santa Fe Drive to Dahlia Drive</td>
<td>4</td>
<td>4-M</td>
<td>40,000</td>
<td>B</td>
<td>18,604</td>
<td>0.47</td>
</tr>
<tr>
<td>Dahlia Drive to Via De La Valle</td>
<td>4</td>
<td>4-M</td>
<td>40,000</td>
<td>B</td>
<td>18,604</td>
<td>0.47</td>
</tr>
<tr>
<td>Dahlia Drive</td>
<td></td>
<td></td>
<td></td>
<td>A</td>
<td>2,405</td>
<td>0.30</td>
</tr>
<tr>
<td>South Sierra Avenue to Highway 101</td>
<td>2</td>
<td>2-Cc</td>
<td>8,000</td>
<td>C</td>
<td>4,070</td>
<td>0.51</td>
</tr>
<tr>
<td>South Sierra Avenue</td>
<td></td>
<td></td>
<td></td>
<td>C</td>
<td>4,070</td>
<td>0.51</td>
</tr>
</tbody>
</table>

Source: USAI, 2017
Notes: Via de la Valle was analyzed using the peak hour analysis contained in Chapter 11 of the current HCM and the segment was found to operate at an acceptable LOS D or better.
4-M - 4 lane major arterial
2-Cc – 2 Lane Collector (w/ commercial-industrial property)
2-Cd - 2 Lane Collector (multi-family)

Intersections
Table 4.12-8 shows the intersection delays and LOS for the Near Term with project peak hour traffic. All five intersections and the two project driveways were determined to operate at an acceptable LOS D or better with the addition of the Zephyr Alternative traffic.
### Table 4.12-8 Near Term Plus Project Condition Intersection Levels of Service

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Peak Hour</th>
<th>Without Project</th>
<th>With Project</th>
<th>Impact Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay(1)</td>
<td>LOS</td>
<td>Delay(1)</td>
</tr>
<tr>
<td>Highway 101/Lomas Santa Fe Drive</td>
<td>AM</td>
<td>35.4</td>
<td>D</td>
<td>37.1</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>43.5</td>
<td>D</td>
<td>43.9</td>
</tr>
<tr>
<td>Cedros Avenue/Lomas Santa Fe Drive</td>
<td>AM</td>
<td>24.3</td>
<td>C</td>
<td>25.5</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>23.8</td>
<td>C</td>
<td>23.8</td>
</tr>
<tr>
<td>South Sierra Avenue/Dahlia Drive</td>
<td>AM</td>
<td>8.1</td>
<td>A</td>
<td>8.2</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>8.5</td>
<td>A</td>
<td>8.6</td>
</tr>
<tr>
<td>Highway 101/Dahlia Drive</td>
<td>AM</td>
<td>9.3</td>
<td>A</td>
<td>11.3</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>9.8</td>
<td>A</td>
<td>17.0</td>
</tr>
<tr>
<td>Highway 101/Via De La Valle</td>
<td>AM</td>
<td>38.6</td>
<td>D</td>
<td>39.0</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>44.7</td>
<td>D</td>
<td>54.2</td>
</tr>
<tr>
<td>South Sierra Avenue/Project Driveway A</td>
<td>AM</td>
<td>N/A</td>
<td>N/A</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>N/A</td>
<td>N/A</td>
<td>0.1</td>
</tr>
<tr>
<td>Dahlia Drive/Project Driveway B</td>
<td>AM</td>
<td>N/A</td>
<td>N/A</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>N/A</td>
<td>N/A</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Seconds per vehicle

Source: USAI, 2017

Section 4.8.5.2 analyzes the proposed project’s consistency with applicable land use plans, policies and regulations including the City’s General Plan Circulation Element and the Highway 101 Specific Plan as discussed above in Section 4.12.2.4. As shown in Tables 4.8-1 and 4.8-2 the project has been found to be consistent with the applicable land use plans, policies and regulations. Specifically, Policy C-5.1 requires the project applicant to pay a TIF based on the number of additional trips (across all modes of transportation) which will be used to fund construction of CIPs and administer and maintain the TIF program. Participation in the TIF program is intended to lessen a development project’s transportation related impacts.

**Significance of Impact**

Implementation of the proposed project would not 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. Impacts would be less than significant.
Mitigation Measures
No mitigation measures are required.

4.12.5.2 Issue 2 - Congestion Management Plan

Would implementation of the proposed 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?

Impact Analysis
SANDAG has been designated as the transportation management area (TMA) for the San Diego region. Federal Highway Administration 23 CFR 450.320 requires that each TMA address congestion management through a process involving an analysis of multimodal metropolitan wide strategies that are cooperatively developed to foster safety and integrated management of new and existing transportation facilities eligible for federal funding. In October 2009, the San Diego region elected to be exempt from the Congestion Management Program (CMP) and, since this decision, SANDAG has been abiding by the Federal Highway Administration 23 CFR 450.320, to comply with the federal congestion management process. San Diego Forward: The Regional Plan (SANDAG 2015), the region's long-range transportation plan and Sustainable Communities Strategy, meets the requirements of 23 CFR 450.320 by incorporating the following federal congestion management process: performance monitoring and measurement of the regional transportation system, multimodal alternatives and non-SOV analysis, land use impact analysis, the provision of congestion management tools, and integration with the Regional Transportation Improvement Program (RTIP) process (SANDAG 2017).

San Diego Forward: The Regional Plan (SANDAG 2015) relies upon the Series 13 Regional Growth Forecast to develop the supporting transportation network. The Series 13 Regional Growth Forecast is based on the land use planning assumptions from each of the 18 cities of the San Diego region, including the City of Solana Beach, as well as San Diego County. Thus, the Series 13 Regional Growth Forecast is influenced by the land use policies in the adopted General Plan. Because the proposed project would be consistent with the General Plan land use designation for the site, it would not conflict with the applicable congestion management plan.

Significance of Impact
Implementation of the proposed project would not conflict with the applicable congestion management plan and impacts would be less than significant.

Mitigation Measures
No mitigation measures are required.
4.12.5.3  Issue 3 - Air Traffic Patterns

Would implementation of the proposed 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?

Impact Analysis
The nearest airport to the project site is the McClellan-Palomar Airport, a public airport, located approximately ten miles northeast of the project site in the City of Carlsbad. The project site is not located within the airport’s area of influence (SDCRAA 2011). Due to the distance of this airport to the project site, the project would not cause an increase in air traffic levels, change in location, or physical impediment that would necessitate an alteration of flight patterns. Therefore, development of the proposed project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, which would result in substantial safety risks.

Significance of Impact
The project would not result in a change in air traffic patterns that could result in a substantial safety risk. No impact would occur.

Mitigation Measures
No mitigation measures are required.

4.12.5.4  Issue 4 – Traffic Hazards

Would implementation of the proposed project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Impact Analysis
The proposed project does not propose any incompatible uses that would create traffic hazards. The proposed project would provide two garage entrances via driveways off Dahlia Drive and South Sierra Avenue. Both entrances would be unsignalized full movement driveways allowing inbound and outbound movements. The South Sierra Avenue driveway would be for project residents and the Dahlia Drive driveway would be for the commercial retail, office and restaurant uses. As shown in Table 4.12-6 both driveways would operate at an acceptable LOS.

The driveway at Dahlia Drive would be located across from an existing driveway that provides access to the current businesses located immediately south of the project site, including a bank and office building. The new driveway would meet the City’s design criteria for safety. Furthermore, the proposed project has been designed to provide pedestrian walkways throughout the project to allow for accessibility between Highway 101 and South Sierra Avenue without the need to walk along Dahlia Drive. Striped
pedestrian crossings are available at the intersection of Highway 101 and Dahlia Drive, allowing safe pedestrian access to the project site and existing, adjacent businesses. Adequate sight distances would be provided to drivers utilizing both the proposed and existing driveways and would not result in a design feature that would cause increased hazards.

The proposed project would provide improvements to roadways along the perimeter of the project site. All roadway improvements would occur within the existing ROW. Improvements to Dahlia Drive would include half-width improvements consisting of pavement, sidewalk, gutter, curb, and a driveway entrance to the underground parking garage and loading dock. Improvements to South Sierra Avenue would include half-width improvements consisting of pavement, sidewalk, gutter, and curb. Improvements to Highway 101 would include closing the two existing driveways and the addition of a sidewalk, curb, and gutter. All improvements would be designed and constructed according to the City’s roadway design standards. These improvements would not result in changes to roadway design that would cause increased hazards.

**Significance of Impact**
The proposed project would not result in any hazards related to design features or incompatible uses. No impact would occur.

**Mitigation Measures**
No mitigation measures are required.

### 4.12.5.5 Issue 5 – Emergency Access

*Would implementation of the proposed project result in inadequate emergency access?*

**Impact Analysis**
The proposed project would provide emergency access in accordance with the requirements of the Solana Beach Fire Department (SBFD). The proposed project would be designed to accommodate emergency vehicles that may need to access to the site for emergency response purposes. The proposed project would provide two garage entrances via new driveways off Dahlia Drive and South Sierra Avenue. Both entrances would be unsignalized full movement driveways allowing inbound and outbound movements. The two-level subterranean parking garage drive aisles would include two-way circulation to avoid out-of-direction travel. If necessary, emergency vehicles could gain access to residential and commercial buildings via Highway 101, Dahlia Drive and South Sierra Avenue. Emergency vehicles could park along the project frontage of these roadways to access the proposed residential and commercial buildings.

It is not anticipated that road or lane closures along Highway 101 would be required for construction of the proposed project. The preference for the construction staging
location is onsite. If construction staging cannot be performed onsite during some phases
(such as during construction of the underground parking structure), the applicant would
be required to obtain the approval of a Temporary Use Permit which would condition a
staging area offsite. One likely offsite staging area is the vacant property located at 201
Highway 101, approximately 0.2 mile north of the project site. From this location,
construction vehicles, equipment and materials could be transported to and from the
site via Highway 101 and South Sierra Avenue. Due to the short distance between this
offsite location (0.2 mile) and the project site, construction vehicles and equipment
coming from or going to the staging area would only be on a public road for a short time
before reaching the project site. Emergency vehicles would still be provided access to
the project site and surrounding areas via South Sierra Avenue and Highway 101, which
provides multiple lanes in each direction. Construction of the proposed project would
not impede access of emergency vehicles to the project site or any surrounding areas.
Therefore, the proposed project would not result in inadequate emergency access.

Significance of Impact
The proposed project would not result in inadequate emergency access. Impacts would
be less than significant.

Mitigation Measures
No mitigation measures are required.

4.12.5.6 Issue 6- Alternative Transportation

Would implementation of the proposed 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?

Impact Analysis
The City of Solana Beach has adopted policies that promote public transit, bicycle and
pedestrian facilities as discussed in Section 4.12.2.4. Section 4.8.5.2 of the Land Use
chapter analyzes the proposed project’s consistency with these policies. As shown in
Tables 4.8-1 and 4.8-2 of the Land Use chapter, the proposed project would be consistent
with the applicable land use plans, policies and regulations as they relate to alternative
transportation.

The proposed project would provide access to public transit. The following bus
routes/services would be available to the proposed project:

- High frequency local bus service (Routes 89 and 101)
- Rapid service (Routes 103 and 473)

An existing NCTD bus stop is located on the eastern edge of the project site along
Highway 101 that would remain operational post construction. Replacement of on-site
bus stop seating would be provided by the decorative seating walls proposed along Highway 101, Dahlia Drive, and at the corner of Dahlia Drive and Highway 101. In addition, the existing Solana Beach Transit Station is located approximately 0.5 mile north of the project site which provides regional rail access via the COASTER and AMTRAK.

Regional bicycle access is provided by an existing northbound bike lane and southbound sharrow located along Highway 101. South Sierra Avenue is also regularly traveled by cyclists, although there are no designated bicycle lanes. Bicycle parking would be provided in several locations onsite. Thirty two outdoor bicycle parking spaces would be provided in at least six locations fronting Highway 101 and Dahlia Drive to serve the proposed commercial retail and restaurant uses. In addition, at least two outdoor bicycle parking areas would be provided to serve the proposed commercial office uses in the middle of the project. The residential portion of the parking garage would also provide a dedicated bike storage area to serve the proposed residential uses. The existing nearby bike lanes and proposed on-site bicycle parking areas are intended to promote the use of alternative transportation to access the site.

Adequate pedestrian access would be provided to the site via construction of or improvements to perimeter sidewalks along Highway 101, Dahlia Drive and South Sierra Avenue. Three existing crosswalks are located at the intersection of Dahlia Drive and Highway 101, which facilitate safe pedestrian movement through the intersection in both north-south and east-west directions. In addition, an existing pedestrian bridge over the NCTD ROW is located east of the project site, connecting Highway 101 to South Cedros Avenue. Finally, the east-west open space design of the project also allows for public access through the project site between Highway 101 to South Sierra Avenue.

Significance of Impact

Implementation of the proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

4.12.5.7 Issue 7 - Parking

Would implementation of the proposed project result in an inadequate amount of parking to serve the proposed uses?

Impact Analysis

The project proposes a two level subterranean parking garage that would extend below the commercial and residential uses. The parking garage would be available to residential tenants, guests, employees, and patrons of the commercial office,
commercial retail, and commercial restaurant/retail uses. It would also be open to the public. The parking garage has been designed with the residential parking on the west side of level 1, directly below the residential land uses to allow for close proximity to residences and short walking distances. Residential parking would be secured with gate access. Residents would have key cards for access to the residential parking area. Commercial spaces and residential guest parking would be available on both level 1 and level 2 of the parking structure.

Table 4.12-9 provides a breakdown of the parking spaces that would be provided in the garage. Based on the City of Solana Beach Municipal Code parking ratios, 308 parking spaces are required for the commercial uses and 53 parking spaces are required for the residential use (47 for residential tenants and 6 for residential guests) for a total of 361 parking spaces. The parking garage would provide 366 spaces. A total of 47 vehicle parking spaces, including two handicap accessible vehicle spaces and one handicap accessible van space, would be provided in the residential parking area. Six residential guest parking spaces would be located in the commercial parking area for guests of the residential units because guests would not have access to the gated residential parking area. A total of 313 commercial spaces would be available on both level 1 and level 2 of the parking structure. Level 1 would provide a total of 111 commercial parking spaces, including six handicap accessible vehicle spaces and one handicap accessible van space. Level 2 would provide a total of 202 commercial parking spaces. Therefore, the proposed project adequately meets the City’s parking requirements for the proposed project.

<table>
<thead>
<tr>
<th>Parking Type</th>
<th>Area / Units</th>
<th>Parking Ratio</th>
<th>Number of Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Office</td>
<td>45,587</td>
<td>1 space/300 SF</td>
<td>152</td>
</tr>
<tr>
<td>Commercial Retail</td>
<td>4,142</td>
<td>1 space/200 SF</td>
<td>21</td>
</tr>
<tr>
<td>Commercial Food and Beverage (F&amp;B) (including outdoor space)</td>
<td>13,482</td>
<td>1 space/100 SF</td>
<td>135</td>
</tr>
<tr>
<td>Multi-Family Residential 1 Bedroom/1 Bathroom Units</td>
<td>7</td>
<td>1.5 spaces/DU</td>
<td>11</td>
</tr>
<tr>
<td>Multi-Family Residential 2 Bedroom/2 Bathroom Units</td>
<td>18</td>
<td>2 spaces/DU</td>
<td>36</td>
</tr>
<tr>
<td>Residential Guest</td>
<td></td>
<td>1 space/4 DU</td>
<td>6</td>
</tr>
<tr>
<td>Motorcycle Spaces (1)</td>
<td></td>
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<td>3</td>
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<tr>
<td>Bicycle Storage Area for Project Residents Spaces (1)</td>
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<tr>
<td>Accessible Spaces (1)</td>
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</tr>
<tr>
<td>Total required spaces</td>
<td></td>
<td></td>
<td>361</td>
</tr>
<tr>
<td>Total Proposed Spaces</td>
<td></td>
<td></td>
<td>366</td>
</tr>
</tbody>
</table>

(1) Not included in the total
Source: USAI 2017

Significance of Impact
The proposed two level subterranean parking structure adequately provides parking to meet the needs of the proposed project. No impact to parking would occur.

**Mitigation Measures**
No mitigation measures are required.

### 4.12.6 Cumulative Impacts

#### 4.12.6.1 Issue 1 – Circulation System Performance

The geographic scope of cumulative impacts for circulation system performance includes the study area evaluated in the TIA (Appendix I). See Tables 4.12-1 and 4.12-2 for a description of the study area street segments and intersections.

Cumulative impacts are evaluated for the Year 2035 Plus Project condition. Horizon Year 2035 traffic volumes are based on the SANDAG Series 12 model. Project traffic volumes were added to the Horizon Year 2035 without project traffic volumes to obtain the Horizon Year 2035 with project traffic volumes.

**Road Segments**
As shown in Table 4.12-10, all street segments analyzed in the study area are expected to operate at an acceptable LOS in the Horizon Year 2035 scenario with the addition the proposed project traffic. Via de la Valle was analyzed more extensively with an arterial analysis in both directions during the AM and PM peak hours and the segment was found to operate at an acceptable LOS D or better. The eastbound direction was calculated to operate at LOS D during both AM and PM peak hours. The westbound direction was calculated to operate at LOS C during both AM and PM peak hours.

<table>
<thead>
<tr>
<th>Segment</th>
<th>Number of Lanes</th>
<th>Current Classification</th>
<th>LOS E Capacity</th>
<th>Without Project</th>
<th>With Project</th>
<th>Impact Significant?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>LOS Volume</td>
<td>V/C</td>
<td>LOS Volume</td>
</tr>
<tr>
<td>Highway 101</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lomas Santa Fe Drive to Dahlia Drive</td>
<td>4</td>
<td>4-M</td>
<td>40,000</td>
<td>C</td>
<td>22,500</td>
<td>0.56</td>
</tr>
<tr>
<td>Dahlia Drive to Via De La Valle</td>
<td>4</td>
<td>4-M</td>
<td>40,000</td>
<td>C</td>
<td>26,600</td>
<td>0.67</td>
</tr>
<tr>
<td>Dahlia Drive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
South Sierra Avenue to Highway 101

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Peak Hour</th>
<th>Without Project</th>
<th>With Project</th>
<th>Impact Significant?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay(1)</td>
<td>LOS</td>
<td>Delay(1)</td>
</tr>
<tr>
<td>Highway 101/Lomas Santa Fe Drive</td>
<td>AM</td>
<td>47.6</td>
<td>D</td>
<td>52.8</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>69.9</td>
<td>E</td>
<td>70.4</td>
</tr>
<tr>
<td>Cedros Avenue/Lomas Santa Fe Drive</td>
<td>AM</td>
<td>24.6</td>
<td>C</td>
<td>39.3</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>23.8</td>
<td>C</td>
<td>35.0</td>
</tr>
<tr>
<td>South Sierra Avenue/Dahlia Drive</td>
<td>AM</td>
<td>8.2</td>
<td>A</td>
<td>8.3</td>
</tr>
<tr>
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<td>9.2</td>
<td>A</td>
<td>9.4</td>
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<tr>
<td>Highway 101/Dahlia Drive</td>
<td>AM</td>
<td>12.5</td>
<td>B</td>
<td>19.0</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>10.0</td>
<td>B</td>
<td>17.9</td>
</tr>
<tr>
<td>Highway 101/Via De La Valle</td>
<td>AM</td>
<td>40.6</td>
<td>D</td>
<td>41.4</td>
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<td></td>
<td>PM</td>
<td>45.0</td>
<td>D</td>
<td>46.6</td>
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<tr>
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<td>AM</td>
<td>N/A</td>
<td>N/A</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td>N/A</td>
<td>N/A</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Source: USAI, 2017
Notes: Via de la Valle was analyzed using the peak hour analysis contained in Chapter 11 of the current HCM and the segment was found to operate at an acceptable LOS D or better.
4-M: 4 lane major arterial
2-Cc – 2 Lane Collector (w/ commercial-industrial property)
2-Cd - 2 Lane Collector (multi-family)

**Intersections**
As shown in Table 4.12-11, all five intersections and two project driveways are expected to operate at an acceptable LOS in Horizon Year 2035 with the addition of the proposed project traffic, except the intersection of Highway 101/Lomas Santa Fe Drive which would result in an LOS E during the PM peak hour. However, the increase in delay from proposed project traffic would be less than 2 seconds which would not result in a significant impact. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with circulation system performance.
### 4.12.6.2 Issue 2 - Congestion Management Plan

The geographic scope of cumulative impacts for conflicts with the CMP is the San Diego region. In October 2009, the San Diego region elected to be exempt from the CMP and, since this decision, SANDAG has been abiding by the Federal Highway Administration 23 CFR 450.320, to comply with the federal congestion management process. Thus cumulative projects in the San Diego region, including the proposed project, are exempt from the CMP. San Diego Forward: The Regional Plan (SANDAG 2015) meets the requirements of 23 CFR 450.320. San Diego Forward: The Regional Plan relies upon the Series 13 Regional Growth Forecast to develop the supporting transportation network. The Series 13 Regional Growth Forecast is based on the land use planning assumptions from each of the 18 cities of the San Diego region, including the City of Solana Beach, as well as San Diego County. Cumulative projects in the San Diego region that are consistent with their applicable land use planning documents have been accounted for in San Diego Forward: The Regional Plan and would not conflict with this plan.

Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with a conflict with the CMP.

### 4.12.6.3 Issue 3 – Air Traffic Patterns

The geographic scope of cumulative impacts for changes in air traffic patterns is the McClellan-Palomar Airport Land Use Compatibility Plan (ALUCP) Area of Influence. A significant cumulative impact would occur if cumulative projects would combine to affect air traffic patterns at this airport. None of the cumulative projects listed in Table 2-2 is located within the ALUCP Area of Influence. Due to the distance to the nearest airport, cumulative projects would not result in a significant cumulative impact associated with changes to air traffic patterns. The proposed project site is located ten miles from the nearest airport. Therefore, the proposed project, combined with other cumulative projects, would not result in a significant cumulative impact related to air traffic patterns.
4.12.6.4 Issue 4 – Traffic Hazards

The geographic scope of cumulative impacts for increases in traffic hazards is the study area evaluated in the TIA (Appendix I). A significant cumulative impact would occur if cumulative projects within the TIA study area would create traffic hazards through design or incompatible uses. Cumulative projects, including those identified in Table 2-2, would be required to be designed and constructed according to the applicable jurisdictions' roadway design standards, which would ensure that no significant impact would occur. Thus, cumulative projects would not result in a significant cumulative impact associated with increases in traffic hazards. Further, implementation of the proposed mixed-use development project would not create hazardous conditions. Therefore, implementation of the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with traffic hazards.

4.12.6.5 Issue 5 - Emergency Access

The geographic context for the analysis of cumulative impacts relative to inadequate emergency access is the City of Solana Beach. A significant cumulative impact would occur if cumulative projects within the traffic study area would combine to impair emergency access. Cumulative projects would be required to provide emergency access in accordance with the requirements of the Solana Beach Fire Department (SBFD). This includes designing a project to accommodate emergency vehicles that may need to access the site for emergency response purposes. Thus, cumulative projects would not result in a significant cumulative impact associated with inadequate emergency access. Further, implementation of the proposed mixed-use development project would provide adequate emergency access. Therefore, implementation of the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with emergency access.

4.12.6.6 Issue 6 - Alternative Transportation

The geographic context for the analysis of cumulative impacts relative to alternative transportation is the City of Solana Beach. A significant cumulative impact would occur if cumulative projects, including those identified in Table 2-2, would result in conflicts with the City’s alternative transportation policies. However, all future cumulative developments would be required to comply with the City’s General Plan and Highway 101 Specific Plan, as applicable, which specify goals and policies related to public transit, bicycle and pedestrian facilities. Compliance with applicable plans would ensure that cumulative projects would not result in a significant cumulative impact associated with alternative transportation. Further, implementation of the proposed mixed-use development project would be consistent with the City’s adopted alternative transportation policies. Therefore, implementation of the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with alternative transportation.
4.12.6.7  Issue 7 - Parking

The geographic scope of cumulative impacts for impacts associated with the provision of adequate parking is the study area evaluated in the TIA (Appendix I). A significant cumulative impact would occur if cumulative development projects within the traffic TIA study area would combine to result in an inadequate amount of parking to serve the proposed uses. Cumulative project developments, including those identified in Table 2-2, would be required to provide parking facilities that meet the City of Solana Beach Municipal Code parking ratios for proposed uses, which would ensure that adequate parking is provided. Thus, cumulative projects would not result in a significant cumulative impact associated with an inadequate amount of parking. Further, as discussed in Section 4.12.5.7, the project proposes a two level subterranean parking garage that would provide 366 spaces which adequately meets the City’s parking requirements and no significant direct project impact would occur. Therefore, implementation of the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with the adequate supply of parking.
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4.13 Public Utilities, Service Systems and Energy

This section evaluates the potential impacts on utilities, service systems and energy resulting from implementation of the proposed project. This includes the potential for the proposed project to conflict with or obstruct existing capacity and future implementation of utilities and service systems or to result in a cumulatively considerable net increase in demand for services. Information in the following section is based, in part, on the following information sources: 1) Utilities will-serve letters from AT&T, Cox, SDG&E and Santa Fe Irrigation District, included as Appendix J; 2) Solana 101 Water Demand Memo (Project Design Consultants 2017d), included as Appendix K; and 3) the Sanitary Sewer Study (Project Design Consultants 2017c), included as Appendix L.

4.13.1 Environmental Setting

4.13.1.1 Water

The City is part of the Santa Fe Irrigation District (SFID), which services the City of Solana Beach and the communities of Rancho Santa Fe and Fairbanks Ranch. SFID services approximately 19,400 residents across 10,326 acres in North County, of which approximately 2,850 acres are located in the City (SFID 2016). The city had a population of 12,867 residents as of 2010 (US Census Bureau 2010), which comprises approximately two-thirds of SFID service area. Existing water facilities in the vicinity of the project site include a 10-inch polyvinyl chloride (PVC) pipe in Highway 101, a 10-inch asbestos cement pipe (ACP) in Dahlia Drive, and an 8-inch ACP located in South Sierra Avenue.

4.13.1.2 Wastewater

The City of Solana Beach provides sewer service to the proposed project site. The City owns and is responsible for 283,000 linear feet of wastewater conveyance pipeline and four active pump stations. Average wastewater flow for the City is approximately 1.22 million gallons per day (gpd), resulting in a computed wastewater generation rate of approximately 175 gallons per equivalent dwelling unit per day (City of Solana Beach 2014b). The existing sewer system in the vicinity of the project site consists of a 6-inch vitrified clay pipe (VCP) in Highway 101, an 8-inch VCP in Dahlia Drive, and parallel 8-inch and 10-inch VCPs in South Sierra Avenue. The proposed project is located within the Solana Beach Drainage Basin, one of three drainage basins within the City's sewer system. Sewage flows from this basin are conveyed to the Solana Beach Pump Station (PS), one of four wastewater pumping stations located within the city and maintained by the San Elijo Joint Powers Authority (SEJPA). Ultimately, sewage from this basin is treated and disposed of at the SEJPA Water Reclamation Facility.
4.13.1.3 Solid Waste

The City of Solana Beach has agreements with EDCO Waste and Recycling Services for commercial trash and recycling collection services, as well as for residential trash and recycling collection. Solid waste collected in Solana Beach is transported to either the Otay Landfill or the Sycamore Landfill. Commercial recyclables are processed in EDCO’s Material Recovery Facility located in Escondido. Residential recyclables are taken to the Carlsbad Recycling Center located at 5960 El Camino Real in Carlsbad.

The Otay Landfill is located at 1700 Maxwell Road in Chula Vista and is operated by Allied Waste Industries. The Otay Landfill is permitted to receive 5,830 tons per day. Permits were recently modified, which reduced the overall height of the landfill with no loss of capacity. The Otay Landfill is expected to serve the region through 2021. Most single-family residential waste generated in the southern portion of the city is disposed of at the Otay Landfill. Waste collected from multi-family residential and commercial areas is disposed of at area landfills as determined by the agreements of franchise haulers. The Sycamore Landfill is located at 8514 Mast Boulevard at West Hills Parkway in San Diego and is also operated by Allied Waste Industries. The Sycamore Landfill, based on a 3,965-ton-per-day limit, was previously expected to operate until 2031. In order to meet the region's long-term (year 2050) solid waste needs, the Sycamore Landfill expansion was approved in 2015, allowing a maximum permitted tonnage for disposal of 5,000 tons per day. The Sycamore Landfill expansion allows a design capacity of 147,908,000 cubic yards and an estimated closure date of 2042 (City of San Diego 2015).

4.13.1.4 Energy

The project site is served by SDG&E, a public utility company. Existing electrical and natural gas facilities in the vicinity of the project site include an SDG&E easement that traverses the northern portion of the site; a 6-inch utility pole located near the center of the site; an SDG&E vault, electrical transformer, and power pole located near the northwest corner of the site; two electrical transformers located along the western border of the site; an SDG&E vault located on the southern border of the site, and gas pipelines and valves in South Sierra Avenue and Highway 101. The SDG&E service area covers 4,100 square miles in San Diego and Orange counties, including all of Solana Beach. SDG&E provides energy service to 3.6 million people through 1.4 million electric meters and 873,000 natural gas meters (SDG&E 2018a). In 2017, more than 43 percent of the SDG&E electricity supply was from renewable sources (SDG&E 2018b).

The City of Solana Beach has formed and will be launching Solana Energy Alliance (SEA), a Community Choice Aggregation program. SEA will be responsible for procuring energy for Solana Beach’s SDG&E electrical customers who do not opt out of SEA. SEA will provide two levels of renewable energy for its customers. The base level, SEA Choice, will provide 50 percent of the electricity from renewable sources and 75 percent will be from
greenhouse gas-free sources. Customers will also have the option to select a 100 percent renewable energy product, SEA Green.

4.13.2 Regulatory Framework

4.13.2.1 State

California Senate Bill (SB) 221 and SB 610
California SB 221 and SB 610 went into effect January 2002 with the intention of linking water supply availability to land use decisions made by cities and counties. SB 221 requires water suppliers to prepare written verification that sufficient water supplies are planned to be available prior to approval of large-scale subdivisions. SB 610 requires water suppliers to prepare a water supply assessment report for inclusion by land use agencies within the CEQA process for new developments subject to SB 610. Large-scale projects include residential development projects that include more than 500 residential units and/or shopping centers or business establishments resulting in a net increase of more than 1,000 employees or more than 500,000 square feet of floor space.

Integrated Waste Management Act
The Integrated Waste Management Act, Assembly Bill (AB) 939 mandates that all cities reduce waste disposed in landfills from generators within their borders by 50 percent by the year 2000 (State of California 1989). Approved in October 2011, AB 341, which establishes a mandatory commercial recycling program, sets a policy goal of 75 percent waste diversion by the year 2020.

Water Conservation in Landscaping Act
The legislation determined that the state’s water resources are in limited supply and recognized that while landscaping is essential to the quality of life in California, landscape design, installation, maintenance, and management must be water efficient.

California Code of Regulations Title 24
Energy Conservation Standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission in June 1977 and most recently revised in 2016 (24 CCR 6). Title 24 requires that building shells and building components be designed to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. This program has been partially responsible for keeping California’s per capita energy use approximately constant over the past 30 years.

On July 17, 2008, the California Building Standards Commission adopted the nation’s first green building standards. The California Green Building Standards Code (Part 11, Title 24) was adopted as part of the California Building Standards Code (24 CCR). Part 11
establishes voluntary standards that became mandatory in the 2010 edition of the code, including planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.

**Renewable Energy and the Renewable Portfolio Standard (RPS)**
In 2002, California established its RPS Program, with the goal of increasing the percentage of renewable energy in the state’s electricity mix to 20 percent of retail sales by 2017. The 2003 Integrated Energy Policy Report recommended accelerating that goal to 20 percent by 2010, and the 2004 Energy Report Update further recommended increasing the target to 33 percent by 2020. The state’s Energy Action Plan supported this goal. In 2006 under Senate Bill 107, California’s 20 percent by 2010 RPS goal was codified.

On November 17, 2008, the Governor signed Executive Order S-14-08 requiring that "...all retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020." The following year, Executive Order S-21-09 directed CARB, under its AB 32 authority, to enact regulations to achieve the goal of 33 percent renewables by 2020. SBX1-2 was signed by the Governor in April 2011 to codify the 33 percent by 2020 goal. This new RPS applied to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators.

In October 2015, the Governor signed Senate Bill 350 to codify ambitious climate and clean energy goals. One key provision of SB 350 is for retail sellers, and publicly owned utilities to procure “half of the state’s electricity from renewable sources by 2030” (CEC 2017).

### 4.13.2.2 Regional

**Santa Fe Irrigation District 2009 Asset Management Master Plan**
The 2009 Asset Management Master Plan defines system needs to achieve water delivery performance requirements and identifies capital improvement projects (CIPs) needed to meet those needs. The purpose of the plan is to evaluate the ability of the District’s assets to perform according to an established set of criteria, and identify recommended CIPs and associated costs. The goal of the plan is to evaluate how modifications to the existing system as a whole may result in improved conditions.

**Santa Fe Irrigation District Urban Water Management Plan**
The Santa Fe Irrigation District Urban Water Management Plan is prepared in accordance with the California Urban Water Management Planning Act of 1983 and its amendments. The plan is developed to support its long-term resource planning, and ensure adequate water supplies are available to meet existing and future water demands.
4.13.2.3 Local

City of Solana Beach General Plan

The City of Solana Beach General Plan consists of a series of development policies setting forth objectives, principles, standards, and policies. The Conservation and Open Space Element contains the following policies relative to utilities as they relate to the proposed project:

Goal 3.1: To protect and conserve the City’s natural and cultural resources

- **Policy 2.a:** The city shall require all new developments to incorporate water conservation measures into project design to the greatest extent possible. Such measures may include, but are not limited to, the use of plumbing fixtures which reduce water usage (in accordance with Title 24 of the California Administrative Code) and xeriscape landscaping which maximizes the use of drought-tolerant plant species and drip irrigation systems.

- **Policy 3.a:** The city shall participate in the county’s efforts to recycle waste products such as glass, broken concrete, asphalt, etc. for use as construction materials.

- **Policy 3.b:** The city shall encourage efforts to increase public participation in recycling.

Objective 7.0: Reduce the city’s demands upon conventional, non-renewable sources of energy.

- **Policy 7.a:** The city shall require new developments to incorporate energy conservation measures and promote alternative energy systems.

City of Solana Beach Municipal Code (SBMC)

Chapter 6.36 outlines construction and demolition debris diversion requirements for development projects. The regulations are intended to address all construction, renovation, and remodel projects within the city, including City-sponsored projects, with a total project value equal to or greater than $100,000, as calculated for purposes of receiving a City building permit. All demolition projects shall be considered “covered projects” and shall comply with Chapter 6.36 of the SBMC. The construction and demolition debris diversion requirements for development projects require applicants to prepare a Waste Management Plan (WMP) which indicates the following: estimated weight of construction and demolition debris, by materials type, to be generated; maximum weight of such materials that can feasibly be diverted via reuse or recycling; vendor or facility that the applicant proposes to use to collect or receive that material; estimated weight of construction and demolition materials that will be landfilled; and total square footage of the project. The WMP must indicate that at least 50 percent of all
construction and demolition debris generated by the project will be diverted from landfills (i.e., reused or recycled).

Chapter 17.56 establishes water use standards for landscaping in the city that implement the 2006 development landscape design requirements established by the Water Conservation in Landscaping Act and amended by Executive Order No. B-29-15. Consistent with the Act, the general purpose is to:

A. Promote the values and benefits of landscapes while recognizing the need to utilize water and other resources as efficiently as possible.
B. Establish a structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction.
C. Promote the use, when available, of tertiary treated recycled water, for irrigating landscaping.
D. Use water efficiently without waste by setting a maximum applied water allowance (MAWA) as an upper limit for water use and reduce water use for landscaping to the lowest practical amount.
E. Encourage water users of existing landscapes to use water efficiently and without waste.

Chapter 17.60.150 outlines regulations intended to make redemption and recycling of reusable materials convenient to the public in order to reduce litter and increase the recycling of reusable materials, while protecting the public health and safety of the community. The purpose is to encourage the provision of recycling services by providing a comprehensive and easily understood program of permitting and regulating such uses in commercial and industrial zones and also to provide guidelines and development regulations to ensure that the placement of recycling facilities is consistent with other development requirements.

**City of Solana Beach Sewer Regulation Ordinance**
The Sewer Regulation Ordinance requires that all applicants for sewer service or sewer connections are required to accept conditions of connection and service as may be provided by the City. The construction, installation, or repair of sewer service laterals and house sewers and connections to the sewer system shall be completed to the satisfaction of the City Engineer or his representatives, and in accordance with all existing laws, ordinances, and rules of the City, County of San Diego, and the State of California or any department thereof. The type of sewage discharged into the sewer system shall meet the requirements and restrictions of the SEJPA.

**Sanitary Sewer Master Plan**
The 2000 Sanitary Sewer Master Plan delineates the major components of long-term CIPs for improvement of existing wastewater collection and pumping facilities to serve
planned growth within the city. The Sewer Master Plan estimated that wastewater production within the City’s service area would ultimately increase by 10 percent. Future flow projections were developed to determine the recommended upgrades to the existing collection system to adequately serve the City’s system under completely built-out conditions under the General Plan. The plan uses equivalent dwelling units (EDUs) to calculate expected future flow rates. This unit provides a method of comparison for flows generated by both residential and non-residential land uses. For planning and facility sizing purposes, the City uses a conservative estimate of 200 gpd of wastewater per EDU. The plan estimated that the City’s EDUs would grow nine percent from 2000 to 2009; however, the population actually decreased by 1 percent over this same period (City of Solana Beach 2014a).

### 4.13.3 Impact Significance Criteria

According to Appendix G of the CEQA Guidelines, the project would result in a significant impact to utility services if it would:

- **Issue 1:** Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- **Issue 2:** 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.
- **Issue 3:** Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- **Issue 4:** Have insufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements.
- **Issue 5:** Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.
- **Issue 6:** Be served by a landfill with insufficient permitted capacity to accommodate the project’s solid waste disposal needs.
- **Issue 7:** Fail to comply with federal, state, and local statutes and regulations related to solid waste.

In accordance with Appendix F of the CEQA Guidelines, the proposed project would result in a significant impact to energy if it would:

- **Issue 8:** Result in wasteful, inefficient, or unnecessary consumption of energy, including electricity, natural gas, and fossil fuels.
4.13.4 Method of Analysis

This section of the EIR gives full consideration to the development of the proposed project and acknowledges the physical changes that would occur to the existing setting from implementation of the proposed project. Public utilities impacts were determined by comparing the proposed project with the objectives of the City’s General Plan, specifically the Conservation and Open Space Element, and the SBMC. In addition, the public utilities impact assessment was based on information contained in the will-serve letters from AT&T, Cox, SDG&E and Santa Fe Irrigation District, included as Appendix J; the Solana 101 Water Demand Memo (Project Design Consultants 2017d), included as Appendix K; and the Sanitary Sewer Study (Project Design Consultants 2017c), included as Appendix L.

4.13.5 Project Impacts and Mitigation

4.13.5.1 Issue 1 - Wastewater Treatment Requirements

Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Impact Analysis

The project proposes mixed-use development on a 1.95-acre site. Upon completion of construction, the proposed project would discharge domestic wastewater from onsite retail, restaurant and office commercial and residential uses into the City’s existing sewer system. The typical types of uses that the project proposes are not likely to exceed the wastewater treatment requirements of the RWQCB. The City’s sewer system is permitted to operate by the SDRWQCB and meets its current wastewater treatment standards. As described in Issue 2, the City’s system has existing available capacity to serve the proposed project. Because the project would be discharging wastewater to a RWQCB-permitted community sewer system, the proposed project is consistent with the wastewater treatment requirements of the RWQCB.

Dewatering would occur during construction of the underground parking structure. Dewatering requirements are addressed in mitigation measure GEO-1. Discharging of groundwater would require a Report of Waste Discharge from the RWQCB in order to obtain Waste Discharge Requirements. Before starting dewatering operations, the contractor would obtain the required permits and authorizations. All groundwater would be treated and disposed of in compliance with all federal, State and local regulations. Therefore, the proposed project would not result in a significant impact related to wastewater treatment requirements.
Significance of Impact
The proposed project is consistent with the wastewater treatment requirements of the RWQCB. Therefore, no significant impact would occur.

Mitigation Measures
No mitigation measures are required.

4.13.5.2 Issue 2 - Treatment Facilities

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?

Impact Analysis

Water Treatment Facilities
The SFID provides water to the proposed project site. Although some population and demand increases are anticipated by the SFID between 2015 and 2040, it expects the increases to be relatively minor and consistent with the growth anticipated under the City’s General Plan (SFID 2016). According to the SFID 2015 UWMP, actual water demand in the SFID’s service area has decreased due to a comprehensive water conservation program. Potable water use in 2015 was approximately 1,000 acre-feet per year lower than 2010. Using the Water Agency Standards (WAS), it was determined that the proposed project would have an average water demand of 11,757.50 gpd (Project Design Consultants 2017d). This amount would include the estimated total water use of 276 gpd for landscaping (MW Steele Group 2017). The proposed project is consistent with the underlying General Plan land use and zoning designations, which are the basis of water supply planning locally and regionally. SFID’s Asset Management Master Plan defines system needs to achieve water delivery performance requirements and identifies CIPs needed to meet those needs. A letter was received from the SFID on May 10, 2017 indicating that the district’s requirements for water service had been satisfied (Appendix J) implying that District review indicated that existing water facilities are sized to adequately serve the proposed project. Therefore, no unplanned SFID water treatment facility improvements are necessary to provide the proposed project with water.

Wastewater Treatment Facilities
As explained in Section 4.13.2, the Sewer Master Plan developed future flow projections to determine the recommended upgrades to the existing collection system to adequately serve the City under built-out conditions. Wastewater production within the City’s service area was estimated to ultimately increase by 10 percent. The plan estimated that the City’s EDUs would grow nine percent from 2000 to 2009. The City’s population actually decreased by 1 percent over this same period (City of Solana Beach 2014a).
The proposed project would add 32 EDUs to the City’s wastewater collection system (Project Design Consultants 2017c). Furthermore, it is consistent with the underlying General Plan land use and zoning designations that were in effect at the time the 2000 Sanitary Sewer Master Plan was completed, which were the basis for wastewater treatment planning efforts. The City’s existing sewer system has adequate capacity to serve the proposed mixed-use development and would not require new or expanded facilities to serve the proposed project (M. Sammak, City Engineer, August 7, 2017). The available capacity in the San Elijo Water Reclamation Facility is approximately 5.25 mgd (SEJPA 2017). Implementation of the proposed project, including operation of proposed residential and commercial uses, would generate a maximum estimated peak flow of approximately 0.0216 mgd and an average daily sewer flow of 7,085 gpd according to the sewer study prepared for the proposed project (Project Design Consultants 2017c). In addition, the existing gravity sewer system adjacent to the project site, which currently receives a peak flow of 0.020 mgd and an average daily sewer flow of 5,765 gpd from the site (Project Design Consultants 2017c), was determined to be adequate to handle the flow generated by the proposed project. No wastewater treatment facilities improvements are necessary to accommodate the flows from the project site (Project Design Consultants 2017c). Therefore, the City’s sewer facilities and the San Elijo Water Reclamation Facility would have adequate capacity to serve the proposed project.

**Significance of Impact**

Implementation of the proposed project would not require or result in the construction of new water or wastewater facilities, nor would the proposed project result in the expansion of existing water or wastewater treatment facilities. Therefore, impacts would be less than significant.

**Mitigation Measures**

No mitigation measures are required.

**4.13.5.3 Issue 3 - Drainage Facilities**

*Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

**Impact Analysis**

The project proposes the construction of stormwater detention and biofiltration facilities onsite to detain and treat stormwater prior to discharge offsite. The potential environmental effects associated with construction and operation of the proposed project are fully addressed within this EIR. As discussed in Section 4.7.6, construction of the proposed project would not exceed the capacity of existing or planned stormwater drainage systems. The proposed drainage patterns and drainage improvements have been designed to mimic existing drainage patterns (Project Design Consultants 2017a). Under post-project conditions, storm runoff would be conveyed away from the site in
three directions similar to the existing conditions as described in Section 4.7.2. The proposed detention system and biofiltration BMPs would control the velocity and amount of runoff post-development to ensure that runoff does not exceed pre-development conditions. Therefore, construction of new offsite stormwater drainage facilities or the expansion of existing offsite facilities to serve the proposed project would not be required.

Significance of Impact
Construction of the proposed project would not exceed the capacity of offsite existing or planned stormwater drainage systems that would require the construction of new or expanded existing facilities. Therefore, impacts would be less than significant.

Mitigation Measures
No mitigation measures are required.

4.13.5.4 Issue 4 - Water Supply

Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Impact Analysis
SFID provides water to Solana Beach and maintains the existing water infrastructure in the city. Although population and demand increases are anticipated by SFID by 2040, it expects the increases to be relatively minor and consistent with the growth anticipated under the General Plan.

Using the Water Agency Standards (WAS), it was determined that the proposed project would have an average water demand of 11,757.50 gpd (Project Design Consultants 2017d). This amount would include the estimated total water use of 276 gpd for landscaping (MW Steele Group 2017). A letter was received from the SFID on May 10, 2017 indicating that the district’s requirements for water service had been satisfied (Appendix J).

As discussed in Section 4.10.5.1, the City’s General Plan adequately accounts for the population growth from the proposed project. The proposed project design has incorporated the following water conservation measures:

- Drought-resistant landscaping
- Efficient, weather-responsive outdoor irrigation
- No turf grass
- Low water-use indoor plumbing fixtures
As such, the project would be consistent with Policy 2.a in the Conservation and Open Space Element of the City’s General Plan, which requires all new developments to incorporate water conservation measures into project design to the greatest extent possible (City 2014a). In addition, the proposed project is consistent with the underlying General Plan land use and zoning designations, which are the basis of water supply planning locally and regionally. Therefore, the proposed mixed-use development has been accounted for in the SFID UWMP.

As explained in detail in the SFID 2015 UWMP, climate change will have an impact on the reliability of local water supplies. Specifically, climate change is expected to impact average temperatures and rainfall. Local water demand depends primarily on rainfall (i.e., water demand is low in wet years and high in dry years). SFID expects climate change to have the greatest impact on the reliability of imported supplies from the State Water Project and the Colorado River Aqueduct, as well as surface water supplies. SFID is planning to implement a potable reuse project during the 2015-2040 planning horizon to increase the availability of a reliable local supply and reduce dependence on imported supplies. Regionally, San Diego County Water Authority (SDCWA), which is the wholesale water supplier to SFID, is working to diversify local supplies and increase reliability through implementation of local water resources projects, including indirect potable reuse and seawater desalination. Overall, SFID’s projected minor increases in water demand, coupled with implementation of demand management measures are expected to result in continued reduction and subsequent flattening of water demand from 2015-2040 (SFID 2016).

Based on consistency with the adopted UWMP documents and correspondence with SFID, sufficient water supplies would be available from existing entitlements to serve the proposed project and no new or expanded entitlements would be needed.

**Significance of Impact**
Sufficient water supplies are available to serve the proposed project from existing entitlements and resources. Therefore, impacts would be less than significant.

**Mitigation Measures**
No mitigation measures are required.

### 4.13.5.5 Issue 5 - Wastewater Treatment Capacity

*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?*

**Impact Analysis**
The City of Solana Beach and San Elijo Water Reclamation Facility would provide wastewater treatment for the proposed project. Implementation of the proposed
project, including residential and commercial uses, would generate an estimated peak flow of approximately 0.0216 mgd and an average daily sewer flow of 7,085 gpd, according to the sewer study prepared for the proposed project (Project Design Consultants 2017c). The available capacity in the regional water treatment plant is approximately 5.25 mgd (SEJPA 2017). Furthermore, the proposed project is consistent with the underlying General Plan land use and zoning designations, which are the basis for wastewater treatment planning efforts. Therefore, there is adequate treatment capacity to serve the proposed project’s sewage flow.

**Significance of Impact**
The proposed project would not be expected to adversely affect the capacity of the wastewater treatment provider. Therefore, impacts would be less than significant.

**Mitigation Measures**
No mitigation measures are required.

### 4.13.5.6 Issue 6 - Landfill Capacity

*Would the project be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?*

**Impact Analysis**

**Construction**
The proposed project would generate demolition debris associated with demolition of the existing structures on-site and construction debris associated with construction of the new mixed-use development. Demolition debris is anticipated to total 1,070 tons, of which 990 tons would be recycled. Construction debris is anticipated to total 500 tons, of which 375 tons would be recycled. The total amount of waste from demolition and construction that would be deposited at a local landfill, and would not be recycled, is estimated to be 205 tons. The disposal of demolition and construction debris would be addressed in the Waste Management Plan (WMP) in compliance with the City’s Construction and Demolition Debris Recycling Ordinance (SBMC Chapter 6.36), described in further detail below.

Before a building or demolition permit may be issued for the proposed project, the project applicant would be required to comply with the City’s Construction and Demolition Debris Recycling Ordinance. To meet state diversion requirements, Chapter 6.36 of the SBMC outlines construction and demolition debris diversion requirements for development projects. The proposed project must prepare and submit a WMP on a City-approved form and pay a WMP review fee before a building or demolition permit may be issued (SBMC Chapter 6.36). The completed WMP shall indicate all of the following:
Estimated weight of construction and demolition debris, by materials type, to be generated;

Maximum weight of such materials that can feasibly be diverted via reuse or recycling;

Vendor or facility that the applicant proposes to use to collect or receive that material;

Estimated weight of construction and demolition materials that will be landfilled; and

Total square footage of the project.

The WMP must indicate that at least 50 percent of all construction and demolition debris generated by the proposed project would be diverted from landfills (i.e., reused or recycled) (SBMC Chapter 6.36). Construction and demolition debris would most likely be taken to the EDCO Construction, Demolition and Inert Recycle Facility at 224 South Las Poses Road in San Marcos.

Operation
Solid waste collected in Solana Beach is transported to either the Otay Landfill or the Sycamore Landfill. The Otay Landfill is permitted to receive 5,830 tons per day. The Sycamore Landfill expansion was recently approved to meet the region’s long-term solid waste needs. With the expansion, the landfill will be operational until approximately year 2042 with a capacity of 5,000 tons per day. Municipal solid waste disposal in the city, including the proposed project site, is managed by EDCO Waste and Recycling Services.

According to CalRecycle (2017), residences generate 4.9 pounds of municipal solid waste per day and the diversion rate is 61 percent. Therefore, solid waste disposal needs associated with the 25 new apartment residences would be up to 48 pounds per day. According to CalRecycle (2017), employees generate 11.4 pounds of municipal solid waste per day and the diversion rate is 63 percent. For the commercial aspect of the project, which includes commercial office, commercial retail and commercial restaurant, the total amount of solid waste generated per day would be 589 pounds. The entire project would generate approximately 637 pounds of solid waste per day (116.25 tons per year), accounting for average rates of residential and commercial recycling. As previously stated, recycling services at the project site would be provided by EDCO Waste and Recycling Service.

The existing permitted landfills (Otay and Sycamore) have adequate capacity to receive 205 tons of waste from project construction and 116.25 tons of waste per year from project operation. Further, the project is consistent with planning documents on which the determination of regional landfill capacity needs are based. Therefore, the demolition and construction debris and municipal solid waste generated by the
The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs.

**Significance of Impact**
The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs. Impacts would be less than significant.

**Mitigation Measures**
No mitigation measures are required.

### 4.13.5.7 Issue 7 - Solid Waste Compliance

**Would the project comply with federal, state, and local statutes and regulations related to solid waste?**

**Impact Analysis**
The proposed project would comply with federal, state, and local statutes and regulations related to solid waste by adhering to Section 6.20.135 of the SBMC, which requires, “all occupants to separate from refuse, for recycling purposes, all designated residential, commercial, and industrial recyclables and otherwise participate in recycling through the collection service provided by a franchisee.” Recycling services at the project site would be provided by EDCO Waste and Recycling Service. In accordance with Chapter 6.36 of the SBMC, prior to the start of construction, the proposed project would be required to prepare a WMP. The WMP is required to include measures to divert 50 percent of waste during construction/demolition activities. Standard solid waste practices would continue to be implemented throughout operation of the proposed residential and commercial uses. These include measures identified in Assembly Bill (AB) 939, the California Integrated Solid Waste Management Act, and AB 2020, the California Beverage Container Recycling and Litter Reduction Act.

**Significance of Impact**
The proposed project would comply with federal, state and local statutes and regulations related to solid waste. Impacts would be less than significant.

**Mitigation Measures**
No mitigation measures are required.

### 4.13.5.8 Issue 8 – Energy

**Would the project result in wasteful, inefficient, or unnecessary consumption of energy, including electricity, natural gas, and fossil fuels?**
Impact Analysis
The potential for the proposed project to result in wasteful, inefficient, or unnecessary consumption of energy during construction and operation is addressed below.

Construction
Construction of the proposed project would involve fossil fuel consumption from operation of diesel-powered construction equipment, and additional fossil fuel consumption from truck and worker vehicle trips. Table 4.13-1, Construction Fleet Summary, provides the anticipated construction fleet for the proposed project.

<table>
<thead>
<tr>
<th>Construction Phase</th>
<th>Duration (Months)</th>
<th>Anticipated Fleet</th>
<th>Usage Hours/Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition</td>
<td>1</td>
<td>1 Industrial saw</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Dozer</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Loader/Backhoe</td>
<td>8</td>
</tr>
<tr>
<td>Grading</td>
<td>2</td>
<td>1 Grader</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Dozer</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Loader/Backhoe</td>
<td>7</td>
</tr>
<tr>
<td>Building Construction</td>
<td>10</td>
<td>1 Crane</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Forklift</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Generator Set</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Loader/Backhoe</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 Welders</td>
<td>8</td>
</tr>
<tr>
<td>Paving</td>
<td>2</td>
<td>1 Cement and Mortar Mixer</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Paver</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Paving Equipment</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Roller</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 Loader/Backhoe</td>
<td>6</td>
</tr>
<tr>
<td>Architectural Coating</td>
<td>2</td>
<td>1 Air compressor</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: CalEEMod Version 2016.3.2. See Appendix B for model output.

Table 4.13-2, Construction Trip Summary, provides the estimated truck and vehicle trips for each construction phase. As identified in Table 4.13-2, haul truck trips during the grading phase and daily worker vehicle trips during the building construction phase would require the most intensive use of energy during project construction.

The proposed project would implement typical construction practices. As shown in Table 4.13-1, the project would not require any unusual construction equipment or practices that would result in wasteful, inefficient, or unnecessary consumption of energy compared to projects of similar type and size. The construction fleet contracted for the proposed project would be required to comply with the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation, which reduces wasteful, inefficient, or unnecessary consumption of energy through limits on idling time and phasing out older, less efficient...
vehicles. Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary energy consumption during construction.

<table>
<thead>
<tr>
<th>Construction Phase</th>
<th>Duration (Months)</th>
<th>Daily Worker Vehicle Trips (10.8 miles each)</th>
<th>Daily Vendor Trips (7.3 miles each)</th>
<th>Total Haul Truck Trips (20 miles each)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition</td>
<td>1</td>
<td>13</td>
<td>--</td>
<td>30</td>
</tr>
<tr>
<td>Grading</td>
<td>2</td>
<td>8</td>
<td>--</td>
<td>6,150</td>
</tr>
<tr>
<td>Building Construction</td>
<td>10</td>
<td>98</td>
<td>36</td>
<td>--</td>
</tr>
<tr>
<td>Paving</td>
<td>2</td>
<td>13</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Architectural Coating</td>
<td>2</td>
<td>20</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

1. Worker trips for all construction phases except building construction and architectural coating are based on 1.25 workers per equipment. Building construction rates are 0.72 daily trips per multi-family unit, 0.32 per 1000 square feet of commercial/retail space, and 0.42 per 1,000 square feet office space. Architectural coating worker trips are 20% of building construction phase trips.

Source: CalEEMod Version 2016.3.2. See Appendix B for model output.

Operation

The proposed project’s energy demand was calculated as part of greenhouse gas (GHG) emissions modeling for the project based on CalEEMod default assumptions (CalEEMod Version 2016.3.2). Table 4.13-3, Operational Energy Demand Summary, summarizes the project’s energy demand.

<table>
<thead>
<tr>
<th>Energy Type</th>
<th>Without Project Design Features</th>
<th>With Project Design Features</th>
<th>Applicable Project Design Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Miles Traveled</td>
<td>3,270,637</td>
<td>3,147,843</td>
<td>PDF GHG-4, PDF GHG-5</td>
</tr>
<tr>
<td>Electricity Demand</td>
<td>2.2 million kWh/year</td>
<td>1.8 million kWh/year</td>
<td>PDF GHG-1, PDF GHG-2</td>
</tr>
<tr>
<td>Natural Gas Demand</td>
<td>3,620 kBTU/year</td>
<td>3,298 kBTU/year(^{(1)})</td>
<td>PDF GHG-1</td>
</tr>
</tbody>
</table>

\(^{(1)}\)Includes additional 5 percent reduction beyond CalEEMod estimate to account for installation of solar water heaters and programmable thermostats.

Source: CalEEMod Version 2016.3.2. See Appendix B for model output.

Implementation of Project Design Features GHG-1 and GHG-2 would reduce electricity and natural gas use, as shown in Table 4.13-3, by requiring installation of energy-efficient or solar-powered appliances and heating and cooling systems, use of energy efficient lighting, exceeding Title 24 requirements, and generating 230,000 kilowatt hours (kWh) of solar energy per year on the project site. In addition, the project would result in fossil fuel
demand from vehicle trips to and from the site, as shown in Table 4.13-3. Project Design Features GHG-4 and GHG-5 reduce VMT by promoting alternative modes of transportation for employee commutes, reducing commute trips by promoting alternative work schedules, and encouraging electric vehicle use. Reducing the annual VMT would reduce the total fossil fuel demand of the project.

Appendix F of the CEQA Guidelines identifies three criteria for determining whether energy use is wise and efficient:

1. Decreasing overall per capita energy consumption,
2. Decreasing reliance on fossil fuels such as coal, natural gas and oil, and
3. Increasing reliance on renewable energy sources.

As demonstrated above, the proposed project would decrease per capita energy consumption by reducing energy demand compared to a typical energy demand for the proposed land uses through implementation of Project Design Features GHG-1, GHG-2, GHG-4, and GHG-5. Electricity, natural gas, and fossil fuel consumption would be decreased compared to typical demand calculated by the CalEEMod model. The project would decrease reliance on fossil fuel by requiring installation of solar water heaters and programmable thermostats to reduce natural gas use, and promotion of alternative modes of transportation, including electric vehicle use to reduce fuel consumption. The project would increase reliance on renewable energy sources by generating solar energy on site.

**Significance of Impact**
The proposed project energy demand would not result in wasteful, inefficient, or unnecessary consumption of energy. This impact would be less than significant.

**Mitigation Measures**
No mitigation measures are required.

### 4.13.6 Cumulative Impacts

#### 4.13.6.1 Issue 1 - Wastewater Treatment Requirements

The geographic context for the analysis of cumulative impacts in regards to wastewater treatment is defined as the wastewater service area for the San Elijo Water Reclamation Facility. A significant cumulative impact would result if the wastewater generation and treatment demand from the cumulative projects identified in Table 2-2 as well as other cumulative impacts within the wastewater service area were to exceed the wastewater treatment requirements of the Regional Water Quality Control Board. In general, the service area is largely built out and cumulative projects are not likely to be large in scale. Some cumulative projects, such as roadway, corridor and trails projects would not
generate wastewater. While other cumulative projects would generate additional wastewater, such as the North Bluff Resort Specific Plan project, these projects would propose typical residential or commercial uses that would not have the potential to exceed the wastewater treatment requirements of the RWQCB. In addition, the typical types of uses that the project proposes are not likely to exceed the wastewater treatment requirements of the RWQCB. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with wastewater treatment.

4.13.6.2 Issue 2 - Treatment Facilities

The geographic context for the analysis of cumulative impacts in regards to the need for construction or expansion of new water or wastewater treatment facilities is defined as the wastewater service area of the San Elijo Water Reclamation Facility and the water delivery service area of the SFID. A significant cumulative impact would occur if the cumulative projects’ water and wastewater generation needs were to result in the need for new or expanded water and/or wastewater facilities to be constructed, in turn resulting in a significant environmental impact. In general, cumulative projects would be consistent with long-range planning documents that account for future water and sewer demands. The City’s 2000 Sewer Master Plan calculates future flow projections to determine the upgrades necessary to adequately serve the City’s wastewater collection and conveyance needs under build-out of the General Plan (City of Solana Beach 2014a). The SFID 2009 Asset Management Master Plan identifies capital improvement projects (CIPs) required needed to meet the water needs of its service area. Therefore, future cumulative development that is consistent with these plans is not expected to result in significant impacts related to wastewater treatment facilities. Under CEQA, cumulative projects within the San Elijo Water Reclamation Facility service area would be analyzed, and, if necessary, the environmental impacts of any necessary facilities upgrades would be mitigated in accordance with federal, state, and local requirements or the projects would not be approved. The proposed project would not result in the need to increase sizing of existing sewer and water pipelines and/or treatment facilities. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with the need for new or upgraded water or sewer treatment facilities that could result in environmental effects.

4.13.6.3 Issue 3 - Drainage Facilities

The geographic context for the analysis of cumulative impacts in regards to the need for new or upgraded stormwater drainage facilities is defined as the City’s stormwater drainage system. A significant cumulative impact would result if combined cumulative projects would require the need for new or expanded stormwater drainage facilities that result in significant environmental effects. In general, the majority of cumulative projects in the City, including those identified in Table 2-2, would be consistent with long-range planning documents that account for future stormwater infrastructure needs. An
evaluation for the need for localized improvements to the storm drain system would be required as part of the project design and review of any cumulative projects within the City. Any required improvements would be analyzed and, if necessary, mitigated in accordance with Federal, State, and Local requirements to any potential environmental effects. In addition, all proposed storm drain facility improvements would be required to be designed and constructed in accordance with established criteria in the SBMC and other regulations, standards, or practices. In addition, construction of the proposed project would not exceed the capacity of existing or planned stormwater drainage systems. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with the need for new or expanded storm water drainage facilities.

4.13.6.4 Issue 4 - Water Supply

The geographic context for the analysis of cumulative impacts in regards to water supply is the SFID service area. A significant cumulative impact would occur if the combination of projects within the SFID resulted in insufficient water supplies, which would result in the need for new or expanded entitlements. Cumulative projects in the SFID service area, including some of those listed in Table 2-2, would result in growth and a related increase in demand for water. The SFID 2015 UWMP addresses future (2015 to 2040) water supply and demand based on planned growth identified in adopted planning documents, including the City’s General Plan. Although some population and demand increases were anticipated by SFID between 2015 and 2040, it expected the increases to be relatively minor. As discussed in Section 4.13.5.4, SFID is planning for the challenges of future water supply shortfalls associated with climate change by investing in local potable reuse projects and local demand reduction measures. Regionally, SDCWA is working to diversify local supplies and increase reliability through implementation of local water resources projects, including indirect potable reuse and seawater desalination. Overall, SFID’s projected minor increases in water demand, coupled with implementation of demand management measures result in a continued reduction and subsequent flattening of demands over the 2015-2040 planning horizon (SFID 2016). Sufficient water supplies would be available to serve cumulative projects consistent with applicable planning documents, such as the City’s General Plan. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with sufficient water supplies.

4.13.6.5 Issue 5 - Wastewater Treatment Capacity

The geographic context for the analysis of cumulative impacts related to wastewater treatment capacity is the wastewater service area for the San Elijo Water Reclamation Facility. A significant cumulative impact would occur if combined cumulative projects would result in inadequate wastewater treatment capacity. Cumulative projects in the wastewater service area, including some of those listed in Table 2-2, would result in growth and a related increase in demand for wastewater treatment. The City prepared
a Sewer Master Plan (2000) to calculate future flow projections to determine the upgrades necessary to adequately serve the City’s wastewater collection and conveyance needs under build-out of the General Plan (City of Solana Beach 2014a). These flows were based on redevelopment of all residential and commercial properties of more than one acre. As future development of properties within the city would likely increase demand, there may be a need to increase sizing of existing pipelines and mains for wastewater. Future cumulative growth consistent with the adopted General Plan is anticipated to be served with adequate wastewater treatment capacity from the San Elijo Water Reclamation Facility. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant impact to wastewater treatment capacity.

4.13.6.6 Issue 6 - Landfill Capacity

The geographic context for the analysis of cumulative impacts related to landfill capacity is the service areas of the Sycamore and Otay Landfills. A significant cumulative impact would occur if cumulative projects would not be served by a landfill with sufficient permitted capacity to accommodate the projects’ combined solid waste disposal needs. Cumulative projects in the landfill service areas, including those listed in Table 2-2, would require additional solid waste disposal needs associated with the disposal of construction-related and operational waste. The Sycamore Landfill expansion was recently approved to meet the region’s long-term solid waste needs. With the expansion, the landfill will be operational until approximately 2042 with a capacity of 5,000 tons per day. The increase in solid waste disposal needs from the proposed project and cumulative projects would not exceed the existing permitted landfill capacity of the Sycamore Landfill. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant impact associated with landfill capacity.

4.13.6.7 Issue 7 - Solid Waste Compliance

The geographic context for the analysis of cumulative impacts related to solid waste compliance is defined as the City of Solana Beach. All cumulative projects identified in Table 2-2 are required to comply with numerous City regulations, including Chapter 6.36 of the SBMC. Cumulative projects may not begin construction/demolition activities until the required WMP is approved by the City. Cumulative projects would also be required to comply with all State regulations covering solid waste disposal. Therefore, a significant cumulative impact would not occur. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant impact associated with solid waste compliance.

4.13.6.8 Issue 8 – Energy

The geographic context for the analysis of cumulative impacts related to energy is the SDG&E and SEA service area. A significant cumulative impact would occur if the
proposed project, plus all future projects within SDG&E’s and SEA’s service area, would result in wasteful, inefficient, or unnecessary consumption of energy. Cumulative projects would require energy for construction and operational activities. However, compared to current projects, future projects would have increasingly reduced per-capital energy consumption, as a result of compliance with existing energy standards such as the RPS, Title 24 building energy standards, and energy-related policies in the Land Use Element of the City’s General Plan.

At the local level, the City’s CAP addresses climate change by focusing on major sources of GHG emissions (including energy use) in the City and establishing a detailed long-term strategy to achieve GHG emissions reduction targets (City of Solana Beach 2014b). Consequently, this would result in an overall decrease in energy demand.

Additionally, the City’s General Plan Land Use Element includes energy-related goals and policies that would apply to future cumulative projects development, including the following:

**Goal LU-3.0:** To be a leader in efforts to reduce greenhouse gas emissions

- **Policy LU-3.4:** To reduce energy consumption and emissions from new buildings and significant remodels, encourage building placement, design, and construction techniques that minimize energy consumption; require the installation of EnergyStar® appliances and/or other high efficiency facilities; and promote other green building practices, including obtaining LEED (Leadership in Energy and Environmental Design) certification, where feasible.

- **Policy LU-3.5:** Reduce the urban heat island effect through sustainable design and building practices, cool roofs, green roofs, light colored pavement, shade trees, shading, and other means.

- **Policy LU-3.6:** Promote the use of solar panels, solar hot water heaters, and other green energy sources in conjunction with new development and retrofits to existing structures.

- **Policy LU-3.7:** Consistent with the California Public Utilities Commission’s California Long Term Energy Efficiency Strategic Plan, strive to achieve zero net energy use for new residential development by 2020 and zero net energy use for new commercial development by 2030.

At the regional level, per-capita energy consumption has been declining (CSE 2018) while the percentage of energy produced by SDG&E from non-fossil fuel sources has gone up (SDG&E 2018b). SDG&E encourages the efficient use of energy through its Smart Grid, EcoChoice, and rebate programs. SDG&E plans for long-term and peak period capacity needs through long-term procurement plans.
As previously noted, the City of Solana Beach has formed and will be launching Solana Energy Alliance (SEA), a Community Choice Aggregation program. SEA will be responsible for procuring energy for Solana Beach's SDGE electrical customers who do not opt out of SEA. SEA will provide two levels of renewable energy for its customers. The base level, SEA Choice, will provide 50 percent of the electricity from renewable sources and 75 percent will be from greenhouse gas-free sources. Customers will also have the option to select a 100 percent renewable energy product, SEA Green.

As explained in Section 4.13.5.8, the proposed project would incorporate project design features that would decrease per capita energy consumption. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with the wasteful, inefficient, or unnecessary consumption of energy.
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4.14 Biological Resources

This section describes the existing conditions related to biological resources on the project site, and evaluates the potential physical environmental effects to biological resources that would result from the development of the proposed project. This section also includes a description of the federal, state, regional, and local regulations protecting sensitive natural resources including the biological resources within the project site. The information in this section is based on the results of the 2018 Biological Resources Assessment for the Solana 101 Mixed-Use Project prepared by Harris & Associates (Appendix M).

4.14.1 Environmental Setting

The proposed 1.95-acre project site is rectangular and is bordered by a shopping center to the north, Highway 101 to the east, Dahlia Drive to the south, and South Sierra Avenue to the west.

The topography of the project site varies from an elevation of 61 to 68 feet above mean sea level. The northern half of the project site was formerly used as a mobile home park, and still contains 24 vacant concrete pads that were once used for trailers and mobile homes. This area also contains an access road, a variety of landscape trees, and debris from the former mobile home park. The eastern portion of the southern half of the project site contains a one-story metal building, which was formerly part of a gas station and is currently used as a temporary office space, and a paved parking area. Two rusted metal poles that formerly displayed signage and a small, abandoned coffee kiosk are also present in the southeastern portion of the site. The southwestern portion of the site contains two vacated, one-story, single-family residences and a one-story retail commercial building with detached garage. The southern half of the project site also includes asphalt driveways, parking areas, and landscape trees and shrubs. As part of the proposed project’s structure development permit application, temporary story poles were erected on the proposed project site in November 2017 to show the height and general outline of the proposed structures.

4.14.1.1 Data Review and Field Survey

Prior to performing fieldwork within the project site, a review of existing information (including previous maps, surveys, reports, and plans) and a search of the California Department of Fish and Wildlife’s (CDFW) California Natural Diversity Database (CNDDDB) and U.S. Fish and Wildlife Service (USFWS) sensitive species database were performed.

Harris & Associates’ biologist Melissa Tu and environmental analyst Haley Johnson conducted a biological resources pedestrian survey of the project site on February 12, 2018. Vegetation communities were assessed and mapped on a color aerial. Animal
species observed directly or detected from calls, tracks, scat, nests, or other signs were documented. All plant species observed onsite were also documented.

4.14.1.2 Vegetation Communities and Land Cover Types

No native species or vegetation communities were identified within the proposed project area. The 1.95-acre site contains developed areas and disturbed vegetation consisting of non-native ornamental and non-native annual plant species, as shown on Figure 4.14-1. The developed area covers 1.01 acres and the disturbed area covers 0.94 acres of the project site. No jurisdictional wetlands or waters occur within the project site. The areas surrounding the proposed project site are also disturbed or developed areas that do not support native habitat. A description of each land cover type is provided below.

Disturbed/Ornamental
The mature ornamental landscaping within the project site consists of abandoned fruit trees including avocado (Persea americana), loquat (Eriobotrya japonica), and peach or plum (Prunus sp.) trees; large ornamental pine (Pinus sp.), gum trees (Eucalyptus sp.), and ficus trees (Ficus spp.); Bougainvillea (Bougainvillea), and English ivy (Hedera helix). The disturbed habitat consists of annual ruderal species including bromes (Bromus sp.), wild oats (Avena sp.), cheeseweed (Malva parviflora), and filaree (Erodium sp.) which dominates the unpaved areas.

Developed
The developed areas on the project site include concrete pads from former mobile homes, existing residential and commercial buildings, driveways, and paved parking areas.

4.14.1.3 General Wildlife

No sensitive species were observed onsite. Table 4.14-1 presents the six bird species that were observed onsite during the February 12, 2018 site visit. The bird species observed onsite are typical for disturbed and landscaped areas. The mature trees onsite offer cover, foraging, and potential nesting for birds.

Table 4.14-1 includes the order, family, common name, and scientific name for each species. American crow (Corvus brachyrhynchos) was the most common bird species observed. An American crow was observed flying over the site and a group of six crows were heard and observed west of the site. American crows are not likely to nest on site but are likely to harass species that nest onsite. Anna’s hummingbird (Calypte anna) and house finch (Haemorhous mexicanus) were both observed and are likely to nest within the site. Two northern mockingbirds (Mimus polyglottos) were observed within the northwestern portion of the site. Northern mockingbird has a moderate potential to nest within the site. Yellow-rumped warbler (Setophaga coronata) is a winter visitor and migrates to higher elevations to nest. A red-shouldered hawk (Buteo lineatus) landed on
a story pole during the site visit and could forage for rodents within the site. Hawks are not likely to nest within the site due to the lack of native habitat; lack of larger trees; disturbance; and surrounding development. Hawks are likely to nest south of site within or near San Dieguito Lagoon or north of the site within or near San Elijo Lagoon.

<table>
<thead>
<tr>
<th>Table 4.14-1 Bird Species Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Name</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>ACCIPITRIFORMES</td>
</tr>
<tr>
<td>Hawk, Eagle, Kite, Harrier Family</td>
</tr>
<tr>
<td>Red-shouldered hawk</td>
</tr>
<tr>
<td>CAPRIMULGIFORMES</td>
</tr>
<tr>
<td>Hummingbird Family</td>
</tr>
<tr>
<td>Anna’s hummingbird</td>
</tr>
<tr>
<td>PASSERIFORMES</td>
</tr>
<tr>
<td>Corvid Family</td>
</tr>
<tr>
<td>American crow</td>
</tr>
<tr>
<td>Finch Family</td>
</tr>
<tr>
<td>House finch</td>
</tr>
<tr>
<td>Mimid Family</td>
</tr>
<tr>
<td>Northern mockingbird</td>
</tr>
<tr>
<td>Wood-warbler Family</td>
</tr>
<tr>
<td>Yellow-rumped warbler</td>
</tr>
</tbody>
</table>

The pine (Pinus sp.), ficus (Ficus spp.), gum (Eucalyptus sp.), Brazilian pepper (Schinus terebinthifolia), avocado, and other trees within the project site provide nesting habitat for birds. Two unoccupied nests from a prior year were observed in ficus trees in the southwestern portion of the site. The old buildings in the southwestern portion of the site also provide bird and rodent roosting and nesting habitat.

No mammals were directly observed during the site visit. Many mammal species are nocturnal and can be detected during daytime surveys by observing their signs, such as tracks, scat, or burrows. The weedy ruderal habitat within the western portion of the project area provides burrowing and foraging opportunities for a variety of common small mammal species. Numerous Botta’s pocket gopher (Thomomys bottae) mounds were observed onsite. Due to the lack of native habitat, the site is not likely to support special status mammal species.

Piles of trash and sticks provide nesting and foraging habitat for other small mammals. Large English ivy (Hedera helix) bushes are also likely to support rodent species.
No reptiles or amphibians were observed but the site is likely to support western fence lizard (*Sceloporus occidentalis*) and western side-blotched lizard (*Uta stansburiana elegans*).

### 4.14.1.4 Special-status species

No special-status plant or wildlife species were observed during the site visit. According to the CNDDB search, the following three special status species, including one reptile and two plant species, historically occurred within 0.25 mile of the proposed project site (CDFW 2018).

- California glossy snake (*Arizona elegans occidentalis*), a CDFW Species of Special Concern, was observed in 1946.
- Sea dahlia (*Leptosyne maritima*), a California Rare Plant Rank 2B.2\(^1\), was observed in 1969.
- Sand-loving wallflower (*Erysimum ammophilum*) a California Rare Plant Rank 1B.2\(^2\), was observed in 1967.

Due to the development surrounding the project site, and the age of these sittings, the most recent of which was nearly 50 years ago, California glossy snake, sea dahlia, and sand-loving wallflower are not likely to occur in the project site. Furthermore, no special status-species are likely to occur within the project site due to the lack of native vegetation and the fact that the site is surrounded by development.

### 4.14.2 Regulatory Framework

#### 4.14.2.1 Federal

**Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA) (16 U.S. Code [USC] 703) enacts the provisions of treaties between the U.S., Great Britain, Mexico, Japan, and Russia and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703, 50 CFR 21, 50 CFR 10).

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\(^1\) 2B = Species rare, threatened, or endangered in California but which are more common elsewhere. These species are eligible for state listing.

\(^2\) 1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
4.14.2.2 State

California Coastal Act

One of the chief objectives of the California Coastal Act, enacted in 1976, is the preservation, protection, and enhancement of coastal resources, including land and marine habitats, and water quality. The rarest and most ecologically important habitats are protected from development. Section 30107.5 of the Coastal Act defines an environmentally sensitive area as “any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.”

The California Coastal Commission (CCC) is responsible for implementing the Coastal Act. New development and redevelopment projects that are within the Coastal Zone are required to apply for a Coastal Development Permit through the CCC prior to construction. However, if a City has a certified Local Coastal Plan (LCP) then most projects will not need to go to the CCC. The Solana Beach City Council adopted an LCP Land Use Plan (LUP) on February 27, 2013 (amended and certified on June 11, 2014). Although the LUP has been certified by the CCC, the Local Implementation Plan (LIP) portion of the LCP has not yet been certified; as such, the provisions of the LUP are considered by the Coastal Commission to be advisory rather than mandatory at this time.

California Fish and Game Code

The California Fish and Game (CFG) Code describes regulations pertaining to protection of wildlife species, and provides protection of these species from unauthorized take. The CFG Code defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

Certain species are considered fully protected, meaning that the CFG Code explicitly prohibits all take of individuals of these species, except for take required for scientific research, which may be authorized by CDFW. Section 5050 of the CFG Code lists fully protected amphibians and reptiles, Section 5515 lists fully protected fishes, Section 3511 lists fully protected birds, and Section 4700 lists fully protected mammals. The CFG Code provides less stringent protection for other species, prohibiting most take, but permitting CDFW to issue regulations authorizing take under certain circumstances. Eggs and nests of all birds are protected under Section 3503, nesting birds (including raptors and passerines) are protected under Sections 3513 and 3503.5, birds of prey are protected under Section 3503.5, migratory non-game birds are protected under Section 3800, and other specified birds are protected under Section 3505.

Bats and other non-game mammals are protected by CFG Code Section 4150, which states that all non-game mammals or parts thereof may not be taken or possessed
except as provided otherwise in the CFG Code or in accordance with regulations adopted by the commission. Activities resulting in mortality of nongame mammals (e.g., destruction of an occupied nonbreeding bat roost, resulting in the death of bats), or disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), may be considered “take” by the CDFW.

4.14.2.3 Regional

North County Multiple Habitat Conservation Program
The North County Multiple Habitat Conservation Program (MHCP) is a comprehensive conservation planning process that addresses the needs of multiple plants and animal species in northwestern San Diego County. The North County MHCP encompasses the cities of Solana Beach, Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, and Vista. Its goal is to conserve approximately 19,000 acres of habitat, of which roughly 8,800 acres (46 percent) are already in public ownership and contribute toward the habitat preserve system for the protection of more than 80 rare, threatened, or endangered species.

In order to participate in the program, the participating jurisdictions must implement their portions of the MHCP through citywide “subarea” plans, which describe the specific policies that each city will institute for the MHCP. Participation by a local jurisdiction allows for the authority to issue take authorizations for impacts to sensitive biological resources within the city boundary. Issuance of take authorization is based on successful completion of the MHCP plan, city prepared subarea plans, implementing agreements, and environmental documentation. Local jurisdictions are required to prepare individual subarea plans that comply with all relevant elements of the MHCP and be accompanied by their own environmental compliance documents.

Currently the only jurisdiction to implement a subarea plan is the City of Carlsbad. The City of Solana Beach has not adopted a subarea plan because it does not anticipate the need to issue take authorizations given the level of build-out, small amount of native habitat remaining within the City and low potential to impact sensitive biological resources. Therefore, the City of Solana Beach has not adopted a subarea plan implemented the North County MHCP within the city.

4.14.2.4 Local

City of Solana Beach General Plan
The Open Space and Conservation Element of the City’s General Plan includes a goal, objective and policies that pertain to the protection of biological resources.

Open Space and Conservation Element
The Conservation and Open Space Element of the General Plan is a combined element that describes existing conditions and issues related to water resources, air resources,
CHAPTER 4. ENVIRONMENTAL ANALYSIS
4.14 Biological Resources

cultural resources, energy resources, and open space/visual resources. The key issues related to conservation and open space in the city involve the potential effects of buildout on natural and cultural resources. Further, the scenic quality of Solana Beach’s open spaces and visual features is important. The element contains goals, objectives, and policies established to ensure that natural resources within the city are managed wisely. Goal 3.1, Objective 5, and related policies are provided below.

**GOAL 3.1:** To protect and conserve the city’s natural and cultural resources.

**Objective 5.0:** Preserve important biological habitat and protect sensitive, rare, and endangered species of flora and fauna.

- **Policy 5.a:** The city shall require that all development proposals provide adequate mitigation measures for identified significant biological resources, including selective preservation, replanting, sensitive site planning techniques, the provision of replacement habitat, and/or other appropriate measures.
- **Policy 5.b:** The city shall preserve sensitive habitat areas as permanent open space.
- **Policy 5.c:** The city shall establish a heritage tree program which identifies mature trees that are to be preserved and protected from public and private development activities. Further, this program shall set forth procedures to be followed by the city staff in the site plan review process to ensure compliance with the program and shall outline appropriate measures to preserve mature trees.
- **Policy 5.d:** Permanent open space preserves designated for the purpose of protecting biological resources shall be managed primarily for their inherent ecological value. Recreational uses shall be considered a secondary activity. The use of hiking and riding trails shall be monitored periodically by a qualified biologist to determine their impact and viability as uses compatible with the biological preserve.
- **Policy 5.e:** The city shall cooperate with other appropriate agencies as necessary to preserve significant habitats in rapidly developing areas, including the acquisition of important habitats.
- **Policy 5.f:** The city shall enforce measures established elsewhere in this element to minimize existing and potential future impacts upon San Elijo Lagoon and other important marine ecosystems.

**City of Solana Beach Local Coastal Plan**
The Solana Beach City Council adopted a LCP Land Use Plan (LUP) on February 27, 2013 (amended and certified on June 11, 2014). Although the LUP has been certified by the California Coastal Commission, the Local Implementation Plan (LIP) portion of the LCP has not yet been certified; as such, the provisions of the LUP are considered by the
Coastal Commission to be advisory rather than mandatory at this time. The purpose of the LUP is to implement the State’s goals for the coastal zone. The City’s LUP establishes long-term goals that promote the beneficial use of lands in the city and the beach and shoreline for residents and visitors alike. The LUP addresses public access and recreation, marine and land uses, hazards shoreline bluff development, scenic and visual resources, and public works.

The LUP addresses biological resources issues through the inclusion of goals and policies. The LUP Policies 3.1 – 3.29 address Environmentally Sensitive Habitat Areas (ESHAs). According to the Citywide Biological Resources Map from the City’s LUP, the project site is designated as “developed” and does not support any ESHAs or candidate, sensitive, or special status species or habitat communities (City of Solana Beach 2013).

### 4.14.3 Impact Significance Criteria

Thresholds used to evaluate potential biological resources impacts are based on applicable criteria in Appendix G of the CEQA Guidelines. A significant impact would occur if the proposed project would:

- **Issue 1**: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- **Issue 2**: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- **Issue 3**: Have a substantial adverse effect on federally protected wetlands as defined by U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- **Issue 4**: Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- **Issue 5**: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- **Issue 6**: Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Conservation Community Plan (NCCP), or other approved local, regional, or state HCP.
4.14.4 Method of Analysis

This section of the EIR gives full consideration to the development of the proposed project and acknowledges the physical changes that would occur to the existing setting from implementation of the proposed project. A list of methods for the biological resources database search and field survey are provided in Section 4.14.1.1.

For purposes of the analysis of biological resources, species would be considered sensitive if they are:

- Listed or proposed for listing by state or federal agencies as threatened or endangered;
- On List 1B (considered endangered throughout its range) or List 2 (considered endangered in California but more common elsewhere) of the California Rare Plant Rank (CRPR; formerly CNPS, 2018);
- Within the MHCP list of species evaluated for coverage or list of narrow endemic plant species; or
- Considered fully protected, sensitive, rare, endangered, or threatened by the CNDDB, or other local conservation organizations or specialists. California fully protected is a designation adopted by the State of California prior to the creation of the State Endangered Species Act and is intended to provide protection from harm or harassment.

4.14.5 Project Impacts and Mitigation

4.14.5.1 Issue 1 – Sensitive Species

Would implementation of 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?

Impact Analysis

No sensitive plant or animal species identified as a candidate, sensitive, or special status species were observed onsite or through the CNDDB search. According to the Citywide Biological Resources Map from the City’s LUP, the project site is designated as “developed” and does not support any candidate, sensitive, or special status species or habitat communities (City of Solana Beach 2013). Vegetation on the project site consists of mature, non-native landscape trees and shrubs that would be removed prior to project construction. The mature landscape trees on the site have the potential to provide nesting habitat for birds protected under the MBTA and CFG Code.
Compliance with the MBTA and CFG Code (§3503) under which it is unlawful to “take, possess, or needlessly destroy” avian nests or eggs would be required. Due to the presence of mature trees and shrubs onsite, implementation of the proposed project could result in temporary impacts to active bird nests if site development activities occur during the bird breeding season (January 1 through September 15). Any activities that occur during the nesting/breeding season of birds such as raptors (e.g., Cooper’s hawk [Accipiter cooperii] and red-tailed hawk [Buteo jamaicensis]), and/or birds protected by the federal MBTA could result in a potentially significant impact.

**Significance of Impact**
Construction impacts to nesting birds protected under the CFG Code and MBTA would be potentially significant and mitigation would be required.

**Mitigation Measures**
Implementation of mitigation measure BIO-1 would reduce potential impacts to nesting birds to a less than significant level.

**BIO-1 Pre-Construction Nesting Birds Survey.** If construction activity occurs during the breeding season for raptors and other birds (January 1 through September 15), the project applicant shall retain a qualified biologist to conduct a biological survey for nesting bird species within the proposed impact area and a 300-foot buffer within 72 hours prior to construction. This survey is necessary to ensure avoidance of impacts to nesting raptors (e.g., Cooper’s hawk and red-tailed hawk) and/or birds protected by the federal Migratory Bird Treaty Act. The qualified biologist shall submit a written report of the survey results to the City’s Community Development Department for review and approval prior to the commencement of any construction activity on the project site. If any active nests are detected, the area shall be flagged and mapped on the construction plans along with a minimum 300-foot buffer and up to a maximum of 500 feet for raptors, as determined by the project biologist, and shall be avoided until the nesting cycle is complete. Subject to consultation with and the prior written approval of the City’s Community Development Department, the project biologist may reduce the avoidance buffer if a reduced buffer maintains protection of the nesting cycle of the avian species.

**Significance After Mitigation**
Implementation of mitigation measure BIO-1 would reduce the potential for project construction to affect birds protected under the CFG Code and MBTA. Implementation of mitigation measure BIO-1 would reduce impacts to a less than significant level.
4.14.5.2 Issue 2 – Sensitive Habitat

Would implementation of the proposed project 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?

Impact Analysis
The project site contains the following land cover types: disturbed/ornamental and developed. It does not support any riparian habitat or sensitive natural communities. Vegetation on the project site consists of mature, non-native landscape trees and shrubs that would be removed prior to project construction.

According to the Citywide Environmentally Sensitive Habitat Areas Map from the City’s LUP, the project site is designated as “developed” and does not support any riparian habitat or sensitive natural communities (City of Solana Beach 2013). Therefore, implementation of the proposed project would not result in a substantial adverse effect on a riparian habitat or sensitive natural community.

Significance of Impact
No riparian habitat or sensitive natural communities occur on the project site; therefore, implementation of the proposed project would not result in a substantial adverse effect on a riparian habitat or sensitive natural community. No impact would occur

Mitigation Measures
No mitigation measures are required.

4.14.5.3 Issue 3 – Wetlands

Would implementation of 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?

Impact Analysis
The project site contains the following land cover types: disturbed/ornamental and developed. It does not support any wetlands. According to the Citywide Environmentally Sensitive Habitat Areas Map from the LUP, the project site is designated as “developed” and does not support any wetland habitat (City of Solana Beach 2013). Therefore, implementation of the proposed project would not result in a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act.
Significance of Impact
No wetlands occur on the project site; therefore, implementation of the proposed project would not result in a substantial adverse effect to wetlands. No impact would occur.

Mitigation Measures
No mitigation measures are required.

4.14.5.4 Issue 4 – Wildlife Movement and Corridors

Would implementation of 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?

Impact Analysis
Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. The project site consists of disturbed/ornamental and developed land cover types that are surrounded by existing development; thus, the project does not support any wildlife corridors or linkages. Wildlife corridors and linkages occur at the southern and northern limits of the City at San Dieguito lagoon (approximately 0.5 mile south of the project site) and San Elijo Lagoon (approximately 1.0 mile north of the project site).

As stated above, the project site does not support any sensitive species or vegetation communities. Implementation of the proposed project would demolish the existing on-site structures and construct a new, mixed-use development. Due to the existing disturbed and developed character of the project site, redevelopment of the site would not result in substantial interference with the movement of any native wildlife species or impede the use of native wildlife nursery sites. Therefore, permanent or temporary effects on wildlife corridors from implementation of the proposed project would not occur.

Significance of Impact
No wildlife corridors occur on the project site; therefore, implementation of the proposed project would not result in a substantial adverse effect to wildlife corridors. No impact would occur.

Mitigation Measures
No mitigation measures are required.

4.14.5.5 Issue 5 – Local Policies or Ordinances

Would implementation of the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
Impact Analysis

Objective 5.0 in the Conservation and Open Space Element of the General Plan is to preserve important biological habitat and protect sensitive, rare and endangered species of flora and fauna. As discussed above, the project site does not support any sensitive species or vegetation communities. However, removal of existing trees and shrubs prior to construction of the proposed project could impact nesting birds protected by the MBTA and CFG code. If tree and shrub removal occurs during the bird nesting season (January 1 to September 15) then a mitigation measure BIO-1 would be implemented to reduce the potential impact to a less than significant level. With implementation of mitigation measure BIO-1, the proposed project would comply with Objective 5.0 of the Conservation and Open Space Element.

New landscaping would be incorporated into the proposed project to offset the loss of existing, onsite trees and shrubs. The conceptual landscape plan for the proposed project provided in Figure 3-5 is consistent with the City’s Landscaping Ordinance. Therefore, implementation of the proposed project would not conflict with any local policies or ordinances related to biological resources.

Significance of Impact

With implementation of mitigation measure BIO-1, the proposed project would not conflict with any local policies or ordinances related to biological resources. Impacts would be mitigated to a less than significant level.

Mitigation Measures

Implementation of mitigation measure BIO-1 (discussed in Section 4.14.5.1) would reduce potential conflicts with applicable policies or ordinances to a less than significant level.

4.14.5.6 Issue 6 – Habitat Conservation Plans or Natural Community Conservation Plans

Would implementation of the proposed project conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan?

Impact Analysis

The North County MHCP is a comprehensive conservation planning process that addresses the needs of multiple plant and animal species in northwestern San Diego County. The North County MHCP encompasses the cities of Solana Beach, Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, and Vista. Its goal is to conserve approximately 19,000 acres of habitat, of which roughly 8,800 acres (46 percent) are already in public ownership and contribute toward the habitat preserve system for the protection of more than 80 rare, threatened, or endangered species. The City does not anticipate the need to issue take authorizations for endangered species given the level
of build-out, small amount of native habitat remaining within the city and low potential to impact sensitive biological resources. Thus, the City does not have an adopted MHCP subarea plan and is not subject to the provisions of an adopted HCP, NCCP or other approved local, regional or state habitat conservation plan.

In addition, the project site contains developed and disturbed/ornamental land cover types. According to the Citywide Biological Resources Map from the City’s LUP, the project site is designated as “developed” and does not support any sensitive habitat communities or species that would require conservation.

**Significance of Impact**

No sensitive species or habitat communities occur on the project site. The City has not adopted an HCP, NCCP or other local, regional or state habitat conservation plan to protect sensitive species or habitat. Therefore, the proposed project would not conflict with the provisions of an adopted HCP, NCCP or other approved local, regional or state habitat conservation plan. No impact would occur.

**Mitigation Measures**

No mitigation measures are required.

### 4.14.6 Cumulative Impacts

Would implementation of the proposed project have a cumulatively considerable contribution to a cumulative biological resources impact considering past, present, and probable future projects?

**4.14.6.1 Issue 1 – Sensitive Species**

The geographic context for the analysis of cumulative impacts relative to sensitive species is the City of Solana Beach. As described above, the City is mostly built-out and only a small amount of native habitat remains within the city. Cumulative projects, including those listed in Table 2-2, would have limited potential to impact sensitive species other than birds protected under the CFG Code and MBTA. Similar to the proposed project, cumulative projects that would remove trees or shrubs would be required to mitigate impacts by conducting pre-construction nest surveys which would reduce impacts to a less than significant level. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact to sensitive species.

**4.14.6.2 Issue 2 – Sensitive Habitat**

The geographic context for the analysis of cumulative impacts relative to sensitive habitat is the City of Solana Beach. As described above, the City is mostly built-out and only a small amount of native habitat remains within the city. Cumulative projects,
including those listed in Table 2-2, would have limited potential to impact sensitive habitat. No sensitive habitat occurs on the project site or surrounding area. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact to sensitive habitat.

### 4.14.6.3 Issue 3 – Wetlands

The geographic context for the analysis of cumulative impacts relative to wetlands is the City of Solana Beach. As described above, the City is mostly built-out and only a small amount of native habitat remains within the city. Cumulative projects, including those listed in Table 2-2, would have limited potential to impact wetlands. No wetlands occur on the project site or surrounding area. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with wetlands.

### 4.14.6.4 Issue 4 – Wildlife Movement and Corridors

The geographic context for the analysis of cumulative impacts relative to wildlife movement and corridors is the City of Solana Beach. As described above, wildlife corridors and linkages occur at the southern and northern limits of the City at San Dieguito Lagoon (approximately 0.5 mile south of the project site) and San Elijo Lagoon (approximately 1.0 mile north of the project site). The nearest cumulative projects to these areas are the I-5 North Coast Corridor and Harbaugh Trails Public Open Space and Trails projects near San Elijo Lagoon and the North Bluff Resort Specific Plan and Del Mar Surfside Race Place projects near San Dieguito Lagoon. Due to the nature of these projects and the distance of these projects to the existing wildlife corridors and linkages, a significant cumulative impact is not likely to occur. As discussed above, the project does not support any wildlife corridors or linkages. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with wildlife movement and corridors.

### 4.14.6.5 Issue 5 – Local Policies or Ordinances

The geographic context for the analysis of cumulative impacts relative to local biological resources policies and ordinances is defined as the City of Solana Beach. It is anticipated that cumulative projects would be consistent with the City of Solana Beach General Plan, LUP and other existing local policies, or require mitigation measures or design review to ensure consistency, in order for project approvals to occur. Therefore, it is anticipated that cumulative development would be consistent with applicable plans or policies, and would not result in a significant cumulative impact. With implementation of mitigation measure BIO-1, the proposed project would comply with applicable local policies and ordinances. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with compliance with local policies or ordinances.
4.14.6.6 Issue 6 – Habitat Conservation Plans or Natural Community Conservation Plans

The geographic context for the analysis of cumulative impacts relative to habitat conservation plans is defined as the North County MHCP area. Cumulative projects include those identified by the City and listed in Table 2-2, as well as the planned buildout under the General Plans of other jurisdictions within the North County MHCP area.

At the present time, only the City of Carlsbad has an adopted subarea plan implementing the MHCP. The remaining jurisdictions, including Solana Beach, have not adopted MHPA subarea plans. It is anticipated that development of future cumulative projects would undergo CEQA review, which would require a consistency analysis with applicable HCPs and NCCPs. As required by CEQA, cumulative projects would be consistent with the existing adopted plans, or require mitigation measures or design review to ensure consistency, in order for project approvals to occur. Therefore, it is anticipated that cumulative development would be consistent with applicable HCPs and NCCPs, which would result in less than significant cumulative impacts.

The City of Solana Beach does not have an adopted North County MHCP subarea plan and is not subject to the provisions of an adopted HCP or NCCP. Furthermore, the proposed project consists of developed areas and disturbed non-native ornamental and annual plant species, which are not sensitive and do not require conservation. Therefore, the proposed project, in combination with other cumulative projects, would not result in a significant cumulative impact associated with conflicts with HCPs or NCCPs.
Chapter 5. OTHER CEQA CONSIDERATIONS

Sections 15126.2 and 15128 of the CEQA Guidelines requires that the discussion of environmental impacts in an EIR address the following considerations:

- Effects found not to be significant
- Growth-inducing impacts of the proposed project
- Significant environmental effects that cannot be avoided if the proposed project is implemented
- Significant irreversible environmental effects that would be involved in the proposed project should it be implemented

These topics are discussed in Section 5.1, Section 5.2, Section 5.3, and Section 5.4, respectively.

5.1 Effects Found Not to be Significant

Section 15128 of the CEQA Guidelines requires that an EIR contain a brief statement disclosing the reasons why various possible significant effects of a proposed project were found not to be significant and, therefore, have not been discussed in detail in the EIR. The proposed project was reviewed against the applicable environmental issues contained in the Initial Study Checklist in Appendix G of the CEQA Guidelines. Environmental topics for which potentially significant impacts have been identified are addressed in Chapter 4, Existing Conditions, Impacts, and Mitigation, of this EIR. This chapter of the EIR addresses the following environmental topics for which impacts have been found not to be significant: agricultural resources and mineral resources.
5.1.1 Agricultural Resources

Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resource Agency, to non-agricultural use?

The proposed project is located in an area designated as “Urban and Built-up Land” on the San Diego County Important Farmland 2014 map (California Department of Conservation 2014), prepared pursuant to the Farmland Mapping and Monitoring Program. There are no areas designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance in the vicinity of the project site or within the city. Therefore, implementation of the proposed project would not convert farmland to non-agricultural use and no impact would occur.

Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The proposed project is located in an area designated as “General Commercial” on the City’s Official Zoning Map and does not support agricultural uses (City of Solana Beach 2007). There are no parcels zoned for agricultural use and no lands under Williamson Act contract within or in the vicinity of the project site. Implementation of the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract. Therefore, no impact would occur.

Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)) or timberland (as defined by Public Resources Code Section 4526)? Would the project result in the loss of forest land or conversion of forest land to non-forest use?

The proposed project is located in a largely built-out area of the city with surrounding parcels zoned for residential and commercial uses. There are no areas designated as forest land or timberland in the vicinity of the project site or within the city. Implementation of the proposed project would not conflict with existing zoning for, or cause rezoning of forest land or timberland. In addition, implementation of the proposed project would not result in the loss of forest land or conversion of forest land into non-forest use. Therefore, no impact would occur.

Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?
As discussed above, there are no areas designated as agricultural or forest land within or in the vicinity of the project site. Implementation of the proposed project would not involve other changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. Therefore, no impact would occur.

5.1.2 Mineral Resources

Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

According to the City's General Plan, there are no significant mineral resources available in the city (City of Solana Beach 2014b). Therefore, implementation of the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. No impact would occur.

Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

As discussed above, there are no known significant mineral resources in the city. Therefore, implementation of the proposed project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. No impact would occur.

5.2 Growth Inducement

As required by Section 15126.2(d) of the CEQA Guidelines, an EIR must include a discussion of the ways in which the proposed project could directly or indirectly foster economic development or population growth, or the construction of additional housing, and how that growth would, in turn, affect the surrounding environment. Growth can be induced in a number of ways, including the elimination of obstacles to growth, or through the stimulation of economic activity within the region. The elimination of obstacles to growth relates directly to the removal of infrastructure limitations or regulatory constraints that could result in growth unforeseen at the time of project approval. According to Section 15126.2(d) of the CEQA Guidelines, "it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

The proposed project would develop a mixed-use project consisting of 45,587 SF commercial office space; 4,142 SF commercial retail space; 10,562 SF indoor commercial restaurant space; 2,920 SF of outdoor patio space; 25 multi-family residential units; and two floors of underground parking totaling 366 spaces. Therefore, implementation of the proposed project would develop additional residential and commercial square footage, which would foster population and economic growth within the city. As discussed in
Section 4.10 (Population and Housing), implementation of the proposed project would provide 25 new housing units for approximately 57 residents, based on a population generation factor of 2.28 persons per household (City of Solana Beach 2014a). As the composition of future residents is unknown, it is conservatively assumed that 57 additional residents would be added to the City’s population; however, the proposed project may be partially or fully inhabited by existing Solana Beach residents who have relocated.

The projected population growth for the site is consistent with the population growth anticipated in the City’s General Plan Housing Element. The City’s Housing Element projected that the City’s population would increase by five percent, or approximately 687 residents between 2008 and 2020 (City of Solana Beach 2014b). The proposed project would increase the City’s population by approximately 57 residents, which represents approximately eight percent of the total anticipated population growth by 2020. Thus, the City’s General Plan Housing Element has accounted for the population growth from the proposed project. No unplanned residential growth would occur.

In addition, implementation of the proposed project would develop additional commercial office space, retail, and restaurant space, which could induce economic growth within the city. The proposed project’s contribution of an additional 61,998 square feet of commercial uses would serve residents within and around the project site and would also provide approximately 188 jobs within the city. Some jobs associated with the proposed project may be filled by residents of the new residential component of the project. Additionally, due to the central location within North County and easy access to a major freeway and other neighborhoods, the jobs created by the project would also be filled by a combination of Solana Beach residents and commuters from the surrounding areas. Therefore, implementation of the proposed project would induce some economic growth within the city. However, this economic growth would be in line with the City’s General Plan, which anticipates the City to gain approximately 1,247 new jobs by 2020, an increase of approximately 17 percent from 2008 (City of Solana Beach 2013). Thus, while the proposed project would induce both population and economic growth within the city, the expected population and economic growth has been accounted for within the City’s General Plan.

5.3 Significant and Unavoidable Environmental Impacts

As required by Section 15126.2(b) of the CEQA Guidelines, an EIR must identify any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The final determination of the significance of impacts and the feasibility of mitigation measures will be made by the City of Solana Beach as part of its certification action for the Final EIR. Sections 4.1 through 4.14 of this EIR provide a comprehensive identification of the proposed project’s potentially significant adverse environmental effects and any necessary mitigation measures, as well as the level of
significance both before and after mitigation. A summary of the environmental impacts and mitigation measures is contained in the Executive Summary of this EIR. Based on the analysis in Sections 4.1 through 4.14 of this EIR, the proposed project would not result in any significant and unavoidable environmental impacts. Mitigation measures have been identified that would reduce all potentially significant environmental impacts to a less than significant level.

5.4 Significant Irreversible Environmental Effects

Section 15126.2(c) of the CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the proposed project. Specifically, Section 15126.2(c) of the CEQA Guidelines states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as 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.

Generally, a project would result in significant irreversible environmental changes if:

- The primary and secondary impacts would generally commit future generations to similar uses;
- The project would involve a large commitment of nonrenewable resources;
- The project involves uses in which irreversible damage would result from any potential environmental accidents associated with the project; or
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

The proposed project would demolish the existing on-site structures to construct a new mixed-use development consisting of underground parking, commercial office space, retail and restaurant space, and 25 multi-family residential units. Development of the proposed project would result in the commitment of the project site to a commercial and residential use. Restoration of the project site to pre-developed conditions would not be feasible given the degree of disturbance, the built-out character of the area, and level of capital investment that would result from implementation of the project.
Resources that would be permanently and continually consumed by implementation of the project include water, electricity, natural gas, and fossil fuels; however, the amount and rate of consumption of these resources would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources. Construction of the proposed project would involve fossil fuel consumption from operation of diesel-powered construction equipment, and additional fossil fuel consumption from truck and worker vehicle trips. With respect to operational activities, the proposed project would decrease per capita energy consumption by reducing energy demand compared to a typical energy demand for the proposed land uses through implementation of Project Design Features PDF-GHG-1, PDF-GHG-2, PDF-GHG-3, PDF-GHG-4, and PDF-GHG-5. Electricity, natural gas, and fossil fuel consumption would be decreased compared to typical demand. The project would decrease reliance on fossil fuels by requiring installation of solar water heaters and programmable thermostats to reduce natural gas use, and promotion of alternative modes of transportation, including electric vehicle use to reduce fuel consumption. The project would also increase reliance on renewable energy sources by generating solar energy on site.

The State CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by an accident associated with the proposed project. As discussed in Section 4.6, Hazards and Hazardous Materials, the project would involve an unquantifiable, but limited, use of potentially hazardous materials typical of residential, office and commercial uses, including cleaning solvents, and fertilizers and/or pesticides for landscaping. These materials would be contained, stored, and used on site in accordance with manufacturers’ instructions, applicable standards and regulations. Compliance with regulations would serve to protect against a significant and irreversible environmental change that could result from the accidental release of hazardous materials. Therefore, the proposed project is unlikely to result in an accident that would result in irreversible environmental damage.
Chapter 6. ALTERNATIVES

This section implements the requirements set forth in Section 15126.6 of the CEQA Guidelines regarding analysis of alternatives in EIRs, which calls for analysis of a range of reasonable alternatives considering the “rule of reason.” As applied to selection and analysis of project alternatives, the “rule of reason” means that an EIR need consider only those alternatives necessary to permit a reasoned choice. An EIR need not consider every feasible alternative. Alternatives should be limited to those that meet most of the basic project objectives, are potentially feasible, and would avoid or substantially reduce any of the significant effects of the project. The project objectives are set forth in Chapter 3.0, Project Description, and in Section 6.1.2 of this EIR below. CEQA also requires consideration of a “No Project Alternative” and identification of the environmentally superior alternative from among the project alternatives. If the “No Project Alternative” is the environmentally superior alternative, the EIR needs to identify an environmentally superior alternative from among the other alternatives. The discussion of alternatives in this EIR satisfies these requirements.

6.1 Rationale for Alternative Selection

6.1.1 Alternatives Considered but Rejected

CEQA Guidelines state that an EIR should identify any alternatives that were considered by the lead agency but were rejected and briefly explain the reasons underlying the lead agency’s determination. Among factors used to eliminate alternatives from detailed consideration in the EIR is the failure to meet most of the basic project objectives or inability to avoid significant environmental effects (CEQA Guidelines 15126.6[c]).

The following section describes alternatives or alternative concepts that were given consideration by the City but rejected from further analysis in the EIR.

6.1.1.1 43 Percent Reduced Development Alternative

The 43 Percent Reduced Development Alternative would construct a new mixed-use development on the project site with the same mix of land uses as the proposed project,
but at a 43 percent reduced scale. This alternative would result in approximately 25,760 SF of commercial office space; 7,530 SF of restaurant space; 2,320 SF of retail space; and 14 multi-family residential units. Vehicular access to the project site would be the same as the proposed project with two driveways, one at Dahlia Drive for the commercial uses and one at South Sierra Avenue for the residential uses. This alternative would allow for more public open space to be provided on the project site or a reduction in proposed building heights to one story or a combination of both.

The 43 Percent Reduced Development Alternative was considered in order to avoid or substantially lessen the project’s potential significant impact relating to GHG emissions. The proposed reduction in density would reduce the project’s GHG emissions to an extent to make it possible to eliminate the need for mitigation measure GHG-2 – Carbon Reduction Program. However, this alternative would still require implementation of mitigation measure GHG-1 – Green Power Purchase and the rest of the mitigation measures identified for the proposed project. This alternative would not reduce GHG emissions to a level below significance without mitigation.

This alternative was rejected from further consideration because the proposed reduction in density would be likely to render the project financially infeasible. In addition, the same reduction in impacts that could be achieved with this alternative also can be achieved by the Reduced Project/Affordable Housing Alternative, which is fully analyzed in Section 6.2.3.

6.1.1.2 No GHG Mitigation Alternative

The No GHG Mitigation Alternative would construct a project that reduces GHG emissions to below the threshold of 900 CO₂e and avoids the need to mitigate for GHG impacts. An example of an alternative project that meets this requirement and proposes land uses similar to those identified for the proposed project is as follows: 6,000 SF commercial office; 1,000 SF fast food restaurant without a drive-thru; 2,400 SF high turnover sit down restaurant; 600 SF commercial retail and eight residential units. This example alternative would provide approximately 86 percent less commercial square footage and 68 percent fewer residential units than the proposed project. This alternative would be below the 900 MT CO₂e threshold for GHG. It would not result in a significant GHG impact and would not require implementation of mitigation measures GHG-1 – Green Power Purchase or GHG-2 - Carbon Reduction Program. Compared to the proposed project, this alternative would result in the development of a much smaller project on the site that would be unlikely to meet the requirements for a mixed use development on the site, or most of the project objectives, or be economically feasible. Therefore, it was rejected from further consideration.
6.1.2 Alternatives Selected for Evaluation

The process of identifying potential alternatives involves consideration of the project objectives for the proposed project which are restated below.

1. Design and implement a transit-oriented, mixed-use development, which includes a balance of commercial office space, commercial retail and restaurant space, multi-family residential units, and adequate underground parking spaces with access to mass transit.

2. Improve the existing aesthetic character of the site by replacing mostly vacant and abandoned development with new structures that complement existing surrounding development and are consistent with the Highway 101 Corridor Specific Plan development standards and design guidelines.

3. Implement planned improvements to Dahlia Drive and South Sierra Avenue to facilitate pedestrian movement, increase safety, and create visual continuity along the Highway 101 corridor.

4. Develop and implement a unique landscape and design plan for the project site that is consistent with the Highway 101 Corridor Specific Plan.

The process of identifying alternatives also involves consideration of alternatives that would avoid or reduce any of the proposed project’s significant impacts, which include significant impacts on Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, and Noise and Vibration.

The CEQA Guidelines require that analysis of a No Project Alternative be included in all EIRs. The No Project Alternative assumes that the proposed project would not be approved and there would be no development that would result in a change to the existing conditions of the 1.95-acre site. In certain circumstances, the No Project Alternative must consider what would reasonably be expected to occur on the project site in the foreseeable future if the proposed project is not approved, based on current plans and consistent with available infrastructure and services.

This EIR evaluates two versions of the No Project Alternative: the 1) No Project/No Build Alternative; and the 2) No Project/American Assets Trust Alternative. The latter demonstrates an alternative project that meets the development criteria of the General Plan and Highway 101 Specific Plan and therefore could reasonably be expected to occur on the project site in the foreseeable future if the proposed project is not approved.

The EIR also considers two feasible project alternatives: 1) The Reduced Project/Affordable Housing Alternative; and the 2) Transit Priority Project Alternative. The Reduced Project/Affordable Housing Alternative would construct a mixed-use
development with a different mix of commercial and residential land uses and would include affordable housing units. Finally, the Transit Priority Project Alternative would change the mix of land uses on the project site to meet the definition of a Transit Priority Project as identified in PRC Section 21155(b) and Senate Bill 375.

The four alternatives selected for evaluation represent a reasonable range of alternatives that would feasibly attain most of the basic objectives of the project and would avoid or substantially lessen the significant effects of the project. Table 6-1 provides a comparison between the impacts of the proposed project and each alternative with regard to the potential impacts to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, Public Services and Recreation, Transportation, Traffic and Parking, and Utilities and Service Systems.

<table>
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<tr>
<th>Issue Areas</th>
<th>Proposed Project</th>
<th>Alternatives</th>
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<td>4.6 Hazards and Hazardous Materials</td>
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<td>Divide an Established Community</td>
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Table 6-1 Comparison of Alternatives – Environmental Impacts

<table>
<thead>
<tr>
<th>Issue Areas</th>
<th>Proposed Project</th>
<th>Alternatives</th>
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<th>Reduced Project/ Affordable Housing</th>
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<td><strong>4.9 Noise</strong></td>
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<td>No Project/American Assets Trust (AAT)</td>
<td>Reduced Project/Affordable Housing</td>
<td>Transit Priority Project (TPP)</td>
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<tr>
<td>Wastewater Treatment Capacity</td>
<td>LS N/A</td>
<td>No impact</td>
<td>Increase</td>
<td>Increase</td>
<td>Increase</td>
<td>Increase</td>
</tr>
<tr>
<td>Landfills</td>
<td>LS N/A</td>
<td>No impact</td>
<td>Increase</td>
<td>Increase</td>
<td>Increase</td>
<td>Increase</td>
</tr>
<tr>
<td>Solid Waste Compliance</td>
<td>LS N/A</td>
<td>No impact</td>
<td>Increase</td>
<td>Increase</td>
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</tr>
<tr>
<td>Energy Resources</td>
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4.14 Biological Resources

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<tr>
<th>Sensitive Species</th>
<th>PS LS</th>
<th>No impact</th>
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<th>Similar</th>
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</tr>
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<tr>
<td>Sensitive Habitat</td>
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</tr>
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<td>No impact</td>
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<tr>
<td>Wildlife Movement and Corridors</td>
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<td>No impact</td>
<td>Similar</td>
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</tr>
<tr>
<td>Local Policies and Ordinances</td>
<td>PS LS</td>
<td>No impact</td>
<td>Similar</td>
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</tr>
<tr>
<td>Habitat Conservation Plans or Natural Community Conservation Plans</td>
<td>PS LS</td>
<td>No impact</td>
<td>Similar</td>
<td>Similar</td>
<td>Similar</td>
</tr>
</tbody>
</table>

LS = Less than Significant Impact; PS = Potentially Significant Impact; N/A = Not Applicable.
Decrease: Alternative is likely to result in decreased impacts to issue when compared to proposed project.
Similar: Alternative is likely to result in similar impacts to issue when compared to proposed project.
Increase: Alternative is likely to result in increased impacts to issue when compared to proposed project.

6.2 Analysis of the No Project Alternatives

6.2.1 No Project/No Build Alternative

6.2.1.1 Alternative Description

Under the No Project/No Build Alternative, the existing 1.95-acre site would not be developed. The existing, mostly vacant residential and commercial structures and former mobile home park would remain on the site. The environmental setting would stay the same as described in Section 2 of this EIR.

6.2.1.2 Alternative Impact Analysis

Aesthetics

Because no new development or construction would occur under this alternative, no change to the existing visual setting would result. There would be no change to existing scenic vistas. This alternative would not change the existing neighborhood character; the site would remain partially developed with a former mobile home park, vacant residential
units, commercial buildings and sparse trees and shrubs. Because no new development or construction would occur under this alternative, there would be no new sources of light or glare. The current site condition would remain. There would be no impacts related to aesthetics as a result of the No Project/No Build Alternative.

**Air Quality**
Under the No Project/No Build Alternative, no disturbances to the existing site would occur. No construction emissions from proposed development would occur. The current, ambient pollutant concentrations within the project site would remain as-is. The proposed project would have a less than significant impact related to air quality. Therefore, impacts from the No Project/No Build Alternative would be less than the proposed project.

**Cultural Resources**
Under the No Project/No Build Alternative, the project would not cause any disturbance to unknown potentially significant archaeological, tribal cultural or paleontological resources or human remains. The proposed project’s potential for disturbance of these resources, which could be mitigated to a less than significant level through implementation of monitoring during construction, would not occur under the No Project/No Build Alternative. Therefore, this alternative would avoid the significant impacts of the proposed project on archaeological, tribal cultural and paleontological resources, as well as on human remains.

**Geology and Soils**
Under the No Project/No Build Alternative, no disturbance to the existing site would occur. The existing uses at the site would remain and no impacts related to geological hazards, groundwater, erosion, expansive soils, and wastewater disposal systems would occur. The potential for the soils to become unstable would not occur as no development is proposed. The proposed project’s potential to encounter unstable soils, which could be mitigated by the implementation of recommendations from the geotechnical report, would not be impacted under the No Project/No Build Alternative. The No Project/No Build Alternative would avoid the significant impacts of the proposed project on unstable soils.

**Greenhouse Gas Emissions**
Under the No Project/No Build Alternative, no changes to the site would occur. No construction would occur; therefore, there would be no construction-related GHG emissions. The existing uses would remain on the site; however, none of the project-related GHG operational emissions would occur. This alternative would not require mitigation measures GHG-1 and GHG-2 to reduce potential impacts to below a level of significance. The No Project Alternative would avoid the significant impacts of the proposed project on GHG emissions during project operation.
Hazards and Hazardous Materials
No construction activities would occur under the No Project/No Build Alternative; therefore, there would be no impact related to the routine transport, use or disposal of hazardous materials during construction and operation, to airport hazards, emergency response and wildland fires. The potential asbestos containing existing structures would not be demolished. The proposed project’s potential exposure to asbestos materials, which could be mitigated to a less than significant level through the preparation and submittal of an Asbestos Demolition or Renovation Operational Plan, would not be impacted under the No Project/No Build Alternative. The No Project Alternative would avoid the significant impacts of the proposed project related to asbestos-containing materials.

Hydrology and Water Quality
Under the No Project/No Build Alternative, no disturbance to the existing site would occur. Therefore, the No Project/No Build Alternative would not violate any water quality standards, deplete groundwater resources, alter existing drainage patterns, create runoff water, degrade water quality, place housing or structures in the 100-year flood hazard area, or expose people or structures to flooding as a result of dam failure or inundation by a seiche, tsunami, or mudflow. Although the proposed project would have a less than significant impact related to hydrology and water quality, the No Project/No Build Alternative would avoid any impacts to hydrology and water quality on the project site.

Land Use and Planning
Under the No Project/No Build Alternative, development of the project site would not occur and the current uses on the project site would remain. No impacts relative to the physical division of an established community, conflicts with adopted land use plans or habitat conservation plans would occur. Although the proposed project would have a less than significant impact related to land use and planning, the No Project/No Build Alternative would avoid any impacts to land use and planning on the project site.

Noise
Under the No Project/No Build Alternative, no new noise sensitive land uses would be constructed. The current, minimal noise generation within the project site would remain as-is; no new traffic-related noise would be generated. In addition, no construction would occur; therefore, no construction-related noise or vibration would be generated. Similar to the proposed project, this alternative would result in less than significant impacts related to aircraft noise and permanent increase in noise levels from traffic-related noise. Under the proposed project, a permanent increase in noise levels would result from excessive noise levels from truck deliveries and use of restaurant patios during nighttime hours which would be reduced to less than significant level after mitigation. This alternative would avoid those significant impacts. Noise and ground-borne vibration associated with construction of the proposed project would also be potentially significant, but could be reduced to a less than significant level with implementation of
mitigation measures. The No Project/No Build Alternative would avoid the significant impacts of the proposed project on noise and vibration.

**Population and Housing**
Under the No Project/No Build Alternative, no changes to the existing uses on-site would occur. The No Project/No Build Alternative would not induce substantial growth or displace a substantial number of existing housing or people. Although the proposed project would have a less than significant impact related to population and housing, the No Project/No Build Alternative would avoid any impact on population and housing.

**Public Services and Recreation**
Under the No Project/No Build Alternative, no changes to the existing uses on site would occur. Therefore, no additional demand for fire protection services, police protection services, schools, libraries or recreational facilities would be required. Although the proposed project would have a less than significant impact related to public services and recreation, the No Project/No Build Alternative would avoid any impact on public services and recreation.

**Transportation/Traffic**
Under the No Project/No Build Alternative, no new land uses would be constructed; therefore, no additional ADT would be generated. Additional trips would not be added to study area roadway segments or intersections, as they would under the proposed project. Overall, circulation system operations under the No Project/No Build Alternative would be less than the proposed project both during and post construction. In addition, the No Project/No Build Alternative would not result in a change in air traffic patterns, hazards due to design features, inadequate emergency access, or inadequate parking. Although the proposed project would have less than significant impacts on transportation, traffic and parking, the No Project/No Build Alternative would avoid any impact on these resources.

**Utilities and Service Systems**
Under the No Project/No Build Alternative, no new development would be constructed on the project site and no changes to the existing land uses on the site would occur. Therefore, no additional demand for wastewater treatment, water or wastewater facilities, drainage facilities, solid waste disposal, and energy resources would be required. Although the proposed project would have a less than significant impact related to utilities and service systems, the No Project/No Build Alternative would avoid any impact on these resources.

**Biological Resources**
Under the No Project/No Build Alternative, disturbance to the existing biological resources on the project site would not occur, including removal of trees that could be used for nesting birds protected under the Migratory Bird Treaty Act. This alternative would result
in no significant impacts related to sensitive habitats, wetlands, wildlife movement and corridors, and Habitat Conservation Plans or Natural Community Conservation Plans. The No Project/No Build Alternative would avoid significant impacts to sensitive species and compliance with local policies and ordinances identified for the proposed project. Therefore, this alternative would have no significant impacts to biological resources.

6.2.1.3 Ability to Accomplish Project Objectives

The No Project/No Build Alternative would not meet any of the project objectives, as no development of the project site would occur. Mostly abandoned commercial and residential uses would continue to exist on the project site. This alternative would not construct a new mixed use development, improve the aesthetic character of the site or develop a unique landscape and design plan. In addition, the No Project/No Build Alternative would not make any improvements to Dahlia Drive or South Sierra Avenue.

6.2.2 No Project/American Assets Trust Alternative

6.2.2.1 Alternative Description

The No Project/American Assets Trust (AAT) Alternative is the formerly proposed AAT project, which demonstrates the type of project that could be developed on the site, consistent with the land uses and zoning allowed in the City’s General Plan and Highway 101 Specific Plan, if the proposed project is disapproved. A discussion regarding the history of this alternative is provided in EIR Section 1.1, Project Background. This alternative would construct a new mixed-use development on the project site consisting of 14,137 SF of commercial office space; 10,215 SF of retail and restaurant space; 24,284 SF of a commercial specialty grocery; and 31 multi-family residential units. The existing on-site buildings would be demolished. A two-level subterranean parking garage would provide 341 on-site parking spaces. Vehicular access to the project site would be provided via one driveway from Dahlia Drive, which would be a full movement driveway allowing inbound and outbound movements. No vehicle access from South Sierra Avenue would be provided. The disturbance area for this alternative would encompass the entire site, same as the proposed project. This alternative would export approximately 70,100 cubic yards (CY) of soil off site during excavation and grading. As described below, this alternative would not result in a reduction of any impacts identified for the proposed project.

6.2.2.2 Alternative Impact Analysis

Aesthetics

Implementation of the No Project/AAT Alternative would result in the same project disturbance area, but with a different configuration of uses including more multi-family residential units and a specialty grocery store that would not be constructed under the proposed project. However, similar to the proposed project, the No Project/AAT
Alternative would be located along Highway 101, a City designated scenic roadway, and located within the Highway 101 Corridor Scenic Area Overlay Zone. Similar to the proposed project, only the eastern half of the project site would be located within the Scenic Area Overlay Zone. The No Project/AAT Alternative would provide uses that would be generally consistent with nearby uses along Highway 101 which mostly consist of restaurant and office and commercial development to the north and south of the site.

Like the proposed project, the No Project/AAT Alternative would partially block the views of the eastern developed hills for the existing residential land uses along the western side of South Sierra Avenue, as a result of the proposed buildings and landscape trees. However, unlike the proposed project, the No Project/AAT Alternative proposed a mix of two and three story buildings that would be higher than the proposed project and would result in a greater degree of view blockage. The No Project/General Plan Land Use Alternative was presented to the City View Assessment Commission (VAC) in accordance with Chapter 17.63 of the SBMC, View Assessment Ordinance. The City received two claims from residents that expressed the desire to retain views of the eastern, developed hillsides, although these views are not a designated scenic vista. The claims were evaluated by the VAC on March 17, 2015 and the VAC recommended that the City Council deny the AAT project due view impairment concerns. Therefore, this alternative would result in a new significant impact associated with aesthetics. Impacts would be greater under this alternative.

The architectural style of mixed use development proposed under the No Project/AAT Alternative would be somewhat similar in visual character and quality to the proposed project. Nighttime exterior lighting, including streetlights and wall-mounted residential lights, would also be similar. Impacts of the No Project/AAT Alternative on visual character and light and glare would be less than significant, similar to the proposed project.

Air Quality
The No Project/AAT Alternative would be located on the same parcel of land as the proposed project with a different configuration of mixed-use development; therefore, the ambient air quality conditions, applicable air quality plans, location of off-site receptors, and objectionable odors would be the same. Construction of the No Project/AAT Alternative would require the export of more material than the proposed project and therefore would result in greater air quality emissions during construction. In addition, operation of the No Project/AAT Alternative would generate more vehicle trips due to the increased number of multi-family units and the proposed specialty grocery store which would result in higher operational daily air quality emissions. However, similar to the proposed project, daily emissions from construction and operation of the No Project/AAT Alternative would not be expected to exceed any air quality standard or screening thresholds for criteria pollutants in a non-attainment region and impacts would be less than significant.
**Cultural Resources**

As the disturbance area for the No Project/AAT Alternative would be similar to that of the proposed project, potential impacts associated with this alternative would likely be the same. While the APE has demonstrated areas of disturbance, it is possible that ground-disturbing activities associated with construction of the No Project/AAT Alternative may uncover unknown subsurface archaeological and tribal cultural resources or human remains similar to the proposed project. Similar to the proposed project, implementation of mitigation measures CUL-1, CUL-2, and CUL-4 would reduce potential impacts to a less than significant level.

In addition, construction activities associated with the No Project/AAT Alternative would include soil excavation in order to construct the two levels of underground parking similar to the proposed project. Thus, implementation of the No Project/AAT Alternative would encounter native soils in the Old Paralic Deposits (Qop6) that were deposited in the late to middle Pleistocene and, as such, have the potential to uncover buried unknown paleontological resources. Similar to the proposed project, implementation of the mitigation measure CUL-3 would reduce this impact to below a level of significance.

**Geology and Soils**

The No Project/AAT Alternative would have the same disturbance area as the proposed project; therefore, less than significant impacts related to geological hazards, groundwater, erosion, expansive soils, and wastewater disposal systems would be the same. Similar to the proposed project, the No Project/AAT Alternative would result in potentially significant impacts related to unstable soils due to excavation of the underground parking structure. The project site is underlain by undocumented artificial fill overlying late to middle Pleistocene-age Old Paralic Deposits (Qop6). Excavations that are close to or below the water table, if encountered, may be unstable resulting in a potentially significant impact. Similar to the proposed project, implementation of mitigation measure GEO-1 would reduce potential impacts related to unstable soils to a less than significant level.

**Greenhouse Gas Emissions**

The No Project/AAT Alternative would have the same disturbance area as the proposed project but proposes a different configuration of mixed-use development on the project site; therefore, the ambient greenhouse gas conditions and applicable GHG reduction plans would be the same. Similar to the proposed project, the No Project/AAT Alternative would not exceed the threshold for GHG during construction activities. This alternative proposes a different mix of development including increased multi-family residential units and specialty grocery store on the site and compared to the proposed project. The No/Project/AAT Alternative does not propose project sustainability features, including energy efficiency, generation of on-site renewable solar energy, conservation of water and solid waste, transportation demand management, and promotion of electric and alternative fuel vehicles that would help reduce operational GHG annual emissions.
Therefore, total operational emissions would be higher under this alternative as compared to the proposed project. Similar to the proposed project, this alternative would exceed significance thresholds for operational GHG emissions and implementation of mitigation measures GHG-1 and GHG-2 would be required to reduce impacts to a less than significant level.

**Hazardous Materials**

The No Project/AAT Alternative would have the same disturbance area and similar commercial and residential uses as the proposed project; therefore, hazards and hazardous materials impacts associated with this alternative would be similar to the proposed project. Compliance with all applicable regulations would reduce potential impacts related to the routine transport, use or disposal of hazardous materials during construction and operation to a less than significant level. Similar to the proposed project, this alternative would be expected to have less than significant impacts related to hazardous emissions near a school, hazardous materials sites, airport hazards, emergency response and wildland fires. The existing structures on-site have the potential to contain asbestos. Like the proposed project, demolition of existing structures under this alternative could result in asbestos-containing materials becoming airborne and inhalable, which would be a potentially significant impact. Similar to the proposed project, implementation of mitigation measure HAZ-1 would reduce these impacts to a less than significant level.

**Hydrology and Water Quality**

The No Project/AAT Alternative would have the same disturbance area and similar commercial and residential uses as the proposed project. Construction and operation of this alternative would generate pollutants that could potentially degrade the surface water quality of downstream receiving waters. The No Project/AAT Alternative would be required to comply with all federal, state and local regulations discussed in Section 4.7.2 and would be designed to reduce the discharge of stormwater pollutants and to improve water quality which would reduce potential impacts related to the water quality to a level below significant. Similar to the proposed project, runoff would be conveyed away from the site in a southeastern direction onto Highway 101, and north or south along South Sierra Avenue. Under this alternative, biofiltration best management practices (BMPs) and an onsite detention system would also be used to control the peak flow volumes from the site to control runoff leaving the site. These measures would prevent siltation/erosion off-site, flooding off-site and capacity exceedance of the existing stormwater drainage facilities similar to the proposed project. Similar to the proposed project, the No Project/AAT Alternative would not place housing or structures in the 100 year flood area nor is it located in area where inundation from a dam or levee failure, seiche, tsunami or mud flow would occur. Similar to the proposed project, impacts on hydrology and water quality would be less than significant.
Land Use and Planning
Similar to the proposed project, the No Project/AAT Alternative would replace the existing, mostly abandoned onsite development with new structures. This alternative proposes a mixed-use development, which would include a balance of commercial office space, commercial restaurant space, and multi-family residential units including a specialty grocery store. The proposed uses would complement and be consistent with the surrounding commercial and multi-family residential character along Highway 101, Dahlia Drive, and South Sierra Avenue. Similar to the proposed project, this alternative would not physically divide an established community. Like the proposed project, the No Project/AAT Alternative would be consistent with the General Plan, Highway 101 Specific Plan, and the Local Coastal Program. In addition, it would not conflict with an applicable habitat conservation plan or natural community conservation plan. Therefore, similar to the proposed project, impacts would be less than significant.

Noise
Similar to the proposed project, the No Project/AAT Alternative would develop new stationary sources of noise associated with proposed new buildings, increase human activity throughout the project site, increase vehicle traffic on local streets, and expose new on-site land uses to traffic noise levels. The No Project/AAT Alternative proposes similar land uses but in a different configuration. It also proposes a grocery store which would generate additional vehicle and truck trips. Similar to the proposed project, the No Project/AAT Alternative would potentially result in excessive noise levels if truck deliveries and use of restaurant patios would occur during nighttime hours. Implementation of mitigation measures NOI-1 and NOI-2 would reduce these impacts to a less than significant level, similar to the proposed project.

This alternative would require similar construction activities as the proposed project. Construction activities would generate temporary ground-borne vibration at adjacent residential and commercial uses that are in close proximity to the project site resulting in a significant impact. Similar to the proposed project, the No Project/AAT Alternative has the potential to generate temporary ground-borne vibration that would exceed the applicable County of San Diego thresholds. Implementation of mitigation measures NOI-3 would reduce this impact to a less than significant level. In addition, construction activities with simultaneous and continuous operation of three pieces of equipment at their maximum capacity would result in a significant impact. Similar to the proposed project, this alternative has the potential to generate a cumulative unattenuated noise level of 84 dBA at 50 feet during construction which would exceed the City’s noise ordinance related to construction. Implementation of mitigation measures NOI-4 would reduce this impact to a less than significant level, similar to the proposed project.

As with the proposed project, the No Project/AAT Alternative would generate new traffic on surrounding local roadways. However, this alternative would generate more vehicle trips than the proposed project due the increased residential and commercial specialty
grocery uses on the site. However, the increase in traffic noise levels from implementation of the No Project/AAT Alternative would be less than significant. Therefore, similar to the proposed project, the increase in traffic noise levels as a result of this alternative would not result in a significant impact.

**Population and Housing**
The No Project/AAT Alternative would result in the construction of a mixed-use development, which would include 31 multi-family residential units resulting in a population increase of 71 residents compared to an increase of 57 residents for the proposed project based on the City’s average occupancy factor. Similar to the proposed project, this alternative would not result in a significant population increase because this alternative would be consistent with the City’s General Plan and, therefore, its growth has been accounted for in the General Plan. Impacts related to population growth would be less than significant under this alternative. Implementation of the No Project/AAT Alternative would be located on the same partially developed and mostly vacant site as the proposed project. There are two existing residential units on the project site, these residential units are unoccupied and are not being utilized for housing needs within the city. Therefore, no residents would be displaced with implementation of the No Project/AAT Alternative. Therefore, impacts associated with displacement of existing housing or people would be less than significant, similar to the proposed project.

**Public Services and Recreation**
Implementation of the No Project/AAT Alternative would result in an increase in demand for fire protection and police protection services, schools, library services and recreational facilities because it would develop new residential and commercial uses on the project site. This alternative would construct six more multi-family residential units and a specialty grocery which would not be constructed by the proposed project.

The No Project/AAT Alternative would result in a greater population increase of 71 residents compared to an increase of 57 residents for the proposed project. However, similar to the proposed project, this alternative would be consistent with the General Plan which addresses the need for increased public services to serve the proposed build out of the city. Thus, this alternative would not result in a substantial population increase that would require the development of new fire, police, or library facilities.

This alternative would also result in a greater increase in school-aged children associated with the development of 31 multi-family residential units compared to the 25 units that would be developed under the proposed project. Like the proposed project, the No Project/AAT Alternative would adhere to both Assembly Bill 2926 and the California Education Code Section 17620 and pay the applicable impact fees associated with new residential and commercial development projects. These fees would contribute to funding and maintenance for the surrounding public school districts and decrease
impacts from the additional school facility services needed from future school-aged residents of this alternative project.

In addition, similar to the proposed project, the No Project/AAT Alternative would also be required to pay an associated public facilities fee, in compliance with SBMC Section 17.72.020, to contribute funding towards maintenance of existing parks or recreational facilities to offset impacts from future residents of this alternative project. Similar to the proposed project, this alternative would not require the construction or expansion of recreational facilities within the city. Therefore, impacts would be less than significant, which is the same as the proposed project.

**Transportation/Traffic**

As with the proposed project, the No Project/AAT Alternative would generate new traffic on surrounding local roadways. However, this alternative proposes increased multi-family residential development and a specialty commercial grocery store which would result in the generation of 1,451 more vehicle trips than the proposed project (USAI 2017). Access to the project site would only be provided via one driveway along Dahlia Avenue which would result in more vehicles trips utilizing Dahlia Drive than under the proposed project which would provide driveway access from Dahlia Drive and South Sierra Avenue. However, even with the additional vehicle trips, the No Project/AAT would result in all study area street segments and intersections continuing to operate at an LOS D or better. Similar to the proposed project, implementation of this alternative would not 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. Similar to the proposed project, impacts would be less than significant. In addition, similar to the proposed project, implementation of this alternative would not conflict with the applicable congestion management plan and impacts would be less than significant.

The No Project/AAT Alternative, similar to the proposed project, would not result in a change in air traffic patterns, result in hazards due to design features, or result in inadequate emergency access. In addition, similar to the proposed project, this alternative would provide connections to existing bicycle routes and would provide adequate pedestrian access from surrounding roadways and would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Unlike the proposed project, the No Project/AAT Alternative would require the relocation of the existing bus stop north from its original location. The relocation of the bus stop to a location farther from the site would not be consistent with adopted policies, plans or programs regarding public transit. Therefore, this alternative would result in a new
significant impact associated with traffic and transportation that would not occur under the proposed project. Impacts would be greater under this alternative.

The No Project/AAT Alternative would provide 341 on-site parking spaces. Similar to the proposed project, the underground parking structure would provide adequate parking for the proposed uses and no impact would occur.

**Utilities and Service Systems**

Similar to the proposed project, the No Project/AAT Alternative would generate the need for water wastewater and stormwater drainage facilities, increased demand for water supply and demand for wastewater treatment capacity, solid waste capacity, and energy resources. The No Project/AAT Alternative would result in increased demand as compared to the proposed project due to the increased multi-family residential units and specialty grocery proposed on the site. However, similar to the proposed project, this alternative would not require or result in the construction of new water, wastewater treatment, or stormwater drainage facilities, nor result in the expansion of existing water, wastewater treatment, or stormwater drainage facilities and would not result in a significant impact. Similar to the proposed project there are sufficient water supplies available to serve this alternative from existing entitlements and resources and would not result in a significant impact. In addition, similar to the proposed project, this alternative is not expected to adversely affect the capacity of the wastewater treatment provider and would not result in a significant impact. This alternative would be served by a landfill with sufficient permitted capacity to accommodate solid waste disposal needs and would not result in a significant impact. Like the proposed project, the No Project/AAT Alternative would comply with federal, state and local statutes and regulations related to solid waste. Similar to the proposed project, the No Project/AAT Alternative energy demand would not result in the wasteful, inefficient, or unnecessary consumption of energy. Similar to the proposed project, the No Project/AAT Alternative would be consistent with the wastewater treatment requirements of the RWQCB, including the Regional Basin Plan, and would not result in a significant impact related to consistency with the wastewater treatment requirements of the RWQCB. Impacts would be less than significant.

**Biological Resources**

The No Project/AAT Alternative would have the same disturbance area as the proposed project. Similar to the proposed project, this alternative would result in less than significant impacts related to sensitive habitats, wetlands, wildlife movement and corridors, and Habitat Conservation Plans or Natural Community Conservation Plans. The No Project/AAT Alternative would remove the same non-native trees and shrubs which have the potential to provide habitat for nesting birds during the avian breed season. This alternative would result in potentially significant impacts related to sensitive species and compliance with local policies and ordinances, similar to the proposed project.
Implementation of mitigation measure BIO-1 would reduce potential impacts to a less than significant level, similar to the proposed project.

6.2.2.3 Ability to Accomplish Project Objectives

The No Project/AAT Alternative would implement a transit-oriented, mixed-use development by providing commercial office space, commercial retail and restaurant space, 31 multi-family residential units and 341 parking spaces in an underground parking garage with access to mass transit. This alternative would also provide a specialty grocery store as part of the commercial retail aspect of the project. Therefore, this alternative would meet project objective 1.

This alternative would also improve the existing aesthetic character of the site by replacing a mostly vacant existing site partially developed with residential and commercial structures with a new mixed-use development project. The proposed uses would complement and be consistent with the existing pattern of development and range of existing uses in the surrounding area. However, this alternative has been recommended for denial by the City’s VAC due to the proposed design and height of the proposed buildings that would partially block nearby residential views of the eastern hills. Therefore, this alternative would only partially meet project objective 2.

This alternative would implement proposed improvements to Dahlia Drive and South Sierra Avenue to include sidewalks and parkways that would facilitate pedestrian movement, increase safety and create visual continuity along the Highway 101 corridor. It would therefore meet project objective 3.

Finally this alternative would provide project landscaping that has incorporated the guidelines identified in the Highway 101 Specific Plan which would meet project objective 4.

6.3 Analysis of Potentially Feasible Alternatives

6.3.1 Reduced Project/Affordable Housing Alternative

6.3.1.1 Alternative Description

The Reduced Project/Affordable Housing Alternative would construct new residential and commercial mixed-use development on the project site. The existing on-site buildings would be demolished. The proposed development would include 24,000 SF of commercial office space; 3,800 SF of restaurant space; and 49 multi-family residential rental units. Of the 49 multi-family residential units, four units would be available to very low income qualified tenants. No retail uses would be provided. A two-level subterranean parking garage would provide 243 on-site parking spaces. Vehicular
access to the project site would be the same as the proposed project with two driveways, one at Dahlia Drive and one at South Sierra Avenue. The scale and architectural style of the development proposed under the Reduced Project/Affordable Housing Alternative would be similar to the proposed project. The surface disturbance area for this alternative would encompass the entire site, same as the proposed project. However, this alternative would result in less grading, excavation and truck trips to export materials because it would only construct a 243-space underground parking structure instead of a 366 space underground parking structure like the proposed project. This alternative would implement the same sustainability features as the proposed project, including energy efficiency, generation of on-site renewable solar energy, conservation of water and solid waste, transportation demand management, and promotion of electric and alternative fuel vehicles. This alternative would increase the number of residential units from 25 (proposed project) to 49 units. It would utilize a density bonus incentive by providing four very low income units. A fee would be required for the 45 non-affordable rental units unless the applicant were to enter into an agreement with the City (i.e. affordability covenant). The agreement would likely require the provision of a minimum of 15 percent affordable units (7 total units).

This alternative would not be consistent with the current General Commercial land use designation identified in the Highway 101 Specific Plan for the project site because it would not provide the required 60/40 commercial/residential land use ratio. However, the City’s Zoning Ordinance and Housing Density Bonus Law allows for zoning incentives for affordable housing which would allow this project to be approved. This alternative would require the applicant to submit a new application to allow for affordable housing per the City’s Municipal Code. As part of the density bonus, a waiver could be requested from the Highway 101 Specific Plan to allow more than 40 percent residential uses on the project site. Alternatively, a General Plan amendment, Specific Plan amendment and Local Coastal Program Land Use Plan amendment could be requested to allow for the additional residential uses on the site.

This alternative was evaluated because it would result in fewer vehicle trips than the proposed project and, by reducing vehicle miles traveled, would reduce the amount of GHG and other pollutant emissions associated with the proposed project.

6.3.1.2 Alternative Impact Analysis

Aesthetics
Implementation of the Reduced Project/Affordable Housing Alternative would result in the same area of disturbance, but with decreased commercial office, restaurant and restaurant space and increased residential units as compared to the proposed project. Under the Reduced Project/Affordable Housing Alternative the views of the eastern, developed hills may change as a result of development of the proposed project. However, like the proposed project, obstruction of a designated scenic vista would not occur. The eastern half of the project site is located within the Scenic Area Overlay Zone.
and would be subject to the design guidelines contained within the Highway 101 Corridor Specific Plan. These guidelines are used to inform site planning, public space, views, parking, signs and lighting decisions for specific districts along Highway 101. The scale and architectural style of the mixed use development proposed under the Reduced Project/Affordable Housing Alternative would be similar to the proposed project. Nighttime exterior lighting, including streetlights, would also be similar. Impacts of the Reduced Project/Affordable Housing Alternative on visual character and light and glare would be less than significant.

Air Quality
The Reduced Project/Affordable Housing Alternative would have the same surface disturbance area as the proposed project, although it would require less grading, excavation and truck trips to export materials offsite due to construction of a smaller underground parking structure. Therefore, the construction emissions associated with the proposed project would be reduced as compared to the proposed project. This alternative would reduce average daily traffic (ADT) as compared to the proposed project due to the reduction in restaurant, retail and commercial office uses on the site. The reduction in ADT would result in a reduction of operational criteria air pollutant emissions. Therefore, the ambient air quality conditions, applicable air quality plans, and location of off-site receptors would be the same. Similar to the proposed project, daily emissions from construction and operation of the Reduced Project/Affordable Housing Alternative would not exceed any air quality standard or screening thresholds for criteria pollutants in a non-attainment region and impacts would be less than significant.

Cultural Resources
Although the surface disturbance area associated with construction of the Reduced Project/Affordable Housing Alternative would be similar to the proposed project, this alternative would require less grading and excavation due to construction of a smaller underground parking structure. While this alternative would have the potential to disturb unknown subsurface archaeological or Native American resources or human remains during construction of the proposed development, the potential for impacts would be slightly less due to the reduced grading and excavation activities. Similar to the proposed project, implementation of mitigation measures CUL-1, CUL-2, and CUL-4 would reduce potential impacts associated with this alternative to less than significant.

In addition, construction activities associated with the Reduced Project/Affordable Housing Alternative would require less grading and excavation due to construction of a smaller underground parking structure. Similar to the proposed project, implementation of the Reduced Project/Affordable Housing Alternative would encounter native soils in the Old Paralic Deposits (Qop6) that were deposited in the late to middle Pleistocene and, as such, have the potential to uncover buried unknown paleontological resources. Similar to the proposed project, implementation of the mitigation measure CUL-3 would reduce this impact to below a level of significance.
Geology and Soils
Although the surface disturbance area associated with construction of the Reduced Project/Affordable Housing Alternative would be similar to the proposed project, this alternative would require less grading and excavation due to construction of a smaller underground parking structure. Therefore, similar to the proposed project, impacts related to geological hazards, erosion, expansive soils, and wastewater disposal systems would be less than significant. Similar to the proposed project, the Reduced Project/Affordable Housing Alternative would encounter potentially significant impacts related to unstable soils. The proposed development site is underlain by undocumented artificial fill overlying late to middle Pleistocene-age Old Paralic Deposits (Qop6). Excavations that are close to or below the water table, if encountered, may be unstable resulting in a potentially significant impact similar to the proposed project. While the amount of grading and excavation would be less under this alternative, it would still have the potential to encounter unstable soils. Similar to the proposed project, implementation of mitigation measure GEO-1 would reduce impacts to a less than significant level.

Greenhouse Gas Emissions
The Reduced Project/Affordable Housing Alternative would have the same surface disturbance area of the site as the proposed project but proposes a different configuration of development on the site; therefore, the ambient greenhouse gas conditions and applicable GHG reduction plans would be the same. This alternative would require less grading and excavation due to construction of a smaller underground parking structure and would require less truck trips to export the soils off-site. Therefore, the construction GHG emissions associated with the proposed project would be reduced as compared to the proposed project. Similar to the proposed project it would not exceed the threshold for GHG during construction activities. Similar to the proposed project, this alternative would include the same sustainability project design features to reduce GHG emissions during operation as the proposed project. In addition this alternative proposes increased residential uses but decreased restaurant, retail and commercial office uses on the site resulting in fewer average daily trips (ADT) and lower corresponding GHG operational emissions. However, the operation of the Reduced Project/Affordable Housing Alternative would still exceed the 900 MTCO2e/year screening threshold by approximately 100 MTCO2e/year (Harris and Associates 2018) and would result in a potentially significant impact similar to the proposed project. This alternative would still require implementation of mitigation measure GHG-1 – Green Power Purchase similar to the proposed project but would eliminate the need for mitigation measure GHG-2 – Carbon Reduction Program. Therefore, the alternative would have a lesser significant impact than the proposed project.

Hazardous Materials
The Reduced Project/Affordable Housing Alternative would propose similar commercial and residential uses as the proposed project, although it would develop less commercial
Hydrology and Water Quality
The Reduced Project/Affordable Housing Alternative would have the same surface disturbance area but require less grading and excavation than the proposed project due to the construction of a smaller underground parking structure. It would propose similar commercial and residential uses as the proposed project, although it would develop less commercial office, restaurant and retail space and more residential units. Construction and operation of this alternative would generate pollutants that could potentially degrade the surface water quality of downstream receiving waters. The Reduced Project/Affordable Housing Alternative would be required to comply with all federal, state and local regulations discussed in Section 4.7.2 and would be designed to reduce the discharge of stormwater pollutants and to improve water quality which would reduce potential impacts related to the water quality to a level below significant. Similar to the proposed project, runoff would be conveyed away from the site in three directions including to the southeast onto Highway 101, and to the north and south along South Sierra Avenue. Under this alternative, biofiltration best management practices (BMPs) and an onsite detention system would also be used to regulate the peak flow volumes from the site to control runoff leaving the site. These measures would prevent siltation/erosion off-site, flooding off-site and capacity exceedance of the existing stormwater drainage facilities similar to the proposed project. The Reduced Project/Affordable Housing Alternative would not place housing or structures in the 100 year flood area nor is it located in area where inundation from a dam or levee failure, seiche, tsunami or mud flow would occur. Similar to the proposed project, impacts on hydrology and water quality would be less than significant.

Land Use and Planning
Similar to the proposed project, the Reduced Project/Affordable Housing Alternative would replace existing mostly vacant onsite development with new commercial and residential structures, although it would develop less commercial office, restaurant and retail space and more residential units. The proposed uses would be consistent with the surrounding commercial and multi-family residential character along Highway 101, Dahlia Drive, and South Sierra Avenue. Similar to the proposed project, it would not
physically divide an established community as it would be located on the same project site which is planned for development. In addition, it would not conflict with an applicable habitat conservation plan or natural community conservation plan. As part of the density bonus, a waiver could be requested from the Highway 101 Specific Plan to allow more than 40 percent residential uses on the project site. Alternatively, a General Plan amendment, Specific Plan amendment and Local Coastal Program Land Use Plan amendment could be requested to allow for the additional residential uses on the project site.

**Noise**
The Reduced Project/Affordable Housing Alternative would develop new stationary sources of noise associated with proposed new buildings, increase human activity throughout the project site, and expose new on-site land uses to traffic noise levels, although traffic (ADT) generated under this alternative would be less than the proposed project. The Reduced Project/Affordable Housing Alternative proposes similar uses but in a different configuration with more residential units and less commercial restaurant, retail and office space. Similar to the proposed project, the Reduced Project/Affordable Housing Alternative would potentially result in excessive noise levels if truck deliveries and use of restaurant patios would occur during nighttime hours. Implementation of mitigation measures NOI-1 and NOI-2 would reduce these impacts to a less than significant level, the same as the proposed project.

Although this alternative would require less grading and excavation than the proposed project, it would still require construction activities that would generate temporary ground-borne vibration at adjacent residential and commercial uses that are in close proximity to the project site. Similar to the proposed project, the Reduced Project/Affordable Housing Alternative has the potential to generate temporary ground-borne vibration that would exceed the applicable County of San Diego thresholds. Implementation of mitigation measure NOI-3 would reduce this impact to a less than significant level. In addition, construction activities with simultaneous and continuous operation of three pieces of equipment at their maximum capacity would result in a significant impact. Similar to the proposed project, this alternative has the potential to generate a cumulative unattenuated noise level of 84 dBA at 50 feet during construction which would exceed the City’s noise ordinance related to construction. Implementation of mitigation measure NOI-4 would reduce this impact to a less than significant level, similar to the proposed project.

As with the project, the Reduced Project/Affordable Housing Alternative would generate new traffic on surrounding local roadways. However, this alternative would generate fewer vehicle trips than would the project due to the decreased restaurant, retail and commercial office uses on the site. The proposed project would not result in a potentially significant traffic noise impact and since this alternative would result in less traffic than the proposed project, it would not result in a significant traffic noise impact either.
Population and Housing
Implementation of the Reduced Project/Affordable Housing Alternative would result in the construction of more residential units than the proposed project, which would consist of 49 multi-family residential units, four of which would be allocated to very low income qualified residents. Based on the City’s average occupancy factor, this alternative would result in a population increase of 112 residents compared to an increase of 57 residents under the proposed project. Similar to the proposed project, this alternative would not result in a significant population increase because this alternative would be consistent with the City’s General Plan and, therefore, its growth has been accounted for in the General Plan. Impacts related to population growth would be less than significant under this alternative. Similar to the proposed project, the Reduced Project/Affordable Housing Alternative is located on the same partially developed and mostly vacant site as the proposed project. There are two existing residential units on the project site that are unoccupied and are not being utilized for housing needs within the city. No residents would be displaced with implementation of the Reduced Project/Affordable Housing Alternative which would demolish these two existing residences. Therefore, impacts associated with displacement of existing housing or people would be less than significant, similar to the proposed project.

Public Services and Recreation
As discussed in the previous section, the Reduced Project/Affordable Housing Alternative would result in a population increase of 112 residents compared to an increase of 57 residents under the proposed project. However, similar to the proposed project, this alternative would be consistent with the General Plan and would not require the need for increased public services. Thus, this alternative would not result in a substantial population increase that would require the development of new fire, police, or library facilities.

This alternative would also result in an increase in school-aged children with the construction of 49 multi-family residential units compared to the 25 units that would be developed under the proposed project. However, like the proposed project, the Reduced Project/Affordable Housing Alternative would adhere to both Assembly Bill 2926 and the California Education Code Section 17620 and pay the applicable impact fees associated with new residential and commercial development projects. These fees would contribute to funding and maintenance for the surrounding public school districts and decrease impacts from the additional school facility services needed from future school-aged residents of this alternative project.

In addition, similar to the proposed project, the Reduced Project/Affordable Housing Alternative would also be required to pay an associated public facilities fee, in compliance with SBMC Section 17.72.020, to contribute funding towards maintenance of existing parks or recreational facilities to offset impacts from future residents of this
alternative project. Development of this alternative would not require the construction or expansion of additional recreational facilities within the city. Therefore, impacts would be less than significant, similar to the proposed project.

Transportation/Traffic
As with the proposed project, the Reduced Project/Affordable Housing Alternative would generate new traffic on surrounding local roadways. However, the Reduced Project/Affordable Housing Alternative would reduce ADT due to the reduction in restaurant, retail and commercial office uses on the site. Since the proposed project, which would generate more traffic than this alternative, would not result in a significant direct or cumulative impact on the surrounding local roadways and intersections, then neither would the Reduced Project/Affordable Housing Alternative. Therefore, similar to the proposed project, implementation of this alternative would not 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 addition, similar to the proposed project, implementation of this alternative would not conflict with the applicable congestion management plan and impacts would be less than significant.

The Reduced Project/Affordable Housing Alternative, similar to the proposed project, would not result in a change in air traffic patterns, result in hazards due to design features, nor result in inadequate emergency access. In addition, similar to the proposed project, this alternative would provide connections to existing bicycle routes, would provide adequate pedestrian access from surrounding roadways and would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Therefore, impacts would be less than significant.

The Reduced Project/Affordable Housing Alternative would provide 243 on-site parking spaces, which is consistent with the City’s parking requirements. Similar to the proposed project, the underground parking structure would provide adequate parking for the proposed uses. No impact related to inadequate parking would occur.

Utilities and Service Systems
Similar to the proposed project, the Reduced Project/Affordable Housing Alternative would increase the demand for water, wastewater and stormwater drainage facilities, water supply, wastewater treatment capacity, solid waste capacity, and energy resources. Based on Tables 4-1-1 and 4-1-2 of Water Agencies’ Standards Design Guidelines (2004), this alternative would result in an increase of 3,150 gallons per day of water compared to the proposed project due to the increase of 49 multi-family units compared to 25 units. However, since this alternative is consistent with the underlying
General Plan land use and zoning designations, which are the basis of water supply planning locally and regionally, no unplanned SFID water treatment facility improvements would be necessary to accommodate this. In addition, similar to the proposed project, there would be sufficient water supplies available to serve this alternative from existing entitlements and resources and it would not result in a significant impact. This alternative is consistent with the underlying General Plan land use and zoning designations that were in effect at the time the 2000 Sanitary Sewer Master Plan was completed, which were the basis for wastewater treatment planning efforts. Therefore, this alternative would not adversely affect the capacity of the wastewater treatment provider, similar to the proposed project. As discussed above, this alternative would not exceed the capacity of the existing stormwater drainage facilities and therefore would not require the construction of new stormwater drainage facilities. Similar to the proposed project, this alternative would be served by a landfill with sufficient permitted capacity to accommodate solid waste disposal, because it is consistent with planning documents on which the determination of regional landfill capacity needs are based. The Reduced Project/Affordable Housing Alternative would implement the same sustainability BMPs as the proposed project and would not result in a significant impact related to wasteful, inefficient, or unnecessary consumption of energy. Similar to the proposed project, this alternative would discharge wastewater to a RWQCB permitted community sewer system and would be consistent with the wastewater treatment requirements of the RWQCB, including the Regional Basin Plan. Impacts under this alternative would be less than significant, similar to the proposed project. However, from a demand standpoint, this alternative would result in an increase in the demand for water and wastewater infrastructure, water supply and wastewater treatment capacity.

**Biological Resources**

The Reduced Project/Affordable Housing Alternative would have the same surface disturbance area as the proposed project. Similar to the proposed project, this alternative would result in less than significant impacts related to sensitive habitats, wetlands, wildlife movement and corridors, and Habitat Conservation Plans or Natural Community Conservation Plans. The Reduced Project/Affordable Housing Alternative would remove the same non-native trees and shrubs which have the potential to provide habitat for nesting birds during the avian breed season. This alternative would result in potentially significant impacts related to sensitive species and compliance with local policies and ordinances, similar to the proposed project. Implementation of mitigation measure BIO-1 would reduce potential impacts to a less than significant level, similar to the proposed project.

**6.3.1.3 Ability to Accomplish Project Objectives**

The Reduced Project/Affordable Housing Alternative would provide less commercial office and restaurant space and more multi-family residential units than the proposed project. However, this alternative would not provide any retail space. Therefore, the proposed project would not fully meet project objective 1.
This alternative would meet the other project objectives because it would improve the existing aesthetic character of the project site by replacing mostly vacant onsite development with new residential and commercial uses that complement existing surrounding development and would be consistent with the Highway 101 Corridor Specific Plan development standards and design guidelines. It would also implement proposed improvements to Dahlia Drive and South Sierra Avenue to facilitate pedestrian movement, increase safety, and create visual continuity along the Highway 101 corridor, similar to the proposed project. Finally, this alternative would develop and implement a unique landscape and design plan for the project site that is consistent with the Highway 101 Corridor Specific Plan.

6.3.2 Transit Priority Project Alternative

6.3.2.1 Alternative Description

This alternative would change the mix of land uses on the project site to meet the definition of a Transit Priority Project (TPP) as identified in PRC Section 21155(b) and Senate Bill 375. To qualify as a TPP, the project land uses would be altered to: 1) contain at least 50 percent residential use, based on total building square footage and, if the project contains between 26 percent and 50 percent nonresidential uses, a floor area ratio of not less than 0.75; 2) provide a minimum net density of at least 20 dwelling units per acre; and 3) be located within one-half mile of a major transit stop or high-quality transit corridor included in a regional transportation plan. The first two requirements would be met by modifying the proposed land uses on the project site. This could be done many different ways; however, for purposes of this analysis, the TPP would provide 39 residential units totaling 53,555 SF and a mix of commercial office, retail and restaurant space totaling 41,915 SF. This alternative would have the same median size residential units, floor area ratio and total building area as the proposed project. The parking requirement for this alternative would be less than the proposed project due to the reduction in commercial office, retail and restaurant space which has a higher parking requirement than residential uses. The third requirement would be met due to the location of the project site within one-half mile of the Solana Beach transit station.

As a TPP, the project would be covered under SANDAG’s 2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Due to the potential for environmental impacts to biological resources, cultural resources, paleontological resources, Native American resources, geology and soils, hazards and hazardous materials and noise, this alternative would likely not meet the exemption criteria in PRC Section 21155.1 and would instead be required to prepare a Sustainable Communities Environmental Assessment/Limited Environmental Impact Report to incorporate all feasible mitigation measures, performance standards, or criteria set forth in prior applicable EIRs (PRC Section 21155.2), such as the SANDAG RTP/SCS Program EIR (2011). SB 375 does not
require TPPs to reference, describe or discuss growth inducing impacts, project specific or cumulative impacts from cars/light trucks on global warming or the regional transportation network or a reduced density alternative. Cumulative effects identified and mitigated in previous applicable EIRs shall not be treated as cumulatively considerable for a TPP.

This alternative would implement the same sustainability features as the proposed project, including energy efficiency, generation of on-site renewable solar energy, conservation of water and solid waste, transportation demand management, and promotion of electric and alternative fuel vehicles.

This alternative would be consistent with the City’s Zoning Ordinance, SBMC Section 17.24, which allows for up to 20 dwelling units/acre on the project site. However, this alternative would not be consistent with the current General Commercial land use designation identified in the Highway 101 Specific Plan for the project site because it would not provide the minimum 60/40 commercial/residential land use ratio. This alternative would require amendments to the Highway 101 Specific Plan, General Plan, Local Coastal Program Land Use Plan and Zoning Code to allow the proposed uses on the project site. This alternative was evaluated because it would result in fewer vehicle trips than the proposed project and, by reducing vehicle miles traveled, would reduce the amount of GHG and other pollutant emissions associated with the proposed project.

6.3.2.2 Alternative Impact Analysis

Aesthetics
Implementation of the TPP Alternative would result in the same surface disturbance area, but with more multi-family residential units and less commercial office, retail and restaurant use, compared to the proposed project. Similar to the proposed project, the TPP Alternative would have the potential to change and partially block views of the eastern, developed hills from residences to the west. However, these views are not considered scenic vistas in any adopted plans; therefore, like the proposed project, obstruction of a designated scenic vista would not occur under this alternative. Similar to the proposed project, the eastern half of the TPP Alternative is located within the Scenic Area Overlay Zone. Like the proposed project, the TPP Alternative would be subject to the design guidelines contained within the Highway 101 Corridor Specific Plan. These guidelines are used to inform site planning, public space, views, parking, signs and lighting decisions for specific districts along Highway 101. The scale and architectural style of residential and commercial development under the TPP Alternative would be similar in visual character and quality to the proposed project since the total building area would be the same. Nighttime exterior lighting, including streetlights would also be similar. Therefore, impacts of the TPP Alternative on visual character and light and glare would be less than significant.
Air Quality
The TPP Alternative would be located on the same site as the proposed project and would have the same total building area; therefore, the ambient air quality conditions, applicable air quality plans, and location of off-site receptors would be the same. This alternative would likely result in fewer vehicle trips than the proposed project because it would provide more residential units, which generally have a lower trip generation, and less commercial uses, which generally have a higher trip generation. The reduction in ADT would result in a reduction of operational criteria air pollutant emissions. Similar to the proposed project, daily emissions from construction and operation of the TPP Alternative would not exceed any air quality standard or screening thresholds for criteria pollutants in a non-attainment region and impacts would be less than significant.

Cultural Resources
As the surface disturbance area for the TPP Alternative would be similar to that of the proposed project, potential cultural resources impacts associated with this alternative would likely be the same. It is possible that ground-disturbing activities associated with construction of the TPP Alternative may uncover unknown subsurface archaeological and tribal cultural resources or human remains similar to the proposed project. Similar to the proposed project, implementation of mitigation measures CUL-1, CUL-2, and CUL-4 would reduce potential impacts to a less than significant level.

In addition, construction activities associated with the TPP Alternative would include soil excavation in order to construct underground parking similar to the proposed project. Thus, implementation of the General Plan Land Use Alternative would encounter native soils in the Old Paralic Deposits (Qop6) that were deposited in the late to middle Pleistocene and, as such, have the potential to uncover buried unknown paleontological resources. Similar to the proposed project, implementation of the mitigation measure CUL-3 would reduce this impact to below a level of significance.

Geology and Soils
The TPP Alternative would have the same surface disturbance area as the proposed project; therefore, less than significant impacts related to geological hazards, groundwater recharge, erosion, expansive soils, and wastewater disposal systems would be the same. Similar to the proposed project, the TPP Alternative would result in potentially significant impacts related to unstable soils due to excavation of the underground parking structure. The project site is underlain by undocumented artificial fill overlying late to middle Pleistocene-age Old Paralic Deposits (Qop6). Excavations associated with this alternative that are close to or below the water table, if encountered, may be unstable resulting in a potentially significant impact. Similar to the proposed project, implementation of mitigation measure GEO-1 would reduce potential impacts related to unstable soils to a less than significant level.
Greenhouse Gas Emissions
The TPP would have the same surface disturbance area and total building area as the proposed project but proposes more residential and less commercial development on the site; therefore, the ambient greenhouse gas conditions and applicable GHG reduction plans would be the same. Similar to the proposed project, the TPP Alternative would not exceed the threshold for GHG during construction activities. SB 375 does not require TPPs to reference project specific or cumulative impacts from cars/light trucks on global warming. Therefore, the GHG emissions from the vehicle trips does not need to be taken into account for the TPP’s project emissions. The removal of the vehicle trips from the total emissions of the TPP would reduce this alternative’s emissions to a level below the 900 MTCO2e/year screening threshold. Therefore, no mitigation measures for operational GHG would be required under the TPP Alternative. Impacts would be less than significant. This impact would be reduced as compared to the proposed project.

Hazardous Materials
The TPP Alternative would have the same surface disturbance area and total building area as the proposed project; therefore, hazards and hazardous materials impacts associated with this alternative would be similar to the proposed project. Compliance with all applicable regulations would reduce potential impacts related to the routine transport, use or disposal of hazardous materials during construction and operation to a less than significant level. Similar to the proposed project, this alternative would be expected to have less than significant impacts related to hazardous emissions near a school, hazardous materials sites, airport hazards, emergency response and wildland fires. The existing structures on-site have the potential to contain asbestos. Like the proposed project, demolition of the existing structures under this alternative could result in asbestos-containing materials becoming airborne and inhalable, which would result in a potentially significant impact. Similar to the proposed project, implementation of mitigation measure HAZ-1 would reduce this impact to a less than significant level.

Hydrology and Water Quality
The TPP Alternative would have the same surface disturbance area and total building area as the proposed project. Construction and operation of this alternative would generate pollutants that could potentially degrade the surface water quality of downstream receiving waters. The TPP Alternative would be required to comply with all federal, state and local regulations discussed in Section 4.7.2 and would be designed to reduce the discharge of stormwater pollutants and to improve water quality which would reduce potential impacts related to the water quality to a level below significant. Similar to the proposed project, runoff would be conveyed away from the site in a southeastern direction onto Highway 101, and to the north or south along South Sierra Avenue. Under this alternative, biofiltration best management practices (BMPs) and an onsite detention system would also be used to control the peak flow volumes from the site to control runoff leaving the site. These measures would prevent siltation/erosion off-site, flooding off-site and capacity exceedance of the existing stormwater drainage facilities similar to the
proposed project. Similar to the proposed project, the TPP Alternative would not place housing or structures in the 100-year flood area nor is it located in an area where inundation from a dam or levee failure, seiche, tsunami or mud flow would occur. Similar to the proposed project, impacts on hydrology and water quality would be less than significant.

**Land Use and Planning**

Similar to the proposed project, the TPP Alternative would replace the existing, mostly vacant onsite development with new residential and commercial structures. The proposed uses would be consistent with the existing pattern of development and range of existing uses in the surrounding area. The TPP Alternative would designate more than 50 percent of the total project square footage to multi-family residential units. This alternative would not be consistent with the current General Commercial land use designation identified in the Highway 101 Specific Plan for the project site because it would not provide the minimum 60/40 commercial/residential land use ratio. It would not be consistent with the Highway 101 Specific Plan because it would exceed the allowable limit of 40 percent residential uses in a General Commercial zone. Approval of amendments to the Highway 101 Specific Plan, General Plan, Local Coastal Program Land Use Plan and Zoning Code would allow the alternative to be developed as proposed and not result in a significant impact associated with a conflict with adopted plans or policies. Similar to the proposed project, this alternative would not physically divide an established community. In addition, it would not conflict with an applicable habitat conservation plan or natural community conservation plan.

**Noise**

Similar to the proposed project, the TPP Alternative would develop new stationary sources of noise associated with the proposed new residential and commercial buildings, increase human activity throughout the project site, increase vehicle traffic on local streets, and expose new on-site land uses to traffic noise levels. The TPP alternative proposes. Similar to the proposed project, the TPP Alternative would potentially result in excessive noise levels if truck deliveries and use of restaurant patios would occur during nighttime hours. Implementation of mitigation measures NOI-1 and NOI-2 would reduce these impacts to a less than significant level, similar to the proposed project.

This alternative would require similar construction activities as the proposed project. Construction activities would generate temporary ground-borne vibration at adjacent residential and commercial uses that are in close proximity to the project site resulting in a significant impact. Similar to the proposed project, the TPP Alternative has the potential to generate temporary ground-borne vibration that would exceed the applicable County of San Diego thresholds. Implementation of mitigation measure NOI-3 would reduce this impact to a less than significant level. In addition, construction activities with simultaneous and continuous operation of three pieces of equipment at their maximum capacity would result in a significant impact. Similar to the proposed project, this
alternative has the potential to generate a cumulative unattenuated noise level of 84 dBA at 50 feet during construction which would exceed the City’s noise ordinance related to construction. Implementation of mitigation measure NOI-4 would reduce this impact to a less than significant level, similar to the proposed project.

As with the proposed project, the TPP Alternative would generate new traffic on surrounding local roadways. This alternative would likely result in fewer vehicle trips than the proposed project because it would provide more residential units, which generally have a lower trip generation, and less commercial uses, which generally have a higher trip generation. Similar to the proposed project, this alternative would not result in a significant traffic noise impact.

Population and Housing
SB 375 does not require TPPs to reference, describe or discuss growth inducing impacts. Therefore, the issue of substantial population growth would not be applicable to this alternative. For informational purposes, implementation of the TPP Alternative would result in the construction of 14 more residential units than the proposed project, for a total of 39 multi-family residential units. Based on the City’s average occupancy factor, this alternative would resulting in a population increase of 89 residents compared to an increase of 57 residents under the proposed project. This alternative would not exceed the maximum density of 20 dwelling units per acre allowed for the site. Further, SB 375 does not require TPPs to reference, describe or discuss growth inducing impacts. Therefore, impacts related to population growth would be less than significant under this alternative. Implementation of the TPP Alternative would be located on the same partially developed and mostly vacant site as the proposed project. There are two existing residential units on the project site that are unoccupied and not being utilized for housing needs within the city. No residents would be displaced with implementation of the TPP Alternative. Therefore, impacts associated with displacement of existing housing or people would be less than significant, similar to the proposed project.

Public Services and Recreation
As discussed in the previous section, the TPP Alternative would result in a population increase of 89 residents compared to an increase of 57 residents under the proposed project. This alternative would not exceed the maximum density of 20 dwelling units per acre allowed for the site. The City’s General Plan addresses the need for increased public services to serve the proposed build out of the city, including the maximum build out of the project site. Thus, this alternative would not result in a substantial population increase that would require the development of new fire, police, or library facilities. Thus, this alternative would not result in a substantial population increase that would require the development of new fire, police, or library facilities.
This alternative would also result in an increase in school aged children. However, like the proposed project, the TPP Alternative would adhere to both Assembly Bill 2926 and the California Education Code Section 17620 and pay the applicable impact fees associated with new residential development projects. These fees would contribute to funding and maintenance for the surrounding public school districts and decrease impacts from the additional school facility services needed from future school-aged residents of this alternative project.

In addition, similar to the proposed project, the TPP Alternative would also be required to pay an associated public facilities fee, in compliance with SBMC Section 17.72.020, to contribute funding towards maintenance of existing parks or recreational facilities due to future residents of this alternative project and development of this alternative would not require the construction or expansion of recreational facilities within the city. Impacts would be less than significant under this alternative.

**Transportation/Traffic**

As with the proposed project, the TPP Alternative would generate new traffic on surrounding local roadways. However, SB 375 does not require TPPs to reference, describe or discuss project specific or cumulative impacts from cars/light trucks on the regional transportation network. The trips resulting from cars/light trucks was considered when the Regional Transportation Plan (RTP) EIR was certified. The RTP includes a Sustainable Communities Strategy that integrates how we use land, develop housing, and plan transportation. Therefore, the issue related to the performance standard of the circulation system would not be applicable to this alternative. For informational purposes, the TPP alternative would likely result in fewer vehicle trips than the proposed project because it would provide more residential units, which generally have a lower trip generation, and less commercial uses, which generally have a higher trip generation. Since the proposed project with more vehicle trips would not result in a potentially significant direct or cumulative impact on surrounding local roadways and intersections, then neither would the TPP Alternative which proposes less traffic. Similar to the proposed project, implementation of this alternative would not 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 addition, similar to the proposed project, implementation of this alternative would not conflict with the applicable congestion management plan and impacts would be less than significant.

The TPP Alternative, similar to the proposed project, would not result in a change in air traffic patterns, result in hazards due to design features, or result in inadequate emergency access. In addition, similar to the proposed project, this alternative would provide connections to existing bicycle routes and adequate pedestrian access from
surrounding roadways and would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Therefore, impacts would be less than significant.

The TPP Alternative would provide on-site parking spaces via an underground parking garage. The parking requirement for this alternative would be less than the proposed project due to the reduction in commercial office, retail and restaurant space which has a higher parking requirement than residential uses. Similar to the proposed project, this alternative would be required to provide adequate parking per the City’s requirements. Impacts would be less than significant.

**Utilities and Service Systems**

Similar to the proposed project, the TPP Alternative would increase demand for water, wastewater and stormwater drainage facilities, water supply and wastewater treatment capacity, solid waste capacity, and energy resources. Based on Tables 4.-1-1 and 4-1-2 of Water Agencies’ Standards Design Guidelines (2004), this alternative would result in an increase of more than 1,500 gallons per day of water demand compared to the proposed project due to the increase of 39 multi-family units compared to 25 units. Similar to the proposed project there is sufficient water supplies available to serve this alternative from existing entitlements and resources and it would not result in a significant impact. The proposed project is not expected to adversely affect the capacity of the wastewater treatment provider and neither would this alternative because it is consistent with the underlying General Plan land use and zoning designations that were in effect at the time the 2000 Sanitary Sewer Master Plan was completed, which were the basis for wastewater treatment planning efforts. This alternative would not exceed the capacity of the existing stormwater drainage facilities and would not require the construction of new stormwater drainage facilities. Similar to the proposed project, this alternative would be served by a landfill with sufficient permitted capacity to accommodate solid waste disposal, because it is consistent with planning documents on which the determination of regional landfill capacity needs are based. In addition, this alternative would comply with federal, state and local statutes and regulations related to solid waste and would not result in a significant impact related to solid waste capacity. The TPP Alternative would not result in a significant impact related to wasteful, inefficient, or unnecessary consumption of energy because it would implement the same sustainability BMPs as the proposed project. Similar to the proposed project, this alternative would discharge wastewater to a RWQCB permitted community sewer system and would be consistent with the wastewater treatment requirements of the RWQCB, including the Regional Basin Plan. Impacts under this alternative would be less than significant, similar to the proposed project. However, from a demand standpoint, this alternative would result in an increase in the demand for water and wastewater infrastructure, water supply and wastewater treatment capacity.
Biological Resources
The TPP Alternative would have the same surface disturbance area and total building area as the proposed project. Similar to the proposed project, this alternative would result in less than significant impacts related to sensitive habitats, wetlands, wildlife movement and corridors, and habitat conservation plans or natural community conservation plans. The TPP Alternative would remove the same non-native trees and shrubs as the proposed project which have the potential to provide habitat for nesting birds during the avian breeding season. This alternative would result in potentially significant impacts related to sensitive species and compliance with local policies and ordinances, similar to the proposed project. Implementation of mitigation measure BIO-1 would reduce potential impacts to a less than significant level, similar to the proposed project.

6.3.2.3 Ability to Accomplish Project Objectives
The TPP Alternative would implement a transit-oriented, mixed-use development including commercial office, retail and restaurant space, 39 multi-family residential units and an underground parking garage with access to mass transit. Under this alternative, more than 50 percent of the total project square footage would be dedicated to residential uses. Therefore, this alternative would meet project objective 1.

This alternative would also improve the existing aesthetic character of the site by replacing a mostly vacant site containing several existing residential and commercial structures with a new mixed-use development project. The proposed uses would complement and be consistent with the existing pattern of development and range of existing uses in the surrounding area. Therefore, this alternative would meet project objective 2.

The TPP alternative would provide planned improvements to Dahlia Drive and South Sierra Avenue to include sidewalks and parkways that would facilitate pedestrian movement, increase safety and create visual continuity along the Highway 101 corridor. It would therefore meet project objective 3.

Finally, the TPP alternative would provide project landscaping that incorporates the guidelines identified in the Highway 101 Specific Plan. Therefore, this alternative would meet project objective 4.

6.4 Environmentally Superior Alternative
According to Section 15126.6(e)(2) of the CEQA Guidelines, an EIR is required to identify the environmentally superior alternative, which is the alternative having the potential for the fewest significant environmental impacts, from among the range of reasonable alternatives that are evaluated in the EIR. Table 6-1, Comparison of Alternatives – Environmental Impacts, provides a summary comparison of the alternatives evaluated in this EIR with the purpose of highlighting whether the alternative would result in a similar, greater, or lesser impact compared to the proposed project.
As shown in Table 6-1, the No Project/No Build Alternative would be the environmentally superior alternative because it would avoid potentially significant impacts related to cultural resources, geology and soils, GHG emissions, hazards and hazardous materials, noise and biological resources. However, the No Project/No Build Alternative would not accomplish the project objectives. CEQA Section 15126.6(e)(2) also states that “the EIR shall also identify an environmentally superior alternative among the other alternatives” if the environmentally superior alternative is the “No Project” alternative. Therefore, the environmentally superior alternative would be the TPP Alternative because it would avoid potentially significant impacts related to operational GHG emissions. All other impacts would be similar to the proposed project.
No Project - General Plan Land Use Alternative
Chapter 7. REFERENCES


City of Solana Beach. 2014b. Solana Beach General Plan. As amended November 19.

City of Solana Beach. 2015. Notice of Recommendation of the View Assessment Committee to the Solana Beach City Council. March 17.


City of Solana Beach. Solana Beach Municipal Code. Available at http://www.codepublishing.com/CA/SolanaBeach/


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