DRAFT ENVIRONMENTAL IMPACT REPORT

12-EIR-005

SHELBY RESIDENTIAL PROJECT

Case No. 05-154-OA, -RZ, -VTM, -DP
State Clearinghouse Number 2012081019

Prepared by:

City of Goleta Planning and Environmental Services Department
130 Cremona Drive, Suite B
Goleta, CA  93117

(805) 961-7540

APRIL 2014
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<td>LEED</td>
<td>Leadership in Energy and Environmental Design</td>
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<td>LID</td>
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<td>LOS</td>
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</tr>
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<td>Migratory Bird Treaty Act</td>
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<td>MEP</td>
<td>maximum extent practicable</td>
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<tr>
<td>MLD</td>
<td>Most Likely Descendant</td>
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<td>MMT</td>
<td>million metric tons</td>
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<td>mph</td>
<td>miles per hour</td>
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<td>MT</td>
<td>metric ton</td>
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<tr>
<td>Acronym/Abbreviation</td>
<td>Definition</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------</td>
</tr>
<tr>
<td>N\textsubscript{2}O</td>
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<tr>
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<td>National Ambient Air Quality Standards</td>
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<td>Native American Heritage Commission</td>
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<td>NO\textsubscript{2}</td>
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<td>NOI</td>
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<td>Notice of Preparation</td>
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<tr>
<td>O\textsubscript{3}</td>
<td>ozone</td>
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<tr>
<td>OPR</td>
<td>Governor’s Office of Planning and Research</td>
</tr>
<tr>
<td>PCW</td>
<td>Project Clean Water</td>
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<td>Regional Water Quality Control Board</td>
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<td>IPCC Second Assessment Report</td>
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<td>SB</td>
<td>Senate Bill</td>
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<td>SF\textsubscript{6}</td>
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<tr>
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<td>single-family homes that are not part of a larger plan of development</td>
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<td>Shelby Family Partnership, L.P.</td>
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<td>Shelby GPA SEIR</td>
<td>Sehlby General Plan Amendment Supplemental EIR</td>
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<td>SIP</td>
<td>State Implementation Plan</td>
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<td>service population</td>
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<td>SPA</td>
<td>Streamside Protection Area</td>
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<tr>
<td>SWMP</td>
<td>Stormwater Management Plan</td>
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<tr>
<td>Acronym/Abbreviation</td>
<td>Definition</td>
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<td>----------------------</td>
<td>------------</td>
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<tr>
<td>SWPPP</td>
<td>Stormwater Pollution Prevention Plan</td>
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<td>SWRCB</td>
<td>State Water Resources Control Board</td>
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<td>United Nations Framework Convention on Climate Change</td>
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<td>USC</td>
<td>United States Code</td>
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<tr>
<td>USEPA</td>
<td>United States Environmental Protection Agency</td>
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<td>USFWS</td>
<td>U.S. Fish and Wildlife Service</td>
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<tr>
<td>USGS</td>
<td>US Geological Survey</td>
</tr>
<tr>
<td>V/C</td>
<td>volume-to-capacity</td>
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</table>
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CHAPTER 1
EXECUTIVE SUMMARY
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EXECUTIVE SUMMARY

1.1 INTRODUCTION

This Draft Environmental Impact Report (EIR) was prepared pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000, et seq.) and CEQA Guidelines (California Code of Regulations, Title 14, §§ 15000, et seq.). An EIR is a public informational document designed to provide decision-makers and the public with an analysis of the environmental effects of a proposed project, to indicate possible ways to reduce or avoid significant effects, and to describe reasonable alternatives to a project that may reduce or avoid significant effects. An EIR must also disclose significant environmental impacts that cannot be avoided; growth-inducing impacts; effects not found to be significant; and significant cumulative impacts of all past, present, and reasonably foreseeable future projects.

The applicant, Shelby Family Partnership, L.P. (Shelby), requested City of Goleta (City) discretionary approvals to subdivide a 14.38-acre parcel into 64 lots for the development of 60 single-family residences and four open space areas. The 14.38-acre parcel is in western Goleta at 7400 Cathedral Oaks Road (see Figures 2-1 through 2-3 in Chapter 2). If approved, the discretionary actions would result in the creation of 60 single-family dwellings, open space areas, and additional improvements consisting of a community picnic area, an asphalt walking trail, an open turf area, and a children’s tot lot. Infrastructure improvements would include a looped internal road system with one cul-de-sac and two intersections with Cathedral Oaks Road; installation of stormwater curb extensions; installation of landscaping; and installation of a 5-foot-wide interior sidewalk throughout the subdivision.

The applicant is also requesting amendments to the City’s General Plan/Coastal Land Use Plan (GP/CLUP). A separate Supplemental EIR for the General Plan Amendment (GPA) is being prepared by the City and is incorporated by reference herein. The Supplemental EIR (City EIR No. 12-EIR-003; “Shelby GPA SEIR”) was prepared at the same time and in coordination with this project-specific EIR. Decision-makers will consider the Supplemental EIR before taking action on the proposed GPA. Once decision-makers take action on the GPA, a decision on whether to approve the Shelby project can be made. Therefore, for the purposes of this project EIR, it is assumed that decision-makers rendered a decision on the GPA and the land is now designated for residential use in the General Plan. Consequently, the corresponding change to the R-1 (Single Family Residential) zone district would not raise any environmental issues.

This EIR is prepared by the City in accordance with CEQA and the CEQA Guidelines to evaluate potential environmental impacts resulting from the development and operation of the residential subdivision pursuant to those subdivision and development plan approvals. Under CEQA Guidelines § 15367, the City is the Lead Agency for this EIR. The City will use this EIR when considering the requests that would allow implementation of the project.

A Notice of Preparation (NOP), including an EIR Scoping document, was circulated for review and comment by the public, agencies, and organizations as required under CEQA. The NOP and comments received on the NOP are provided in Appendix A. The NOP was sent to the State Clearinghouse at the Governor’s Office of Planning and Research to officially solicit statewide agency input on the project. A public notice for the NOP was published in the Santa Barbara News Press on July 26, 2012 to solicit comments. The public review period for the NOP began on July 23, 2012 and ended on September 6, 2012. A total of 25 comments were
received in response to the NOPs for the Shelby Project EIR and the Shelby GPA SEIR, including 12 unique letters for this Shelby Project EIR. This Draft EIR has taken into consideration all of the comments received in response to the NOP for the Shelby Project EIR, including comments received during a public scoping meeting on August 8, 2012.

Pursuant to CEQA and the CEQA Guidelines, this Draft EIR is being circulated for public review for a period of at least 45 days. The Draft EIR is available for general public review at the Goleta Public Library and at the City of Goleta Planning and Environmental Review office. The Draft EIR will also be posted online at the City of Goleta’s website, www.cityofgoleta.org. Interested agencies and members of the public are invited to provide written comments on the Draft EIR during the 45-day comment period to the City at the following address:

Mr. Shine Ling, Associate Planner  
City of Goleta  
Planning and Environmental Review Department  
130 Cremona Drive, Suite B  
Goleta, CA 93117  
sling@cityofgoleta.org

Upon completion of the 45-day review period, the City will review and prepare written responses to each comment as required by CEQA and the CEQA Guidelines. A Final EIR will then be prepared, incorporating all of the comments received, responses to the comments, and the Draft EIR, along with any changes to the EIR that result from the comments received. All responses to comments submitted on the Draft EIR by public agencies will be provided to those agencies at least 10 days prior to final action on the project. In addition, all persons who commented on the Draft EIR will be notified of the availability of the Final EIR and of the date of the Planning Commission and City Council public hearings concerning certification of the Final EIR. If the City Council certifies the Final EIR, the City Council will make the necessary findings required by CEQA and the CEQA Guidelines regarding the extent and nature of the impacts as presented in the Final EIR.

Public input is encouraged at all public hearings before the City concerning the proposed project.

1.2 STRUCTURE OF ENVIRONMENTAL IMPACT REPORT

This executive summary summarizes the project description and conclusions of the impact analyses provided in the EIR. Chapter 2, “Project Description,” provides a detailed description of the project evaluated in the EIR. Chapter 3, “Related Projects,” includes a list of pending and approved projects in the project vicinity, which is used, where applicable, in the environmental issue area evaluations of cumulative impacts.

Chapter 4, “Environmental Impact Analysis,” addresses each of the issues that were identified during or after the scoping period. Section 4.1 addresses issues related to aesthetics. Section 4.2 addresses air quality issues. Section 4.3 addresses biological resources. Section 4.4 addresses cultural resources. Section 4.5 addresses greenhouse gas emissions. Section 4.6 addresses hydrology and water quality issues. Section 4.7 addresses transportation and traffic issues. The impact analysis for each issue area examined in this EIR is presented in seven subsections as described below:

- **Existing Conditions**—This subsection provides information describing the relevant environmental setting as well as the applicable regulatory setting.


- **Regulatory Framework**—This subsection summarizes the regulations, plans, and standards that apply to the proposed project and relate to the specific issue area in question.

- **Thresholds of Significance**—This subsection identifies the thresholds used to assess the significance of project impacts. These are based primarily on applicable CEQA criteria and the City’s *Environmental Thresholds and Guidelines Manual*.

- **Project Impacts and Mitigation**—This subsection describes the nature and extent to which the project would change the existing environment and makes a determination of whether or not these changes would exceed the thresholds of significance.

- **Cumulative Impacts**—This subsection identifies the potential for significant effects to occur as a result of the project in combination with other development anticipated in the vicinity of the project site. Where this potential exists, a determination is made as to whether or not the project’s contribution to this impact is cumulatively considerable and therefore significant.

- **Mitigation Measures**—Mitigation measures are identified for each significant project and cumulative impact that would occur as a result of the project. Although not required under CEQA, in some cases mitigation measures are also recommended for impacts that are considered less than significant in order to further reduce such impacts.

- **Residual Impacts**—This subsection identifies the levels of significance for project impacts following the implementation of mitigation measures, specifically identifying significant unavoidable adverse impacts, i.e., impacts that cannot be mitigated to less-than-significant levels.

Chapter 5 identifies growth-inducing impacts and significant irreversible environmental changes resulting from project implementation. Chapter 6 describes alternatives to the project and the extent to which each alternative would reduce and/or avoid the environmental impacts associated with implementation of the project. Chapter 7 lists the EIR preparers, contacts, and references used in preparation of the EIR.

### 1.3 PROJECT OBJECTIVES

The objectives of the project are to:

1. Develop the property into a residential neighborhood for approximately 60 families.
2. Provide a variety of housing sizes.
3. Provide neighborhood amenities including a walking trail, a children’s tot lot, and an open turf area.
4. Incorporate green building measures and sustainable site planning into the development’s design.

### 1.4 REQUESTED APPROVALS

The following discretionary City actions are requested by the applicant as part of the approval process for the project:

- A General Plan Amendment to change the land use designation of the project site from Agriculture to Single-Family Residential, and to remove the project site from the Open Space Plan Map (GP/CLUP Open Space Element Figure 3-5). (Note: This action is addressed separately in the Shelby GPA SEIR.)
• A rezone to change the zoning designation of the project site from AG-II-10 (Agriculture II, 40-acre minimum parcel size) to 7-R-1 (Single Family Residential, 7,000-square-foot minimum lot size).

• A Vesting Tentative Map for the creation of 64 lots.

• A Development Plan for 60 single-family dwellings and four open space areas with private access and public utilities.

• A Zoning Ordinance Amendment to reduce the minimum lot frontage requirement in the Single Family Residential zone district from 65 to 60 feet.

1.5 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Table 1-1 summarizes the project’s environmental impacts and the measures identified to mitigate these impacts. Impacts are classified as follows:

• Class I: Significant impact that cannot be reduced to a less-than-significant level with implementation of mitigation measures.

• Class II: Significant impacts that can be reduced to a less-than-significant level with implementation of mitigation measures.

• Class III: Less-than-significant impacts. Mitigation measures are not required but may be recommended for incorporation into project conditions of approval by the decision maker to minimize adverse but less-than-significant effects that are tied to policy or other regulatory standards or required permit findings.

Impacts in Table 1-1 are identified by their impact classification (Class I, II, or III). Therefore, the same general environmental issue area (e.g., Aesthetics/Visual Resources) may be discussed under more than one impact classification.

The project would result in a significant and unavoidable (Class I) impact associated with the following environmental issue area:

• Aesthetics and Visual Resources (scenic vistas and scenic resources)

The project would result in one or more potentially significant, but mitigable (Class II) impacts in each of the following environmental issue areas:

• Aesthetics and Visual Resources (substantial light and glare)

• Biological Resources (special-status plants and animals, riparian/other sensitive natural communities, wetlands, wildlife movement)

• Cultural Resources (archaeological resources, paleontological resources)

• Hydrology and Water Quality (surface water and groundwater quality, stormwater flows and drainage)

• Transportation and Traffic (Santa Barbara County Association of Governments [SBCAG] Congestion Management Program impacts)

The project would result in one or more less-than-significant (Class III) impacts in each of the following impact classifications:

• Aesthetics and Visual Resources (visual character and quality; obstruction of onsite visual resources; loss of vegetation, open space, or natural character)
- Air Quality (short-term construction emissions impacts, long-term emissions impacts, objectionable odors, exposure to toxic air contaminants)
- Biological Resources (conflicts with policies)
- Greenhouse Gases (construction emissions, operational emissions, consistency with AB 32)
- Transportation and Traffic (traffic, public transit/alternative modes of transportation, cumulative roadway segment impacts, cumulative intersection impacts)

The project would result in less-than-significant (Class III) impacts, which did not require further discussion in the EIR, for the following environmental issue areas:
- Agricultural and Forestry Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services and Recreation
- Utilities and Service Systems

Please refer to the NOP Scoping document and its attachments in Appendix A for additional information regarding the Class III impacts identified immediately above.

Table 1-1 summarizes the project's potential environmental impacts as well as EIR mitigation measures that have been identified to reduce these impacts. For a more detailed discussion of project impacts and mitigation measures, please refer to the individual issue area sections of this EIR. As stated above, Table 1-1 categorizes project impacts by impact classification (Class I, II, and III) and then by environmental issue.
### TABLE 1-1
**SUMMARY OF IMPACTS AND MITIGATION MEASURES**

<table>
<thead>
<tr>
<th>Impact</th>
<th>Proposed Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CLASS I IMPACTS: Impacts that would be significant and unavoidable</strong></td>
<td></td>
</tr>
<tr>
<td>Aesthetics and Visual Resources</td>
<td></td>
</tr>
<tr>
<td>Impact AES-1: Scenic Vistas and Scenic Resources</td>
<td>MM AES-1. Height Limitations</td>
</tr>
<tr>
<td><strong>CLASS II IMPACTS: Impacts that would be potentially significant but can be mitigated to less-than-significant levels</strong></td>
<td></td>
</tr>
<tr>
<td>Aesthetics and Visual Resources</td>
<td></td>
</tr>
<tr>
<td>Impact AES-3: Substantial Light and Glare</td>
<td>MM AES-3a. Exterior Night Lighting Restrictions</td>
</tr>
<tr>
<td>Biological Resources</td>
<td></td>
</tr>
</tbody>
</table>
| Impact BIO-1: Special-status Plant/Animal Species | MM BIO-1a. General Biological Resources Protection During Construction  
MM BIO-1b. Protect Special-status Plant Species  
MM BIO-1c. Protect Special-status Animals  
MM BIO-1d. Protect Special-status Reptiles and Amphibians  
MM BIO-1e. Protect Special-status Birds  
MM BIO-1f. Protect Bat Species  
MM BIO-1g. Protect Nesting Birds (including Raptors) |
| Impact BIO-2: Riparian/Other Sensitive Natural Communities | MM BIO-2a. Protect Riparian Habitat, Wetlands, and Wildlife Movement |
| Impact BIO-3: Wetlands | MM BIO-3a. General Biological Resources Protection During Construction  
MM BIO-3b. Protect Riparian Habitat, Wetlands, and Wildlife Movement |
| Cultural Resources | | |
| Impact CUL-2: Archaeological Resources | MM CUL-2a. Construction Monitoring  
MM CUL-2b. Pre-construction Workshop: Cultural Resources  
MM CUL-2c. Discovery of Human Remains |
| Impact CUL-3: Paleontological Resources/Geologic Features | MM CUL-3a. Discovery of Paleontological Resources  
MM CUL-3b. Pre-construction Workshop: Paleontological Resources |
<p>| Hydrology and Water Quality | | |
| Impact HYD-1: Surface Water and Groundwater Quality | MM HYD-1. Stormwater Pollution Prevention Plan |</p>
<table>
<thead>
<tr>
<th>Impact</th>
<th>Proposed Mitigation</th>
</tr>
</thead>
</table>
MM HYD-2b. Maintenance Agreement |
MM TRA-8b. Contribute Fees to Goleta Transportation Improvement Program (GTIP) |

**CLASS III IMPACTS: Impacts that would be less than significant**

### Aesthetics and Visual Resources

<table>
<thead>
<tr>
<th>Impact</th>
<th>Proposed Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact AES-2: Visual Character and Quality</td>
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</tr>
<tr>
<td>Impact AES-4: Obstruct Onsite Visual Resources</td>
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</tr>
<tr>
<td>Impact AES-5: Loss of Vegetation, Open Space, or Natural Character</td>
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</table>

### Air Quality

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<tr>
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<th>Proposed Mitigation</th>
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<tbody>
<tr>
<td>Impact AQ-2: Air Quality Impacts</td>
<td>No mitigation required.</td>
</tr>
</tbody>
</table>
| **Recommended mitigation:**                | MM AQ-2a. Implement SBCAPCD-required Construction Dust Control Measures  
MN AQ 2b. Implement SBCAPCD-Recommended Construction Exhaust Control Measures  
MN AQ 2c. Limit Diesel Emissions |
| Impact AQ-3: Objectionable Odors           | No mitigation required.                                                                 |
| Impact AQ-4: Health Risk Assessment Regarding Exposure to Toxic Air Contaminants | No mitigation required.                                                                 |

### Biological Resources

<table>
<thead>
<tr>
<th>Impact</th>
<th>Proposed Mitigation</th>
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</thead>
<tbody>
<tr>
<td>Impact BIO-5: Conflicts with Policies</td>
<td>No mitigation required.</td>
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</tbody>
</table>

### Greenhouse Gases

<table>
<thead>
<tr>
<th>Impact</th>
<th>Proposed Mitigation</th>
</tr>
</thead>
</table>
| Impact GHG-1: Generation of Emissions in Excess of Threshold Levels | No mitigation required.  
**Recommended mitigation:**  
MM GHG-1a. Implement BAAQMD Best Management Practices for Construction  
MM GHG-1b. Implement Measures to Reduce Operational GHG Emissions |
<table>
<thead>
<tr>
<th>Impact</th>
<th>Proposed Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation and Traffic</strong></td>
<td></td>
</tr>
<tr>
<td>Impact TRA-1: Long-term Traffic Impacts</td>
<td>No mitigation required.</td>
</tr>
<tr>
<td>Impact TRA-3: Public Transit/Alternative Modes of Transportation</td>
<td>No mitigation required.</td>
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<tr>
<td>Impact TRA-4: Access and Circulation</td>
<td>No mitigation required.</td>
</tr>
<tr>
<td>Impact TRA-5: Short-term Construction Traffic</td>
<td>No mitigation required.</td>
</tr>
<tr>
<td><strong>Recommended mitigation:</strong></td>
<td></td>
</tr>
<tr>
<td>MM TRA-5a. Prepare Construction Transportation Plan</td>
<td></td>
</tr>
<tr>
<td>MM TRA-5b. Distribute the Construction Activity Schedule and Construction Routes</td>
<td></td>
</tr>
<tr>
<td>Impact TRA-6: Cumulative Roadway Segment Impacts</td>
<td>No mitigation required.</td>
</tr>
<tr>
<td>Impact TRA-7: Cumulative Intersection Impacts</td>
<td>No mitigation required.</td>
</tr>
</tbody>
</table>
1.6 ALTERNATIVES TO THE PROPOSED PROJECT

1.6.1 Alternative 1: No Project Alternative

The No Project Alternative as defined in Section 15126.6(e) of the CEQA Guidelines is “the existing conditions at the time of the notice of preparation is published...as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.” Existing conditions at the project site are described in each of the impact analyses in Chapter 4, “Environmental Impact Analysis.”

In this case, if the project is not approved, the site is expected to remain in its existing condition. The existing setting includes a 2,015-square-foot residence, 726-square-foot garage, and 1,152-square-foot barn. The project site had an avocado orchard until the late 1990s, a remnant of which is evident on the northern third of the lot. The property is currently used in part for the storage of woodchips and firewood. The avocado orchard could be re-established, and other land uses allowed by right under the property’s existing zoning of Agriculture-II.

For the purposes of the alternatives analysis, the No Project Alternative would include the largest amount of structural development allowable on the project site by right, which would be a complex of greenhouses totaling 20,000 square feet in floor area (e.g., 10 greenhouses at 2,000 square feet each). Row crops, orchards, or animal grazing would also be allowed over most of the project site.

1.6.2 Alternative 2: Reduced Scale Alternative A—Avoidance of Streamside Protection Area

This alternative would be a project similar to the current project but with all development pulled out of a 100-foot SPA buffer measured from the eastern edge of the riparian corridor of El Encanto Creek.

1.6.3 Alternative 3: Reduced Scale Alternative B—Minimum 65-Foot Lot Frontage

This alternative would be a project similar to the current project but with all lots meeting the minimum lot frontage requirement of the 7-R-1 zone district of 65 feet, and no lots exceeding the subdivision standard maximum lot depth to width ratio of 3:1. The proposed project includes 46 lots that do not meet the 65-foot lot frontage requirement. For the purposes of this analysis, it is assumed that the site would be reconfigured to include 48 units, rather than 60, a 20% reduction compared to the proposed project.

1.6.4 Alternative 4: Multi-family Residential Development

This alternative would be a project of 60 multi-family units (such as duplexes, triplexes, or other medium-density residential buildings) on the same project site.

1.6.5 Alternative 5: Girsh/Westen Alternative Site

This alternative would be a project of 60 units located on an approximately 10-acre site in the 7100 block of Hollister Avenue, west of Santa Felicia Drive, in Goleta.
1.7 COMPARISON OF ALTERNATIVES

Table 1-2 provides a summary of the relative impacts of each alternative. Alternative 2, the Reduced Scale Alternative A—Avoidance of Streamside Protection Area, is identified as the Environmentally Superior Alternative.

<table>
<thead>
<tr>
<th>Environmental Effect</th>
<th>Impact of Alternatives Compared to the Proposed Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics and Visual Resources</td>
<td>Proposed Project, Alt. 1: No Project, Alt. 2: Reduced Scale Alternative A, Alt. 3: Reduced Scale Alternative B, Alt. 4: Multi-family Residential Development, Alt. 5: Girsh/Westen Alternative Site</td>
</tr>
<tr>
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<td>I, I / Less, I / Similar, I / Similar, I / Greater, I / Similar</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>II, II / Similar, II / Less, II / Similar, II / Less, II / Similar</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>II, II / Similar, II / Less, II / Less, II / Similar, II / Similar</td>
</tr>
<tr>
<td>Transportation and Traffic</td>
<td>II, II / Less, II / Less, II / Less, II / Similar, II / Greater</td>
</tr>
<tr>
<td>Other impacts</td>
<td>--, --, --, --, Land Use, Hazards (I and II)</td>
</tr>
</tbody>
</table>

1Impact Comparison:
The first symbol identifies the impact classification (e.g., Class I = significant and unavoidable; Class II = potentially significant, but mitigable to less than significant; Class III = adverse, but less than significant). Next, there is a comparison to the project even if the classification is the same (e.g., both the proposed project and the alternative result in a Class II impact, but the alternative has “Less,” “Similar,” or “Greater” of an impact compared to the proposed project).

1.8 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

The primary area of controversy are associated with the project’s potential to impact include the conversion of previous agricultural land to residential uses (which is addressed in the Shelby GPA SEIR).

1.9 REFERENCE MATERIALS

Chapter 7 contains a complete listing of all technical reports and plans submitted by the project sponsor, as well as maps and documents on file at the City of Goleta Planning and Environmental Review Department that have been used in evaluating the project and are incorporated by reference in accordance with CEQA Guidelines § 15150. Documents incorporated by reference in this EIR are referenced in the various issue area sections. Reports, documents, and maps are matters of public record and are available for public review at the City of Goleta Planning and Environmental Review Department, 130 Cremona Drive, Suite B,
Goleta, phone number (805) 961-7540; or contact Mr. Shine Ling, Associate Planner, at (805) 961-7548 or via email: sling@cityofgoleta.org.

Key documents that are incorporated by reference include the following:


CHAPTER 2
PROJECT DESCRIPTION
CHAPTER 2
PROJECT DESCRIPTION

2.1 LOCATION AND EXISTING SETTING

The “project site” refers to and encompasses the approximately 14.38 acres currently
designated as Assessor’s Parcel Number (APN) 077-530-019 in western Goleta at 7400
Cathedral Oaks Road (Figures 2-1 through 2-3). The project site is surrounded by the Glen
Annie Golf Course to the north and east, El Encanto Creek to the west, and Cathedral Oaks
Road to the south. Within the vicinity of the project are residential and recreational uses,
including a multi-family residential development to the west, single-family residences located off
of Cathedral Oaks Road to the south, and Glen Annie Golf Course to the north and east. Dos
Pueblos Senior High School is approximately 0.5 mile to the southeast of the project site at
Cathedral Oaks Road and Alameda Avenue.

The land use on this parcel, which is currently a large fallow field with three small buildings,
would change from agricultural to residential. However, there is no agricultural activity occurring
on the site at this time. The project site currently contains a 2,015-square-foot residence, 726-
square-foot garage, and 1,152-square-foot barn. The project site was occupied by an avocado
orchard until the late 1990s, a remnant of which is evident on the northern third of the lot. The
property is currently used in part for the storage of woodchips and firewood.

2.2 OBJECTIVES

The objectives for the project are to:
1. Develop the property into a residential neighborhood for approximately 60 families.
2. Provide a variety of housing sizes.
3. Provide neighborhood amenities including a walking trail, a children’s tot lot, and an open
turf area.
4. Incorporate green building measures and sustainable site planning into the development’s
design.

2.3 PROPOSED PROJECT

“Project” is defined by CEQA Guidelines § 15378 as “the whole of an action which has a
potential for resulting in either a direct physical change in the environment, or a reasonably-
foreseeable indirect physical change in the environment.” In this instance, the project includes a
subdivision for 64 lots on a 14.38-acre parcel and development of 60 single-family residences. A
retention/detention basin is proposed in the southwest corner of the parcel, and a new storm
drain would be installed. Runoff would drain into El Encanto Creek, located to the west of the
project site.

Additional improvements would consist of a community picnic area, an asphalt walking trail, an
open turf area, and a children’s tot lot. Infrastructure improvements would include a looped
internal road system with one cul-de-sac and two intersections with Cathedral Oaks Road,
installation of stormwater curb extensions, installation of landscaping, and installation of a 5-
foot-wide interior sidewalk throughout the subdivision. Permeable paving throughout the
subdivision would capture stormwater runoff and convey it to a series of catch-basins located on either the east or west side of the project.

The residential units to be developed would consist of five residential dwelling types ranging in size from a single-story, 1,765-square-foot floor plan to a two-story, 3,870-square-foot floor plan. The typical roof height would range from 17 feet 9 inches to 23 feet 10 inches. The individual lot size would range from approximately 6,500 square feet to approximately 17,000 square feet.

The landscape plan for the project includes various features for the sustainable management of stormwater and water quality. Stormwater curb extensions and permeable paver parking areas and driveways would provide a way to capture street stormwater runoff for treatment, filtration, and sediment dropout. Above-ground cisterns would be located at each residence to collect precipitation and roof drainage for use as supplemental irrigation. Bioswale and vegetated swale in the open space area and along Cathedral Oaks Road, as well as biofiltration/collection areas, would capture additional stormwater for filtration, infiltration, and sediment dropout. The landscape plan’s aesthetic design solutions also call for various screen shrubs, accent trees, and canopy trees.

The project would include underground connections for sewer, water, cable television, gas, and electricity. Water service would be provided by the Goleta Water District.

Preliminary raw\(^1\) earthwork volumes are estimated at 27,500 cubic yards of cut and 23,500 cubic yards of fill. The existing elevation on the property ranges from 145 feet above mean sea level along Cathedral Oaks Road northward to 252 feet above mean sea level at the northeast corner of the property, for an average slope of 7.8 percent. The finished grade elevation would range from approximately 150 feet above mean sea level to approximately 245 feet above mean sea level.

The grading plan for the 60 new homes includes grading up to the property line and installation of a new storm drain that would discharge directly into El Encanto Creek. As currently designed, the buffer between the project and the edge of the riparian corridor of the creek varies in width and would be less than 100 feet in at least two locations. Accordingly, the project would not maintain a minimum 100-foot Streamside Protection Area (SPA) buffer as denoted by the City’s General Plan/Coastal Land Use Plan (GP/CLUP) Conservation Element Policy CE 2.2. This policy calls for a 100-foot buffer (measured from the edge of the stream’s riparian corridor). The buffer protects the biologic value and function of the stream. It also protects its associated riparian corridor to ensure water quality, prevent stream erosion, preserve stream aquatic values, and provide a riparian corridor for wildlife movement. However, CE 2.2a allows the SPA to vary in width under certain circumstances.

2.4 REQUIRED APPROVALS

The project requires City approval of the following applications:

- Vesting tentative map (05-154-VTM), as shown on Figure 2-4, to allow division of the existing 14.38-acre parcel, APN 077-530-019, into 64 separate lots, including 60 single-family dwellings and four open space areas.

\(^1\) “Raw” earthwork volumes have not been factored to account for changes in volume due to bulking, over excavation and recompaction, and construction methods.
Figure 2-1
Vicinity Map
Shelby Residential Project EIR

Legend
- Project Site
- Goleta
- Santa Barbara Municipal Airport
- University of California
- Santa Barbara

Source: ESRI World Imagery (2010)
Figure 2-3
Project Site
Shelby Residential Project EIR
• A rezone (05-154-RZ) to change the zoning designation of the project site from AG-II-10 (Agriculture II, 40-acre minimum parcel size) to 7-R-1 (Single Family Residential, 7,000-square-foot minimum lot size).

• A zone text amendment (05-154-OA) to Goleta Municipal Code (GMC) § 35-219.6 to change the minimum lot width of parcels in the 7-R-1 zone district from 65 feet to 60 feet.

• A Development Plan (05-154-DP) pursuant to GMC § 35-317 to provide project-specific development standards.

Refer to Figures 2-5, 2-6, and 2-7. The applicant is also requesting amendments to the City’s GP/CLUP as part of a separate project under CEQA (Case No. 05-154-GPA). A separate Supplemental Environmental Impact Report (SEIR) for the Shelby General Plan Amendment is being prepared by the City and is incorporated by reference (City EIR No. 12-EIR-003; “Shelby GPA SEIR”).

2.5 SITE INFORMATION

<p>| TABLE 2-1 |</p>
<table>
<thead>
<tr>
<th>SITE INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing General Plan Land Use Designation</strong></td>
</tr>
<tr>
<td><strong>Zoning Regulations, Existing Zone District</strong></td>
</tr>
<tr>
<td><strong>Site Size</strong></td>
</tr>
<tr>
<td><strong>Present Use and Development</strong></td>
</tr>
<tr>
<td><strong>Surrounding Uses/Zoning</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Access</strong></td>
</tr>
<tr>
<td><strong>Existing Roadway</strong></td>
</tr>
<tr>
<td><strong>Proposed Driveways</strong></td>
</tr>
<tr>
<td><strong>Utilities and Public Services</strong></td>
</tr>
<tr>
<td><strong>Water Supply</strong></td>
</tr>
<tr>
<td><strong>Sewage</strong></td>
</tr>
<tr>
<td><strong>Power</strong></td>
</tr>
<tr>
<td><strong>Natural Gas</strong></td>
</tr>
</tbody>
</table>
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Landscape Plan

Shelby Residential Project EIR

Source: Katie O’Reilly Rogers Inc. November 2010

Figure 2-6

TOT LOT
- BENCH SEATING
- WALKING TRAIL

TURF AREA FOR DETENTION, BIOFILTRATION
AND OPEN PLAY

WALKING TRAIL
PEDESTRIAN BRIDGE OVER BIOSWALE
CANOPY TREE / BENCH SEATING

BIOSWALE
PERIMETER WALL @ OPEN SPACE
- TUBULAR STEEL VIEW FENCING
- 6’-HIGH

WALKING TRAIL
COMMUNITY PICNIC AREA
TURF AREA FOR DETENTION, BIOFILTRATION
AND OPEN PLAY

BIOSWALE WITHIN PARKWAY
PROPOSED 10’-WIDE ASPHALT BIKE PATH

BIOSWALE
50’-WIDE LANDSCAPE BUFFER
PERMEABLE PAVING AT ENTRY

5’-WIDE INTERIOR SIDEWALK
TYP. FRONT YARD LANDSCAPE
SEE SEPARATE EXHIBIT

PASSIVE OPEN SPACE
- TURF AREA FOR BIOFILTRATION
- BENCH SEATING
- CANOPY TREES & ACCENT TREES

PERMEABLE PAVING AT DRIVEWAY
CORNER ACCENT TREE
STREET TREE
TURF AREA FOR BIOFILTRATION,
INFILTRATION

CURB EXTENSION TYP.
INTERIOR WALL AT STREETSCAPE
- STUCCO BLOCK WALL WITH
UPGRADED MATERIAL SUCH AS
STONE VENEER
- 6’-HIGH

PEDESTRIAN CROSSING TYP.
PERMEABLE PAVING

5’-WIDE INTERIOR SIDEWALK
TYP. FRONT YARD LANDSCAPE
SEE SEPARATE EXHIBIT
PERMEABLE PAVING AT PARKING AREA
PERMEABLE PAVING AT DRIVEWAY
PERIMETER WALL
- COMBINATION BLOCK WALL & VIEW FENCING
- 6’-HIGH
INTERIOR WALL - BETWEEN LOTS
- PRECISION BLOCK WALL
- 6’-HIGH
STREET TREE
MEANDERING TURF AREA FOR BIOFILTRATION, INFILTRATION
SCREENING TREES
**Figure 2-7**

Landscape Hydrology Plan

Shelby Residential Project EIR

*Source: Katie O'Reilly Rogers Inc. November 2010*

**Typical Streetscape with Permeable Paving**

**Typical Driveway with Combination Permeable Paving and Grass Strip**

**STORMWATER CURB EXTENSION**
- Mid-block application / can be staggered or placed symmetrically
- Provides a safer traffic environment / traffic calming effect
- Provides a more aesthetically pleasing streetscape

**BIOSWALE / VEGETATED SWALE**
- Located in open space area and along Cathedral Oaks Road

**BIOFILTRATION / COLLECTION AREAS**
- Located in open space areas and in front yards throughout site

**RAIN BARREL / CISTERN**
- Above-ground barrel or cistern for each home
- Connect to downspout

**PERMEABLE PAVING - DRIVEWAYS & PARKING AREAS**
- 7' application on both sides of street, with a 20' driveable area inbetween
- Creates a "perceived narrowing" of the street / traffic calming effect
- Provides a more maintenance-friendly driveway (no cracking)
- Provides a more aesthetically pleasing front yard and streetscape


CHAPTER 3
RELATED PROJECTS
CHAPTER 3
RELATED PROJECTS

CEQA Guidelines § 15130 requires EIRs to discuss cumulative impacts when the project’s incremental effects are significant when viewed in connection with the effects of past projects, current projects, and probable future projects. It further states that such discussion must reflect the severity of the impact and the likelihood of occurrence, but not in as great a level of detail as that necessary for the impacts of the project alone. CEQA Guidelines § 15355 defines cumulative impacts to be “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.”

CEQA Guidelines § 15130(b)(1) requires that information from one of the following two sources must be included when analyzing significant cumulative impacts:

a. 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

b. A summary of projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.

The cumulative impact analysis contained in this EIR uses a combination of both methods a and b. Table 3-1 lists a summary of the local and regional planning documents evaluated to determine the conditions contributing to cumulative effects.

### TABLE 3-1
LIST OF PLANS REFERENCED FOR CUMULATIVE EFFECTS

<table>
<thead>
<tr>
<th>Plan</th>
<th>Issue Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Goleta General Plan/Coastal Plan (all Elements) and EIR</td>
<td>All issue areas</td>
</tr>
<tr>
<td>City of Goleta Greenhouse Gas Inventory</td>
<td>Greenhouse Gas Emissions</td>
</tr>
<tr>
<td>Santa Barbara County Air Pollution Control District Clean Air Plan</td>
<td>Air Quality</td>
</tr>
<tr>
<td>City of Goleta Storm Water Management Plan</td>
<td>Biology, Hydrology</td>
</tr>
<tr>
<td>Regional Water Quality Control Board</td>
<td></td>
</tr>
<tr>
<td>Water Quality Control Plan for the Central Coastal Basin</td>
<td>Biology, Hydrology</td>
</tr>
<tr>
<td>Goleta Transportation Improvement Program</td>
<td>Transportation</td>
</tr>
</tbody>
</table>

### 3.1 CITY OF GOLETA

The list of past, present, and probable future projects within the City of Goleta producing related or cumulative impacts is presented in Table 3-2.
<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Land Use</th>
<th>Size/Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Projects Under Construction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haskell’s Landing (The Hideaway) 07-102-GP, -TM, -DP</td>
<td>079-210-049 Hollister Avenue &amp; Las Armas Road</td>
<td>Residential</td>
<td>14.23 acres 101 residential units</td>
<td>Under construction</td>
</tr>
<tr>
<td>Goleta Valley Cottage Hospital 07-171-OA, -DP</td>
<td>065-090-022 606-090-028 351 S. Patterson at Hollister Avenue</td>
<td>Commercial</td>
<td>18.38 acres Hospital: 93,090 SF Existing; 152,658 SF Approved; 59,568 SF net new</td>
<td>Under construction</td>
</tr>
<tr>
<td>Cabrillo Business Park 37-SB-DP 08-107-DP AM</td>
<td>073-450-005 6767 Hollister Avenue</td>
<td>Commercial</td>
<td>91.4 acres Business Park: new structures total 693,100 SF (R&amp;D, self storage, service uses; 241,682 SF existing; 934,782 SF total)</td>
<td>Under construction</td>
</tr>
<tr>
<td>Robinson LLA- related lots 99-LA-024; 77-SB-LLA</td>
<td>077-141-053 077-141-070 et al. Baker, Violet and Daffodil Lanes</td>
<td>Residential</td>
<td>0.23–0.26 acre each lot 13 units</td>
<td>Approved; 9 units completed</td>
</tr>
<tr>
<td>Westar 08-143-GPA, -VTM, -DP</td>
<td>073-030-020; -021 Hollister Ave N/E corner of Glen Annie Rd and Hollister</td>
<td>Residential/Commercial</td>
<td>23.55 acres 279 residential units 90,054 SF retail</td>
<td>Under construction</td>
</tr>
<tr>
<td>FLIR Addition to Cabrillo Business Park 12-028-DP AM</td>
<td>073-610-001; -002 6769/6775 Hollister Ave.</td>
<td>Commercial</td>
<td>11.43 acres 11,827 SF (net new) office building addition (demo 4,348 SF; new building is 16,175 SF)</td>
<td>Under construction</td>
</tr>
<tr>
<td><strong>Approved Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fairview Commercial Center 01-SB-DP; CUP</td>
<td>073-080-019 151 S. Fairview Avenue</td>
<td>Commercial</td>
<td>0.8 acre 16,885 SF mixed use building (9,250 SF retail space, 6,110 SF office space and 2 units)</td>
<td>Approved</td>
</tr>
<tr>
<td>Citrus Village 04-226-TM, -DP</td>
<td>077-490-043 7388 Calle Real</td>
<td>Residential</td>
<td>1.02 acres 10 residential units</td>
<td>Approved</td>
</tr>
<tr>
<td>Renco Encoders 07-103-DP</td>
<td>073-150-013 26 Coromar Drive</td>
<td>Industrial</td>
<td>3.57 acres Existing M-RP Bldg (33,600 SF); Add 8,800 SF manuf. Space; Add 10,400 SF office</td>
<td>Approved</td>
</tr>
<tr>
<td>Mariposa at Ellwood Shores 07-217-DP</td>
<td>079-210-057 7760 Hollister Ave.</td>
<td>Commercial</td>
<td>2.95 acres 62,481 SF Assisted Living (90 residents)</td>
<td>Approved</td>
</tr>
</tbody>
</table>
## Chapter 3. Related Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Land Use</th>
<th>Size/Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schwann Self Storage</td>
<td>07-229-DP 071-090-082 10 S. Kellogg Ave.</td>
<td>Industrial</td>
<td>2.06 acres 111,730 SF self-storage facility</td>
<td>Approved</td>
</tr>
<tr>
<td>GVCH Medical Office Building Reconstruction</td>
<td>08-185-DP 065-090-023 5333 Hollister Avenue</td>
<td>Commercial</td>
<td>2.17 acres Medical Office Building Demo existing 41,224 SF; 52,000 SF proposed; 10,776 SF net new</td>
<td>Approved</td>
</tr>
<tr>
<td>Fresh and Easy Market</td>
<td>11-032-DP 069-110-018 5955 Calle Real</td>
<td>Commercial</td>
<td>1.98 acres 3,754 SF net new grocery market (demo 9,939 SF; new structure is 13,693 SF)</td>
<td>Approved</td>
</tr>
<tr>
<td>Camino Real Marketplace Skating Facilities</td>
<td>95-DP-026 073-440-022 Santa Felicia Drive</td>
<td>Commercial</td>
<td>4.8 acres 46,479 SF ice rink 17,000 SF roller rink</td>
<td>Approved</td>
</tr>
<tr>
<td>Islamic Society of SB</td>
<td>03-051-RZ; DP; CUP 077-160-035 N/E Corner of Los Carneros and Calle Real</td>
<td>Commercial</td>
<td>0.59 acres 6,183 SF building for religious organization &amp; 1 caretaker unit</td>
<td>Approved</td>
</tr>
<tr>
<td>Rincon Palms Hotel and Restaurant</td>
<td>09-106-DP RV 073-140-004 6868/6878 Hollister Avenue</td>
<td>Commercial</td>
<td>3.05 acres Proposed: 93,822 SF hotel; 149 rooms; 5,440 SF conf.</td>
<td>Approved</td>
</tr>
<tr>
<td><strong>Pending Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taylor Parcel Map</td>
<td>03-053-PM 069-100-003 590 N. Kellogg Avenue</td>
<td>Residential</td>
<td>1.6 acres 3 new units</td>
<td>Pending (on hold)</td>
</tr>
<tr>
<td>Sturgeon Building</td>
<td>06-180-RZ; DP 077-160-040 S/E Corner of Los Carneros and Calle Real</td>
<td>Commercial</td>
<td>0.53 acres 6,046 SF retail/medical office</td>
<td>Pending (on hold)</td>
</tr>
<tr>
<td>Kenwood Village</td>
<td>08-205-GPA, -RZ, -VTM 077-130-006,-019; 077-141-049 Calle Real w/o Calaveras Avenue</td>
<td>Residential</td>
<td>10 acres 60 residential units</td>
<td>Pending</td>
</tr>
<tr>
<td>Marriott Residence Inn</td>
<td>09-075-TPM, -DP and 09-079-DP AM 073-050-020 6300 Hollister Avenue</td>
<td>Commercial</td>
<td>10.57 acres 80,989 SF hotel (118 rooms)</td>
<td>Pending</td>
</tr>
<tr>
<td>Villages at Los Carneros I and II</td>
<td>073-330-024, -026, -027, -028, -029 Adjacent to 71 S. Los Carneros Road</td>
<td>Residential</td>
<td>43.14 acres Villages at Los Carneros I approved with 275 units on 16.11 acres; Proposed Villages at Los Carneros II to replace LC-I approval with 465 units on 43.14 acres</td>
<td>Pending</td>
</tr>
<tr>
<td>Cortona Apts</td>
<td>09-140-DP 073-140-016 6830 Cortona Drive</td>
<td>Residential</td>
<td>8.82 acres 176 residential units</td>
<td>Pending</td>
</tr>
<tr>
<td>Target Store</td>
<td>11-125-GPA 073-070-034; -035; 073-330-030 6466 &amp; 3470 Hollister Avenue &amp; 170 Los Carneros Way</td>
<td>Commercial</td>
<td>11.35 acres 120,690 SF net new grocery market (demo 44,110 SF; new bldg is 164,800 SF)</td>
<td>Pending</td>
</tr>
</tbody>
</table>
### 3.2 COUNTY OF SANTA BARBARA

The list of past, present, and probable future projects within the County of Santa Barbara producing related or cumulative impacts is presented in Table 3-3.

**TABLE 3-3**

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Land Use</th>
<th>Size / Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pending Residential and Commercial</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zacara Ranch 10DVP-00012</td>
<td>10920 Calle Real</td>
<td>Residential</td>
<td>2 new bunkhouses with 20 bedrooms</td>
<td>Pending</td>
</tr>
<tr>
<td>State Street Hospitality 09DVP-00018</td>
<td>4111 &amp; 4119 State Street</td>
<td>Commercial</td>
<td>16-unit hotel replaced with 88 rooms in a building of 83,076 SF</td>
<td>Pending</td>
</tr>
<tr>
<td>Park Hill Estates* 06TPM-00009 10TRM-00001 (v2)</td>
<td>4700 Via Los Santos/1068 San Antonio Creek Rd.</td>
<td>Residential</td>
<td>12 unit subdivision approved in 2006 OR 16 unit subdivision approved in 2012*</td>
<td>Pending</td>
</tr>
<tr>
<td>The Knoll 07TRM-00005 07DVP-00031</td>
<td>533 N. Patterson Ave.</td>
<td>Residential</td>
<td>Subdivision of 4.75 acre parcel into 13 lots for 13 residential units</td>
<td>Pending</td>
</tr>
<tr>
<td><strong>Approved or Under Construction Residential and Commercial</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cavaletto Noel Tree Farm 08DVP-00012</td>
<td>560 Merida Dr.</td>
<td>Residential</td>
<td>Demolition of 3 units and construction of 135 new units</td>
<td>Approved</td>
</tr>
<tr>
<td>St. George 08DVP-00040</td>
<td>870 Camino del Sur, Isla Vista</td>
<td>Residential</td>
<td>Apartments, 56 units</td>
<td>Approved/ Under Construction</td>
</tr>
<tr>
<td>St. Athanasius Orthodox Church Campus 01CUP-00152; 09TEX-00004</td>
<td>300 Sumida Gardens Ln.</td>
<td>Commercial</td>
<td>26,921 SF</td>
<td>Approved/ Under Construction</td>
</tr>
</tbody>
</table>
### 3.3 UNIVERSITY OF CALIFORNIA AT SANTA BARBARA

Planning efforts associated with the University of California at Santa Barbara (UCSB) are outlined in the Vision 2025 Long Range Development Plan (LRDP) that includes the following:

1. The LRDP details campus plans to the year 2025.
2. The LRDP anticipates a growth rate of 1% per year in student enrollment, or roughly 250 students per year, to a maximum enrollment of 25,000 in 2025.
3. The LRDP includes the development of housing needed to accommodate all additional students.
4. The LRDP, when fully implemented, anticipates providing housing for more than 1,600 faculty and staff members. Currently, the University provides 65 units of faculty housing.
5. The LRDP reflects the University’s commitment to environmental issues and includes numerous policies regarding green building, sustainability, coastal protection, and others.

The list of past, present, and probable future projects for UCSB producing related or cumulative impacts is presented in Table 3-4.

#### TABLE 3-4

**LIST OF RELATED PROJECTS—UCSB**

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Land Use</th>
<th>Size / Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pending Residential and Commercial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UCSB Faculty Club</td>
<td>Near University Center &amp; Lagoon</td>
<td>Academic Support</td>
<td>30 new guest rooms &amp; 15,685 SF addition to Faculty Club building</td>
<td>Pending</td>
</tr>
<tr>
<td>Sierra Madre</td>
<td>Storke Road &amp; Whittier Ave.</td>
<td>Residential</td>
<td>151 units (next to former Ocean Meadows Golf Course)</td>
<td>Pending</td>
</tr>
<tr>
<td>San Joaquin</td>
<td>El Colegio &amp; Storke Road</td>
<td>Residential</td>
<td>1,000-bed addition to Santa Catalina (formerly Francisco Torres)</td>
<td>Pending</td>
</tr>
<tr>
<td>Approved or Under Construction Residential and Commercial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Campus</td>
<td>Canon Green &amp; Phelps Road</td>
<td>Residential</td>
<td>37 new units</td>
<td>Approved/ Under Construction</td>
</tr>
</tbody>
</table>

*subject to pending legal challenge*
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CHAPTER 4
ENVIRONMENTAL IMPACT ANALYSIS
CHAPTER 4
ENVIRONMENTAL IMPACT ANALYSIS

INTRODUCTION

This chapter examines the environmental setting, evaluates the potential significant environmental impacts, and identifies appropriate mitigation measures for each environmental element discussed in this Draft Environmental Impact Report (EIR).

ENVIRONMENTAL ELEMENTS ANALYZED IN THE DRAFT EIR

The scope of this EIR is based on the project description outlined in Chapter 2, as well as comments received during the scoping process, focusing on environmental issues that could result in potentially significant impacts. This chapter of the EIR addresses seven environmental resources, which were determined to be potentially significant in the Notice of Preparation (NOP) and during the scoping process. These environmental elements are addressed in the following sections:

- Section 4.1, “Aesthetic and Visual Resources”
- Section 4.2, “Air Quality”
- Section 4.3, “Biological Resources”
- Section 4.4, “Cultural Resources”
- Section 4.5, “Greenhouse Gas Emissions”
- Section 4.6, “Hydrology and Water Quality”
- Section 4.7, “Traffic”

Sections 4.1 through 4.7 provide a detailed discussion of the environmental setting, regulatory framework, impacts associated with the proposed project, and mitigation measures designed to reduce significant impacts where required and when feasible. The residual impacts following the implementation of any mitigation measures also are discussed.

ORGANIZATION OF ENVIRONMENTAL IMPACT ANALYSIS

Each section (Sections 4.1 through 4.7) addresses an environmental element and contains the following information for each component of the proposed project:

- **Existing Conditions.** This section describes the physical environmental conditions in the project area as they relate to the issue in question. The CEQA Guidelines establish that existing conditions normally constitute the baseline physical conditions by which the lead agency determines whether or not an impact is significant.

- **Regulatory Framework.** This section summarizes the regulations, plans, and standards that apply to the proposed project and relate to the specific issue area in question.

- **Thresholds of Significance.** This section identifies the significance criteria or, where applicable, the thresholds of significance that will be used to evaluate the proposed project’s impacts. The criterion or threshold for a given environmental effect is the level at which the City finds the effect to be significant. The significance criteria can be a quantitative or
qualitative standard, or set of criteria, pursuant to which the significance of a given environmental effect may be determined (CEQA Guidelines § 15064.7).

- **Project Impacts and Mitigation.** The environmental analysis considers the proposed project's potential impacts resulting from short-term construction and long-term operation of the project. While the criteria for determining significant impacts are unique to each issue area, the analysis applies a uniform classification of the impacts based on the following definitions:
  
  - **A significant but unavoidable impact (Class I)** would cause a substantial adverse effect on the environment, and no feasible mitigation measures would be available to reduce the impact to a less-than-significant level.
  
  - **A less-than-significant impact with mitigation incorporated (Class II)** would avoid substantial adverse impacts on the environment through mitigation.
  
  - **A less-than-significant impact (Class III)** would cause no substantial adverse change in the environment.

Based on the above criteria, the environmental impact analysis assesses each issue area to determine the significance level.

- **Cumulative Impacts.** This subsection identifies the potential for significant effects to occur as a result of the project in combination with other development anticipated in the vicinity of the project site. Where this potential exists, a determination is made as to whether or not the project's contribution to this impact is cumulatively considerable and therefore significant.

- **Mitigation Measures.** Mitigation measures are identified for each significant project and cumulative impact that would occur as a result of the project. Although not required under CEQA, in some cases mitigation measures are also recommended for impacts that are considered less than significant in order to further reduce such impacts.

- **Residual Impacts.** This subsection identifies the levels of significance for project impacts following the implementation of mitigation measures, specifically identifying significant unavoidable adverse impacts (i.e., impacts that cannot be mitigated to less-than-significant levels).
SECTION 4.1
AESTHETICS AND VISUAL RESOURCES
4.1 AESTHETICS AND VISUAL RESOURCES

4.1.1 Existing Setting

Aesthetic values are important aspects of a community in establishing its identity, sense of place, and quality of life. Goleta Valley is well known for the scenic beauty of its open spaces, foothills, and ocean and mountain views. Goleta lies between the Santa Ynez Mountains and the Pacific Ocean. Although the mountains are outside city boundaries, these landforms remain largely undeveloped and provide a scenic backdrop to Goleta's urbanized area. Prominent features of the foothills and mountains are seen throughout the city and include expanses of orchards, chaparral, and rock outcroppings (Goleta GP/CLUP Visual and Historic Resources Element, p. 6-1).

4.1.1.1 Project Site Visual Character

Existing Visual Character

The existing character of the site is vacant land, with little vegetation except around the perimeter, sloping gradually upward away from Cathedral Oaks Road. The existing site elevations range from 145 feet above mean sea level along Cathedral Oaks Road, sloping upward to the northeast corner of the property to 252 feet, with an average slope of 7.8%. Along the edges there are dense trees and shrubs, some of which are located on adjacent property. A few small trees have been planted along Cathedral Oaks Road. The site's visual character is dominated by its current use for composting and woodcutting, which is clearly visible from the adjacent roadway. A chain-link fence surrounds the property, with a gate at the driveway entrance near the southwest corner of the site. The soil surface in the vacant portion of the site is uneven, due to the fact that most of the site has not been graded since the diseased avocado trees were removed several years ago.

Though not visible from most off-site locations, there are three buildings on the site: a single-family house, a garage, and a storage building. These are near the western edge of the property, along a driveway that extends northward from Cathedral Oaks Road approximately halfway up the west side of the property. The residence is bordered by front and back yards. Views of the buildings on the site are screened by dense trees and other vegetation.

The open visual character of the project site contrasts with the surrounding land. To the east, the Glen Annie Golf Course is densely landscaped, with the golf course almost completely screened from view. The visual character of the golf course property is a dense, almost natural-appearing landscape. To the west, the multifamily residential property has a dense, more urban visual character, with nearly contiguous residential buildings bordering the Cathedral Oaks Road, above slopes and low hedges. South of Cathedral Oaks Road, the single-family residential community has a suburban visual character, with relatively narrow and dense layers of landscaping and privacy walls partially screening views of the houses set fairly close to the roadway.

Existing Visual Quality

Views across the site from the surrounding areas have high visual quality due to the visibility of the foothills and the mountains. However, views of the site itself are hampered by the vacant appearance of the majority of the land and the temporary appearance of the woodcutting
operations on the site, which dominate the foreground views. The contrast of the roughly cleared land and the dense perimeter vegetation also reduces the visual quality.

4.1.1.2 Surrounding Uses

The project vicinity includes a mix of residential uses, both single-family and multifamily, open space, and recreational land uses. South of Cathedral Oaks Drive, across from the project site, are single-family residences, with back and side yards facing onto the street behind landscaping and a perimeter wall. Landscaping and a privacy wall partially screen views of the project site, but do not fully block the views. West of the project site are open space/recreation uses, including El Encanto Creek and the bordering riparian area, and the Glen Annie Golf Course. Further to the west, on the opposite side of El Encanto Creek, is Northgate Drive, with multifamily residential development west of that (Evergreen Terrace East). Views of the site from these residences are screened by the existing trees and vegetation along El Encanto Creek.

4.1.1.3 Scenic Corridor

Cathedral Oaks Road is identified as a scenic corridor in the Goleta General Plan/Coastal Land Use Plan (GP/CLUP Figure 6-1). GP/CLUP Policy VH 2, Local Scenic Corridors, identifies corridors that pass through, or provide visual access to, areas of high scenic value. GP/CLUP Subpolicy VH 2.2 requires that the aesthetic qualities of scenic corridors shall be preserved through retention of the general character of significant natural features and views of the ocean, foothills, and mountainous areas.

In the eastern portion of Goleta, Cathedral Oaks Road is almost entirely bordered by residential development. In the central part of Goleta (between Storke Road and Fairview Avenue), the corridor is bordered primarily by agriculture (citrus and avocados). In western Goleta, there is a combination of residential, recreational, agricultural, open space, and institutional (school) uses. Views of the foothills and Santa Ynez Mountains are available along much of Cathedral Oaks Road.

4.1.1.4 Views of the Site

Figures 4.1-1 through 4.1-3 show existing views of the site from Cathedral Oaks Road and King Daniel Lane, representing the residential neighborhood south of Cathedral Oaks Road. From the east or west on Cathedral Oaks, views of the foothills and mountains are screened by development, topography, and roadside vegetation, as shown in Figures 4.1-1 and 4.1-2. However, immediately adjacent to the site, there is minimal landscaping, and views across the project site to the foothills and mountains beyond are available, as shown in Figure 4.1-3.

Views from the multifamily residences west of the site, on the opposite side of El Encanto Creek and Northgate Drive, are screened by the existing trees and vegetation along El Encanto Creek, and the site is not visible.

Views from the golf course on the west, north, and east side of the site onto the project site are mostly screened by landscaping and topography, but not fully blocked.
Figure 4.1-3
Existing View – King Daniel Lane
Shelby Residential Project EIR
Source: Interacta
4.1.2 Regulatory Framework

4.1.2.1 Federal Regulations

There are no federal regulations applicable to this aesthetic analysis.

4.1.2.2 State Regulations

**Government Code § 65850**

Government Code § 65850 allows counties and cities to regulate the use of buildings, structures, and land to address scenic beauty by regulating such things as the location, height, bulk, number of stories, and size of structures, including the percentage of a lot that may be occupied by structural development and the intensity of land use.

**Government Code § 65302.4**

Government Code § 65302.4 authorizes the general plan to express community intentions regarding urban form and design. These expressions may provide for specific measures to regulate relationships between buildings as well as between buildings and outdoor public areas, including streets.

4.1.2.3 Local Regulations

**General Plan Policy**

Section 6.0 of the City’s GP/CLUP, the Visual and Historic Resources Element, provides objectives and policies that address the issues involving the identification and protection of scenic resources. The guiding objectives for these visual resource policies are as follows:

- To identify, preserve, and enhance Goleta’s scenic resources and to protect views or vistas to these resources from public and private areas (Policy VH-1, Scenic Views).
- To protect and enhance the visual character and public views within and from Goleta’s scenic corridors and locations from which scenic vistas can be enjoyed (Policy VH-2, Local Scenic Corridors).
- To protect and enhance Goleta’s visual character (Policy VH-3, Community Character).
- To preserve, protect, and enhance Goleta’s character through high quality design (Policy VH-4, Design Review).

4.1.3 Project Impacts and Mitigation

4.1.3.1 Thresholds of Significance

Based on both the City’s Initial Study Checklist (CEQA Guidelines, Appendix G; Environmental Checklist Form) and the City’s *Environmental Thresholds and Guidelines Manual* (Thresholds Manual), a significant impact on aesthetics and visual resources could occur if the project would:

a. Have a substantial adverse effect on a scenic vista.
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

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

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

e. Have significant visual resources by virtue of surface waters, vegetation, elevation, slope or other natural or man-made features which are publicly visible.

f. Have the potential to impact visual resources of the Coastal Zone or other visually important area (i.e., mountainous area, public park, urban fringe, or scenic travel corridor).

g. Have the potential to create a significantly adverse aesthetic impact through obstruction of public views, incompatibility with surrounding uses, structures, or intensity of development, removal of significant amounts of vegetation, loss of important open space, substantial alteration of natural character, lack of adequate landscaping, or extensive grading visible from public areas.

Items a–d are from the Initial Study Checklist and Items e–g are from the Thresholds Manual.

4.1.3.2 Project Impacts

The project would grade the existing site to provide 60 residential lots and four open space areas, amenities, supporting roadways, and other infrastructure. The houses would include one- and two-story homes. The project would also include a variety of screening shrubs, accent trees, and canopy trees. The finished site elevations would range from 150 feet to 245 feet above mean sea level.

Impact AES-1. Scenic Vistas and Scenic Resources

The project would not be within, nor would it affect any views from, a State Scenic Highway as designated by the State of California. As such, the project would not result in any impacts on scenic resources within a State of California Scenic Highway viewshed.

The site is primarily visible from Cathedral Oaks Road, Royal Linda Drive, and King Daniel Lane, as well as from a few residences in the neighborhood south of Cathedral Oaks Road. Limited views are also available from the Glen Annie Golf Course, which is partially screened from views of the site by intervening topography and vegetation.

Cathedral Oaks Road is identified as a Scenic Corridor in the GP/CLUP, which identifies this area of the corridor as having views in all directions. Therefore, foothill and mountain views from Cathedral Oaks Road are considered a significant visual resource. Limited scenic views of the Santa Ynez Mountains are available at points to the east and west of the project site because of intervening development, topography, and vegetation. Views of the foothills and mountains are available from Cathedral Oaks Road directly adjacent to the project site due to the fact that there is limited vegetation and development on the site and that the topography slopes up gradually for the roadway.

Figures 4.1-4 and 4.1-5 illustrate the views from eastbound and westbound Cathedral Oaks Road, respectively, in the existing condition and with the project. Figure 4.1-6 shows the view across Cathedral Oaks Road from the intersecting King Daniel Lane. With the project, these
simulations show that views of the foothills and mountains would be reduced and screened by rooflines and vegetation, but not eliminated.

Because views from Cathedral Oaks Road of the foothills and mountains are a significant visual resource, and because views of the foothills and mountains from this portion of Cathedral Oaks Road are so limited, reduction of views of the foothills and mountains by the construction of the project would be a significant adverse impact on scenic resources.

**Impact AES-2. Visual Character and Quality**

**Visual Character**

The existing visual character of the project site is one of open, cleared land dominated by composting and woodcutting uses in the foreground, and by the perimeter vegetation of dense trees and shrubs. This open character contrasts with the adjacent golf course and multifamily residential properties, which are densely landscaped (golf course) or densely developed (residential). The open character also contrasts with the residential development south of Cathedral Oaks Road, which has houses relatively close to the roadway, partially screened by dense landscaping and privacy walls.

The project would change the visual character of the site from open and vacant to a planned residential community set back from Cathedral Oaks Road behind a wide greenbelt. Views of woodcutting and composting, low vegetation, perimeter vegetation, and foothills and mountains beyond the site would be replaced with landscaping and rooftops. Views of the houses and a privacy wall along the back of the greenbelt would be gradually reduced as the landscaping in the greenbelt matures.

The visual character of the site would continue to contrast with that of the surrounding properties. Compared with the dense landscaping to the east and dense building to the west, and the dense landscaping and close houses to the south, the site’s character would represent a transition between dense landscaping to the east and the densely built environment to the west and south. The provision of a sidewalk along the north side of Cathedral Oaks Road, filling the gap between the sidewalks to the east and west of the site, would help tie the development into the existing environment.

Because there is no strong unifying visual character in the vicinity of the site, and because the site would represent a transitional visual character between the adjacent properties, the impacts of the project on visual character would be less than significant.

**Visual Quality**

The project site would have high visual quality after construction of the project, especially as the landscaping matures. This high quality would be a product of the landscape greenbelt and other landscaping and the unified building styles of the houses that would be constructed. Impacts to visual quality would be less than significant.

**Impact AES-3. Substantial Light and Glare**

Exterior night lighting, including street lighting, could result in the exposure of adjoining areas to excessive light and glare if such lighting is not properly shielded and directed away from neighboring land uses, or if the light standards are excessively tall, creating a situation where
appropriate light shielding is not possible. In addition, if appropriate dark-sky lighting fixtures are not incorporated and properly installed, project lighting could increase lighting of the night sky. Such night-lighting and glare impacts are considered potentially significant.

**Impact AES-4. Obstruct Onsite Visual Resources**

The project site itself is not considered scenic or visually significant. There are no waterways, interesting topography, or significant native habitats or vegetation on site. Existing landscaping on site is primarily limited to grasses, forbs, small shrubs, and trees scattered along the perimeter. There are no other natural or manmade features on site that are considered worthy of protection as a scenic resource. Because the existing property lacks features that could be construed as conveying significant positive visual resource values, potential project impacts to onsite visual resources are considered less than significant.

**Impact AES-5. Loss of Vegetation, Open Space, or Natural Character**

As a former avocado grove, now roughly graded and used for woodcutting and composting, the project site does not contain substantial or especially scenic open space. The change in topography and cut and fill activities for grading are not expected to result in significant impacts from altering the natural character of the site, and the amount of earthwork is not considered excessive grading. The existing trees would be replaced with a larger amount of new trees throughout the site as identified on the landscape plan. Therefore, impacts associated with vegetation removal, loss of substantial or especially scenic open space on site, alteration of natural character, and grading are considered less than significant.

**4.1.4 Cumulative Impacts**

The project would contribute to the overall changes in aesthetic resources of the City as it develops in accordance with the GP/CLUP. This includes the project’s contribution to the trend of reduced scenic views of the Santa Ynez Mountains from Cathedral Oaks Road, which is a scenic corridor as designated by the GP/CLUP. Therefore, the project would contribute to a significant cumulative impact to visual resources.

**4.1.5 Mitigation Measures**

**MM AES-1. Height Limitations**

The height of structural development shown on final plans must not exceed the mean height and peak height shown on approved project exhibit maps. Finished grade must be consistent with the approved final grading plan. The permittee must ensure that the project complies with height limitations shown on plan sets approved with the land use permit.

**Plan Requirements and Timing:** During the framing state of construction and before roofing begins, the permittee must submit verification from a licensed surveyor demonstrating that the mean height and peak height conform to those shown on City-approved land use permit plan sets (see grading sheet for identification of finished floor elevation, elevation sheets for mean and peak height elevations in order to determine overall height above sea level).

**Monitoring:** The Planning and Environmental Review Director, or designee, must verify compliance before the City issues any Certificate of Occupancy.
Figure 4.1-4
Existing and Proposed View – Eastbound Cathedral Oaks Road
Shelby Residential Project EIR

Existing

Proposed

Source: Interacta

© Copyright 2013, Interacta Inc.
Figure 4.1-5
Existing and Proposed View – Westbound Cathedral Oaks Road
Shelby Residential Project EIR

Source: Interacta

Existing

Proposed
Figure 4.1-6
Existing and Proposed View – King Daniel Lane
Shelby Residential Project EIR

Existing

Proposed
**MM AES-3a. Exterior Night Lighting Restrictions**

To reduce impacts related to light and glare, exterior night lighting installed on the project site must be of low intensity, low-glare design, and must be hooded to direct light downward onto the subject parcel and prevent spill-over onto adjacent parcels. Exterior lighting fixtures must be kept to the minimum number and intensity needed to ensure public safety. These lights must be dimmed after 11 p.m. to the maximum extent practical without compromising public safety. Upward-directed exterior lighting is prohibited. All exterior lighting fixtures must be appropriate for the architectural style of the structure and surrounding area. All night/ambient lighting on streets and homes along the western boundary of the project site (adjacent to El Encanto Creek) must be directed away from El Encanto Creek.

**Plan Requirements and Timing:** The locations of all exterior lighting fixtures, complete cut-sheets of all exterior lighting fixtures, and a photometric plan prepared by a registered professional engineer showing the extent of all light and glare emitted by all exterior lighting fixtures must be reviewed and approved by the DRB and the Planning and Environmental Review Director, or designee, before issuance of any land use permit. A restriction prohibiting the redirection of any project lighting into El Encanto Creek and adjacent riparian habitat must be included into the project’s Covenants, Conditions, and Restrictions (CC&Rs).

**Monitoring:** Before the City Council approves the Final Map, the Planning and Environmental Review Director, or designee, must verify that the lighting restriction is included in the recorded CC&Rs for the project. Before the City issues any Certificate of Occupancy, the Planning and Environmental Review Director, or designee, must inspect all exterior lighting fixtures to ensure that they were installed consistent with approved plans.

**4.1.6 Residual Impact**

The project would result in one significant and unavoidable impact (Class I): Impact AES-1 (impacts on foothill and mountain views from Cathedral Oaks Road). Implementation of MM AES-1 would reduce the impact on these views and the project’s contribution to cumulative impacts on these views. However, because this mitigation would not prevent screening of views of the Santa Ynez Mountains and foothills, a significant and unavoidable impact would remain after mitigation. The project’s impacts with respect to light and glare (Impact AES-3) would be reduced to a less-than-significant level with the implementation of MM AES-3a (Class II). The project’s impacts with respect to visual character and quality (Impact AES-2), obstruction of onsite visual resources (Impact AES-3), and loss of vegetation, open space, or natural character (Impact AES-5) would be less than significant without mitigation measures (Class III).
SECTION 4.2
AIR QUALITY
4.2 AIR QUALITY

4.2.1 Existing Setting

The project site is located on the coastal plain in the city of Goleta. The climate in and around Goleta, as in most of Southern California, is dominated by the strength and position of the semi-permanent high-pressure center over the Pacific Ocean near Hawaii. It creates cool summers, mild winters, and infrequent rainfall. It drives the cool daytime sea breeze, and it maintains a comfortable humidity range and ample sunshine after the frequent morning clouds dissipate. However, the same atmospheric processes that create the desirable living climate combine to restrict the ability of the atmosphere to disperse the air pollution generated by the population attracted in part by the desirable climate.

Temperatures in the Goleta area average 59°F annually. Daily and seasonal oscillations of mean temperature are small because of the moderating effects of the nearby oceanic thermal reservoir. In contrast to the steady temperature regime, rainfall is highly variable. Measurable precipitation occurs mainly from early November to mid-April, but total amounts are generally small. Goleta averages 18 inches of rain annually, with January as the wettest month. Winds in the project vicinity display several characteristic regimes. During the day, especially in summer, winds are from the south in the morning and from the west in the afternoon. Daytime wind speeds are 5 to 10 miles per hour (mph) on average. At night, especially in winter, the land becomes cooler than the ocean, and an offshore wind of 3 to 5 mph develops. Early morning winds are briefly from the southeast parallel to the coastline before the daytime onshore flow becomes well established again. One other important wind regime occurs when high pressure builds over the western United States and creates hot, dry, and gusty Santa Ana winds from the north and northeast across Santa Barbara County.

The net effect of the wind pattern on air pollution is that locally generated emissions are carried offshore at night and toward inland Santa Barbara County by day. Dispersion of pollutants is restricted when the wind velocity for nighttime breezes is low. The lack of development in inland Santa Barbara County, however, causes few air quality problems during nocturnal air stagnation. Daytime ventilation is usually much more vigorous. Both summer and winter air quality in the project area is generally very good.

In addition to winds that control the rate and direction of pollution dispersal, Southern California experiences strong temperature inversions that limit the vertical depth through which pollution can be mixed. In summer, coastal areas are characterized by a sharp discontinuity between the cool marine air at the surface and the warm, sinking air aloft within the high pressure cell over the ocean to the west. This marine/subsidence inversion allows for good local mixing, but acts like a giant lid over the basin. Air starting onshore at the beach is relatively clean, but becomes progressively more polluted as sources continue to add pollution from below without any dilution from above. Because of Goleta’s location relative to the ocean, the incoming marine air during warm season onshore flow contains little air pollution. Local air quality is not substantially affected by the regional subsidence inversions.

A second inversion type forms on clear winter nights when cold air off the mountains sinks to the surface while the air aloft remains warm. This process forms radiation inversions. These inversions, in conjunction with calm winds, trap pollutants such as automobile exhaust near their sources. During the long nocturnal drainage flow from land to sea, the exhaust pollutants continually accumulate within the shallow, cool layer of air near the ground. Therefore, most
areas of Santa Barbara County may experience stagnation of carbon monoxide and nitrogen oxides because of this winter radiation inversion condition. However, Santa Barbara County does not have enough mobile sources (which continue to become cleaner each year) to create critical conditions, and limited nocturnal mixing effects have not created any localized air pollution “hot spots” at any air monitoring location in over 15 years.

Both types of inversions occur throughout the year to some extent, but the marine inversions are very dominant during the day in summer, and radiation inversions are much stronger on winter nights when nights are long and air is cool. The governing role of these inversions in atmospheric dispersion leads to a substantially different air quality environment in summer than in winter.

4.2.1.1 Sensitive Receptors

Sensitive receptors are generally defined as locations where pollutant-sensitive members of the population may reside or where the presence of air pollutant emissions could adversely affect use of the land. Sensitive members of the population include those who may be more negatively affected by poor air quality than other members of the population, such as children, the elderly, or the infirm. In general, residential areas, hospitals, daycare facilities, elder-care facilities, elementary schools, and parks typically contain a high concentration of these sensitive population groups. Within the vicinity of the project area, a residential subdivision is located approximately 1,500 feet to the west. In addition, U.S. Highway 101 is located approximately 1,750 feet to the north.

4.2.1.2 Existing Air Quality

The project is in the South Central Coast Air Basin (SCCAB). The SCCAB encompasses San Luis Obispo, Santa Barbara, and Ventura Counties. The project site is in Santa Barbara County. The California Air Resources Board (CARB) and the Santa Barbara County Air Pollution Control District (SBCAPCD) operate ambient air monitoring stations that measure pollutant concentrations throughout Santa Barbara County and the SCCAB. The nearest monitoring stations to the project site are: the Goleta monitoring station, at 380 North Fairview Avenue, which monitors ozone (O₃), carbon monoxide (CO), and nitrogen dioxide (NO₂); and the Santa Barbara station, at 700 East Canon Perdido, which measures inhalable particulate matter (PM10), and fine particulate matter (PM2.5). Table 4.2-1 summarizes the last 5 years of published data from these monitoring stations. The following conclusions can be drawn from these data:

1. Photochemical smog (ozone) levels infrequently exceed standards. The state 8-hour standard for ozone has been exceeded twice in 5 years.

2. CO measurements in Goleta have been declining, as federal and state CO standards have not been exceeded in the last 5 years. Maximum 1-hour or 8-hour CO levels at the closest air monitoring station are currently less than 10% of their most stringent standards because of continued vehicular improvements. This data suggests that baseline CO levels in the project area are generally healthful and can accommodate a reasonable level of additional traffic emissions before any adverse local air quality effects would be expected.

3. PM10 levels occasionally exceed the state standard, but the federal particulate standard is very rarely exceeded. The state PM10 standard is exceeded on less than 6% of all days, while the more lenient federal standards have not been exceeded once in the past 3 years for which monitoring data is available (2010 to 2012).
4. A substantial fraction of PM10 is composed of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM2.5). Even with the revision of the national 24-hour PM2.5 standard from 65 micrograms per cubic meter (µg/m³) to 35 µg/m³, the frequency of days exceeding the standard is minimal. PM2.5 measurements have not exceeded federal standards since 2004.

5. More localized pollutants, such as nitrogen oxides (NOₓ) and lead, are likely very low near the project site because background levels never exceed allowable levels based on SBCAPCD’s monitoring of measured pollutants according to federal standards. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NOₓ without any threat of violating the applicable standards.

**TABLE 4.2-1**

**SUMMARY OF AIR QUALITY DATA AT GOLETA MONITORING STATION**

<table>
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<tr>
<td>Maximum 1-hr concentration (ppm)</td>
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<td>0.065</td>
</tr>
<tr>
<td>Maximum 8-hr concentration (ppm)</td>
<td>0.065</td>
<td>0.077</td>
<td>0.065</td>
<td>0.075</td>
<td>0.056</td>
</tr>
<tr>
<td>Number of days standard exceeded:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAAQS 1-hour (&gt;0.09 ppm)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NAAQS 8-hour (&gt;0.075 ppm)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CAAQS 8-hour (&gt;0.070 ppm)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Carbon Monoxide (CO)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum 8-hr concentration (ppm)</td>
<td>0.60</td>
<td>0.60</td>
<td>0.56</td>
<td>0.56</td>
<td>0.65</td>
</tr>
<tr>
<td>Maximum 1-hr concentration (ppm)</td>
<td>1.4</td>
<td>1.6</td>
<td>2.0</td>
<td>2.0</td>
<td>1.6</td>
</tr>
<tr>
<td>Number of days standard exceeded:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAAQS 8-hour (&gt;9 ppm)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CAAQS 8-hour (&gt;9.0 ppm)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NAAQS 1-hour (&gt;35 ppm)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CAAQS 1-hour (&gt;20 ppm)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Nitrogen Dioxide (NO₂)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State maximum 1-hr. concentration (ppm)</td>
<td>0.053</td>
<td>0.046</td>
<td>0.044</td>
<td>0.052</td>
<td>0.041</td>
</tr>
<tr>
<td>State 2nd-highest 1-hr. concentration (ppm)</td>
<td>0.041</td>
<td>0.042</td>
<td>0.042</td>
<td>0.038</td>
<td>0.034</td>
</tr>
<tr>
<td>Annual average concentration (ppm)</td>
<td>0.008</td>
<td>0.007</td>
<td>0.006</td>
<td>0.006</td>
<td>-</td>
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<tr>
<td>Number of days standard exceeded:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAAQS 1-hour (0.18 ppm)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Suspended Particulates (PM10)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State maximum 24-hr. concentration (µg/m³)</td>
<td>-</td>
<td>-</td>
<td>45.2</td>
<td>70.0</td>
<td>48.0</td>
</tr>
<tr>
<td>State 2nd highest 24-hr. concentration (µg/m³)</td>
<td>-</td>
<td>-</td>
<td>40.4</td>
<td>57.3</td>
<td>44.3</td>
</tr>
<tr>
<td>National maximum 24-hr. concentration (µg/m³)</td>
<td>-</td>
<td>-</td>
<td>44.0</td>
<td>67.9</td>
<td>46.5</td>
</tr>
<tr>
<td>National 2nd highest 24-hr. concentration (µg/m³)</td>
<td>-</td>
<td>-</td>
<td>40.5</td>
<td>55.2</td>
<td>44.3</td>
</tr>
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</table>
### Pollutant Standards

<table>
<thead>
<tr>
<th>Pollutant Standards</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
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<tbody>
<tr>
<td>State annual average concentration (µg/m³)</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>18.8</td>
</tr>
<tr>
<td>National annual average concentration (µg/m³)</td>
<td>-</td>
<td>-</td>
<td>16.9</td>
<td>18.4</td>
<td>18.4</td>
</tr>
<tr>
<td>Number of days standard exceeded:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAAQS 24-hour (&gt;50 µg/m³)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.0</td>
</tr>
<tr>
<td>NAAQS 24-hour (&gt;150 µg/m³)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

### Suspended Particulates (PM2.5)

<table>
<thead>
<tr>
<th>Pollutant Standards</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>State maximum 24-hr. concentration (µg/m³)</td>
<td>-</td>
<td>-</td>
<td>23.6</td>
<td>18.4</td>
<td>29.0</td>
</tr>
<tr>
<td>State 2nd highest 24-hr. concentration (µg/m³)</td>
<td>-</td>
<td>-</td>
<td>22.7</td>
<td>17.3</td>
<td>23.7</td>
</tr>
<tr>
<td>National maximum 24-hr. concentration (µg/m³)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>National 2nd highest 24-hr. concentration (µg/m³)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>State annual average concentration (µg/m³)</td>
<td>-</td>
<td>-</td>
<td>8.2</td>
<td>8.4</td>
<td>9.0</td>
</tr>
<tr>
<td>National annual average concentration (µg/m³)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Number of days standard exceeded:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAAQS 24-hour (&gt;35 µg/m³)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes:
- NAAQS = National Ambient Air Quality Standards
- CAAQS = California Ambient Air Quality Standards
- ppm = parts per million
- µg/m³ = micrograms per cubic meter
- Sources: California Air Resources Board 2013b.

### 4.2.2 Regulatory Framework

#### 4.2.2.1 Ambient Air Quality Standards

Federal and State ambient air quality standards (AAQS) are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise (sensitive receptors). Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to O₃ (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution constituents with states retaining the option to add other pollutants, require more stringent compliance, or include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. Because California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between State and federal clean air standards. Those standards currently in effect in California are shown in Table 4.2-2. Sources and health effects of criteria air pollutants are summarized in Table 4.2-3.
The federal Clean Air Act Amendments of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones, where appropriate. EPA subsequently developed standards for chronic O$_3$ exposure (8+ hours per day) and for PM2.5. New national AAQS were adopted in 1997 for these pollutants.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted CARB to recommend adoption of the State PM2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, CARB extensively evaluated health effects of O$_3$ exposure. A new State standard for an 8-hour O$_3$ exposure was adopted in 2005, which aligned with the federal 8-hour standard. The California 8-hour O$_3$ standard of 0.07 parts per million (ppm) is more stringent than the federal 8-hour standard of 0.075 ppm. The State standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining State standards, but there are no hard deadlines or any consequences associated with nonattainment. During the same re-evaluation process, CARB adopted an annual State standard for NO$_2$ that is more stringent than the corresponding federal standard, and strengthened the State 1-hour NO$_2$ standard.

### TABLE 4.2-2

<table>
<thead>
<tr>
<th>Criteria Pollutant</th>
<th>Average Time</th>
<th>California Standards</th>
<th>National Standards$^a$</th>
<th>Attainment Status of Santa Barbara County$^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Primary</td>
<td>Secondary</td>
</tr>
<tr>
<td>Ozone</td>
<td>1-hour</td>
<td>0.09 ppm</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>8–hour</td>
<td>0.070 ppm</td>
<td>0.075 ppm</td>
<td>0.075 ppm</td>
</tr>
<tr>
<td>Particulate Matter (PM10)</td>
<td>24-hour</td>
<td>50 µg/m$^3$</td>
<td>150 µg/m$^3$</td>
<td>150 µg/m$^3$</td>
</tr>
<tr>
<td></td>
<td>Annual mean</td>
<td>20 µg/m$^3$</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Fine Particulate Matter (PM2.5)</td>
<td>24-hour</td>
<td>None</td>
<td>35 µg/m$^3$</td>
<td>35 µg/m$^3$</td>
</tr>
<tr>
<td></td>
<td>Annual mean</td>
<td>12 µg/m$^3$</td>
<td>15.0 µg/m$^3$</td>
<td>15.0 µg/m$^3$</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>8-hour</td>
<td>9.0 ppm</td>
<td>9 ppm</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>1-hour</td>
<td>20 ppm</td>
<td>35 ppm</td>
<td>None</td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>Annual mean</td>
<td>0.030 ppm</td>
<td>0.053 ppm</td>
<td>0.053 ppm</td>
</tr>
<tr>
<td></td>
<td>1-hour</td>
<td>0.18 ppm</td>
<td>0.100 ppm</td>
<td>None</td>
</tr>
<tr>
<td>Sulfur Dioxide$^e$</td>
<td>Annual mean</td>
<td>None</td>
<td>0.030 ppm</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>24-hour</td>
<td>0.04 ppm</td>
<td>0.014 ppm</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>3-hour</td>
<td>None</td>
<td>None</td>
<td>0.5 ppm</td>
</tr>
<tr>
<td>Criteria Pollutant</td>
<td>Average Time</td>
<td>California Standards</td>
<td>National Standards(^a)</td>
<td>Attainment Status of Santa Barbara County(^b)</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------</td>
<td>----------------------</td>
<td>-----------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Primary</td>
<td>Secondary</td>
</tr>
<tr>
<td>1-hour</td>
<td></td>
<td>0.25 ppm</td>
<td>0.075 ppm</td>
<td>None</td>
</tr>
<tr>
<td>Lead</td>
<td>30-day Average</td>
<td>1.5 µg/m(^3)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Calendar quarter</td>
<td></td>
<td>1.5 µg/m(^3)</td>
<td>1.5 µg/m(^3)</td>
</tr>
<tr>
<td></td>
<td>3-month average</td>
<td>None</td>
<td>0.15 µg/m(^3)</td>
<td>0.15 µg/m(^3)</td>
</tr>
<tr>
<td>Sulfates</td>
<td>24-hour</td>
<td>25 µg/m(^3)</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>1-hour</td>
<td>0.03 ppm</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Vinyl Chloride</td>
<td>24-hour</td>
<td>0.01 ppm</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Notes:

ppm = parts per million

µg/m\(^3\) = micrograms per cubic meter

\(^a\) National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

\(^b\) Local monitoring data are used to designate areas as nonattainment, maintenance, attainment, or unclassified for the NAAQS and CAAQS. The four designations are further defined as:

- **Nonattainment**—assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- **Maintenance**—assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.
- **Attainment**—assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.
- **Unclassified**—assigned to areas where data are insufficient to determine whether a pollutant is violating the standard in question.

\(^c\) The federal 1-hour standard of 12 parts per hundred million was in effect from 1979 through June 15, 2005. The revoked standard is referenced because it was employed for such a long period and is a benchmark for State Implementation Plans.

\(^d\) Standard applies to a portion of the County.

\(^e\) The annual and 24-hour NAAQS for SO\(_2\) only apply for one year after designation of the new 1-hour standard to those areas that were previously nonattainment for 24-hour and annual NAAQS.

Source: California Air Resources Board 2013a.
# TABLE 4.2-3
## SOURCE AND EFFECTS OF AIR POLLUTANTS

<table>
<thead>
<tr>
<th>Pollutants</th>
<th>Sources</th>
<th>Primary Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone (O3)</td>
<td>Formed when reactive organic gases (ROG) and nitrogen oxides react in the presence of sunlight. ROG sources include any source that burns fuels, (e.g., gasoline, natural gas, wood, oil) solvents, petroleum processing and storage and pesticides.</td>
<td>Breathing difficulties, lung tissue damage, damage to rubber and some plastics</td>
</tr>
<tr>
<td>Respirable Particulate Matter (PM10)</td>
<td>Road dust, windblown dust (Agriculture) and construction (Fireplaces) Also formed from other pollutants (acid rain, NOx, SOx, organics). Incomplete combustion of any fuel.</td>
<td>Increased respiratory disease, lung damage, cancer, premature death, reduced visibility, surface soiling</td>
</tr>
<tr>
<td>Fine Particulate Matter (PM2.5)</td>
<td>Fuel combustion in motor vehicles, equipment and industrial sources, and residential and agricultural burning. Also formed from reaction of other pollutants (acid rain, NOx, SOx, organics).</td>
<td>Increased respiratory disease, lung damage, cancer, premature death, reduced visibility, surface soiling</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.</td>
<td>Chest pain in heart patients, headaches, reduced mental alertness</td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO2)</td>
<td>See carbon monoxide</td>
<td>Lung irritation and damage. Reacts in the atmosphere to form ozone and acid rain</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>Metal Smelters, Resource Recovery, Leaded Gasoline, Deterioration of Lead Paint</td>
<td>Learning disabilities, brain and kidney damage</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO2)</td>
<td>Coal or Oil Burning Power Plants and Industries, Refineries, Diesel Engines</td>
<td>Increases lung disease and breathing problems for asthmatics. Reacts in the atmosphere to form acid rain.</td>
</tr>
<tr>
<td>Visibility Reducing Particles</td>
<td>See PM2.5</td>
<td>Reduces visibility (e.g., obscures mountains and other scenery), reduced airport safety, lower real estate value, discourages tourism.</td>
</tr>
<tr>
<td>Sulfates</td>
<td>Produced by the reaction in the air of SO2 (see SO2 sources), a component of acid rain.</td>
<td>Breathing difficulties, aggravates asthma, reduced visibility</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>Geothermal Power Plants, Petroleum Production and Refining, Sewer Gas</td>
<td>Nuisance odor (rotten egg smell), headache and breathing difficulties (higher concentrations).</td>
</tr>
</tbody>
</table>

Source: California Air Resources Board 2009.

As part of EPA’s 2003 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM10 standards were revoked, and a distinction between rural and urban air quality was adopted.

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In response to continuing evidence that O\textsubscript{3} exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA has proposed a further strengthening of the 8-hour standard.

A new federal 1-hour standard for NO\textsubscript{2} has also recently been adopted. This standard is more stringent than the existing State standard. Based on air quality monitoring data in the SCCAB, the basin will likely be designated as “nonattainment” for the national 1-hour standard. That designation will require the inclusion of NO\textsubscript{2} in the basin air quality management plan.

4.2.2.2 Air Quality Planning

State and federal laws require that jurisdictions that do not meet clean air standards develop plans and programs that will bring those areas into compliance. These plans typically contain emission reduction measures and attainment schedules to meet specified deadlines. If and when attainment is reached, the attainment plan becomes a “maintenance plan.”

In 2001, an attainment plan was developed that was designed to meet both federal and state planning requirements. The federal attainment plan was combined with those from other statewide nonattainment areas to become the State Implementation Plan (SIP). The 2001 Clean Air Plan (CAP) was adopted as the Santa Barbara portion of the SIP, designed to meet and maintain federal clean air standards.

The 2004 CAP demonstrates how the county will make progress towards meeting the State 1-hour ozone standard, while the 2007 CAP pertains to provisions of the federal Clean Air Act that apply to the county’s current designation as an attainment area for the federal 8-hour O\textsubscript{3} standard. The adopted 2010 CAP incorporates updated data and is currently the most recent CAP for ultimately meeting the State O\textsubscript{3} standard.

As of 2008, Santa Barbara County is designated as a federal O\textsubscript{3} attainment area for the 8-hour O\textsubscript{3} standard (the 1-hour federal standard was revoked for Santa Barbara County). A new California 8-hour O\textsubscript{3} standard was implemented in May 2006. This standard has been exceeded by air quality conditions in the county, and the State standard for PM10 continues to be exceeded. Santa Barbara County is therefore a nonattainment area for the State standards for O\textsubscript{3} and PM10. The county is in attainment for the federal PM2.5 standard and unclassified for the State PM2.5 standard (based on monitored data from 2006 to 2008), and is designated “attainment” or “unclassified” for other State standards and for all federal clean air standards.

4.2.2.3 Santa Barbara County Air Pollution Control District Rules and Regulations

SBCAPCD is responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and State air quality laws. The proposed project may be subject to the following SBCAPCD rules (as well as others):

- Rule 302—Visible Emissions
- Rule 303—Nuisance
- Rule 305—Particulate Matter
- Rule 323—Architectural Coatings
- Rule 329—Cutback and Emulsified Asphalt Paving Materials
- Rule 345—Control of Fugitive Dust from Construction and Demolition Activities
• Rule 352—Natural Gas-Fired Fan-Type Central Furnaces and Small Water Heaters
• Rule 360—Emissions of Oxides of Nitrogen From Large Water Heaters and Small Boilers

Stationary construction equipment, such as emergency generators if proposed in the future, may also trigger an individual permit from the SBCAPCD.

4.2.3 Project Impacts and Mitigation

4.2.3.1 Thresholds of Significance

Based on both the City’s Initial Study Checklist (CEQA Guidelines, Appendix G; Environmental Checklist Form) and the City’s Environmental Thresholds and Guidelines Manual (Thresholds Manual), a significant impact on air quality could occur if the project would:

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

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

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for O₃ precursors).

d. Expose sensitive receptors² to substantial pollutant concentrations.

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

f. Interfere with progress toward the attainment of the O₃ standard by releasing emissions that equal or exceed the established long-term quantitative thresholds for NOₓ and reactive organic compounds (ROC; same as reactive organic gases [ROG]). Thresholds are 25 pounds/day of either NOₓ or ROC.

g. Equal or exceed the State or federal ambient air quality standards for any criteria pollutant (as determined by modeling).

h. Result in toxic or hazardous air pollutants in amounts that may increase cancer risks for the affected population.

Items a through e are from the Initial Study Checklist, and Items f through h are from the City’s Environmental Thresholds and Guidelines Manual (Thresholds Manual).

Santa Barbara County Air Pollution Control District Thresholds

According to the CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make significance determinations for items a through e above. The following criteria pollutant significance thresholds have been established by SBCAPCD (SBCAPCD 2011). Although the City has not yet adopted any new threshold criteria, these SBCAPCD thresholds are considered appropriate for use as a guideline for the impact analysis.

² For purposes of evaluating air quality impacts, the City’s Thresholds Manual, Air Quality section (page 27) identifies examples of sensitive receptors as children, elderly, or acutely ill.
Operational Impacts Thresholds

The project would result in a significant impact, either individually or cumulatively, if it would:

1. Emit 240 pounds/day or more of ROG (same as ROC) from all sources (both stationary and mobile).
2. Emit 240 pounds/day or more of NO\textsubscript{X} from all sources (both stationary and mobile).
3. Emit 25 pounds/day or more of unmitigated ROG from any motor vehicles trips only.
4. Emit 25 pounds/day or more of unmitigated NO\textsubscript{X} from any motor vehicle trips only.
5. Emit 80 pounds/day or more of PM10.
6. Cause or contribute to a violation of any California or Ambient Air Quality standard (except \textsubscript{O3}).
7. Exceed the SBCAPCD health risk public notification thresholds adopted by the SBCAPCD Board (10 excess cancer cases in a million for cancer risk and a Hazard Index of more than 1.0 for non-cancer risk).
8. Be inconsistent with federal or State air quality plans for Santa Barbara County.

The cumulative contribution of project emissions to regional levels should be compared with existing programs and plans, including the most recent CAP (2010). Due to the County’s nonattainment status for \textsubscript{O3} and the regional nature of \textsubscript{O3} as a pollutant, if a project’s emissions of either of the \textsubscript{O3} precursors (NO\textsubscript{X} or ROC) exceed the operational thresholds, then the project’s cumulative impacts are considered significant.

For projects that do not have significant \textsubscript{O3} precursor emissions or localized pollutant impacts, if emissions have been taken into account in the 2010 CAP growth projections (i.e., if growth associated with the project does not exceeds the growth assumptions in the air quality plan), regional cumulative impacts may be considered to be less than significant.

Construction Impacts Thresholds

Quantitative thresholds of significance are not currently in place for short-term emissions. However, short-term impacts such as exhaust emissions from construction equipment and fugitive dust generation during grading must be discussed. SBCAPCD recommends that construction-related NO\textsubscript{X}, ROC, PM10, and PM2.5 emissions from diesel- and gasoline-powered equipment, paving, and other activities be quantified. SBCAPCD uses 25 tons per year for NO\textsubscript{X} and ROC as a guideline for determining the significance of construction impacts.

Under SBCAPCD Rule 202 D.16, if the combined emissions from all construction equipment used to construct a stationary source that requires an Authority to Construct permit have the potential to exceed 25 tons of any pollutant, except CO, in a 12-month period, the permittee must provide offsets under the provisions of Rule 804 and demonstrate that no ambient air quality standard will be violated. SBCAPCD Rule 345 regulates generation of visible fugitive dust emissions at demolition and construction sites. In addition, implementation of SBCAPCD’s required standard dust control measures would result in less-than-significant fugitive dust emissions.
4.2.3.2 Project-Specific Impacts

Impact AQ-1. Consistency with SBCAPCD Clean Air Plan

General growth (such as the project) is not explicitly incorporated into the CAP, which is the County’s plan to achieve attainment status of the State O₃ standard. General development is, however, indirectly incorporated into air quality planning through the growth projections and regional transportation plans prepared by the Santa Barbara County Association of Governments. The project site’s current land use designation in the City’s General Plan/Coastal Land Use Plan (GP/CLUP, 2006) is Agriculture. If the General Plan Amendment (GPA) proposed by Shelby is approved, the land use designation would be changed to Single Family Residential.

A discussion of the effect of the project’s increase over the GP/CLUP’s growth projections, and thereby its effect on the GP/CLUP’s consistency with the CAP, is discussed in Section 4.3 of the Shelby GPA SEIR. This discussion is incorporated herein by reference; in summary, the project is consistent with the most recently adopted CAP, and the project’s impacts due to the increase in the GP/CLUP’s growth projections are considered less than significant.

Impact AQ-2. Air Quality Impacts

Short-term Construction Impacts

Short-term impacts include those associated with grading and construction of the project. Dust would be generated during grading (23,500 cubic yards of fill and 27,500 cubic yards of cut), implementation of infrastructure, and construction of the new building. Use of heavy equipment/trucks and other construction-related vehicles would result in on- and off-site exhaust emissions. The grading and construction period is estimated to be 12 to 14 months (420 days). The project’s emissions resulting from grading and construction activities are summarized in Table 4.2-4, below.

| TABLE 4.2-4 |
| TOTAL SHORT-TERM CONSTRUCTION UNMITIGATED EMISSIONS |
| (FUGITIVE AND EXHAUST SOURCES, TONS/YEAR) |

| Source: CalEEMod v.2013.2.2 computer model (modeling results contained in Appendix B). |

<table>
<thead>
<tr>
<th>Project Emissions</th>
<th>ROG</th>
<th>NOₓ</th>
<th>CO</th>
<th>SO₂</th>
<th>PM₁₀</th>
<th>PM₂.₅</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions</td>
<td>2.4</td>
<td>6.3</td>
<td>4.5</td>
<td>0.0059</td>
<td>0.67</td>
<td>0.48</td>
</tr>
<tr>
<td>Threshold</td>
<td>25</td>
<td>25</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Threshold exceeded?</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

The project’s construction emissions of ROG and NOₓ would not exceed the threshold of 25 tons/year. Neither the City nor the SBCAPCD has adopted any significance thresholds for construction-generated PM10. Therefore, the project’s construction emissions are considered less than significant. In addition, implementation of SBCAPCD-required construction dust control measures (Recommended Mitigation Measure MM AQ-2a) would reduce construction-related fugitive dust emissions to less than significant, while SBCAPCD-recommended
construction exhaust control measures (Recommended Mitigation Measures MM AQ-2b and MM AQ-2c) would further reduce construction-related exhaust emissions.

**Long-term Operational Impacts**

Long-term emissions would be generated from vehicular trips associated with the project. The project is estimated to generate 574 average daily trips per day. Area source emissions would also be generated from the operation of the new building (e.g., heating, air conditioning). The project’s operational emissions are summarized in Table 4.2-5, below.

<table>
<thead>
<tr>
<th>Source</th>
<th>Emissions (lbs/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ROG</td>
</tr>
<tr>
<td>Area Sources</td>
<td>3.32</td>
</tr>
<tr>
<td>Mobile Sources</td>
<td>0.05</td>
</tr>
<tr>
<td>Energy Sources</td>
<td>3.01</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6.38</strong></td>
</tr>
<tr>
<td>APCD Threshold</td>
<td>25/55&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Totals may be off slightly due to rounding.

<sup>a</sup> Transportation (mobile) sources only/total emissions.

*Source: CalEEMod v.2013.2.2 computer model (modeling results contained in Appendix B)*.

The project’s emissions would not exceed significance threshold levels as indicated in Table 4.2-5 above. Therefore, the project’s operational air quality impacts would be considered less than significant.

**Impact AQ-3. Objectionable Odors**

Construction of new parking areas on site would require application of aggregate concrete (asphalt) that could create objectionable odors. Such odors would be temporary and localized and would be subject to SBCAPCD Rule 329. This rule governs the application of asphalt paving materials and would apply to all project paving activities. Based on this regulation, impacts associated with construction of new parking areas on site are considered less than significant.

**Impact AQ-4. Health Risk Assessment Regarding Exposure to Toxic Air Contaminants**

SBCAPCD’s Thresholds Manual indicates that an evaluation of construction-related health risks is not required for short-term or construction projects. Consequently, construction-related health risks are not evaluated in this analysis and are considered less than significant.

There are no identified stationary toxic sources near the project site. The nearest source, the Ellwood Onshore Facility owned by Venoco, Inc., is located at 7979 Hollister Avenue, 1.6 miles from the project site. Therefore, the risk associated with toxic air contaminants at the project site is considered less than significant.

SBCAPCD has established a policy indicating that sensitive land uses should not be sited within 500 feet of a freeway (Santa Barbara County Air Pollution Control District n.d.). As previously indicated, U.S. Highway 101 is approximately 0.6 miles (3,168 feet) to the south of the project site, well beyond SBCAPCD’s recommended buffer distance of 500 feet. Consequently, impacts
associated with exposure of proposed sensitive receptors to toxic air contaminants are considered less than significant.

4.2.4 Cumulative Impacts

The significance thresholds used for this analysis address cumulative air quality impacts. Due to the County's nonattainment status for \( \text{O}_3 \) and the regional nature of this pollutant, if a project's total emissions of the \( \text{O}_3 \) precursors, \( \text{NO}_x \) or ROG, exceed the motor vehicle long-term threshold of 25 pounds/day or total thresholds (combined stationary and mobile source), or the thresholds of 240 pounds/day or more of ROG or \( \text{NO}_x \), then the project’s cumulative impacts would be considered significant. As shown above, the project’s operational would not exceed these SBCAPCD thresholds. Therefore, the project’s contribution to cumulative air quality impacts is considered less than significant.

4.2.5 Mitigation Measures

Because impacts to air quality would be less than significant with the project, no mitigation is required. However, these mitigation measures are recommended to comply with SBCAPCD permitting regulations.

**Recommended MM AQ-2a. Implement SBCAPCD-Required Construction Dust Control Measures**

Dust generated by construction and/or demolition activities must be kept to a minimum.

**Plan Requirements and Timing:** Consistent with SBCAPCD Rule 345, the following dust control measures must be shown on all building and grading plans, and the permittee must ensure that these measures are implemented by the contractor/builder:

a. During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required whenever the wind speed exceeds 15 mph. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.

b. Minimize the amount of disturbed area and reduce on-site vehicle speeds to 15 mph or less.

c. If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than 2 days must be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site must be tarped from the point of origin.

d. Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.

e. After clearing, grading, earth moving, or excavation is completed, treat the disturbed area by watering or revegetating, or by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur.

f. Monitor the dust control program and order increased watering, as necessary, to prevent transport of dust off site. The contractor or builder must designate a person or persons to perform these tasks. Their duties will include holiday and weekend periods when work may not be in progress. The names and telephone numbers of such persons must be provided to
SBCAPCD before land use clearance for map recordation and before land use clearance for finish grading of the structure.

g. Before land use clearance for map recordation, the permittee must include, as a note on a separate informational sheet to be recorded with the map, these dust control requirements. All requirements must be shown on grading and building plans.

**Monitoring:** The Planning and Environmental Review Director, or designee, must verify inclusion of these measures in the project’s building and grading plans and must periodically site inspect to ensure compliance. SBCAPCD inspectors will respond to complaints.

**Recommended MM AQ-2b. Implement SBCAPCD-Recommended Construction Exhaust Control Measures**

Grading and construction contracts must specify that contractors must adhere to requirements that reduce emissions of O\textsubscript{3} precursors and particulate emissions from diesel exhaust.

**Plan Requirements and Timing:** The following must apply:

a. Diesel construction equipment meeting the CARB Tier 1 emission standards for off-road heavy-duty diesel engines will be used. Equipment meeting CARB Tier 2 or higher emission standards must be used to the maximum extent feasible.

b. Diesel-powered equipment must be replaced by electric equipment whenever feasible.

c. If feasible, diesel construction equipment must be equipped with selective catalytic reduction systems, diesel oxidation catalysts, and diesel particulate filters as certified and/or verified by EPA or the State.

d. Catalytic converters must be installed on gasoline-powered equipment, if feasible.

e. All construction equipment must be maintained in tune per the manufacturer’s specifications.

f. The engine size of construction equipment must be the minimum practical size.

g. The number of construction equipment operating simultaneously must be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time.

h. Construction worker trips must be minimized by requiring carpooling and by providing for lunch on site.

All requirements must be noted on all clearance plans and will be reviewed and approved by the Planning and Environmental Review Director, or designee, prior to land use permit issuance. Requirements must be adhered to throughout all grading and construction periods.

**Monitoring:** The Planning and Environmental Review Director, or designee, must verify inclusion of these measures in the project’s building and grading plans and must periodically site inspect to ensure compliance. SBCAPCD inspectors will respond to complaints.

**Recommended MM AQ-2c. Limit Diesel Emissions**

Diesel fuel emissions must be limited.

**Plan Requirements and Timing:** The following limitations on diesel-fueled vehicles in excess of 10,000 pounds must apply during all construction and subsequent operational activities:
a. Diesel-fueled vehicles in excess of 10,000 pounds must not idle in one location for more than 5 minutes at a time.

b. Diesel-fueled vehicles in excess of 10,000 pounds must not use diesel-fueled auxiliary power units for more than 5 minutes to power heating, air conditioning, or other ancillary equipment on any such vehicle.

c. The permittee must designate one or more locations as deemed appropriate for the permanent posting of a notice(s) to all drivers of diesel-fueled vehicles in excess of 10,000 pounds of these limitations on vehicle idling in all areas of the property that may be frequented by such vehicles. Such signs must be maintained in their approved location(s) as long as diesel-fueled vehicles in excess of 10,000 pounds are being used.

All requirements must be noted on all clearance plans and will be reviewed and approved by the Planning and Environmental Review Director, or designee, before the City issues any land use permit. Requirements must be adhered to throughout all grading and construction periods. The location and information provided on the sign(s) must be reviewed and approved by the Planning and Environmental Review Director, or designee, before the City issues any land use permit.

**Monitoring:** The Planning and Environmental Review Director, or designee, must verify inclusion of these measures in the project’s building and grading plans and must periodically site inspect to ensure compliance. SBCAPCD inspectors will respond to complaints.

### 4.2.6 Residual Impacts

With implementation of these mitigation measures, residual project-specific and project contributions to cumulative impacts on air quality would remain less than significant.
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SECTION 4.3
BIOLOGICAL RESOURCES
4.3 BIOLOGICAL RESOURCES

The analysis presented in this section assesses impacts on biological resources that would result from construction and operation of the proposed project. The impact analysis is based on the February 2011 Biological Report (Biological Report; Appendix C) for the project site, a peer review of that analysis, and additional information. The study area identified in the Biological Report is 17.80 acres in size and includes the project site, the area adjacent to Cathedral Oaks Road south of the project site, and the adjacent area between Northgate Drive and the western property line.

4.3.1 Existing Conditions

4.3.1.1 Project Area

The project site is surrounded by the Glen Annie Golf Course to the north and east, Glen Annie Golf Course and El Encanto Creek to the west, and Cathedral Oaks Road to the south. Within the vicinity of the project are residential and recreational uses, including a multi-family residential development to the west and single-family residences located off of Cathedral Oaks Road to the south. North of Cathedral Oaks Road, El Encanto Creek, part of the Devereux Slough watershed, traverses the Glen Annie Golf Course property and then travels onto agricultural lands planted in avocados. The portion of the watershed above Cathedral Oaks Road is approximately 289 acres in size, and the portion below Cathedral Oaks Road is 775 acres in size, for a total of 1,065 acres. South of Cathedral Oaks Road, El Encanto Creek passes through several residential neighborhoods and commercially developed areas and ultimately flows into Devereux Slough and the Pacific Ocean.

The habitats and wildlife resources of the area reflect those typically found within the coastal plains of Southern California. Much of the coastal plain in the Goleta area between the Santa Ynez Mountains and Pacific Ocean has been developed or disturbed by agriculture or ranching uses. Relatively undisturbed habitats and areas of native vegetation are present along narrow riparian corridors, scattered undeveloped lands of varying sizes, and in protected open space areas. Native vegetation within the City of Goleta consists primarily of riparian and upland woodlands and coastal scrub.

4.3.1.2 Project Site

The 15.8-acre project site currently contains a 2,015-square-foot residence, 726-square-foot garage, and 1,152-square-foot barn. El Encanto Creek borders the project site on its western side for approximately 630 feet, although the creek’s bed and banks are just to the west of the property. For this analysis, the project site and El Encanto Creek equal the study area (Figure 4-3-1). The U.S. Geological Survey (USGS) mapped the creek as having intermittent flow. Pursuant to the GP/CLUP Conservation Element CE Subpolicy 2.2, a Streamside Protection Area (SPA) associated with El Encanto Creek extends 100 feet on either side of the creek. Technically, the SPA does not extend north of Cathedral Oaks Road, because at this location the creek is in unincorporated Santa Barbara County, but the properties on either side of the creek are within the City. For the purposes of this analysis, the SPA is considered to extend across Cathedral Oaks Road and approximately 100 feet onto the Shelby property on the west side. Per the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory, there are no wetland resources on the project site as defined under Section 404 of the federal Clean Water Act (CWA) (USFWS 2013).
East of the creek on the western side of the property is an area that is primarily bare ground used for storage of firewood and woodchips. Nonnative annual grassland dominates the center of the project site. The area containing nonnative grassland is periodically mowed to control weeds and prevent fires. Soils on site consist of Diablo clay, which is considered well-drained and formed from shale and mudstone. The property was a productive avocado orchard up until the late 1990s when the trees became diseased due in part to an El Niño event. The bulk of the avocado trees were removed between 1998 and 2002 by the property owner except for few trees in the northernmost corner of the property, which are no longer in production.

The project site slopes from north to south at an average grade of approximately 7.8 percent. The existing elevation on the property ranges from 145 feet above mean sea level along Cathedral Oaks Road northward to 252 feet above mean sea level at the northeast corner of the property.

### 4.3.1.3 Vegetation and Land Cover

Within the study area, ten vegetation types and four land cover types were identified. The acreages of vegetation and land cover types are summarized in Table 4.3-1. Figure 4.3-1 depicts the locations of the existing vegetation and land cover types. Each of the vegetation types present in the study area is described below.

A total of 81 different species of plants were observed in the study area and approximately 90% of the species present were nonnative. The number of nonnative plant species is higher than normal, but reflects the fact that the site had been farmed for a number of years. Most of the native plants in the study area are on the bed and banks of El Encanto Creek on the Glen Annie Golf Course property.

<table>
<thead>
<tr>
<th>TABLE 4.3-1</th>
<th>EXISTING VEGETATION AND LAND COVER TYPES IN THE STUDY AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetation and Land Cover Type</td>
<td>Area (acres)</td>
</tr>
<tr>
<td><strong>Vegetation Types</strong></td>
<td></td>
</tr>
<tr>
<td><em>Avena fatua, Bromus diandrus</em> Semi-natural Herbaceous Stand (nonnative annual grassland dominated by wild oat and ripgut brome)</td>
<td>1.22</td>
</tr>
<tr>
<td>This grassland exists along the Cathedral Oaks Road and Northgate Drive shoulders and comprises a mixture of annual nonnative grasses and herbs. The dominant species in this vegetation type are wild oat and ripgut brome. Other species found in this nonnative annual grassland include: English plantain, smilo grass, Italian rye, soft chess, foxtail, rattail fescue, wild radish, black mustard, fennel, cheeseweed, common vetch, and bur clover.</td>
<td></td>
</tr>
<tr>
<td><em>Eucalyptus globules</em> Semi-natural Woodland with olive tree association (eucalyptus grove with olive tree understory)</td>
<td>0.97</td>
</tr>
<tr>
<td>This type of woodland exists on the Glen Annie Golf Course property, adjacent to (west of) the Shelby property. The dominant vegetation in this vegetation type is blue gum eucalyptus with a dense olive tree understory. Other vegetation present within this woodland includes: Peruvian pepper, toyon, poison oak, periwinkle, coyote brush, Santa Barbara Honeysuckle, and a few scattered coast live oak tree saplings.</td>
<td></td>
</tr>
</tbody>
</table>
Vegetation and Land Cover Type | Area (acres)
---|---
**Hordeum murinum, Erodium cicutarium** Semi-natural Herbaceous Stand (nonnative annual grassland dominated by foxtail and redstem filaree) | 8.49
This vegetation type occurs in the central portion of the project site in areas that previously contained avocado orchards and that were periodically planted in row crops. This vegetation type is also called “Agrestral,” a term coined by Holland and Keil (1990), which applies to vegetation in areas that have historically been cultivated but are now fallow. The dominant species in this vegetation type are a nonnative annual grass known as foxtail and a nonnative annual herb called redstem filaree. Other species present in this nonnative annual grassland include: bristly ox tongue, scarlet pimpernel, cheeseweed, prickly sow-thistle, bur clover, petty spurge, smilo grass, kikuyu grass, annual blue grass, sour-grass, ripgut brome, and wild oat.

**Lonicera subspicata ssp. Subspicata** Shrubland Alliance (coastal sage scrub dominated by Santa Barbara honeysuckle) | 0.08
This vegetation type occurs on the Glen Annie Golf Course property on the banks of El Encanto Creek. Santa Barbara honeysuckle is the dominant species present in this coastal sage scrub vegetation type. This plant is a perennial shrub with long, flexible stems that form dense, impenetrable mats and thickets. The only other species observed in this vegetation type is poison oak.

**Orchard (avocado)** | 0.88
This vegetation type occurs in the northernmost portion of the Shelby property. The avocado orchard in this portion of the property is not actively managed and is considered to be an abandoned orchard. The understory vegetation consists of the same species described above in the **Hordeum murinum, Erodium cicutarium** Semi-natural Herbaceous Stand (nonnative annual grassland dominated by foxtail and redstem filaree).

**Ornamental landscape trees and shrubs** | 1.07
This vegetation type includes the myoporum shrub hedges planted around the western and northern perimeter of the property, acacia and pepper trees that line the existing driveway, strawberry trees planted along the Cathedral Oaks Road shoulder, and assorted ornamental landscape trees and plants around the existing structures on the property.

**Ornamental landscape turf grass** | 0.16
This vegetation type exists adjacent to the single-family residence and is an irrigated lawn maintained by the resident living on the property.

**Salvia mellifera** Shrubland Alliance (coastal sage scrub dominated by black sage) | 0.09
This vegetation type occurs on the Glen Annie Golf Course property near the Cathedral Oaks Road El Encanto Creek crossing. The vegetation in this area was planted as part of the habitat restoration/mitigation effort for the Cathedral Oaks Road extension. The dominant species in this area is black sage. Other species present in this community include: California sagebrush, Santa Barbara honeysuckle, coyote brush, and mugwort.

**Salix lasiolepis** Shrubland Alliance (riparian scrub dominated by arroyo willow) | 0.93
This vegetation type exists along the bed and banks of El Encanto Creek on the Glen Annie Golf Course property west of the Shelby property. The dominant tree in this vegetation community is arroyo willow. Other species present include: poison oak, wild blackberry, and elderberry.

**Ruderal (dominated by castor bean, fennel, and Russian thistle)** | 0.28
This vegetation type occurs along the eastern edge of the Shelby property and in a small patch in the central portion of the property. *Ruderal* is a term that is applied to weedy vegetation that typically occurs in recently disturbed areas. The dominant species in the vegetation type are castor bean, fennel, and Russian thistle. Other species present in this community include: black mustard, smilo grass, Douglas nightshade, Italian thistle, cheeseweed, and bur clover.

**Subtotal Vegetation Types** | 14.17

**Land Cover Types**

| Land Cover Type | Area (acres) |
---|---
Asphalt pavement (roads and driveways) | 0.34
Dirt road | 0.30
Structure | 0.12
Wood chips, mulch, and bare ground | 2.78
**Subtotal Land Cover Types** | 3.54
**Grand Total Vegetation and Land Cover** | 17.71
4.3.1.4 Environmentally Sensitive Habitat Area

El Encanto Creek and its associated riparian corridor exist in a predominantly rural setting. The creek, which is adjacent to the western boundary of the project, is a major drainage with a watershed of 1,065 acres and has been mapped as an Environmentally Sensitive Habitat Area (ESHA) by the City of Goleta. Technically, as described above for the SPA, the ESHA does not extend north of Cathedral Oaks Road, because at this location the creek is in unincorporated Santa Barbara County, but the properties on either side of the creek are within the City. For the purposes of this analysis, the ESHA is considered to extend across Cathedral Oaks Road adjacent to the Shelby property. Biological functions associated with the ESHA include the use of the riparian area as a wildlife movement corridor; nesting habitat for a variety of bird species adapted to utilize riparian ecosystems; protection of water quality and prevention of creek erosion; and potential habitat for a variety of amphibians and aquatic species. The portion of El Encanto Creek within the study area provides potential habitat for several federal- and/or state-listed species, including red-legged frog and least Bell’s vireo, in addition to providing wildlife movement corridors and habitat for a wide variety of plants and animals.

4.3.1.5 Special-status Species

Special-status species are those protected by the federal Endangered Species Act or the California Endangered Species Act and those species meeting the CEQA definition of “rare.”¹ For wildlife and plants, this includes all endangered or threatened species, candidates for listing, or Species of Special Concern listed by the federal and state governments. Additionally, for plants, these also include those listed by the California Native Plant Society (CNPS) as List 1 or List 2, as well as plants listed by the Santa Barbara Botanic Garden (SBBG) as locally sensitive.

There are several special-status wildlife (including federal- and/or state-listed species) and plant species that have the potential to occur in the riparian scrub vegetation and aquatic habitat that exist along El Encanto Creek adjacent to the project site. Though the species were not detected during site visits, the riparian area could provide suitable habitat for special-status species including bats, birds, reptiles, turtles, and amphibians.

Special-Status Plants

The Biological Report (Appendix C) addresses the following special-status plant species for the potential to occur in both the project site and larger study area: Santa Barbara morning-glory, southern tarplant, mesa horkelia, black-flowered figwort, Contra Costa goldfields, and Santa Barbara honeysuckle. Of these species, the Biological Report states that Santa Barbara honeysuckle was observed within the study area. Based on conditions present within the study area, mesa horkelia and southern tarplant do not have the potential to occur. Black-flowered figwort, a perennial herb associated with coastal sage scrub and chaparral, was not observed in the study area and is not expected to occur on the project site due to a lack of suitable habitat. Additionally, the Biological Report states that, due to a lack of suitable habitat, Contra Costa goldfields and Santa Barbara morning-glory are not expected to occur on the project site.

¹ CEQA Guidelines § 15380(a)(2) defines “rare” as “(A) although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or (B) the species is likely to become endangered within the foreseeable future throughout all of a significant portion of its range and may be considered ‘threatened’ as that term is used in the Federal Endangered Species Act.”
Figure 4.3-1
Existing Vegetation and Land Cover Types
Shelby Residential Project EIR

Vegetation Types
- Non-native annual grassland dominated by wild oat and rip-gut brome
- Non-native annual grassland dominated by festuca and redstem filaree
- Eucalyptus grove with olive tree understory
- Coastal sage scrub dominated by Santa Barbara Honeysuckle
- Orchard (avocado) relic
- Ornamental landscape trees and shrubs
- Ornamental landscape turf grass
- Riparian scrub dominated by arrowhead willow
- Ruderal dominated by castor bean, foxtail and Russian thistle

Land Cover Types
- Asphalt pavement
- Dirt road
- Structure
- Wood chips, mulch, and bare ground

Source: Watershed Environmental, Inc.
Contra Costa goldfields and Santa Barbara morning-glory are evaluated below for their potential to occur in the study area west of the project site.

Review of the California Natural Diversity Database (CNDDB) occurrence records, the City’s Special-Status Species and Environmentally Sensitive Habitat Map (GP/CLUP Figure 4-1), and the Special Status Species and Environmentally Sensitive Habitat Areas Map (County of Santa Barbara 2009) indicated that Santa Barbara honeysuckle is the only special-status species recorded to be within the immediate vicinity of the project site. However, other special-status species of plants and wildlife are known to occur within a two-mile radius of the project site. These species and others that are known to include the project site within their geographic ranges are identified in Table 4.3-2.

**TABLE 4.3-2**

**SPECIAL-STATUS SPECIES IN THE VICINITY OF THE PROJECT SITE**

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contra Costa goldfields</td>
<td>Lasthenia conjugens</td>
<td>Federal: Endangered&lt;br&gt;CNPS: CRPR 1B&lt;br&gt;Local SBBG: Rare</td>
</tr>
<tr>
<td>Black-flowered figwort</td>
<td>Scrophularia atrata</td>
<td>CNPS: CRPR 1B</td>
</tr>
<tr>
<td>Mesa horkelia</td>
<td>Horkelia cuneata ssp. puberula</td>
<td>CNPS: CRPR 1B</td>
</tr>
<tr>
<td>Southern tarplant</td>
<td>Centromadia parryi ssp. australis</td>
<td>CNPS: CRPR 1B&lt;br&gt;Local SBBG: Rare</td>
</tr>
<tr>
<td>Santa Barbara morning-glory</td>
<td>Calystegia sepium ssp. binghamiae</td>
<td>CNPS: CRPR 1B&lt;br&gt;Local SBBG: Rare</td>
</tr>
<tr>
<td>Santa Barbara honeysuckle</td>
<td>Lonicera subspicata var. subspicata</td>
<td>CNPS: CRPR 1B&lt;br&gt;Local SBBG: Rare</td>
</tr>
<tr>
<td><strong>Wildlife</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>California red-legged frog</td>
<td>Rana aurora draytonii</td>
<td>Federal: Endangered&lt;br&gt;State: Species of Special Concern</td>
</tr>
<tr>
<td>Raptor nests (variety)</td>
<td>Various</td>
<td>Local: City of Goleta</td>
</tr>
<tr>
<td>Turkey vulture roosts</td>
<td>Cathartes aura</td>
<td>Local: City of Goleta</td>
</tr>
<tr>
<td>White-tailed kite roosts</td>
<td>Elanus leucurus</td>
<td>State: Fully Protected&lt;br&gt;Local: City of Goleta</td>
</tr>
<tr>
<td>Western snowy plover</td>
<td>Charadrius alexandrinus nivosus</td>
<td>Federal: Threatened&lt;br&gt;State: Species of Special Concern</td>
</tr>
<tr>
<td>Willow flycatcher / Southwestern Willow Flycatcher</td>
<td>Empidonax traillii / Empidonax traillii extimus</td>
<td>Federal: Endangered (E. t. extimus only)&lt;br&gt;State: Endangered (species including subspecies)</td>
</tr>
<tr>
<td>Least Bell’s Vireo</td>
<td>Vireo bellii pusillus</td>
<td>Federal: Endangered&lt;br&gt;State: Endangered</td>
</tr>
<tr>
<td>Yellow warbler</td>
<td>Dendroica petechia brewsteri</td>
<td>State: Species of Special Concern</td>
</tr>
<tr>
<td>Western pond turtle</td>
<td>Emys marmorata</td>
<td>State: Sensitive Species of Special Concern</td>
</tr>
<tr>
<td>Coast Range newt</td>
<td>Taricha torosa torosa</td>
<td>State: Species of Special Concern</td>
</tr>
<tr>
<td>Two-striped garter snake</td>
<td>Thamnophis hammondii</td>
<td>State: Species of Special Concern</td>
</tr>
<tr>
<td>Tidewater goby</td>
<td>Eucyclogobius newberyi</td>
<td>Federal: Endangered&lt;br&gt;State: Species of Special Concern</td>
</tr>
<tr>
<td>Globose dune beetle</td>
<td>Coelus globosus</td>
<td>International Union for Conservation of Nature (IUCN): Vulnerable</td>
</tr>
<tr>
<td>Monarch butterfly</td>
<td>Danaus plexippus</td>
<td>Local: City of Goleta</td>
</tr>
<tr>
<td>Vernal pool fairy shrimp</td>
<td>Branchinecta lynchii</td>
<td>Federal: Threatened</td>
</tr>
<tr>
<td>Pallid bat</td>
<td>Antrozous pallidus</td>
<td>State: Species of Special Concern</td>
</tr>
<tr>
<td>Townsend’s big-eared bat</td>
<td>Corynorhinus townsendii</td>
<td>State: Candidate</td>
</tr>
<tr>
<td>Western red bat</td>
<td>Lasiurus blossevillii</td>
<td>State: Species of Special Concern</td>
</tr>
<tr>
<td>Yuma myotis</td>
<td>Myotis yumanensis</td>
<td>State: Species of Special Concern</td>
</tr>
</tbody>
</table>
Contra Costa Goldfields

The Biological Report states that the last documented occurrence of Contra Costa goldfields in Santa Barbara County is from 1950 and that the plant occurs in mesic habitats including vernal pools, alkali playas, valley and foothill grasslands, and cismontane woodlands. The habitat within the study area and west of the project site is composed of a mixture of mesic riparian habitat and eucalyptus groves associated with El Encanto Creek, xeric coastal sage scrub, and xeric nonnative grasslands communities. Contra Costa goldfields would not be expected to occur within the xeric coastal sage scrub and grassland habitats. The riparian and eucalyptus communities are mesic in nature. However, these habitats do not provide suitable microclimate conditions, such as an open canopy, that would be needed for this plant to establish. As such, it was determined that Contra Costa goldfields does not have a potential to occur in the study area. No further analysis is needed for this plant.

Santa Barbara Morning-glory

The Biological Report states that Santa Barbara morning-glory is known to be associated with wetland and marsh habitats, was last observed in Devereux Slough in 1886, and is presumed to be extinct in California. In 2011, this plant was documented as occurring in the city of Chino, San Bernardino County. CNPS reports that Santa Barbara morning-glory is also found in alluvial riparian scrub, but that records from Santa Barbara indicate that it is presumed to be extirpated. This species of plant has always been rare. The plant biota of the coastal slope of Santa Barbara County has been well surveyed for decades. If the species were present, it would be known, particularly since the first documented occurrence for the species was in Santa Barbara County. Although the riparian habitat associated with El Encanto Creek may superficially appear to support potentially suitably habitat for Santa Barbara morning-glory, it is very unlikely that the species is present. In contrast to San Bernardino County, Santa Barbara County has been intensely searched for this species by botanists for years. If it were present, it would have been found over the past several decades. No further analysis is provided for this species, though it was determined that this species has a potential to occur within the study area.

Santa Barbara Honeysuckle

Santa Barbara honeysuckle is endemic to Santa Barbara County and is found in chaparral, oak woodland, and riparian habitats. Santa Barbara honeysuckle is designated by the CNPS as a California Rare Plant Rank (CRPR) 1B.2 plant species, meaning that it is considered rare, threatened, or endangered in California or extinct elsewhere, and that it is moderately threatened in California (approximately 20 to 80% of occurrences being threatened). In addition, SBBG has designated the plant as Rare. The CNDDB contains 21 occurrences of the plant within Santa Barbara County, the majority of which occur on the coastal slope of the Santa Ynez Mountains.

Eleven individuals of Santa Barbara honeysuckle were mapped as occurring along the southwestern border of the project site and west of the project site within El Encanto Creek (refer to Figure 4.3-1). These eleven plants identified on the project site are located along the southwestern border of the project site between the existing asphalt driveway and chain-link fence in the area proposed for construction of the detention basin. Several small patches were also located on the Glen Annie Golf Course to the west of the project site.
Special-Status Wildlife

Special-status wildlife species that were evaluated for the potential to occur in the study area included California red-legged frog, western snowy plover, Southwestern willow flycatcher, least Bell’s vireo, yellow warbler, western pond turtle, coast range newt, two-striped garter snake, tidewater goby, globose dune beetle, monarch butterfly, and vernal pool fairy shrimp. In addition, the following wildlife use categories were evaluated for their potential to occur on the project site: raptor foraging and nesting, turkey vulture roosts, white-tailed kite roosts, and nesting birds.

The western snowy plover, tidewater goby, globose dune beetle, and vernal pool fairy shrimp are not expected to occur given lack of potential habitat within the study area (Biological Report, Appendix C). However, the following special-status wildlife species and wildlife use categories do have the potential to occur within the study area.

California Red-legged Frog

This species is listed as endangered by the federal government and as a Species of Special Concern by CDFW. Critical habitat has been designated for the species at the federal level and occurs within the study area vicinity, but does not occur in the study area or El Encanto Creek. The species is endemic to California and Baja, Mexico. Red-legged frogs can inhabit both aquatic habitats, for breeding, and upland habitats, for dispersal. Suitable breeding habitat for California red-legged frog includes long-standing ponds, slow moving streams, and streams with deep pools (USFWS 2010). The California red-legged frog uses riparian and upland habitats that are not dependent on surface water for foraging, shelter, cover, and non-dispersal purposes (USFWS 2010) and has been known to occupy upland habitats up to 328 feet from breeding habitat.

There is no potential for California red-legged frog to use the project site for breeding purposes due to a lack of suitable aquatic habitat, but they could use the project site as upland foraging and dispersal habitat, if they are present in the adjacent El Encanto Creek. The habitat associated with El Encanto Creek within the study area has the potential to support California red-legged frog in both a breeding and non-breeding capacity.

Willow Flycatcher/Southwestern Willow Flycatcher

Willow flycatcher (Empidonax traillii) is listed as endangered by the State of California and the subspecies southwestern willow flycatcher (E. t. extimus) is the only subspecies listed as endangered by the federal government. There are three subspecies that breed in California, but only southwestern willow flycatcher’s breeding range includes the project area. The closest known breeding area of southwestern willow flycatcher to the project site is inland along the Santa Ynez River. Southwestern willow flycatchers breed in dense, mature riparian habitat along rivers, streams, and wetlands. Breeding habitats are almost always associated with standing water or saturated soils. The vegetation can be dominated by dense growths of willows or other shrubs and medium-sized trees. There may be an overstory of cottonwood, tamarisk, or other large trees. Although willow flycatchers are riparian specialists for breeding, they are migrants in spring and fall in a wide range of vegetation types, including landscaping in residential developments, sage scrub, and chaparral. They do not overwinter in California.

Southwestern willow flycatchers are uncommon migrants to the south coast of Santa Barbara County. There is low potential that the species would occur within the study area, including the
project site, during migration. There is less than reasonable potential for the species to breed/nest in El Encanto Creek. As a migrant, an individual may be present for a day or two, at most. No protection is given to the species’ habitat use during migration.

**Least Bell’s Vireo**

This species is listed as endangered by the State of California and the federal government, with critical habitat designated at the federal level. Its breeding distribution extends northwest to Santa Barbara County (rarely to Monterey County and formerly to the northern Sacramento Valley), northeast to Inyo County, south into northern Baja California, Mexico, and east into the edges of the deserts at a few points, such as the Mojave River (USFWS 1998). Nesting elevation ranges from below sea level to at least 4,100 feet. This species occurs in California from about mid-March through September.

Least Bell’s vireos select dense vegetation low in riparian zones for nesting. Willows often dominate the canopy layer in the species’ territories, with a dense, shrubby layer near the ground. Vireo nest sites are most frequently located in riparian stands between 5 and 10 years old. Even though mature trees are present at many of the sites, the average age of willow vegetation in the immediate vicinity of most nests was between 4 and 7 years. When mature riparian woodland is selected, vireos nest in areas with a substantial robust understory of willows as well as other plant species (Goldwasser 1981).

There is no potential for this species to occur on the project site due to lack of riparian vegetation, but there is the potential for least Bell’s vireo to be present in El Encanto Creek within the study area. Based on CNDDB records, least Bell’s vireo has not been detected within 2 miles of the project site but has been recorded in Santa Barbara County and the region. The structure of riparian vegetation in El Encanto Creek is suitable habitat for least Bell’s vireo.

**Western Pond Turtle**

This species is designated by CDFW as a Species of Special Concern. It occurs within Pacific slope drainages from Washington to Baja, Mexico (CDFG 2000). The western pond turtle is known to inhabit slow-water aquatic habitat, with basking sites such as rocks, logs, and muddy banks, from sea level to 4,690 feet in elevation. The western pond turtle also uses adjacent upland habitats to reproduce, aestivate, and overwinter. In Southern California, the species is thought to be active year-round due to the warmer climatic conditions. The species is known to occur in uplands up to 1,596 feet from aquatic sites, but is usually found within 650 feet of aquatic habitat (CDFG 2000). Nesting sites are typically void of vegetative cover, receive ample warming from the sun, and are, on average, located on slopes below 25 degrees. Western pond turtles are a relatively long-lived species and become sexually mature between 7 and 11 years old (CDFG 2000). Although this species is not listed as endangered by the state or federal governments, western pond turtle populations have dramatically declined over the past several decades and, as such, receive priority attention by the resource agencies.

The project site does not contain any aquatic habitat. However, the riparian habitat within the study area associated with El Encanto Creek may provide suitable aquatic and upland habitat for the species.
Coast Range Newt

This species is designated by CDFW as a Species of Special Concern. It occurs within coastal drainages, from sea level to 6,002 feet in elevation, from Central Mendocino County in the North Coast Ranges south to San Diego County. Populations in Southern California appear to be highly fragmented (CDFG 2000). Coast range newts have an aquatic phase (for reproductive purposes) and a terrestrial phase. Aquatic habitat suitable for coast range newts consists of ponds, reservoirs, and slow-moving streams. Coast range newts appear to use a variety of terrestrial habitats including mesic forest, oak woodland, chaparral, and grassland habitat (CDFG 2000).

The project site does not contain any aquatic habitat. However, coast range newt may utilize the project site for dispersal and foraging during its terrestrial phase. Additionally, the habitat within the study area associated with El Encanto Creek may provide suitable aquatic as well as terrestrial habitat for the species.

Two-Striped Garter Snake

This species is designated by CDFW as a Species of Special Concern. It is highly aquatic and occurs within the South Coast and Peninsular Ranges and deserts from Monterey County south to Baja, Mexico (CDFG 2000). The species inhabits perennial and intermittent streams and rivers with dense streamside vegetation and sandy to rocky substrates. It is also known to occur within stock-ponds and similar aquatic habitats, if suitable riparian vegetation is present (CDFG 2000). Adult snakes were found to utilize varying habitats depending on the season. Snakes observed in the summer chiefly use aquatic and streamside habitats, while those in the winter were found to use coastal sage scrub and grasslands adjacent to aquatic and riparian habitat (CDFG 2000).

The project site does not contain any aquatic habitat. However, two-striped garter snakes may utilize the project site for dispersal and foraging. Additionally, the habitat within the study area associated with El Encanto Creek may provide suitable aquatic as well as terrestrial habitat for the species.

Bats

A number of California species of concern and non-listed species of bats have potential to occupy areas within the study area. Townsend’s big-eared bat is a candidate for a special-status listing while the others—pallid bat, western red bat, and Yuma myotis bats—are California Species of Concern. All of these are likely to occur in the study area. Pallid bats and Townsend’s big-eared bats are known to occupy rock crevices, caves, mines, and structures. The western red bat occupies grassland and woodland habitats. The Yuma myotis bat occupies areas with open woodlands associated with water. Other non-listed species that have potential to occur within the study area include big brown bat, Brazilian free-tailed bat, and California myotis. The big brown bat, California myotis, and pallid bat are summer breeders and are expected or have the highest potential to occur within the study area.

Areas within the project site (such as the stand of eucalyptus trees and the abandoned avocado orchard) and the riparian habitat at El Encanto Creek contain potential bat habitat (exfoliating bark, crevices, and foliage).
Monarch Butterflies

Monarch butterfly winter and autumnal aggregation sites are listed by CDFW as vulnerable to extirpation and are protected by the City of Goleta GP/CLUP Policy CE 4.0. The “western population” (western side of the Rocky Mountains) of monarchs overwinters in groves of eucalyptus trees and occasionally in groves of pine trees along the coastal central and southern portions of California between Santa Cruz and San Diego (Biological Report, Appendix C). Required elements for successful monarch butterfly aggregations include shelter from strong winds and storms, a microclimate with adequate sunlight, proximity to source of water or moisture, and a source of nectar for nourishment (GP/CLUP Conservation Element Policy CE 4.1).

There are approximately 20 existing and known historical monarch roost sites within the City of Goleta that have been designated as ESHAs. Protection of monarch butterfly ESHAs focuses on protecting the entire habitat structure (i.e., entire grove of trees), including surface hydrology that sustains the groves of trees. There are several monarch butterfly winter aggregation sites close to the study area (within 0.3 to 2.0 miles) (Biological Report, Appendix C).

Wildlife Use Categories

Raptor Nests and Foraging

A large variety of raptors, including American kestrel, Cooper’s hawk, red-shouldered hawk, red-tailed hawk, turkey vulture, and white-tailed kite, are known to breed and nest along the south coast of Santa Barbara County. The Migratory Bird Treaty Act (16 USC §§ 703–711) and California Fish and Game Code §§ 3503, 3503.5, 3505, 3800, and 3801.6 protect active raptor nests. The Goleta General Plan (Section 4.0, Conservation Element) also outlines measures for protecting raptor nests, roosts, and foraging grounds.

The project site and portion of the study area associated with El Encanto Creek may be used by raptors for nesting and/or foraging. Potential nesting habitat is present in the study area, on the project site (a stand of eucalyptus trees and an abandoned avocado orchard), and in the riparian area in El Encanto Creek (large, mature arroyo willows and oaks). The riparian area in El Encanto Creek has a greater potential for nesting by raptors. Lastly, potential foraging habitat is present throughout the study area in the form of undeveloped land.

White-tailed Kite Roosts

This species is a fully protected species in the state of California, and roosting sites are protected by the City (GP/CLUP Conservation Element Policy CE 8.1). White-tailed kites occur in grasslands, orchards, open woodlands, marshes, and riparian regions near open grassland in California. This species is believed to be a non-migratory resident species through most of its breeding range with short-range movements, although during periods of low prey abundance the white-tailed kite will temporarily expand its range (ICF International and Dudek 2012).

White-tailed kites are common year-round in Santa Barbara County, with the greatest numbers of individuals and roost populations occurring along the South Coast of Santa Barbara County in the fall and winter. Communal roosts are typical in the fall and winter during the non-breeding season as pairs bond for the upcoming breeding season (February to August). This species prefers dense, broad-leafed deciduous trees for nesting and communal night roosting. Kites
typically roost in large groups within single isolated trees, trees within relatively large stands, and shrubs (ICF International and Dudek 2012).

There is potential (albeit low) for this species to communally roost in the riparian habitat in El Encanto Creek. However, it is unlikely for white-tailed kites to roost within the project site due to the limited amount of trees and shrubs and the lack of suitable structure. Based on the Biological Report and the City’s General Plan, there is no evidence of white-tailed kite communal roosts within or adjacent to the study area. Most white-tailed kite roosts have been identified in the southwestern portion of the City. Based on the locations of the known communal roosts, the field visits made to the study area, and the adjacency of the study area to what is already a relatively developed landscape, it is unlikely that white-tailed kites would communally roost in El Encanto Creek.

Turkey Vulture Roosts

This species has no state or federal special status. However, per the City’s GP/CLUP Conservation Element Policy CE 8.1, roosting sites are protected within the City’s jurisdiction. Turkey vultures form communal roosts in the evening during the non-breeding season, typically in large trees, rock outcrops, and riparian thickets. These communal roosts vary in location from year to year and are part of a complex social structure. The number of individuals within the communal roost ranges in size from a few to several hundred birds (Appendix C).

There is potential (albeit low) for this species to communally roost in the riparian habitat in El Encanto Creek. However, it is unlikely for turkey vultures to roost within the project site due to the limited amount of trees and lack of suitable structure. Based on the Biological Report and the Goleta General Plan, there is no evidence of turkey vulture communal roosts within or adjacent to the study area. According to the Draft Ellwood-Devereux Coast Open Space and Habitat Management Plan (City of Goleta et al. 2004) and the City of Goleta’s General Plan (2006), very few turkey vulture roosts have been identified in the City of Goleta: one in the southwestern portion of Goleta near Devereux Creek, one at Ellwood North, and one at Ellwood West on Ellwood Mesa. Based on the locations of the known communal roosts and the lack of presence observed during the field visits made to the study area, it is unlikely that the turkey vulture would communally roost in El Encanto Creek or on the project site.

4.3.1.6 Wildlife and Migration Corridors

Wildlife use of the project site is limited to a few relatively common species that are adapted to an urban-agricultural environment and can tolerate high levels of noise, night lighting, and human disturbance. Other species may migrate through during spring and fall or inhabit El Encanto Creek and may occasionally use the project site for foraging. Wildlife species observed during the January 2011 field surveys were common birds, reptiles, amphibians, and mammals; Table 4.3-3 contains a list of wildlife species observed on the project site during these field surveys.
TABLE 4.3-3
WILDLIFE OBSERVED IN THE PROJECT AREA

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Seasonal Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacific tree frog</td>
<td>Pseudacris (=Hyla) regilla</td>
<td>Resident Breeder</td>
</tr>
<tr>
<td>western fence lizard</td>
<td>Sceloporus occidentalis</td>
<td>Resident Breeder</td>
</tr>
<tr>
<td>American kestrel</td>
<td>Falco sparverius</td>
<td>Resident Breeder</td>
</tr>
<tr>
<td>Anna’s hummingbird</td>
<td>Calypte anna</td>
<td>Resident Breeder</td>
</tr>
<tr>
<td>California towhee</td>
<td>Pipilo crissalis</td>
<td>Resident Breeder</td>
</tr>
<tr>
<td>Mourning dove</td>
<td>Zenaida macroua</td>
<td>Summer Breeder</td>
</tr>
<tr>
<td>red-tailed hawk</td>
<td>Buteo jamaicensis</td>
<td>Resident Breeder</td>
</tr>
<tr>
<td>turkey vulture</td>
<td>Cathartes aura</td>
<td>Visitor</td>
</tr>
<tr>
<td>western scrub-jay</td>
<td>Aphelocoma californica</td>
<td>Resident Breeder</td>
</tr>
<tr>
<td>white-crowned sparrow</td>
<td>Zonotrichia leucophrys</td>
<td>Winter Visitor</td>
</tr>
<tr>
<td>yellow-rumped warbler</td>
<td>Dendroica coronata</td>
<td>Winter Visitor</td>
</tr>
<tr>
<td>Botta’s pocket gopher</td>
<td>Thomomys bottae</td>
<td>Resident Breeder</td>
</tr>
<tr>
<td>California ground squirrel</td>
<td>Spermophilus beecheyi</td>
<td>Resident Breeder</td>
</tr>
</tbody>
</table>

El Encanto Creek (directly adjacent to the project site) is expected to support wildlife movement in a north-south direction. This 630-foot-long creek corridor is adjacent to (south of) a wildlife corridor in the western portion of the Glen Annie Golf Course that was created to mitigate the impacts on El Encanto Creek that occurred from construction of the golf course. The functionality of El Encanto Creek to serve as a wildlife corridor for open space to the north and the Pacific Ocean to the south has been greatly constrained over time due to development south of the project site. South of Cathedral Oaks Road, the creek corridor becomes increasingly narrow and is channelized south of U.S. Highway 101. The use of the creek as a movement corridor for terrestrial wildlife south of Cathedral Oaks Road becomes increasingly constrained because it is surrounded by residential development and there is a 565-foot-long, below-ground culvert beneath U.S. Highway 101, Calle Real, and the Southern Pacific Railroad. Farther south, approximately 1,800 feet of the creek is channelized before it reaches the undeveloped open space area adjacent to Devereux Slough. El Encanto Creek has become a constrained linkage for wildlife populations north of the project site and those in Devereux Slough and elsewhere along the coast.

The project site is bounded on three sides by open space (golf course and riparian area). South of the project site is a busy roadway and residential development. Evidence of wildlife moving across the project site from the golf course to the north and east was not seen during the January 2011 field surveys but may occur occasionally. The project site does not provide topography that “funnels” wildlife onto the project site, such as a drainage, and thus is not expected to serve an important role in animal movement between the golf course and El Encanto Creek.

4.3.2 Regulatory Framework

4.3.2.1 Federal

Clean Water Act (CWA)

The primary goals of the CWA (33 United States Code [USC] §§ 1251–1376) are to restore and maintain the chemical, physical, and biological integrity of the nation’s waters and to make all
surface waters fishable and swimmable. As such, the CWA forms the basic national framework for the management of water quality and the control of pollution discharges. The CWA provides the legal framework for several water quality regulations, including the National Pollutant Discharge Elimination System (NPDES), effluent limitations, water quality standards, pretreatment standards, anti-degradation policy, nonpoint-source discharge programs, and wetlands protection. The U.S. Environmental Protection Agency (EPA) has delegated the responsibility for administration of portions of the CWA to state and regional agencies. Therefore, the primary regulations resulting from the CWA are discussed below.

Endangered Species Act of 1973

The Endangered Species Act (16 USC § 1531 et seq.) and implementing regulations (50 CFR §§ 17.1, et seq.) include requirements for the protection and management of federally listed threatened or endangered plants and animals and their designated critical habitats. The Endangered Species Act provides the following definitions of threatened and endangered species:

- **Threatened species.** Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

- **Endangered species.** Any plant or animal species that is in danger of extinction throughout all or a significant portion of its range.

Section 7 of the Endangered Species Act requires a permit to take threatened or endangered species during lawful project activities. The administering agency is the USFWS for terrestrial, avian, and most aquatic species.

**Fish and Wildlife Coordination Act**

The Fish and Wildlife Coordination Act (16 USC §§ 661–667e) provides authority for USFWS involvement in evaluating impacts on wildlife and fish that would result from proposed water resource development projects. Applicability depends on federal jurisdiction over some aspect of the project (e.g., dredge or fill activities in “waters of the U.S.”).

**Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA) (16 USC §§ 703–711) protects migratory birds by prohibiting private parties from intentionally taking, selling, or conducting other activities that would harm migratory birds, their eggs, or nests, unless authorized by a special permit. *Taking* is defined as “pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting.”

4.3.2.2 State

**California Endangered Species Act (CESA)**

The California Endangered Species Act (Fish and Game Code §§ 2050 through 2098) and implementing regulations (California Code of Regulations, Title 14, §§ 783 through 783.8 and §§ 786.0 through 786.8) include requirements for protecting and managing plant and animals species listed as endangered or threatened or designated as candidates for such listing. The CESA includes a consultation requirement “to ensure that any action authorized by a State lead agency is not likely to jeopardize the continued existence of any endangered or threatened species […] or result in the destruction or adverse modification of habitat essential to the
continued existence of the species” (Fish and Game Code § 2090). Plants of California declared to be endangered, threatened, or rare are listed at California Code of Regulations, Title 14, § 670.2. Animals of California declared to be endangered or threatened are listed at California Code of Regulations, Title 14, § 670.5. The CEQA Guidelines describe the types and extent of information required to evaluate the effects of a project on biological resources of a project site.

**California Fish and Game Code §§ 3503, 3503.5, 3505, 3800, and 3801.6**

These California Fish and Game Code sections protect all native birds, birds of prey, and all nongame birds, including eggs and nests, that are not already listed as fully protected and that occur naturally within the state.

4.3.2.3 **Local**

**City of Goleta General Plan/Coastal Land Use Plan (GP/CLUP)**

The General Plan includes policies that protect and preserve biological resources within the City by designating specific resources and areas as protected, including ESHAs, restricting activities and uses in protected areas, providing for the management of the resources on City lands, specifying impact avoidance and mitigation requirements for types of activities and by type of biological resource, and providing guidance for development and conservation decisions over the long term. The policies anticipate the potential impacts on biological resources from the land uses and activities that will occur under the General Plan and serve to avoid, reduce, and/or mitigate those impacts. The key policies regarding biological resources are in the Conservation, Open Space, and Land Use Elements.

4.3.3 **Project Impacts and Mitigation**

4.3.3.1 **Thresholds of Significance**

Based on both the City’s Initial Study Checklist (CEQA Guidelines, Appendix G; Environmental Checklist Form) and the City’s *Environmental Thresholds and Guidelines Manual* (Thresholds Manual), a significant impact on biological resources could occur if the project would:

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

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

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

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

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

g. Conflict with adopted environmental plans and goals of the community where it is located.

h. Substantially affect a rare or endangered species of animal, plant, or the habitat of the species.

i. Interfere substantially with the movement of any resident or migratory fish or wildlife species.

j. Substantially diminish habitat for fish, wildlife, or plants.

Items a through f are from the Initial Study Checklist, and Items g through j are from the Thresholds Manual.

4.3.3.2 Project Impacts

The entire project site would be graded, commencing from the site boundary north of Cathedral Oaks Road. The project would make no changes to Cathedral Oaks Road. For the impacts analysis, the assumed construction activities include, without limitation, any activity associated with building the project until completion, including site preparation, equipment and material placement and storage on the project site, grading, installation of infrastructure, placement of landscaping, and home building. Once completed, ongoing activities over the project’s lifetime would have impacts on biological resources including, without limitation, site maintenance activities (e.g., debris basin upkeep, bioswale upkeep), noise and lighting, weed and insect abatement, and the presence and encroachment of humans and pets in potential habitat. All landscaping would be contained within the project site boundaries.

For this analysis, direct impacts would be permanent and indirect impacts could be temporary or permanent, depending on the impact type. Analysis of potential direct, indirect, and cumulative effects are discussed for each phase (construction and operation) of the project. Direct impacts are those effects that can be expected from direct removal and disturbances to the land. Examples of direct impacts include mortality of individuals of protected species and permanent loss of habitat. Indirect impacts are those effects that give rise to delayed, secondary effects. Examples of indirect impacts include fragmentation, pollination interruption, increased environmental toxins, plant and wildlife dispersal interruption, increased risk of fire, and increased invasion of nonnative animals and plants that outcompete natives. These indirect impacts can increase mortality of individuals of native species, reduce their productivity, and/or reduce the functions and values of natural open space that serve as their habitat. Cumulative effects are those direct and indirect effects that the project could contribute to in conjunction with other planned past, present, and reasonably foreseeable projects.
**Impact BIO-1. Special-status Plant/Animal Species**

**Special-status Plants**

Ten vegetation types and four land cover types were identified at the project site. The majority of the vegetation species present are nonnative due to farming on the project site for a number of years. Most of the native plants that are in the study area are associated with the bed and banks of El Encanto Creek, located to the west of the project site on the Glen Annie Golf Course property.

**Santa Barbara Honeysuckle**

Eleven individuals of Santa Barbara honeysuckle were mapped as occurring along the southwestern border of the project site and west of the project site within El Encanto Creek (refer to Figure 4.3-1). The 11 plants identified on the project site are located along the southwestern border between the existing asphalt driveway and chain-link fence in the area proposed for construction of the detention basin. Grading activity conducted during the construction of the detention basin would potentially have a direct impact on these 11 individuals. In addition, the Santa Barbara honeysuckle plants observed west of the project site within El Encanto Creek would have the potential to be indirectly impacted by the project through increased recreational use of the creek area by the new residents and through the introduction of nonnative plants from the new development. Due to the designation of this plant species as rare, and given that the plant primarily occurs in coastal slope habitats that are also becoming increasingly rare, it was determined that impacts on these 11 individuals of Santa Barbara honeysuckle would be considered significant.

**Special-status Wildlife**

Special-status wildlife species evaluated for the potential to occur in the study area include California red-legged frog, western snowy plover, Southwestern willow flycatcher, least Bell’s vireo, yellow warbler, western pond turtle, coast range newt, two-striped garter snake, tidewater goby, globose dune beetle, monarch butterfly, and vernal pool fairy shrimp. In addition, the following wildlife use categories were evaluated for their potential to occur on the project site: raptor foraging and nesting, turkey vulture roosts, white-tailed kite roosts, and nesting birds. The western snowy plover, tidewater goby, globose dune beetle, and vernal pool fairy shrimp are not expected to be present, given a lack of potential habitat within the study area (Biological Report, Appendix C). However, the special-status wildlife species and wildlife use categories discussed below have potential to occur within the study area.

**State and Federally Listed Species**

**California Red-legged Frog**

As noted above in Section 4.3.1, “Existing Setting,” the habitat associated with El Encanto Creek within the study area has the potential to support California red-legged frogs in both a breeding and non-breeding capacity. If present in El Encanto Creek, California red-legged frogs could use the project site as upland foraging and dispersing habitat. Ground disturbances and construction activities have the potential to directly impact this species, causing injury and/or mortality of individuals. Additionally, there is the potential for indirect impacts to occur to this species within El Encanto Creek in the form of increased predation by cats and dogs, along with degradation of the riparian habitat due to increased night lighting and noise, increased potential...
for human encroachment into the creek, proliferation of invasive plant species, and stormwater runoff from the development. As such, the project would significantly impact this species.

**Willow Flycatcher/Southwestern Willow Flycatcher**

As noted above in Section 4.3.1, “Existing Setting,” southwestern willow flycatchers are uncommon migrants to the south coast of Santa Barbara County. There is low potential that the species would occur within the study area, including the project site, during migration. There is less than reasonable potential for the species to breed/nest in El Encanto Creek. No protection is given to the species’ habitat use during migration. The removal of upland habitat within the project site would result in a less-than-significant impact on southwestern willow flycatcher. Because of the brief potential presence of a migrant willow flycatcher in El Encanto Creek during spring or fall in some years, the project would result in a less-than-significant impact on the species.

**Least Bell’s Vireo**

Although the project would not directly impact potential habitat for the least Bell’s vireo, there is potential for indirect impacts to occur from the project in the form of increased predation by cats and dogs, along with degradation of the riparian habitat due to night lighting, noise, increased potential for human encroachment into the Creek, proliferation of invasive plant species, and stormwater runoff from the development. During construction of the project, the increased dust could result in habitat degradation, and the increase in noise could cause increased depredation and nest abandonment. These potential permanent and temporary indirect effects would result in a significant impact on this species.

**Non-Listed Species**

**Western Pond Turtle**

The project site does not contain any suitable aquatic habitat for western pond turtle, but the riparian habitat within the study area associated with El Encanto Creek may provide suitable aquatic and upland habitat for the species. The ground disturbance and construction activities associated with the project have the potential to directly impact the species though injury and/or mortality, if individual turtles were overwintering or aestivating (being in torpor) on the project site. Additionally, there is the potential for indirect impacts to occur to the species within El Encanto Creek in the form of increased predation by cats and dogs, along with degradation of the habitat by increased night lighting and noise, increased potential for human encroachment into the creek, proliferation of invasive plant species, and stormwater runoff from the development. Therefore, the project has the potential to significantly impact western pond turtle, directly and indirectly.

**Coast Range Newt and Two-Striped Garter Snake**

Ground disturbance and construction activities have the potential to directly impact these two species and cause injury and/or mortality of individuals of these species. Additionally, there is the potential for indirect impacts to occur to the species within El Encanto Creek in the form of increased predation by cats and dogs, along with degradation of the riparian habitat due to increased night lighting and noise, increased potential for human encroachment into the creek, proliferation of invasive plant species, and stormwater runoff from the development. Although these species may be directly and indirectly impacted, both species as a whole are still common in their range. Potential impacts would be adverse but less than significant.
Bats

Areas within the project site (the stand of eucalyptus trees and the abandoned avocado orchard) and the riparian habitat at El Encanto Creek contain potential habitat for the Townsend’s big-eared bat, pallid bat, western red bat, and Yuma myotis bats (exfoliating bark, crevices, and foliage). The removal of existing trees from the project site has the potential to directly impact these bat species by causing injury and/or mortality of individuals and/or maternity roosts. Additionally, there is the potential for indirect impacts to occur to these bat species within El Encanto Creek in the form of increased predation by cats and dogs, along with degradation of the riparian habitat due to increased night lighting and noise, increased potential for human encroachment into the creek, proliferation of invasive plant species, and stormwater runoff from the development. As such, the project would result in significant impacts on bats if they are present.

Wildlife Use Categories

Raptor Nests and Foraging

Construction-related activities associated with project noise and habitat removal would have the potential to directly and indirectly impact raptor nests, potentially leading to nest failure or abandonment and disrupting foraging activity within the project site and study area. Additionally, once project construction is completed, there would be the potential for indirect impacts from noise, human encroachment, domesticated animals, and invasive plant species. The removal of 15.8 acres of potential raptor foraging habitat would be a less-than-significant impact because vast expanses of suitable raptor foraging habitat are located in the general area surrounding the project site. The potential impact on active raptors nests would be a significant impact.

White-tailed Kite Roosts and Turkey Vulture Roosts

Based on the locations of other known communal roosts in the City, the field visits made to the study area, and the adjacency of the study area to what is already a relatively developed landscape, it is unlikely that white-tailed kites or turkey vultures communally roost in El Encanto Creek. The presence of the project would not dissuade these two species from roosting in the creek, as they would be able to utilize other areas of the creek along the Glen Annie Golf Course property and continuing northward. Therefore, the project would result in less-than-significant impacts on white-tailed kite communal roosts or turkey vulture roosts.

Riparian Wildlife Species

Construction and operation of the project would have the potential to impact special-status species that may be present in the riparian ESHA. Special-status wildlife species are not known to occur at the project site, but several special-status species (including, without limitation, western pond turtle or California red-legged frog) have the potential to occur in the riparian vegetation and aquatic habitat that exist along El Encanto Creek adjacent to the project site. If these special-status species occur within the riparian area, significant impacts could result due to the encroachment of the project to within 100 feet of the edge of riparian habitat. This would be a potentially significant impact.

Nesting Birds

Habitat suitable to nesting birds is present in the riparian area and elsewhere on the project site; therefore, disturbance of such habitat caused by construction of the project could result in a
significant impact on nesting birds. If conducted during the bird nesting season, construction-related grading and vegetation removal would have the potential to result in damage to or loss of shrubs that could contain active bird nests for species such as the least Bell’s vireo or common native birds protected by the MBTA and the California Fish and Game Code. Construction activities would also have the potential to disturb nesting birds within the vicinity of the project site. If nesting birds, such as the least Bell’s vireo, are present, the indirect impacts of the project could be significant. Any project activities that result in the loss of bird nests, eggs, and young would be in violation of one or more of Fish and Game Code §§ 3503 (any bird nest), 3503.5 (birds-of-prey), or 3511 (Fully Protected birds). In addition, removal or destruction of one or more active nests of any birds protected by the MBTA, whether nest damage was due to tree removal or to other construction activities, would be considered a violation of the MBTA and Fish and Game Code § 3503. Such violations would be considered a significant impact.

**Impact BIO-2. Riparian/Other Sensitive Natural Communities**

No riparian vegetation occurs on the project site that would be removed by the project. There is coastal sage scrub dominated by Santa Barbara morning-glory (0.08 acre), which is located within the study area to the west of the project site, adjacent to El Encanto Creek. Coastal sage scrub dominated by black sage (*Salvia mellifera*) is present within the study area (0.09 acre), with a small amount (approximately 0.03 acre) proposed for removal by the project. The removal of roughly 0.03 acre of sage scrub would not be a significant impact. However, the potential for the project to indirectly impact the riparian vegetation in El Encanto Creek during construction and over the lifetime of the project (e.g., through reduced water quality and reduced quality of habitat for wildlife) is a potentially significant impact.

**Impact BIO-3. Wetlands**

There are no wetland resources on the project site. Therefore, there would be no direct impacts on wetlands. The project could indirectly impact wetlands in El Encanto Creek (if present) during construction and/or the lifetime of the project through water quality degradation. This indirect impact is considered significant.

**Impact BIO-4. Wildlife Movement**

As discussed above in Section 4.3.1.6, the project site is not expected to support wildlife movement. El Encanto Creek is expected to support limited wildlife movement given the developed landscape south of the study area. Although the project would not directly encroach into the creek, there is potential for short-term (during construction) and long-term (life of the project) indirect impacts to occur to the creek that would further degrade its ability to support animal movement. Project construction would occur close to the wildlife movement corridor and could potentially temporarily disrupt wildlife movement in and through the corridor. Night lighting and noise from the project’s operation would also reduce wildlife movement. Therefore, the degradation of El Encanto Creek’s ability to support animal movement would be a significant impact.

**Impact BIO-5. Conflicts with Policies**

The following policies are applicable to the proposed project and its immediate surroundings.
Environmentally Sensitive Habitat Areas

Goleta GP/CLUP Subpolicy CE 1.2 identifies El Encanto Creek as an ESHA (creek and riparian habitat). Subpolicy CE 1.6 requires protection of ESHAs against significant disruption of habitat values. An SPA has been established for El Encanto Creek to provide protection of the creek and its associated riparian habitat; see discussion of the SPA policies below.

Streamside Protection Areas

Goleta GP/CLUP Subpolicy CE 2.2 regarding SPAs requires a 100-foot buffer along both sides of El Encanto Creek. This buffer is intended to preserve the SPA in a natural state in order to protect the associated riparian habitats and ecosystems. Under certain circumstances, Subpolicy CE 2.2 allows for the reduction of the 100-foot SPA as long as a 25-foot minimum is maintained. Although the creek and its riparian corridor are located outside the project site, the 100-foot SPA buffer does extend into the western portion of the project site.

Construction and operation of the project would result in an encroachment into the SPA buffer. The proposed detention/retention basin, vegetated bioswale, children’s tot lot, walking path, small portions of two residential lots, and a portion of the internal road system would occur within the 100-foot SPA buffer. The two residential lots and the internal road system would be at least 50 feet from El Encanto Creek, which exceeds the 25-foot minimum buffer required by Subpolicy CE 2.2. The detention/retention basin, vegetated bioswale, walking path, and the children’s tot lot would be located within the 25-foot minimum buffer. Though an encroachment into the buffer zone could have the potential to cause significant impacts, the detention basin, vegetated bioswale, walking path, and children’s tot lot could be considered compatible land uses and activities allowed in SPAs, per GP/CLUP Subpolicy CE 2.3, Allowable Uses and Activities in SPAs. Subpolicy CE 2.3e allows for the construction and maintenance of foot trails, bicycle paths, and similar low-impact facilities for public access. Subpolicy CE 2.3f allows for resource restoration and enhancement projects. The detention basin and vegetated bioswale would capture stormwater for filtration, infiltration, and sediment dropout. The walking path would further protect water quality by allowing surface runoff to filter through its permeable surface. Because the uses proposed within the 100-foot and 25-foot buffers would be consistent with Subpolicy CE 2.2, the project’s impacts would be less than significant.

Monarch Butterfly Habitat Areas

Goleta GP/CLUP Policy CE 4 designates and protects monarch butterfly habitat areas as ESHAs. Overwintering sites must have the following microclimatic conditions: absence of freezing temperatures, shelter from strong winds, sources of moisture for hydration, cool grove temperatures, exposure to filtered sunlight, protection from prevailing winds from the north and northwest, and winter storm winds from the south (Leong et al. 2004). The eucalyptus stand on the project site consists of five large trees that exist in a row with a canopy of approximately 0.97 acres. The linear arrangement of eucalyptus trees does not provide shelter from strong winds, protection from prevailing winds, cool grove temperatures, or exposure to filtered sunlight area, which are needed to support a monarch butterfly aggregation site. Given the lack of suitable habitat for monarch butterflies within the study area and within the directly adjacent areas, the project is not expected to significantly impact monarch butterfly aggregation sites.
Protection of Special-status Species

Goleta GP/CLUP Subpolicy CE 8.1 requires protection and preservation of requisite habitats for special-status plants and animals. Although the GP/CLUP does not designate the project site as a sensitive-species ESHA, Subpolicy CE 8.3 extends protection to areas not designated in the GP/CLUP but meeting the ESHA criteria.

As discussed above in Impact BIO-1, the project site is known to contain Santa Barbara honeysuckle, and El Encanto Creek has potential habitat for California red-legged frog, western pond turtle, least Bell’s vireo, and nesting or roosting raptors. If adverse impacts on these species and their habitats resulted from the project, the project would not be consistent with GP/CLUP Subpolicy CE 8.1, which would be a significant impact.

Habitat Conservation Plans, Natural Community Conservation Plans, or other Conservation Plans

The project does not occur within or conflict with any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.3.4 Cumulative Impacts

This project and related projects in the Goleta area could potentially result in cumulative impacts on water quality of the Devereux Slough, with potential secondary cumulative impacts on biological resources in the slough. As described above, construction and operation of the proposed project would remove existing vegetation on site and increase the amount of impervious surfaces, which would increase the quantity of, and potentially diminish the quality of, stormwater runoff reaching El Encanto Creek and, eventually, the Devereux Slough. A similar residential development project, the Kenwood Village project, is also proposed to be constructed along El Encanto Creek. Before mitigation, these projects would result in a potentially significant contribution to cumulative water quality degradation of the Devereux Slough, affecting the aquatic habitat and the species dependent upon it. After implementation of required mitigation measures, the projects’ contribution to these cumulative water quality impacts would be less than significant.

Additionally, construction and operation activities that infringe upon the SPA could cumulatively diminish the biological functionality of the riparian habitat along El Encanto Creek. Although the project would maintain the minimum 25-foot SPA buffer as required by GP/CLUP Subpolicy CE 2.2, the project has the potential to cause cumulative impacts on species that could inhabit El Encanto Creek including, without limitation, Santa Barbara honeysuckle, California red-legged frog, least Bell’s vireo, and western pond turtle.

4.3.5 Mitigation Measures

Mitigation Measures AES-3a, HYD-1a, HYD-1b, HYD-2a, and HYD-2b would be implemented for Impact BIO-2 and related cumulative impacts. In addition, the measures below are necessary to provide additional protection to El Encanto Creek and its biological resources.
**MM BIO-1a/BIO-3a. General Biological Resource Protection during Construction**

Before commencement of grading activities, the entire limits of disturbance must be demarcated with ESHA fencing, which must be maintained throughout the period of construction. This will ensure that biological resources adjacent to the project are not disturbed. A qualified biologist (with selection to be reviewed and approved by the City) must be present during the installation of the ESHA fencing.

Construction personnel must strictly confine their activities, vehicles, equipment, and construction materials to the limits of disturbance. The project biologist must monitor construction activities for the duration of the project’s construction phase to ensure that practicable measures are being employed to avoid incidental disturbance of habitat and species of concern outside the project footprint. Special attention must be provided to ensure that the ESHA fencing is maintained daily. Monitoring must occur for the duration of the construction activity to ensure implementation of best management practices (BMPs).

Active construction areas must be watered regularly to control dust and thus minimize impacts on adjacent lands and waters.

Firefighting equipment (e.g., extinguishers, shovels, water tankers) must be available on the site during all phases of project construction to help minimize the chance of human-caused wildfires. Shields, protective mats, and/or other fire-preventative methods must be used during grinding, welding, and other spark-inducing activities. Personnel trained in fire hazards, preventative actions, and responses to fires must advise contractors regarding fire risk from all construction-related activities.

Waste, dirt, rubble, or trash must be contained and removed from the project area.

**Plan Requirements and Timing:** Before the City issues any grading or building permits, all construction documents must include the requirements listed above related to ESHA fencing, limits of construction, requirements for biological monitors, BMPs, site watering, training, fire prevention and control, and removal of waste. Before commencement of grading activities, the project biologist must conduct a pre-construction workshop to instruct construction personnel to restrict disturbance to areas outside those demarcated by the ESHA fencing.

**Monitoring:** Monitoring must be conducted by the Planning and Environmental Review Director, or designee, to ensure that the measures listed above are taken to protect biological resources.

**MM BIO-1b. Protect Special-status Plant Species**

Santa Barbara honeysuckle plants are present on the project site and may be within the construction zone; this species can be detected throughout the year. Before commencement of grading activities, a qualified biologist (with selection to be reviewed and approved by the City) must identify all existing Santa Barbara honeysuckle plants on the project site. A 25-foot buffer using ESHA fencing must be installed by the construction crew as directed by the project biologist. No construction must be allowed within the 25-foot buffer. If necessary, construction plans must be modified to avoid the 25-foot buffer.

If the 25-foot buffer cannot be maintained and avoidance of the Santa Barbara honeysuckle plants is not feasible, the following conditions will apply:
Before construction, translocation of the individuals by a qualified biologist to lands that are legally protected and managed by a verified land management entity must be required, with monitoring of the transplantings by a qualified biologist for no less than 3 years to ensure translocation success; and/or

Before construction, collection of seeds by a qualified biologist at the appropriate time of year (approximately July to August) for propagation and/or permanent collection at a recognized native plant horticultural site must be required, with the propagated seeds planted on lands that are legally protected and managed by a verified land management entity and monitoring for no less than 3 years to ensure success; and/or

Before construction, collection of seeds and distribution to a suitable legally protected site as directed by a qualified botanist must be required, with monitoring for no less than 3 years to ensure success.

Plan Requirements and Timing: Before the City issues any grading or building permits, the permittee must submit to the Planning and Environmental Review Director, or designee, for approval a Santa Barbara honeysuckle mitigation plan (SBHMP) that incorporates the requirements noted above for ESHA fencing, ongoing on-site protection, translocation, propagation, and/or plantings. The SBHMP must be developed by a qualified biologist (with selection to be reviewed and approved by the City).

Before the City issues any grading or building permits, all plans for grading and construction must be revised, as necessary, to reflect all necessary measures for implementation of the SBHMP.

Before the City issues any certificate of occupancy, the permittee must complete all activities for establishment of on-site protection or off-site mitigation under the SBHMP.

Three years after implementation of activities for such establishment, the permittee must submit a final mitigation report to the Planning and Environmental Review Director, or designee, and relevant Regulatory Agencies. The mitigation report must discuss at a minimum the implementation, monitoring, and management of the mitigation project over the 3-year period, and indicate whether the project has been successful based on established success criteria.

Monitoring: The Planning and Environmental Review Director, or designee, must conduct on-site monitoring to ensure implementation of the SBHMP. The Planning and Environmental Review Director, or designee, must also verify implementation and success of any activities for off-site mitigation conducted pursuant to the SBHMP.

MM BIO-1c. General Protection of Special-status Animals

To avoid attracting predators, during construction the project site must be kept as clean of debris as possible. All construction debris must be regularly removed from the site. In addition, all food-related trash (e.g., chips and sandwich bags; discarded cups, cans, and bottles; orange and banana peels; fast food packaging; used napkins; utensils) must be enclosed in sealed containers and removed from the site daily. Any permanent trash receptacles located in the common areas of the project site must be covered and wildlife-proof.

Plan Requirements and Timing: Before the City issues any grading or building permits, the permittee must submit a Construction Waste Reduction and Recycling Plan (WRRP) for review and approval by the Public Works Director, or designee. The Construction WRRP must
implement the requirements above and identify locations and design specifications of trash receptacles. Before the City issues any certificate of occupancy, the Conditions, Covenants, and Restrictions (CC&Rs) for the project must include requirements for food-related trash handling noted above.

**Monitoring:** The Public Works Director, or designee, must review and approve the Construction WRRP before the City issues any grading or building permits. The Planning and Environmental Review Director, or designee, must approve the CC&Rs, in a form approved by the City Attorney, to ensure that the requirements for trash handling are included before the City issues any certificate of occupancy.

**MM BIO-1d. Protect Special-status Reptiles and Amphibians**

To avoid impacts to the California red-legged frog, a focused survey following current USFWS survey protocol must be performed during both the breeding and nonbreeding seasons. If the species is not found, no further action is needed. If the species is found, consultation with USFWS will be required to coordinate and adopt short-term (i.e., during construction) and long-term (i.e., post-construction) project-specific avoidance and minimization measures and to negotiate the terms of compensatory mitigation. Compensatory mitigation would need to occur at a minimum 3:1 ratio for habitat degradation and number of individuals, off-site and on lands that are legally protected in perpetuity and managed by an entity with expertise with California red-legged frog.

To avoid impacts to the western pond turtle, a survey to determine the presence or absence of western pond turtle must be performed using current CDFW protocol. The survey must occur during May through July. If the survey results confirm the species is absent, no further action is needed. If the species is found, potential loss of individual animals must be mitigated through translocation to suitable off-site habitat, in coordination with and as approved by the City and CDFW.

Monitoring of the translocated population must occur for at least 3 years. Success would be measured as establishment at the new site of at least the number of individuals translocated. If success has not been reached by 3 years, additional measures must be implemented until, at a minimum, the number of individual animals translocated have established at the new site. The lands where the translocation would occur would need to be legally protected and managed by a verified entity having specialization with western pond turtles.

Not more than seven days before construction and once the ESHA fencing has been installed, a qualified biologist (with selection to be reviewed and approved by the City) familiar with the special-status herpetofauna potentially present must perform a site check for special-status reptiles/amphibians. Any individuals found must be moved outside of the ESHA fencing. This will require the biologist to have a CDFW Scientific Collection Permit and authorization by CDFW to perform the relocation of individuals. The site check for special-status reptiles and amphibians would occur once the actions described above for California red-legged frog and western pond turtle have been executed.

**Plan Requirements and Timing:** Grading plans must specify the requirement for biological surveys before the beginning of site preparation or construction activities. All plans must be revised, as necessary, to reflect the necessary measures to be taken to ensure the protection of any identified special-status wildlife species. The project biologist must conduct the biological survey before commencement of any site preparation or construction activities.
**Monitoring:** The Planning and Environmental Review Director, or designee, must review any survey results and/or biological reports before commencement of any site preparation or construction activities in consultation with appropriate resource agencies (USFWS and/or CDFW). The Planning and Environmental Review Director, or designee, must also conduct monitoring throughout the construction period to ensure implementation of the measures for protection of the special-status species that are agreed upon by the appropriate Regulatory Agencies and permittee, as necessary.

**MM BIO-1e. Protect Special-status Birds**

To avoid impacts to the least Bell’s vireo, a focused survey following current USFWS guidelines must be performed by a qualified biologist between April 10 and July 31. If this survey finds the species absent, no further action is needed. If the species is present, coordination with USFWS will be required. Compensatory mitigation must occur at no less than a 3:1 ratio for habitat degradation and number of individuals indirectly impacted. Compensatory mitigation can occur by purchasing off-site credits or by acquiring lands that are placed in a conservation easement and managed by an entity having demonstrated expertise with riparian habitat and least Bell’s vireo.

**Plan Requirements and Timing:** Grading plans must include the requirement for a biological survey before the beginning of site preparation or construction activities. All plans must be revised, as necessary, to reflect the necessary measures to be taken to ensure the protection of any identified special-status wildlife species. A qualified biologist (with selection to be reviewed and approved by the City) must conduct the biological survey before site preparation or construction activities.

**Monitoring:** The Planning and Environmental Review Director, or designee, must review any survey results and/or biological reports, before site preparation or construction activities, in consultation with appropriate resource agencies (USFWS and/or CDFW). If the results of the survey confirm the presence of special-status wildlife species, consultation with the appropriate resource agency must be initiated. Monitoring must be conducted by the Planning and Environmental Review Director, or designee, to ensure that the measures agreed upon by the appropriate resource agency and applicant are taken to protect the special-status species. The Planning and Environmental Review Director, or designee, must also conduct monitoring throughout the construction period to ensure proper implementation of the measures agreed upon by the resource agency and applicant, as necessary.

**MM BIO-1f. Protect Bat Species**

To avoid impacts to bats, a qualified biologist (with selection to be reviewed and approved by the City) with specialization in bats must perform a careful review of the trees on the project site for bat roost potential. If the biologist determines there is no potential for bats to roost on site, no further action is needed. If there is potential for bat roosting on the project site, the biologist must perform a one-night bat emergence survey (bats normally emerge during a 15 to 20-minute period after sunset). The bat emergence survey must be performed during acceptable weather conditions (without rain or high winds and with temperatures above 45 degrees Fahrenheit). If bats are not detected, no further action is needed. If bats are detected, the following approach must be taken unless directed otherwise by CDFW.

If trees with bat roost potential require removal during winter months when bats are in torpor (October 31 to February 15, but also during similar conditions at other times of the year), the
biologist must physically examine the potential roost habitat for presence or absence of bats (such as by lift equipment or fiber optic scope) before the start of construction. If the roost is determined to be occupied during this time, the tree must be avoided until after the winter season, when bats are once again active. Avoidance must include placement of ESHA fencing around the tree with a 25-foot buffer.

Trees with potential colonial bat habitat (defined as trees with cavities, crevices, exfoliating bark, and bark fissures) can be removed outside of the maternity season (April 15 to August 15) and winter season (October 31 to February 15) using a two-step tree-trimming process that occurs over two consecutive days. On Day 1, under the supervision of the biologist, Step 1 would involve removal by handheld equipment (e.g., using chainsaws) of branches and limbs with no cavities. This will create a disturbance (noise and vibration) and physically alter the tree. Bats roosting in the tree will either abandon the roost immediately (rarely) or, after emergence, will avoid returning to the roost. On Day 2, Step 2 of the tree removal would occur, which would involve removal of the remainder of the tree. Trees that are only to be trimmed and not removed would be processed in the same manner; if a branch with a potential roost must be removed, all surrounding branches would be trimmed on Day 1 under supervision of the biologist, and then the limb with the potential roost would be removed on Day 2.

Trees with foliage (and without colonial bat roost potential) that can support lasiurine bats, such as the solitary western red bat and western yellow bat (the only special-status lasiurine species with the potential to occur in the project area), must have a two-step tree-trimming process that occurs over one day under the supervision of the biologist. Step 1 would be to remove adjacent, smaller, or non-habitat trees to create noise and vibration disturbance that would cause abandonment. Step 2 would be to remove the remainder of tree on that same day.

Plan Requirements and Timing: Grading plans must specify the requirement for biological surveys before the beginning of site preparation or construction activities. All plans must be revised, as necessary, to reflect the necessary measures to be taken to ensure the protection of any identified potential bat roosts.

Monitoring: The Planning and Environmental Review Director, or designee, must review any survey results and/or biological reports before site preparation or construction activities. If the results of the survey confirm the presence of potential bat roosts, subsequent surveys and tree removal procedures must be monitored by the Planning and Environmental Review Director, or designee, to ensure that the measures are taken to protect bats.

MM BIO-1g. Protect Nesting Birds (including Raptors)

Not more than seven days before the commencement of construction activities (if between January 15 and September 1), a qualified biologist (with selection to be reviewed and approved by the City) must perform a nesting bird survey (including raptors) that must consist of at least two visits to determine whether there are active nests within the project site and within 200 feet of the project footprint. This survey must also identify the species and, to the degree feasible, nesting stage (e.g., incubation of young, feeding of young, near fledging). Nest locations must be mapped with handheld GPS units or an alternative method that allows the nest to be mapped and refound. If breeding activities and/or an active bird nest is located, a nest avoidance zone will be established and no construction activities will be permitted within the established zone. The nest avoidance zone will be established by fencing and/or flagging a minimum of 100 feet for passerines (300 feet for raptors) in all directions from the breeding habitat/nest site unless a reduced buffer is approved by CDFW. This area must not be disturbed until, as determined by
the biologist, the nest becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the project.

**Plan Requirements and Timing:** Grading plans must specify the requirement for a field survey to be conducted and submitted to the Planning and Environmental Review Director, or designee, for review before the beginning of site preparation or construction activities. The project biologist must conduct the field survey before commencement of any grading and/or construction activities.

**Monitoring:** The Planning and Environmental Review Director, or designee, must review any survey results and/or biological reports before site preparation or construction activities, in consultation with appropriate resource agencies (USFWS and/or CDFW), as needed. If necessary, the Planning and Environmental Review Director, or designee, must conduct monitoring throughout the construction period to ensure implementation of protective measures agreed upon by the applicant, the City of Goleta, and the appropriate resource agency.

**MM BIO-2a/BIO-3b/BIO-4a. Protect Riparian Habitat, Wetlands, and Wildlife Movement**

The proposed storm drain at the top of the bank of El Encanto Creek must be designed to avoid any riparian vegetation connected with El Encanto Creek and must be located outside of any federal and state jurisdictional waters.

ESHA fencing must be installed along El Encanto Creek as directed by a qualified biologist (with selection to be reviewed and approved by the City) who specializes in jurisdictional delineations to ensure that no encroachment into the riparian area occurs during installation of the storm drain. This ESHA fence placement can occur at the same time as the other ESHA fencing placement, but must be maintained throughout construction.

In addition to the measures presented above for special-status species, the riparian habitat must be permanently protected from encroachment by a solid perimeter wall along the western and northern boundaries of the development such that noise, lighting, pets, and human presence are blocked from El Encanto Creek to the maximum extent practicable. This includes the area of the detention basin. The wall must be no less than 5 feet high and maintained by the homeowners association for the development to ensure its intended function.

Signs must be posted on the wall in community areas indicating that trespassing into El Encanto Creek is prohibited and that El Encanto Creek has sensitive biological resources.

**Plan Requirements and Timing:** Grading plans must specify the requirement for ESHA fencing along the storm drain area to protect the riparian habitat and be submitted to the Planning and Environmental Review Director, or designee, for approval before the beginning of site preparation or construction activities. Project plans must be revised as necessary to show an acceptable location for the storm drain and the required solid wall and signage and submitted to the Planning and Environmental Review Director, or designee, for approval before the City issues any grading or building permits.

**Monitoring:** Monitoring must be conducted by the Planning and Environmental Review Director, or designee, to ensure that the measures listed above are taken to protect riparian habitats.
4.3.6 Residual Impacts

After mitigation, the impacts on biological resources would be reduced to less-than-significant levels, including impacts on Santa Barbara honeysuckle, California red-legged frog, western pond turtle, least Bell’s vireo, other riparian wildlife species, nesting birds, riparian/other sensitive natural communities, wetlands, and wildlife movement.
SECTION 4.4
CULTURAL RESOURCES
4.4  CULTURAL RESOURCES

This analysis is based primarily on the Dudek and Associates (Dudek) Extended Phase 1 Archaeological Investigation, Shelby Residential Project, 7400 Cathedral Oaks Road, City of Goleta, California (Dudek 2011) (Appendix D) and a record search and field inspection of the project area by an ICF International (ICF) archaeologist in June 2013.

4.4.1 Existing Conditions

4.4.1.1 Prehistoric Setting

The local prehistoric chronology is divided into four major periods—Paleoindian, Early Period, Middle Period, and Late Period. It is generally accepted that humans entered the New World about 11,000 B.C. during the latter part of the Wisconsin glaciation. The earliest unquestioned evidence of human occupation in south Santa Barbara County is dated between 8,000 B.C. and 6,000 B.C. (Erlandson and Colten 1991). Paleoindian groups during this time focused on hunting Pleistocene megafauna, including mammoth and bison. Plants and smaller animals were undoubtedly part of the Paleoindian diet as well, and when the availability of large game was reduced by climatic shifts near the end of the Pleistocene, the subsistence strategy changed to a greater reliance on these resources (Dudek 2011).

Post-Pleistocene changes in climate and environment are reflected in the local archaeological record by approximately 6,000 B.C., (King 1981, 1975; King and Gamble 1979), the beginning of the Early Period (6000 B.C. to 1500 B.C.). The Early Period of the Santa Barbara Channel mainland was originally defined by Rogers (1929), who called it the “Oak Grove Period.” The diagnostic features of this period are the mano and metate milling stones, which were used to grind hard seeds, such as sage, for consumption. Toward the end of the Early Period, sea mammal hunting appears to have supplemented subsistence strategies (Glassow 1990).

The Middle Period (1500 B.C. to 1150 A.D.) is characterized by larger and more permanent settlements, related to a generally wetter environment. Materials from Middle Period sites reflect a greater reliance on marine resources and include marine shells, fish remains, and fishhooks. A major shift in vegetable food exploitation occurred, as the mano and metate milling stones were replaced by stone mortars and pestles. This indicates a transition from seed gathering to oak tree acorn gathering and processing, the result of cooler temperatures and more expansive oak woodland habitats. Toward the end of this period, the plank canoe was developed, making ocean fishing and trade with the Channel Islands safer and more efficient (Arnold 1987). Terrestrial resources continued to be exploited, as evidenced by the presence of contracting-stemmed and corner-notched projectile points from Middle Period sites (Bamforth 1984).

The Late Period (1150 A.D. to 1800 A.D.) was a time of increased social and economic complexity. The increased number of permanent and semi-permanent villages clustered along the Santa Barbara Channel and on the Channel Islands, and the diversity of environmental site settings in which sites have been identified, indicates a substantial increase in prehistoric population. Intensification of terrestrial as well as marine resources occurred. Acorns continued to be processed, and land mammals were hunted with the bow and arrow, rather than exclusively by spear. Trade networks, probably controlled by village chiefs, expanded and played an important part in local Chumash culture, reinforcing status differences and encouraging craft specialization. Shell beads, related to status and social value and found throughout the Early and Middle Periods, increased in number and variety.
The protohistoric culture of the Chumash was terminated by the arrival of a Spanish expedition led by Gaspar de Portolà in 1769. Chumash culture changed dramatically with the establishment of the Missions of Santa Barbara, Santa Ynez, and La Purisima (Dudek 2011).

### 4.4.1.2 Historic Setting

The historic occupation of the project vicinity can be divided into four settlement periods: the Mission Period (1769–1830 A.D.), the Rancho Period (ca. 1830–1850 A.D.), the American Period (ca. 1850–1900 A.D.), and the Modern Period (1900 to the present). Construction of Mission Santa Barbara in 1786, Mission la Purisima Concepción in 1787, and Mission Santa Ynez in 1804 altered both the physical and cultural landscape of the region. The missions were the center of Spanish influence in the region and affected Native American patterns of settlement, culture, trade, industry, and agriculture. Native Americans provided labor for the Mission system, and many coastal tribes, such as the Chumash, were no longer able to live in their traditional ways.

Mexico rebelled against Spain in 1810, and by 1821 Mexico, including California, achieved independence. The Mexican Republic began to grant private land to citizens to encourage immigration to California. Huge land grant ranchos took up large sections of land in California. In 1833, Mexico declared an end to the Missions and secularized each Mission’s land holdings.

Secularization of lands and a focus on cattle raising marked the Rancho Period, where large land grants of mission lands were ceded to wealthy, prominent Spanish families. Native Americans continued to work as laborers on ranchos during this period.

The American Period began with the acquisition of California by the United States in 1848, at the end of the Mexican-American War. The Mexican American war began in 1846, with the short-lived California Republic being declared on June 14, 1846. The Republic disbanded 26 days later upon the arrival of U.S. troops in California. The American Period is marked by the large influx of American citizens into California and the almost complete replacement of previous Native American, Spanish, and Mexican cultural systems with United States customs and laws.

The discovery of gold and the subsequent Gold Rush brought many Americans into California, which promoted extensive cultural changes. The state developed rapidly, being admitted to statehood in 1850. However, this great influx of population was primarily limited to central California, in San Francisco and the Gold Rush region of the Sierra Nevada. Southern California grew very slowly during this time. After the end of the Gold Rush, farming and more intensive land uses steadily replaced cattle raising. In the 1860s, cattle ranching was substantially reduced by a prolonged drought, and a more mixed agricultural economy developed in Santa Barbara County and other rural areas of Southern California.

Major forces of regional change between 1900 and 1920 begin the Modern Period, which extends to the present day, during which Southern California developed its distinctive regional characteristics. These include the growth of Los Angeles into a major city, increased urbanization in Santa Barbara County and along the coast, development of the automobile as the main form of transportation, and development in the region of agribusiness, wineries, the oil industry, and large college institutions.
4.4.1.3 Project Site

The project site is within the City of Goleta, in the Goleta Foothills at the edge of the Santa Ynez Mountains, adjacent to El Encanto Creek, a blue-line stream. The project site encompasses 14.38 acres situated north of Cathedral Oaks Avenue, bounded on the west by El Encanto Creek and on the north and east by the Glen Annie Golf Course. The property encompasses a small recorded archaeological site, CA-SBA-1735.

The elevation of the project parcel is 145 feet above mean sea level (AMSL) at Cathedral Oaks Road, rising on a gentle slope to 252 feet AMSL in the northeast property corner. Rincon Formation bedrock is present in the north end of the parcel at shallow depths, about 7 to 8 feet. The majority of the parcel is underlain by deep deposits of Quaternary Older Alluvium. Geotechnical testing (ENGEO 2011) indicates this alluvium is at least 22.5 feet deep near the site location. Grading to develop level parcels for the project will require grading to a depth of 3 to 8 feet.

Microfossils are common in the Rincon Formation, and have been helpful in dating the formation because some of these species only existed for a limited time span. Foraminiferal microfossils remains, in particular, are abundant. Within Santa Barbara County, two significant fossil finds (aside from microfossils) have been made in the Rincon Formation, while the Quaternary Older Alluvium has yielded significant vertebrate land mammal fossils.

Previous Archaeological Investigations

A summary of the prior archaeological investigations performed within the larger CA-SBA-1735 site is provided below.

A records and literature search was conducted at the Central Coast Information Center (CCIC), University of California Santa Barbara (UCSB). The CCIC is the state-designated regional clearinghouse for archaeological site information for Santa Barbara County. For this project, a records search was requested by Dudek in 2011. An additional records search was conducted by ICF in 2013, which determined that no additions or changes to the records had taken place. The records search identified a total of 13 previous cultural resource studies and 10 archaeological sites within a 1/2-mile radius of the proposed project site. The entire project parcel has been surveyed twice in the past (Spanne 1972; SAIC 1999), and the northern 9 acres of the parcel were re-surveyed for the current project (Dudek 2011).

The records of the State Historic Property Data Files, National Register of Historic Places, National Register of Determined Eligible Properties, California Historical Landmarks, California Points of Historic Interest, California Office of Historic Preservation Archaeological Determinations of Eligibility, and the California Department of Transportation State and Local Bridge Surveys were consulted. No historic property evaluations within a 1/2-mile radius of the project parcel have been recorded.

One prehistoric archaeological site, CA-SBA-1735, has been recorded within the project parcel. This site was recorded in 1972 (Spanne 1972) and described as a “trace scattering of chipping waste, clam shell and sandstone cobble fragments.” Artifacts were described as “a few utilized Franciscan chert flakes of thumbnail size.” The site was described as being 27 meters by 18 meters (88.5 by 59 feet), and was noted to be in an area “cultivated, eroded, and disturbed by tree roots,” with a creek adjacent to the site’s western boundary. Unfortunately, the site was not mapped in detail when it was recorded, and the location mapped by the CCIC on the U.S.
Geological Survey (USGS) topographic Dos Pueblos Canyon quadrangle map is an estimated location.

The 1999 survey made diligent efforts to locate CA-SBA-1735, but no evidence of the site was found in its mapped location. It was suggested that the site may have been destroyed, as the orchard on the site had been removed and a house, outbuildings, and driveway constructed on the parcel. The driveway and associated barn access have been constructed in the mapped site location. (Air photo imagery indicates the orchard, with no structures, was present on the project parcel in 1994, and had been removed by 2002, replaced by grassland and structures.)

For the current project, the mapped site location was tested with three shovel probes (Dudek 2011). The Chumash Native American community, represented by Gilbert Unzueta, Chumash elder, monitored this excavation. No prehistoric cultural materials were recovered. Finally, a survey of the mapped site location and vicinity was conducted by an ICF archaeologist on June 19, 2013; no prehistoric cultural materials were observed. Site CA-SBA-1735 appears to have been destroyed, possibly by grading for the existing driveway. There is a possibility that the site location has been slightly mis-mapped, but surveys of the parcel in 1999 and 2011 did not reveal any archaeological materials.

**Historic Resources**

Three buildings are present on the project parcel: a residence, barn, and stable. These are typical 1950s-era vernacular ranch buildings. These buildings were moved onto the project parcel in the 1990s from the southern portion of the original 25-acre parcel when Cathedral Oaks Road was extended and a subdivision built south of the road. These buildings were examined by an architectural historian (Nye 2011), who concluded the buildings had lost historical integrity when they were moved, and that they were commonplace vernacular structures in any case. It was concluded that the three buildings do not meet any of the City’s or CEQA’s significance criteria.

**Native American Community Consultation**

The City contacted the local Native American community in October 2011 for SB 18 consultation regarding the Shelby General Plan Amendment. No responses have been received.

In a letter dated August 9, 2013, ICF International, on behalf of the City, contacted the Native American Heritage Commission (NAHC) to request a Sacred Lands File search and a Native American Contact list. On August 29, 2013, Native American groups and individuals listed by the NAHC were contacted by mail about the project, and asked if they had any cultural information about the project area or concerns about the project. Comments were requested by September 30, 2013; no responses were received. This contact and request for information is a separate process from Senate Bill (SB) 18 consultation.

Follow-up phone calls or e-mails were placed with the 19 Native American individuals and groups listed by the NAHC. One person requested a Native American presence during project construction, two individuals had no concerns about the project, and one had no comment. Messages were left for the remainder of the Native American contacts requesting a response if they had comments or concerns about the project. No responses have been received.
4.4.2 Regulatory Framework

4.4.2.1 State

At the state level, the most relevant laws and regulations regarding the protection of cultural resources are Public Resources Code (PRC) §§ 5020.1(k) and 5024.1(g) (CEQA) and 14 California Code of Regulations § 4852 (CEQA Guidelines). Consideration of the significance of an “important archaeological resource” is regulated by CEQA Guidelines §§ 15064.5 and 15126.4 and the draft criteria regarding resource eligibility to the California Register of Historical Resources (CRHR). Generally, under CEQA, a historic resource includes built-environment historic and prehistoric archaeological resources, which are considered significant if the resource meets the following criteria:

a. The resource is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.

b. The resource is associated with lives of persons important in our past.

c. The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

d. The resource has yielded, or may be likely to yield, information important in prehistory or history.

CEQA Guidelines § 15064.5 also assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are detailed in PRC § 5097.98.

Impacts on “unique archaeological resources” and “unique paleontological resources” are also considered under CEQA, as described under PRC § 21083.2. A unique archaeological resource implies an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one of the following criteria:

a. The archaeological artifact, object, or site contains information needed to answer important scientific questions, and there is a demonstrable public interest in that information.

b. The archaeological artifact, object, or site has a special and particular quality, such as being the oldest of its type or the best available example of its type.

c. The archaeological artifact, object, or site is directly associated with a scientifically recognized important prehistoric event or person.

Potential impacts to identified cultural resources need only be considered if the resource is an “important” or “unique archaeological resource” under the provisions of CEQA Guidelines §§ 15064.5 and 15126.4 and the eligibility criteria. If a resource cannot be avoided, then the resource must be examined pursuant to CEQA Guidelines §§ 15064.5 and 15126.4 and to the eligibility criteria as an “important” or “unique archaeological resource.”

A non-unique archaeological resource is an archaeological artifact, object, or site that does not meet the above criteria. Impacts to non-unique archaeological resources and resources that do not qualify for listing on the CRHR receive no further consideration under CEQA. Similarly, a non-unique paleontological resource is given no further consideration other than the simple recording of its existence by the CEQA lead agency.
4.4.2.2 Local

The City’s *Environmental Thresholds and Guidelines Manual* (Thresholds Manual) defines an important archaeological resource by one of the following criteria:

a. Is associated with an event or person of recognized significance in California or American history; or of recognized scientific importance in prehistory.

b. Can provide information which is of both demonstrable public interest and useful in addressing scientifically consequential and reasonable or archaeological research questions.

c. Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind.

d. Is at least 100 years old and possesses substantial stratigraphic integrity.

e. Involves important research questions that historical research has shown can be answered only with archaeological methods.

The Thresholds Manual defines a significant historical resource as one which: 1) possesses integrity of location, design, workmanship, material, and/or setting; 2) is at least 50 years old (can be less than 50 years old if it unique or possesses extraordinary elements of integrity, design, construction, or association); and 3) demonstrates one or more of the following:

i. Is associated with an event, movement, organization, or person that/who has made an important contribution to the community, state, or nation.

ii. Was designed or built by an architect, engineer, builder, artists, or other designer who has made an important contribution to the community, state, or nation.

iii. Is associated with a particular architectural style or building type important to the community, state, or nation.

iv. Embodies elements demonstrating outstanding attention to design, detail, craftsmanship; or outstanding use of a particular structural material, surface material, or method of construction or technology.

v. Is associated with a traditional way of life important to an ethnic, national, racial, or social group, or to the community at large.

vi. Illustrates broad patterns of cultural, social, political, economic, or industrial history.

vii. Is a feature or cluster of features (structure, building, structural element, object, tree, garden, etc.) which convey a sense of time and place that is important to the community, state, or nation.

viii. Is able to yield information important to the community or is relevant to the scholarly study of history, historical archaeology, ethnography, folklore, or cultural geography.

4.4.3 Project Impacts and Mitigation

4.4.3.1 Thresholds of Significance

Based on both the City’s Initial Study Checklist (CEQA Guidelines, Appendix G; Environmental Checklist Form) and the City’s *Environmental Guidelines and Thresholds Manual* (Thresholds Manual), a significant impact on cultural resources could occur if the project would:
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines

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

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

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

e. Result in the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings.

Items a–d are from the Initial Study Checklist and Item e is from the Thresholds Manual.

4.4.3.2 Project Impacts

Impact CUL-1. Historic Resources

There are three structures on the parcel: a residence, barn, and stable. These are typical 1950s-era vernacular ranch buildings, moved onto the project parcel in the 1990s. These buildings were examined by an architectural historian (Nye 2011), who concluded the buildings had lost historical integrity when they were moved, and that they were commonplace vernacular structures in any case. Nye concluded that the three buildings do not meet any of the City’s or CEQA’s significance criteria and are not historical resources. Therefore, there would be no potential for the project to result in any impacts on historic resources.

Impact CUL-2. Archaeological Resources

The project site encompasses the location of a recorded archaeological resource. The significance of this resource, CA-SBA-1735, has not been determined. Based on the available information, it appears that the site would not be considered significant under City or CEQA criteria. However, since the site could not be relocated and tested, there remains the possibility that CA-SBA-1735 could be a significant archaeological resource.

Site CA-SBA-1735 was not mapped in detail when it was recorded (Spanne 1972) and the location mapped by the CCIC on the USGS topographic Dos Pueblos Canyon quadrangle map is an estimated location. The 1999 survey made diligent efforts to locate CA-SBA-1735, but no evidence of the site was found in its mapped location, and testing of the mapped site location in 2011 yielded no evidence of the site. It is quite probable that the site has been destroyed, as the orchard on the site was removed and a house, outbuildings, and driveway constructed on the parcel. There is a possibility, however, that a buried portion of the site continues to exist in the project parcel with no surface indicators, perhaps not in the mapped location, since this is an estimated location.

Because the site cannot be located and evaluated, it is unlikely that anything remains of CA-SBA-1735. It is remotely possible that CA-SBA-1735 may still be present as a subsurface resource, and could be a significant cultural resource that is potentially eligible for listing on both the CRHR and local registers of historic resources. Because the site may still be present, although this is unlikely, there is a very small potential for significant impact on an archaeological resource.
Impact CUL-3. Paleontological Resources/Geologic Features

The Quaternary Older Alluvium underlying the subject property is known to contain significant vertebrate fossils in rare locations, while the Rincon Formation contains marine fossils that are occasionally exceptional specimens. There is a low potential to encounter fossils of unique value in the project parcel due to the limited size of the parcel and the shallow grading required to develop the project area. There are no unique geologic features at this location.

Although significant fossils are rare in the Quaternary Older Alluvium and Rincon Formation, should one be encountered during project development, the project could result in a significant impact to paleontological resources. The project would have no impact on geologic features because of the limited size of the parcel, the shallow grading required to develop the project area, and the absence of unique geologic features at this location.

4.4.4 Cumulative Impacts

Impact CUL-4. Cumulative Archaeological Resources

Prehistoric archaeological sites are non-renewable resources that have been destroyed at a high rate statewide and locally. Significant sites in Santa Barbara County have been destroyed by development. The archaeological resources available for study today represent only a fraction of the cultural resources in this area described by Rogers in 1929. At that time, Rogers found that development and relic hunting had already adversely impacted many archaeological sites in the County. However, only a minor site is known to have once been present in the project area, and this site appears to have been destroyed at some point in the past. Therefore, although the cumulative impacts to cultural resources in the project area from past activity can be considered significant and adverse, the present project does not add to this cumulative effect on cultural resources. The project will not have a significant cumulative impact on cultural resources.

Impact CUL-5. Cumulative Paleontological Resources

Paleontological sites are non-renewable resources that have been destroyed by development statewide and locally. However, fossil resources are rare, and it is unlikely any will be discovered in the project area. Further, mitigation measures are in place to salvage any fossils in the event they are discovered. Therefore, the project would not have a significant cumulative impact on paleontological resources.

4.4.5 Mitigation Measures

MM CUL-2a. Construction Monitoring

All site preparation, ground disturbance, and grading along the western side of the project parcel adjacent to and within 200 feet of El Encanto Creek must be monitored by a qualified archaeologist and qualified Chumash Native American observer (with selection to be reviewed and approved by the City). This monitoring must encompass the suspected location of site CA-SBA-1735, as well as areas of the parcel that could encompass the site if the site location has been mis-mapped.

These monitor(s) have the following responsibilities:
a. The monitors must be on site on a full-time basis during any site preparation, ground disturbance, and/or grading activities. The monitors must remain on site until it is determined through consultation with the applicant, City staff, archaeological consultant, and Native American representative that full-time monitoring is no longer warranted. At such time, an alternate monitoring schedule must be identified and agreed upon.

b. The monitors have the authority to halt any activities impacting known or previously unidentified cultural resources and to conduct an initial assessment of the resources.

c. In the event potential human remains (including a single bone fragment of unknown origin) are uncovered at any time, mitigation requirements established under MM CUL-2c, as described below, must be carried out.

d. If an artifact is identified as an isolated find, it must be recovered with the appropriate location data.

e. If a feature or concentration of artifacts is identified, the monitors must halt activities in the vicinity of the find, notify the applicant and the City, and prepare a proposal for the treatment of the find(s). This treatment may range from excavation and additional study to avoidance, depending on the nature of the find(s).

f. The monitors must prepare a brief archaeological report documenting the results of the monitoring program and, if needed, will include an inventory of recovered artifacts, features, etc.

g. The monitors must prepare any artifact assemblage recovered for curation with the UCSB Repository for Archaeological Collections.

h. The monitors will file an updated archaeological site survey record for CA-SBA-1735 with the UCSB Central Coast Information Center.

Plan Requirements and Timing: Specifications for the monitoring must be printed on all plans submitted for any site preparation, ground disturbance, grading, and/or construction activities. The permittee must enter into a contract with a qualified archaeologist and qualified Chumash Native American observer (with selection to be reviewed and approved by the City) and must fund the required monitoring. The permittee must provide evidence of this contract before issuance of any permit for any site preparation, ground disturbance, grading, and/or construction activities.

Monitoring: The Planning and Environmental Review Director, or designee, must conduct periodic site inspections to verify compliance during any site preparation, ground disturbance, grading, and/or construction activities.

MM CUL-2b. Pre-construction Workshop: Cultural Resources

A pre-construction workshop, funded by the permittee, must be conducted by a qualified archaeologist and qualified Chumash Native American observer (with selection to be reviewed and approved by the City).

Plan Requirements and Timing: Attendees must include the permittee, project archaeologist, project’s Chumash Native American observer, construction supervisors, and heavy equipment operators to ensure that all parties understand the specifications for construction monitoring and their respective roles and responsibilities. All construction and landscaping personnel who work on the project during any phase of ground disturbance must be required to attend. The names
of all personnel who attend the workshop must be recorded, indicating that they have received workshop training.

The workshop must include the following:

a. Review of the types of archaeological resources that may be uncovered.

b. The provision of examples of common archaeological artifacts and other cultural materials to examine.

c. An explanation of why monitoring is required and identification of monitoring procedures.

d. A description of what would temporarily stop construction and for how long.

e. A description of a reasonable “worst-case” new discovery scenario, such as the discovery of intact human remains or a substantial subsurface deposit.

f. An explanation of reporting requirements and responsibilities of the construction supervisor.

g. A discussion of prohibited activities, including unauthorized collecting of artifacts.

The permittee must provide workshop specifications, date/time, and list of attendees to the Planning and Environmental Review Director, or designee, before the City issues any grading permit. The workshop must be held before the start of any site disturbance.

**Monitoring:** The Planning and Environmental Review Director, or designee, must attend the workshop and must periodically site inspect for compliance during any site preparation, ground disturbance, grading, and/or construction activities.

**MM CUL-2c. Discovery of Human Remains**

Procedures must be prepared and followed in the event human remains are discovered.

**Plan Requirements and Timing:** Before any site preparation, ground disturbance, grading, and/or construction activities, the permittee and construction crew must meet on site with the local Chumash representative(s) identified as the Most Likely Descendant (MLD) by the State Native American Heritage Commission. The MLD, permittee, Lead Agency, and project archaeologist (selection to be reviewed and approved by the City) must discuss procedures. These procedures must include those identified by PRC § 5097.98, CEQA Guidelines § 15064.5, and the Cultural Resource Guidelines of the City of Goleta Environmental Guidelines and Thresholds Manual. The Santa Barbara Sheriff-Coroner must be contacted if human remains are discovered. Satisfactory disposition of the remains must be agreed upon by all parties so as to limit future disturbance. Procedures must be reviewed and approved by the Planning and Environmental Review Director, or designee, before the City issues any grading permit.

**Monitoring:** The Planning and Environmental Review Director, or designee, must periodically site inspect monitoring activities and will respond according to procedure in the event human remains are discovered.

**MM CUL-3a. Discovery of Paleontological Resources**

All site preparation, ground disturbance, and grading of the project site must be spot-monitored on a part-time basis by a qualified paleontologist (with selection to be reviewed and approved by the City). The Planning and Environmental Review Director, or designee, and the project
paleontologist must develop a schedule of regular part-time monitoring. This schedule can be increased, reduced, or eliminated as warranted by observed field conditions during construction. If fossils are exposed during grading and excavation, and found by the project paleontologist or construction personnel, the following actions must be taken:

a. Follow appropriate notification procedures;

b. Assessment of the find, usually in the field by the project paleontologist, and determination of recovery procedures;

c. Provisions for construction avoidance until a find is assessed and, if recovery is called for, scientifically recovered; construction-related excavations would continue in other areas away from the discovery;

d. Provisions for continued monitoring of construction in all appropriate areas while the find is being recovered;

e. Post-field initial study and curation preparation and subsequent curation.

**Plan Requirements and Timing:** Fossils that may be discovered during construction must first be assessed to determine whether they are scientifically significant and whether recovery measures are warranted. If recovery is recommended, it must be completed in a manner reflecting scientific standards currently applied to paleontological excavations. Within those limits, all appropriate measures must be taken to expedite recovery and to minimize interference with construction scheduling. The Planning and Environmental Review Director, or designee, must be notified within 12 hours of a paleontological resources discovery assessed by the project paleontologist to be significant and warranting recovery. The project paleontologist must periodically update the Planning and Environmental Review Director, or designee, during the recovery, and notify them upon completion of recovery. This measure must be in effect throughout all construction phases.

**Monitoring:** The Planning and Environmental Review Director, or designee, must ensure that this measure is implemented through regular contact with the project paleontologist and site visits as appropriate.

**MM CUL-3b. Pre-construction Workshop-Paleontological Resources**

A pre-construction workshop, funded by the permittee, must be conducted by a qualified paleontologist (with selection to be reviewed and approved by the City).

**Plan Requirements and Timing:** Attendees must include the permittee, the project paleontologist, construction supervisors, and heavy equipment operators to ensure that all parties understand the stop work and report provision and their respective roles and responsibilities. All construction and landscaping personnel who work on the project during any phase of ground disturbance must be required to attend. The names of all personnel who attend the workshop must be recorded, indicating that they have received workshop training.

The workshop will include the following:

a. Review of the types of fossil resources that may be uncovered.

b. The provision of examples of common fossils to examine.

c. A description of what would temporarily stop construction and for how long.
e. A description of a reasonable “worst-case” new discovery scenario, such as the discovery of a large mammalian invertebrate fossil.

f. An explanation of reporting requirements and responsibilities of the construction supervisor.

g. A discussion of prohibited activities, including unauthorized collecting of fossils.

The permittee must provide workshop specifications, date/time, and list of attendees to the Planning and Environmental Review Director, or designee, before the City issues any grading permit. The workshop must be held before the start of any site disturbance whatsoever, including clearing, grubbing, and grading preparations.

**Monitoring:** The Planning and Environmental Review Director, or designee, must attend the workshop and must periodically site inspect for compliance during any site preparation, ground disturbance, grading, and/or construction activities.

### 4.4.6 Residual Impacts

With implementation of the mitigation measures included above (CUL-2a through CUL-2c, CUL-3a through CUL-3b), residual project-specific impacts on cultural and paleontological resources would be reduced to less-than-significant levels (Class II).
SECTION 4.5
GREENHOUSE GAS EMISSIONS
4.5 GREENHOUSE GAS EMISSIONS

4.5.1 Existing Setting

4.5.1.1 Physical Scientific Basis of Climate Change

Certain gases in the earth’s atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth’s surface temperature. Solar radiation enters the earth’s atmosphere from space. A portion of the radiation is absorbed by the earth’s surface, and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. Infrared radiation is absorbed by GHGs. As a result, radiation that otherwise would have escaped back into space is instead “trapped,” resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO$_2$), methane (CH$_4$), nitrous oxide (N$_2$O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF$_6$). Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect and have led to a trend of unnatural warming of the earth’s climate, known as global climate change or global warming.

Climate change is a global issue. GHGs are global pollutants with very long atmospheric lifetimes (some last several thousand years). They stand in contrast to criteria pollutants and toxic air contaminants, which have localized air quality effects with relatively short atmospheric lifetimes (about one day). The atmospheric concentrations of CO$_2$, CH$_4$, and N$_2$O have increased to levels unprecedented in at least the last 800,000 years. CO$_2$ concentrations have increased by 40% since pre-industrial times, primarily from fossil fuel emissions and secondarily from net land use change emissions such as deforestation and urban development. From 1750 to 2011, CO$_2$ emissions from fossil fuel combustion and cement production have released 375 gigatons of carbon (GtC) to the atmosphere, while deforestation and other land use change are estimated to have released 180 GtC. This results in cumulative anthropogenic emissions of 555 GtC, of which approximately 43.2% has accumulated in the atmosphere, 28.8% has accumulated in natural terrestrial ecosystems, and 27.9% has been taken up by the ocean, causing acidification of ocean waters (IPCC 2013).

Because GHG emissions have global impacts, the quantity of GHGs that it takes to ultimately result in climate change is not precisely known; the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or micro climate.

4.5.1.2 Adaptation to Climate Change

According to the Intergovernmental Panel on Climate Change (IPCC), which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature is expected to increase by 3 to 7 degrees Fahrenheit by the end of the century, depending on future GHG emission scenarios (IPCC 2008). Resource areas other than air quality and global average temperature could be indirectly affected by the accumulation of GHG emissions. For example, an increase in the global average temperature is expected to result in a decreased volume of precipitation falling as snow in California and an overall reduction in snowpack in the Sierra Nevada. Snowpack in the Sierra Nevada provides
both water supply (runoff) and storage (within the snowpack before melting), and is a major source of water supply for the state (including the project site). According to the California Energy Commission (CEC), the snowpack portion of the water supply could potentially decline by 30 to 90% by the end of the 21\textsuperscript{st} century (CEC 2006). A study cited in a report by the California Department of Water Resources projects that approximately 50% of the statewide snowpack will be lost by the end of the century (Knowles and Cayan 2002). Although current forecasts are uncertain, it is evident that this phenomenon could lead to significant challenges in securing an adequate water supply for a growing population. An increase in precipitation falling as rain rather than snow also could lead to increased potential for floods because water that would normally be held in the Sierra Nevada snowpack until spring could run off and flow into the Central Valley concurrently with winter storm events. This scenario would place more pressure on California’s levee/flood control system.

Another outcome of global climate change is sea level rise. Sea level rose approximately 7 inches during the last century and it is predicted to rise an additional 7 to 22 inches by 2100, depending on the future levels of GHG emissions (IPCC 2008). If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion, and disruption of wetlands (CEC 2006). As the existing climate throughout California changes over time, the ranges of various plant and wildlife species could shift or be reduced, depending on the favored temperature and moisture regimes of each species. In the worst cases, some species could become extinct or be extirpated from the state if suitable conditions are no longer available.

### 4.5.1.3 Greenhouse Gas Emission Sources

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, electric utility, residential, commercial, and agricultural sectors (California Air Resources Board [CARB] 2009). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (CARB 2009). Emissions of CO\textsubscript{2} are primarily byproducts of fuel combustion. CH\textsubscript{4}, a highly potent GHG, typically results from fugitive emission sources such as agricultural activities and landfills. N\textsubscript{2}O is also largely attributable to agricultural activities and soil management. Smaller amounts of CH\textsubscript{4} and N\textsubscript{2}O emissions occur as a byproduct of fuel combustion. CO\textsubscript{2} sinks, or reservoirs, include vegetation and the ocean, and absorb CO\textsubscript{2} through sequestration and dissolution, respectively.

California is one of the larger emitters of GHGs in the world. In 2004, California released 484 million metric tons (MMT) of CO\textsubscript{2} equivalent (CO\textsubscript{2}e) (CARB 2009) and is the 12\textsuperscript{th} to 16\textsuperscript{th} largest emitter of CO\textsubscript{2} in the world (CEC 2006). The 2010 Clean Air Plan indicates that Santa Barbara emitted 4.3 MMT of CO\textsubscript{2}e in 2007 (SBCAPCD 2011).

CO\textsubscript{2}e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential (GWP), is a measure of the heat-trapping ability of a given GHG over a 100-year period relative to the heat-trapping ability of CO\textsubscript{2}. The GWP of CO\textsubscript{2} is, by definition, 1. The GWP values used in this report are based on the IPCC Second Assessment Report (SAR) and United Nations Framework Convention on Climate Change (UNFCCC) reporting guidelines, and are defined in Table 4.5-1. Although the IPCC Fourth Assessment Report (AR4) presents different GWP estimates, the current inventory standard relies on SAR GWPs to comply with reporting standards and consistency with regional and national inventories (IPCC 2007). The SAR GWPs are used in CARB's California inventory
and the California Global Warming Solutions Act of 2006 (AB 32) Scoping Plan estimates. (For more information about AB 32, see Section 4.5.2.)

**TABLE 4.5-1**
LIFETIMES, GLOBAL WARMING POTENTIALS, AND ABUNDANCES OF SEVERAL SIGNIFICANT GREENHOUSE GASES

<table>
<thead>
<tr>
<th>Gas</th>
<th>Global Warming Potential (100 years)</th>
<th>Lifetime (years)¹</th>
<th>Atmospheric Abundance</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO₂ (ppm)</td>
<td>1</td>
<td>50–200</td>
<td>379</td>
</tr>
<tr>
<td>CH₄ (ppb)</td>
<td>21</td>
<td>9–15</td>
<td>1,774</td>
</tr>
<tr>
<td>N₂O (ppb)</td>
<td>310</td>
<td>120</td>
<td>319</td>
</tr>
<tr>
<td>HFC-23 (ppt)</td>
<td>11,700</td>
<td>264</td>
<td>18</td>
</tr>
<tr>
<td>HFC-134a (ppt)</td>
<td>1,300</td>
<td>14.6</td>
<td>35</td>
</tr>
<tr>
<td>HFC-152a (ppt)</td>
<td>140</td>
<td>1.5</td>
<td>3.9</td>
</tr>
<tr>
<td>CF₄ (ppt)²</td>
<td>6,500</td>
<td>50,000</td>
<td>74</td>
</tr>
<tr>
<td>C₂F₆ (ppt)²</td>
<td>9,200</td>
<td>10,000</td>
<td>2.9</td>
</tr>
<tr>
<td>SF₆ (ppt)</td>
<td>23,900</td>
<td>3,200</td>
<td>5.6</td>
</tr>
</tbody>
</table>

¹ Defined as the half-life of the gas.
² Carbon tetrafluoride (CF₄) and hexafluoroethane (C₂F₆) are PFCs.

Definitions: ppm = parts per million; ppb = parts per billion; ppt = parts per trillion


Expressing individual GHG emissions as CO₂e converts the heat-trapping ability and longevity of the individual GHGs to a common basis that is equivalent to the effect that would occur if only CO₂ were being emitted.

Combustion of fossil fuel in the transportation sector was the single largest source of California’s GHG emissions in 2004, accounting for 38% of total GHG emissions in the state. This sector was followed by the electric power sector (including generation sources both in-state and out-of-state that supply electricity to California) (22%) and the industrial sector (20%) (CARB 2008).

### 4.5.2 Regulatory Framework

#### Federal

**Federal U. S. Environmental Protection Agency (USEPA)**

The USEPA is responsible for implementing Federal policy to address global climate change. The federal government administers a wide array of public-private partnerships to reduce GHG emissions generated by the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO₂ gases, agricultural practices, and implementation of technologies to achieve GHG reductions.

Currently, there are no federal regulations that address GHG emissions. However, in *Massachusetts v. Environmental Protection Agency*, 579 U.S. 497, 127 S. Ct. 1438 (2007), the United States Supreme Court found that the United States Environmental Protection Agency (EPA) has statutory authority under the Clean Air Act to regulate “greenhouse gas” emissions (including CO₂ emissions) from new motor vehicles. In response to this decision, the EPA is drafting regulations that address GHG emissions.
State Regulations

California Air Resources Board

The California Air Resources Board (CARB), a part of the California EPA, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets state ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

California Executive Order S-3-05

In 2005, Governor Arnold Schwarzenegger issued California Executive Order S-3-05 establishing the following emission targets for California: 1) reduce GHG emissions to 2000 levels by 2010; 2) reduce GHG emissions to 1990 levels (427 MMT CO$_2$e) by 2020; and 3) reduce GHG emissions to 80 percent below 1990 levels (85 MMT CO$_2$e) by 2050. Executive Orders are binding on State agencies. Accordingly, S-3-05 will guide State agencies' efforts to control and regulate GHG emissions but will have no direct binding effect on local efforts.

Executive Order S-13-08

Executive Order S-13-08 requests that the National Academy of Sciences (NAS) convene an independent panel to complete the first California Sea Level Rise Assessment Report and initiate an independent sea level rise science and policy committee made up of state, national and international experts.

Before release of the final Sea Level Rise Assessment Report, the Executive Order also requires that all State agencies planning construction projects in areas vulnerable to future sea level rise consider a range of sea level rise scenarios for the years 2050 and 2100 in order to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise.

The Executive Order also directs the California Resources Agency, through the Climate Action Team, to develop a state Climate Adaptation Strategy. The strategy will summarize the best known science on climate change impacts to California, assess California's vulnerability to the identified impacts, and outline solutions that can be implemented within and across State agencies to promote resiliency.

California Global Warming Solutions Action of 2006 (AB 32)

In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (Health and Safety Code §§ 38500, et seq.). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and places a cap on statewide greenhouse gas (GHG) emissions, requiring reduction in statewide GHG to 1990 levels by 2020. AB 32 also includes guidance to institute emission reductions in an economically efficient manner and conditions to ensure that
businesses and consumers are not unfairly affected by the reductions. AB 32 demonstrates California’s commitment to reducing the rate of GHG emissions and the State’s associated contribution to climate change, without limiting population or economic growth. Although AB 32 did not amend CEQA, it identifies the environmental problems in California caused by global warming (see, e.g., Health and Safety Code § 38501).

**Senate Bill (SB) 97**

SB 97, enacted in 2007, amends the CEQA statute to include analysis of GHG emissions and the effects of GHG emissions as part of any CEQA analysis. In March 2010, the California Office of Administrative Law promulgated CEQA amendments that provide regulatory guidance for the analysis and mitigation of the potential effects of GHG emissions in CEQA document, found in CEQA Guidelines § 15183.5. To streamline analysis, CEQA provides for analysis through compliance with a previously adopted plan or mitigation program under special circumstances.

**State of California Climate Change Proposed Scoping Plan**

In October 2008, CARB published its Climate Change Proposed Scoping Plan (Proposed Scoping Plan), which is the State’s plan to achieve the GHG reductions required by AB 32. The Proposed Scoping Plan contains the primary strategies that California will implement to achieve a reduction of 169 MMT of CO$_2$e, or approximately 30 percent from the State’s projected 2020 emission level of 596 MMT of CO$_2$e under a “business-as-usual” scenario. The Proposed Scoping Plan states that land use planning and urban growth decisions will play an important role in the State’s GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. CARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. The Proposed Scoping Plan was approved by CARB on December 11, 2008.

In addition to the Scoping Plan, CARB has also released the Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the CEQA (ARB Draft Staff Proposal). The CARB Draft Staff Proposal includes potential interim performance standards for various project types and emissions sources including construction, energy, water use, waste, transportation, and total mass GHG emissions. Specific thresholds and performance criteria for these categories have yet to be developed.

**Senate Bill (SB) 375**

Senate Bill 375 (SB 375) establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. On September 23, 2010, CARB adopted the vehicular GHG emissions reduction targets that were developed in consultation with the State’s metropolitan planning organizations (MPOs); the targets require a 7 to 8 percent reduction by 2020 and a 13 to 16 percent reduction by 2035 for each MPO. Through the SB 375 process, MPOs will work with local jurisdictions to develop sustainable communities strategies (SCS) designed to integrate development patterns and the transportation network in a way that reduces GHG emissions while meeting housing needs and other regional planning objectives. The MPOs are expected to prepare their first SCS according to their respective regional transportation plan (RTP) update schedule.
Regional

Santa Barbara County Air Pollution Control District (SBCAPCD)

The Santa Barbara County Air Pollution Control District (SBCAPCD) is the agency principally responsible for comprehensive air pollution control in Santa Barbara County. In order to provide GHG emission guidance to the local jurisdictions, the SBCAPCD has been developing a proposal to adopt GHG thresholds of significance for stationary source projects. Additional public review for consideration and adoption of greenhouse gas thresholds is expected, but the timing of the adoption of greenhouse gas thresholds for stationary source projects is unknown.

Local

City of Goleta Energy Efficiency Standards

The Goleta General Plan/Coastal Land Use Plan (GP/CLUP) does not directly address GHGs. However, on November 2, 2010, the Goleta City Council adopted the 2010 Edition of the California Green Building Standards Code (CALGreen Code) (24 California Code of Regulations Part 11) as the Green Building Code of the City (as codified in Goleta Municipal Code (GMC) Chapter 15.12). The Code mandates new requirements for planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, environmental quality, and installer and special inspector qualifications. In 2010, the City also adopted Goleta Municipal Code Chapter 15.13, entitled “Energy Efficiency Standards,” establishing minimum energy efficiency standards for new building construction. The GMC requires that new residential and nonresidential construction and additions greater than 500 square feet use a performance approach to demonstrate that they exceed the 2008 California Green Building Standards by 15 percent.

4.5.3 Project Impacts and Mitigation

4.5.3.1 Thresholds of Significance

Based on the City’s Initial Study Checklist (CEQA Guidelines, Appendix G; Environmental Checklist Form), a significant impact related to GHGs could occur if the project would:

a. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

The adopted CEQA amendments require a Lead Agency to make a good-faith effort based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions resulting from a project. They give discretion to the Lead Agency whether to:

- Use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; and/or

- Rely on a qualitative analysis or performance-based standards.

In addition, a Lead Agency should consider the following factors, among others, when assessing the significance of impacts from GHG emissions on the environment:
The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.

Whether the project emissions exceed a threshold of significance that the Lead Agency determines applies to the project.

The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The CEQA Guidelines allow Lead Agencies to establish significance thresholds for their respective jurisdictions.

Currently, neither the State of California, nor SBCAPCD, nor the City of Goleta has established CEQA significance thresholds for GHG emissions. Indeed, many regulatory agencies are sorting through suggested thresholds and/or making project-by-project analyses. This approach is consistent with that suggested by OPR in its technical advisory entitled “CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review” (OPR 2008):

…In the absence of regulatory standards for GHG emissions or other specific data to clearly define what constitutes a ‘significant project’, individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice.

In June 2010, the Bay Area Air Quality Management District (BAAQMD) became the first regulatory agency in the nation to approve guidelines that establish thresholds of significance for GHG emissions (BAAQMD 2010a). These thresholds are summarized in Table 4.5-2.

<table>
<thead>
<tr>
<th>GHG Emission Source Category</th>
<th>Operational Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other than Stationary Sources</td>
<td>1,100 MT CO₂e/year</td>
</tr>
<tr>
<td></td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td>4.6 MT CO₂e/SP/year (residents + employees)</td>
</tr>
<tr>
<td>Stationary Sources</td>
<td>10,000 MT CO₂e/year</td>
</tr>
<tr>
<td>MT = metric ton</td>
<td></td>
</tr>
<tr>
<td>SP = service population</td>
<td></td>
</tr>
</tbody>
</table>

The BAAQMD threshold is a promulgated CEQA threshold that has undergone full public review and comment, with approval by the BAAQMD governing board, and technical support by BAAQMD staff. The BAAQMD GHG threshold applies to a nine-county area of very diverse population and land use. BAAQMD’s adoption of GHG thresholds is subject to ongoing litigation.1 Whether or not these GHG thresholds are ultimately upheld, however, does not diminish their usefulness in making GHG calculations for purposes of this CEQA analysis.

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1 In March 2012, an Alameda County Superior Court (California Building Industry Assoc. v. Bay Area Air Quality Management District (March 5, 2012) Alameda Super. Ct. Case No. RG10-548693) ruled that BAAQMD needed to comply with CEQA before adopting their 2010 Air Quality CEQA Guidelines, which included significance thresholds for criteria air pollutants and GHGs. On August 13, 2013, the Court of Appeal (California Building Industry Assoc. v. Bay Area Air Quality Management District (2013) 218 Cal.App.4th 1171, rev. granted) reversed the lower court’s decision and upholding the BAAQMD
According to the methodology used to establish the BAAQMD GHG threshold, the threshold of 1,100 MT CO\textsubscript{2}e/yr is a numeric emissions level below which a project’s contribution to global climate change would be less than “cumulatively considerable.” This emissions rate is equivalent to a project size of approximately 60 single-family dwelling units. Of all the projects to be expected to be built out in the San Francisco Bay Area Air Basin by 2020, approximately 59 percent of these projects would exceed this threshold; this fraction of projects would account for 92 percent of all emissions expected at buildout in 2020. For projects that are above this “brightline cutoff level” of 1,100 MT CO\textsubscript{2}e/yr, emissions from these projects would still be less than cumulatively significant if the project as a whole would result in an efficiency of 4.6 MT CO\textsubscript{2}e per service population per year for mixed-use projects (BAAQMD 2010b).

For purposes of this project, the City determines that BAAQMD’s GHG significance threshold has a strong regulatory and technical underpinning. It is based on substantial data and is intended as a regulatory threshold. In addition, the climatic regime in the Goleta-Santa Barbara area that governs energy demand for space heating and cooling is also very comparable to that occurring in the BAAQMD. Further, in June 2010, the Santa Barbara County Planning and Development Department produced a memorandum, “Support for Use of Bay Area Air Quality Management District Greenhouse Gas Emissions Standards,” providing evidentiary support for reliance on the proposed BAAQMD standards as interim thresholds of significance in Santa Barbara County (SBCPD 2010). The memorandum notes that certain counties in the Bay Area are similar to Santa Barbara County in terms of population growth, land use patterns, general plan policies, and average commute patterns and times.

Given that the City of Goleta does not have established thresholds of significance for GHG emissions, and as the City is located in Santa Barbara County, the rationale for applicability of the BAAQMD thresholds should generally apply. Therefore, for this project, the City has applied the following two thresholds of significance to the project.\textsuperscript{2} A significant impact related to GHGs could occur if the project would:

1. Exceed the daily significance threshold adopted by the BAAQMD, i.e., of 1,100 MT CO\textsubscript{2}e/yr, for operational GHG emissions and/or result in significant GHG emissions based on a qualitative analysis.

2. Fail to employ reasonable and feasible means to minimize GHG emissions from a qualitative standpoint, in a manner that is consistent with the goals and objectives of AB 32.

\textbf{4.5.3.2 Project-Specific Impacts}

Construction-related emissions would be generated from heavy-duty construction equipment and on-road vehicle exhaust emissions. Operational emissions would be generated from resident and visitor vehicle trips to and from the project. Area source GHG emissions are a result of natural gas consumption associated with space and water heating and the usage of landscape maintenance equipment. Additionally, the project would consume electricity and potable water, both of which generate GHG emissions associated with electricity production used to transport the water.

\textsuperscript{2} Use of the BAAQMD threshold does not imply that it is a threshold that the City of Goleta has formally adopted, or should adopt, as a GHG significance threshold for all present or future project analyses.
GHG emissions associated with construction and operation of the project would predominantly be in the form of CO$_2$, and are presented in the form of CO$_2$e. While emissions of other GHGs, such as CH$_4$ and N$_2$O, are important with respect to global climate change, the project is not expected to emit substantial quantities of GHGs other than CO$_2$, even when factoring in the relatively larger GWP of CH$_4$ and N$_2$O. This is because most emissions from the project would be associated with vehicular emissions (i.e., mobile-source emissions), natural gas combustion, and indirect emissions associated with the purchase of electricity. Although these sources emit small quantities of N$_2$O and CH$_4$, emissions of CO$_2$ would dominate the GHG emissions from the project. Emissions of PFCs and SF$_6$ are typically associated with industrial facilities and are not expected to be emitted from the project.

**Impact GHG-1. Generation of Emissions in Excess of Threshold Levels**

**Construction Emissions**

Emissions of GHGs during project construction have the potential to produce short-term impacts. As stated above, neither the City nor SBCAPCD has adopted significance criteria for construction activities. Therefore, this analysis amortizes construction emissions and compares the total of the amortized construction emissions and operational emissions to the threshold of significance noted above.

Construction-related GHG emissions associated with heavy-duty construction equipment, material delivery trucks, and construction worker trips would occur intermittently during construction of the project. Following completion of the project, construction-related GHG emissions would cease. Therefore, these emissions are considered temporary and short-term in nature.

The methodology for quantifying GHG emissions from construction activities relies upon the California Emissions Estimator Model (CalEEMod) Version 2013.2.2 air quality modeling software, which is the most current version available. The CalEEMod modeling results are provided in Appendix B.

Table 4.5-3 presents the GHG emissions generated during project construction activities. The construction is assumed to occur over the course of a period of 12 to 14 months, and thus the estimated emissions reflect a peak annual emission rate from construction activities. As shown in Table 4.5-3, the project would generate approximately 545 MT of CO$_2$e during the entire construction period.

As discussed above, no GHG thresholds have been established by the City of Goleta or SBCAPCD. However, BAAQMD does recommend implementation of BMPs to help control and reduce GHG emissions. Implementation of BMPs recommended by BAAQMD (see Mitigation Measure GHG-1a) is therefore required to help reduce construction-related GHG emissions.

**TABLE 4.5-3**

<table>
<thead>
<tr>
<th>Construction Year</th>
<th>Project Construction CO$_2$e Emissions (metric tons)</th>
<th>Annual CO$_2$ Emissions Amortized over 30 Years (metric tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>545</td>
<td>18.2</td>
</tr>
</tbody>
</table>
Operational Emissions

The project’s operational emissions generated by direct and indirect sources were calculated using the CalEEMod v. 2013.2.2 model. As shown in Table 4.5-4, the project would result in 940.2 MT CO$_2$e per year, which is below the quantitative significance threshold of 1,100 MT CO$_2$e per year. Therefore, using this quantitative standard, GHG emissions associated with the project are considered less than significant.

<table>
<thead>
<tr>
<th>Emissions Source</th>
<th>Emissions (MT CO$_2$e/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Sources</td>
<td>0.7</td>
</tr>
<tr>
<td>Vehicle Usage (Mobile Sources)</td>
<td>664.7</td>
</tr>
<tr>
<td>Energy Usage</td>
<td>215.2</td>
</tr>
<tr>
<td>Waste</td>
<td>30.4</td>
</tr>
<tr>
<td>Water Demand</td>
<td>11.0</td>
</tr>
<tr>
<td><strong>Projected Annual Operational CO$_2$e Emissions</strong></td>
<td>922.0</td>
</tr>
<tr>
<td>Annual Construction Emissions Amortized over 30 Years</td>
<td>18.2</td>
</tr>
<tr>
<td><strong>Total Amortized and Operational Emissions</strong></td>
<td>940.2</td>
</tr>
<tr>
<td>Significance Threshold</td>
<td>1,100 MT CO$_2$e/yr</td>
</tr>
<tr>
<td>Exceeds Significance Threshold?</td>
<td>NO</td>
</tr>
</tbody>
</table>

Emissions calculated using CalEEMod v. 2013.2.2 computer model. See Appendix B for detailed modeling report.

Impact GHG-2. Consistency with the goals and objectives of AB 32

The objective of emissions reductions under AB 32 is to reduce California’s GHG emissions back to 1990 levels by 2020. One aspect of emissions reductions required under AB 32 is reductions in energy usage in buildings. CARB’s Proposed Scoping Plan sets a goal of reducing energy usage in buildings by 15.2 MMT CO2e per year by 2020 (CARB 2008).

The project will comply with the standards of the California Building Code (California Code of Regulations, Title 24; “CBC”) that are in effect at the time of development. Updates to the CBC since the adoption of AB 32 have been designed to achieve the Proposed Scoping Plan’s reduction goal, as identified in the California Energy Efficiency Strategic Plan (CPUC 2011). The 2013 CBC, currently in effect, would result in a 25% reduction in building energy usage as compared to the standards of the 2008 CBC (CEC 2012). Therefore, the project will be constructed to standards that are consistent with the goals and objectives of AB 32. The project’s impacts would be less than significant.

4.5.4 Cumulative Impacts

The analysis of a project’s GHG emissions is calibrated to ensure that the project-level impacts are not “cumulatively considerable.” Therefore, the determination of no project-level impact necessarily means that there is not significant contribution to a cumulative impact on account of the project. See Section 4.5.3.
4.5.5 Mitigation Measures

The project’s greenhouse gas emissions impacts are considered less than significant. However, the following mitigation measures are recommended to further reduce the project’s GHG impacts.

**Recommended Mitigation Measure GHG-1a. Implement BAAQMD Best Management Practices for Construction**

The project must reduce greenhouse gas emissions by incorporating the following measures into project construction:

a. Use alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment for at least 15% of the fleet;

b. Use at least 10% local building materials (from within 100 miles of the project site);

c. Recycle at least 50% of construction waste or demolition materials.

**Plan Requirements and Timing:** Permittee will submit a report demonstrating compliance with the recommended measures to the Director, or designee, before the City issues a certificate of occupancy.

**Monitoring:** The Director, or designee, will review report and use it to improve greenhouse gas reduction recommendations for other projects.

**Recommended Mitigation Measure GHG-1b. Implement Measures to Reduce Operational GHG Emissions**

The project must include, without limitation, the following list of potential design features. These features must be incorporated into the project design to ensure consistency with applicable law. The permittee must demonstrate the incorporation of the following project design features before the City issues building or occupancy permits, as applicable.

**Energy Efficiency**

- Install high-efficiency lighting and energy efficient appliances (before building permits).

**Water Conservation and Efficiency**

- Install water-efficient irrigation systems (before building permits).
- Install low-flow faucets, toilets, and showers (before building permits).

**Plan Requirements and Timing:** These requirements must be shown on plans before the Planning and Environmental Review Director, or designee, issues any Land Use Permit.

**Monitoring:** The Planning and Environmental Review Director, or designee, must verify compliance with this mitigation measure before the City issues a certificate of occupancy for any building.
4.5.6 Residual Impacts

Upon implementation of these mitigation measures, residual impacts associated with greenhouse gas emissions would remain less than significant (Class III).
SECTION 4.6
HYDROLOGY AND WATER QUALITY
4.6 HYDROLOGY AND WATER QUALITY

The analysis presented in this section assesses impacts to surface water and groundwater quality; stormwater flows and drainage; and flooding resulting from construction and operation of the proposed project. The impact analysis is based on the February 2011 Conceptual Hydrology and Hydraulic Report for the project site (Hydrology Report; Civil Design & Drafting 2011), a peer review of that analysis, the project’s grading and drainage plans, and additional information. The City’s Public Works Department also reviewed and accepted the Hydrology Report.

4.6.1 Existing Conditions

4.6.1.1 Project Area

The project site is surrounded by the Glen Annie Golf Course to the north and east, El Encanto Creek to the west, and Cathedral Oaks Road to the south. Within the vicinity of the project are residential and recreational uses, including a multifamily residential development to the west and single-family residences located off of Cathedral Oaks Road to the south.

The Goleta Groundwater Basin (Basin) underlies the City of Goleta. The Basin is approximately 8 miles long and 3 miles wide, encompassing approximately 9,210 acres (DWR 2004; Goleta Water District 2005). There is a combined total of about 30,000 to 60,000 acre-feet of operational storage (Goleta Water District 2005).

There are no impaired water bodies on or adjacent to the site as designated by the State Water Resources Control Board (SWRCB) or the Regional Water Quality Control Board (RWQCB) under Section 303(d) of the Clean Water Act (CWA) (codified at 33 U.S.C. §§ 1251, et seq.). However, Glen Annie Canyon, approximately one-half mile east of the project site, is listed as an impaired water body. The causes of impairment for this water body are chloride, Enterococcus bacteria, Escherichia coli (E. coli), fecal coliform, nitrate, sodium, and unknown toxics. Total maximum daily loads (TMDLs) are currently needed for all causes of impairment.

4.6.1.2 Project Site

The approximately 14-acre project site is currently improved with a 2,015-square-foot residence, 726 square-foot garage, and 1,152-square-foot barn. El Encanto Creek borders the project site on its western side for approximately 630 feet, although the Creek’s bed and banks are just to the west of the property. The U.S. Geological Survey (USGS) has mapped the creek as having intermittent flow. Pursuant to the City of Goleta General Plan/Coastal Land Use Plan (GP/CLUP) Conservation Element Policy CE 2.2, the Streamside Protection Area (SPA) associated with El Encanto Creek extends approximately 100 feet onto the Shelby property. East of the creek on the western side of the property is an area that is primarily bare ground used for storage of firewood and woodchips. Nonnative annual grassland dominates the center of the project site. Soils on site consist of Diablo clay, which is considered well-drained and formed from shale and mudstone.

The property slopes from north to south at an average grade of approximately 7.8 percent. The existing elevation on the property ranges from 145 feet above mean sea level along Cathedral Oaks Road northward to the northeast corner of the property at an elevation of 252 feet above mean sea level. Currently, stormwater runoff leaving the site generally drains southerly as an...
overland flow. The overland flow has an existing flow path across the site to Cathedral Oaks Road at the south part of the property that splits into westerly and easterly directions. In the westerly direction, the flow discharges into El Encanto Creek at the southwest corner of the property. In the easterly direction, the flow continues through the street system, which also eventually terminates in El Encanto Creek.

Per the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the project site is outside of Zone X and therefore not considered subject to a 500-year flood event. Furthermore, there is no floodway or floodplain mapped for El Encanto Creek in the vicinity of the project site.

4.6.2 Regulatory Framework

4.6.2.1 Federal

Clean Water Act

The primary goals of the CWA (33 U.S.C. §§ 1251, et seq.) are to restore and maintain the chemical, physical, and biological integrity of the nation’s waters and to make all surface waters fishable and swimmable. CWA forms the basic national framework for the management of water quality and the control of pollution discharges. The CWA provides the legal framework for several water quality regulations, including the National Pollutant Discharge Elimination System (NPDES), effluent limitations, water quality standards, pretreatment standards, antidegradation policy, nonpoint-source discharge programs, and wetlands protection. The United States Environmental Protection Agency (USEPA) has delegated the responsibility for administration of portions of the CWA to state and regional agencies. Therefore, the primary regulations resulting from the CWA are discussed below.

Federal Anti-Degradation Policy

The federal Anti-Degradation Policy requires states to develop statewide antidegradation policies and identify methods for implementing them (40 Code of Federal Regulations [CFR] §131.12). These policies and implementation methods will, at a minimum, protect and maintain (1) existing instream uses; (2) existing water quality where the quality of waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource. State permitting actions must be consistent with the federal Anti-Degradation Policy.

4.6.2.2 State

Porter-Cologne Water Quality Control Act (California Water Code)

The State of California is authorized to administer federal law or state-enacted laws regulating water pollution within the state. The Porter-Cologne Water Quality Control Act (Water Code §§ 13000, et seq.) includes regulations to address requirements of the CWA. These regulations include NPDES permitting, dredge and fill programs, and civil and administrative penalties. The Porter-Cologne Act is broad in scope and addresses issues relating to the conservation, control, and utilization of the water resources of the state. Additionally, the Porter-Cologne Act states that the quality of all the waters of the state (including groundwater and surface water) must be protected for the use and enjoyment of the people of the state.
The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB) are agencies within the umbrella structure of the California Environmental Protection Agency (CalEPA). The SWRCB has the principal responsibility for the development and implementation of California water quality policy and must develop programmatic water quality control procedures to be implemented by the RWQCBs. The Central Coast Regional Water Quality Control Board (CCRWQCB) is the region that regulates water quality in the City of Goleta. The CCRWQCB adopted a Revised Water Quality Control Plan (Basin Plan) on September 8, 1994. The Basin Plan designates beneficial uses and establishes water quality objectives for groundwater and surface water within the Central Coast Region. It has been amended but not updated since 1994.

Water Code § 13050 defines what is considered pollution, contamination, or nuisance. Briefly defined, pollution means an alteration of water quality such that it unreasonably affects the beneficial uses of water (which may be for drinking, agricultural supply, or industrial uses). Contamination means an impairment of water quality to the degree that it creates a hazard to the public health. Nuisance is defined as anything that is injurious to health, is offensive to the senses, or is an obstruction to property use, and affects a considerable number of people.

**Discharge Permits**

The SWRCB has issued a statewide NPDES General Permit for stormwater discharges associated with construction activities (known as the Construction General Permit [SWRCB Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ]). Any project that disturbs an area larger than 1 acre requires a Notice of Intent (NOI) to discharge under the Construction General Permit. The Construction General Permit includes measures to eliminate or reduce pollutant discharges through implementation of a Stormwater Pollution Prevention Plan (SWPPP), which describes the implementation and maintenance of best management practices (BMPs) to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from a site during construction. The Construction General Permit contains receiving water limitations that require stormwater discharges to not cause or contribute to a violation of any applicable water quality standard. The permit also requires implementation of programs for visual inspections and sampling for specified constituents (e.g., nonvisible pollutants). Any construction activities at the project site would be covered under the Construction General Permit.

The CCRWQCB issues combined NPDES Permits under the CWA and California Water Code to all point-source dischargers of waste to surface waters. To ensure protection of water quality, NPDES Permits may contain effluent limitations for pollutants of concern, pollutant monitoring frequencies, reporting requirements, schedules of compliance (when necessary), mandates for operating conditions, BMPs, and administrative requirements. NPDES Permits apply to publicly owned treatment works (POTWs) discharges, industrial wastewater discharges, and municipal, industrial, and construction site stormwater discharges.

**State Anti-Degradation Policy**

The SWRCB adopted Resolution No. 68-16 (October 28, 1968), “Statement of Policy with Respect to Maintaining High Quality Waters in California” (more commonly referred to as the state Anti-Degradation Policy), which restricts the degradation of surface waters of the state and protects bodies of water where the existing water quality is higher than necessary for the protection of present and anticipated designated beneficial uses. This state policy is generally consistent with the subsequently adopted federal Anti-Degradation Policy, discussed above.
State policy differs from federal policy in that it applies to: 1) all waters, including surface waters and groundwater; 2) water quality lowerings since 1968; 3) all uses, both existing and potential uses, instream and offstream; and 4) only high quality (i.e., Tier 2) waters. The State policy is implemented by the CCRWQCB.

**CCRWQCB Post-Construction Stormwater Management Requirements**

The CCRWQCB adopted Resolution No. R3-2013-0032 (July 12, 2013), which implements post-construction requirements for management of stormwater discharges from development projects within the Central Coast region (Central Coast PCRs). Specifically, projects must comply with four categories of performance requirements: 1) site design and runoff reduction, 2) water quality treatment, 3) runoff retention, and 4) peak flow management. Within the City, the Central Coast PCRs will apply to private development projects that have not received the first discretionary approval of project design by March 6, 2014. The Central Coast PCRs are summarized in Table 4.6-1 below.

**TABLE 4.6-1**

**SUMMARY OF POST-CONSTRUCTION REQUIREMENTS – CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARD**

<table>
<thead>
<tr>
<th>Type of Project</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tier 1</strong></td>
<td>Implement LID Measures:</td>
</tr>
<tr>
<td>Projects, including single-family homes that are not part of a larger plan of development (SFHs), that create or replace 2,500 square feet or more of impervious surface.</td>
<td>- Limit disturbance of natural drainage features.</td>
</tr>
<tr>
<td></td>
<td>- Limit clearing, grading, and soil compaction.</td>
</tr>
<tr>
<td></td>
<td>- Minimize impervious surfaces.</td>
</tr>
<tr>
<td></td>
<td>- Minimize runoff by dispersing runoff to landscape or using permeable pavements.</td>
</tr>
</tbody>
</table>

| **Tier 2**      | Tier 1 requirements, plus: |
|                | - Treat runoff with an approved and appropriately sized LID treatment system prior to discharge from the site.  |
| Projects, other than SFHs, that create or replace 5,000 SF or more net impervious surface*. | Tier 2 requirements, plus:  |
| SFHs that create or replace 15,000 SF or more of net impervious surface*. | - Prevent offsite discharge from events up to the 95th percentile rainfall event using Stormwater Control Measures.  |

| **Tier 3**      | Tier 3 requirements, plus: |
|                | - Control peak flows to not exceed pre-project flows for the 2-year through 10-year events.  |
| Projects, other than SFHs, that create or replace 15,000 SF or more of impervious surface. |  |
| SFHs that create or replace 15,000 SF or more of net impervious surface.* |  |

| **Tier 4**      |  |
| Projects that create or replace 22,500 square feet of impervious surface. |  |

* Net impervious surface equals new and replaced impervious area minus the total pre-project–to–post-project reduction in impervious area (if any).

*Source: County of Santa Barbara Project Clean Water 2014.*
4.6.2.3 Local

County of Santa Barbara

Project Clean Water (PCW) is the County of Santa Barbara’s stormwater quality program initiated in 1998 to improve water quality in local creeks and the ocean by implementing many of the aspects of NPDES BMPs. This program also includes watershed planning and restoration, pilot treatment control BMPs, and monitoring. PCW is managed and staffed by the Santa Barbara County Water Agency (Public Works Department) and the Environmental Health Services Division (EHS) of the Public Health Department.

City of Goleta Stormwater Management Guidance Document

Planning, implementation, and enforcement related to stormwater management during construction and post-construction activities on proposed and active development sites are governed by the City of Goleta Stormwater Management Guidance Document (Guidance Document) (City of Goleta 2014). The Goleta SWMP was created pursuant to SWRCB General Permit No. CAS000004 for NPDES Phase II.

The Guidance Document outlines the means by which the City will (1) protect the health of the recreational public and the environment, (2) meet CWA mandates through compliance with Phase II NPDES Permit requirements and applicable regulations, and (3) foster increased public involvement and awareness. Water quality monitoring has been conducted to define pollutants in many watersheds, resulting in identification of bacteria, nutrients, pesticides, sediment, and heavy metals as pollutants of concern in certain drainages. Storm drains may empty into drainages after already passed through natural open space, residential, agricultural, commercial, and industrial land uses.

The purpose of the Guidance Document is to implement and enforce a program designed to reduce the discharge of pollutants to the maximum extent practicable (MEP) to protect water quality. According to the General Permit, the MEP standard is an ever-evolving, flexible, and advancing concept that considers technical and economic feasibility. Since knowledge about controlling urban runoff continues to evolve, so does the mitigation, which constitutes MEP. Reducing the discharge of stormwater pollutants to the MEP in order to protect beneficial uses requires review and improvement, which includes seeking new opportunities. To do this, the City must conduct and document an evaluation and assessment of each relevant element of its program and revise, as necessary, activities, control measures, BMPs, and measurable goals to meet the MEP.

City of Goleta Stormwater Management and Discharge Control Ordinance

The City’s Stormwater Management And Discharge Control regulations (Goleta Municipal Code, Chapter 13.04) implements the CWA and Porter-Cologne Act “by reducing pollutants and non-stormwater discharges to the maximum extent practicable by prohibiting non-stormwater discharges into the storm drain system and improving stormwater management.” It includes regulations regarding point and nonpoint source discharges of pollutants, and also codifies the City’s implementation and enforcement of the Central Coast PCRs.
City of Goleta Floodplain Management Ordinance

The City’s Floodplain Management Ordinance (Goleta Municipal Code, Chapter 15) allows structural development within the 100-year floodplain if the finished floor elevation is raised at least 2 feet above the base flood elevation.

City of Goleta General Plan/Coastal Land Use Plan (GP/CLUP)

The GP/CLUP contains policies in the Conservation Element regarding protection of water quality, including Policy CE 2, Protection of Creeks and Riparian Areas; Policy CE 3, Protection of Wetlands; and Policy CE 10, Watershed Management and Water Quality.

4.6.3 Project Impacts and Mitigation

4.6.3.1 Thresholds of Significance

The City’s Initial Study Checklist (CEQA Guidelines, Appendix G) and the City’s Environmental Thresholds and Guidelines Manual (Thresholds Manual) specify the following significance thresholds; these thresholds have been organized according to the topics addressed in this section.

Surface and Groundwater Quality

A significant impact to surface and groundwater water quality could occur if construction or operation of the project would:

a. Violate any water quality standards or waste discharge requirements.
b. Discharge pollutants that exceed the water quality standards set forth in the applicable NPDES Permit, the RWQCB’s Basin Plan, or otherwise impair the beneficial uses of a receiving water body.
c. Result in a discharge of pollutants into an impaired water body that has been designated as such by the SWRCB or the RWQCB under Section 303(d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act).
d. Result in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB.
e. 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).
f. Be located within an urbanized area of the City and project construction would disturb one (1) or more acres of land.
g. Result in the removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks, or wetlands.
h. Otherwise substantially degrade water quality.
**Stormwater Flows and Drainage**

A significant impact to stormwater flows and drainage could occur if construction or operation of the project would:

i. 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.

j. 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 increase flooding on- or off-site.

k. 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.

l. Result in channelization or relocation of a natural drainage channel.

m. Increase the amount of impervious surfaces by 25 percent or more.

**Flooding**

A significant impact to stormwater flows and flooding could occur if construction or operation of the project would:

n. 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.

o. Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

p. 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.

q. Result in inundation by seiche, tsunami, or mudflow.

Items a, e, i, j, k, n, o, p, and q are from the Initial Study Checklist; the remaining items are from the Thresholds Manual.

**4.6.3.2 Project Impacts**

The project would include construction and operation of 60 single-family residential units. Additional facilities include interior project streets, private driveways and walkways, landscaped areas, underground utilities, and drainage structures necessary to convey surface water across the property. A more detailed discussion of the project elements can be found in Chapter 2, Project Description. Impacts related to surface water and groundwater quality, stormwater flows and drainage, and flooding are described below.

**Impact HYD-1. Surface Water and Groundwater Quality**

**Short-term (Construction-related) Impacts**

Potential impacts to water quality from construction-related activities would occur due to vegetation removal and use of construction materials on the site. The project would involve site disturbance during grading and the construction of residences, sidewalks, roadways, patios, landscaping, and associated facilities. Construction would involve grading of approximately 27,500 cubic yards of cut and 23,500 cubic yards of fill. This grading activity would involve vegetation removal and expose soil to erosion and potential for sedimentation of surface water...
bodies such as the adjacent El Encanto Creek. Also, during onsite grading and building construction, hazardous materials such as fuels, paints, solvents, and concrete additives could be used. These hazardous materials require proper management and disposal. Improper management of any resultant hazardous wastes could increase the opportunity for hazardous materials releases into surface water runoff and potentially infiltrate the underlying groundwater. The project would substantially increase the potential for urban pollutants such as petroleum products and landscape chemicals to be introduced into the stormwater flow discharged into El Encanto Creek, the receiving waters of Devereux Slough, and the ocean, thereby potentially degrading water quality and affecting aquatic, estuarine, and marine habitats.

Impacts would be minimized during all phases of project construction through compliance with the Construction General Permit. This permit requires the development and implementation of a SWPPP, which must include erosion and sediment control BMPs that would meet or exceed measures required by the Construction General Permit, as well as BMPs that control other potential construction-related pollutants. Erosion control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap sediment once it has been mobilized. A SWPPP would be developed as required by, and in compliance with, the Construction General Permit and City ordinances. Interim BMPs to control erosion and sedimentation and keep pollutants from reaching drainage facilities during construction would also be implemented. These BMPs would ensure effective control of not only sediment discharge, but also of pollutants associated with sediments, including but not limited to nutrients, heavy metals, and certain pesticides or herbicides.

Though the project would disturb more than 1 acre of land within an urbanized area of the City, construction BMPs for erosion, sedimentation, and construction waste control would be implemented and would result in a less than significant water quality impact. However, until final plans are reviewed for adequacy of BMPs, impacts to surface and groundwater quality as a result of construction activities are considered potentially significant.

**Long-term (Operational) Impacts**

For post-construction impacts, the primary source of pollutants would be oil, grease, and other materials deposited on the paved surfaces of internal roads, driveways, and parking areas. The discharge of liquid contaminants accumulating in leaking, uncovered, or corroded trash enclosures could also serve as a source of pollutants. In addition, runoff from landscaped areas may contain pesticides, herbicides, fertilizers, and other chemical compounds. If unaddressed, pollutants from the project could be discharged into receiving waters.

El Encanto Creek and its riparian corridor are just offsite along the western property boundary. GP/CLUP Conservation Element Subpolicy CE 2.2, Streamside Protection Areas, requires a 100-foot buffer along both sides of El Encanto Creek. This buffer is intended to preserve the SPA in a natural state in order to protect the associated riparian habitats and ecosystems. Under certain circumstances, Subpolicy CE 2.2 allows for the reduction of the 100-foot SPA as long as a 25-foot minimum is maintained. Although the creek and its riparian corridor are not within the site boundaries, the 100-foot SPA buffer does extend into the western portion of the project site. Construction and operation of the project would result in an encroachment into the 100-foot SPA buffer. The proposed detention/retention basin, vegetated bioswale, children’s tot lot, a walking path, small portions of two residential properties, and a portion of the internal road system would be placed within the 100-foot buffer. The two residential properties and the internal road system would be at least 50 feet from El Encanto Creek, which exceeds the 25-foot minimum buffer required by Subpolicy CE 2.2. The detention/retention basin, vegetated
bioswale, children’s tot lot, and the walking path are proposed to extend within the 25-foot minimum.

Though an encroachment into the buffer zone could have the potential to cause significant impacts, the detention basin, vegetated bioswale, children’s tot lot, and the walking path are considered compatible land uses and activities allowed in SPAs, per GP/CLUP Subpolicy CE 2.3, Allowable Uses and Activities in SPAs. Subpolicy CE 2.3e allows for the construction and maintenance of foot trails, bicycle paths, and similar low-impact facilities for public access. Subpolicy CE 2.3f allows for resource restoration and enhancement projects. The detention basin and vegetated bioswale would capture stormwater for filtration, infiltration, and sediment dropout. The walking path, which would be surfaced in decomposed granite (DG), would further protect water quality by allowing surface runoff to filter through the permeable surface. Therefore, the encroachment into the SPA would result in less than significant impacts to surface and groundwater quality.

The project would include various measures to address the potential for pollutant discharges into water bodies during project operations. These components are intended to reduce surface water quality pollutants with practicable methods of stormwater quality treatment and hydromodification control. Stormwater curb extensions and permeable paved parking areas and driveways would provide a way to capture street stormwater runoff for treatment, filtration, and sediment dropout. The vegetated bioswale in the open space area and along Cathedral Oaks Road, as well as depressed biofiltration/collection areas, would capture additional stormwater for filtration, infiltration, and sediment dropout.

Though the project would disturb more than 1 acre of land within an urbanized area of the City, post-construction BMPs to protect sensitive riparian or wetland resources, reduce the quantity of runoff, and treat runoff generated by the project to pre-project levels would be implemented and would result in a less than significant water quality impact. However, until final plans are reviewed for adequacy of BMPs, impacts to surface and groundwater quality as a result of operational activities are considered potentially significant.

**Impact HYD-2. Stormwater Flows and Drainage**

The project has the potential to increase the volume and alter the drainage pattern of stormwater runoff from the pre-development condition. The project is categorized as a Tier 4 project under the Central Coast PCR’s. Requirements for Tier 4 projects include the retention of stormwater runoff from rain events up to the 95th percentile event (which for the project site is equivalent to 2.43 inches of rainfall within a 24-hour period). Implementation of LID measures and control of peak flows are also required.

Figure 4.6-1 illustrates the project’s proposed hydrology plan. In summary, offsite flow from the area north of the project draining southerly onto the project site would be intercepted by a concrete “V” swale and directed westerly and easterly along the project’s northern boundary to discharge back onto the property originating the flow. Onsite flow would be conveyed in the proposed internal street system to a series of catch basins on the western and eastern sides of the project. The catch basins on the western side of the project would convey the stormwater through storm drain pipes to a detention/retention basin at the southwest corner of the property, with outlets that are connected into the project’s irrigation system to recycle runoff. Any volumes in the detention/retention basin from storm events exceeding the 95th percentile would be discharged into a storm drain that flows to El Encanto Creek.
The catch basins on the eastern side of the project would be at the project site's eastern entrance just north of Cathedral Oaks Road. These catch basins would convey the stormwater from the eastern side of the project site to an underground detention/retention system consisting of a series of 60-inch pipes, with outlets that are connected to pumps that recycle runoff into the project's irrigation system.

In addition, the project incorporates a number of LID measures. Permeable paving would be installed in curbside parking areas and driveways. A series of curb extensions will create landscaped areas that capture and treat runoff (“rain gardens”). Finally, a vegetated bioswale will be installed to convey and treat runoff as it is conveyed to the detention/retention basin in the southwest corner of the property.

The 95th percentile storm event would generate 64,932 cubic feet of runoff from the project site. Table 4.6-2 summarizes the capacity of volumes retained by the project’s stormwater control measures.

<table>
<thead>
<tr>
<th>Retention Measure</th>
<th>Quantity/Size</th>
<th>Volume Retained (cubic feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curbside rain gardens</td>
<td>Total 30 @ 210 cubic feet each</td>
<td>6,300</td>
</tr>
<tr>
<td>Landscape area rain gardens</td>
<td>Total 60 @ 100 cubic feet each</td>
<td>6,000</td>
</tr>
<tr>
<td>Recycling runoff to irrigation system</td>
<td>3- to 60-inch pipe @ 400 feet each</td>
<td>23,550</td>
</tr>
<tr>
<td>Detention/Retention Basin 1 (southwest corner)</td>
<td>4,500 square-foot area</td>
<td>27,000</td>
</tr>
<tr>
<td>Detention/Retention Basin 2 (southern boundary)</td>
<td>1,500 square-foot area</td>
<td>4,500</td>
</tr>
<tr>
<td><strong>Total Volume Retained</strong></td>
<td></td>
<td><strong>67,350</strong></td>
</tr>
<tr>
<td><strong>95th Percentile Stormwater Runoff Volume</strong></td>
<td></td>
<td><strong>64,932</strong></td>
</tr>
<tr>
<td>% of Runoff Volume Mitigated</td>
<td></td>
<td>&gt;100%</td>
</tr>
</tbody>
</table>

Source: Amendment to Hydrology Report (Civil Design & Drafting 2014).

Table 4.6-3 summarizes the peak flows from the project site under pre-development conditions and post-development conditions (with implementation of the project’s post-construction stormwater management measures, including detention basins).
Figure 4.6-1
Hydrology Plan
Shelby Residential Project EIR

Source: Civil Design & Drafting, Inc.
TABLE 4.6-3
PRE-PROJECT AND POST-PROJECT PEAK FLOWS
(WITH POST-CONSTRUCTION MEASURES/DETENTION BASINS)

<table>
<thead>
<tr>
<th>Storm Event</th>
<th>Pre-development Runoff (cfs)</th>
<th>Post-Development Runoff (cfs)</th>
<th>Decrease in Runoff (cfs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Basin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-year</td>
<td>1.41</td>
<td>0.32</td>
<td>1.17</td>
</tr>
<tr>
<td>5-year</td>
<td>2.39</td>
<td>1.59</td>
<td>0.80</td>
</tr>
<tr>
<td>10-year</td>
<td>3.06</td>
<td>3.06</td>
<td>0.00</td>
</tr>
<tr>
<td>25-year</td>
<td>3.89</td>
<td>3.89</td>
<td>0.00</td>
</tr>
<tr>
<td>50-year</td>
<td>4.51</td>
<td>3.89</td>
<td>0.62</td>
</tr>
<tr>
<td>100-year</td>
<td>5.10</td>
<td>3.89</td>
<td>1.21</td>
</tr>
<tr>
<td>East Basin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-year</td>
<td>2.55</td>
<td>2.55</td>
<td>0.00</td>
</tr>
<tr>
<td>5-year</td>
<td>4.29</td>
<td>4.29</td>
<td>0.00</td>
</tr>
<tr>
<td>10-year</td>
<td>5.48</td>
<td>5.48</td>
<td>0.00</td>
</tr>
<tr>
<td>25-year</td>
<td>6.95</td>
<td>6.95</td>
<td>0.00</td>
</tr>
<tr>
<td>50-year</td>
<td>8.03</td>
<td>6.95</td>
<td>1.08</td>
</tr>
<tr>
<td>100-year</td>
<td>9.07</td>
<td>6.95</td>
<td>2.12</td>
</tr>
</tbody>
</table>

As stated above, the project is designed with post-construction stormwater management measures to retain runoff volumes from the 95th percentile storm event. The project is also designed so that peak flows of runoff do not exceed the project site’s pre-development condition. As a result, the project would comply with the Central Coast PCRs and would not create or contribute to runoff water that would exceed the capacity of existing or planned stormwater drainage systems.

However, if the final design details, related installation, and/or long-term maintenance of onsite drainage control systems are not adequate, stormwater detention and treatment before discharge would be insufficient, and substantial flooding or erosion on or off site, channelization of El Encanto Creek, or other impacts to stormwater flows and drainage could occur, which would be a significant impact.

**Impact HYD-3. Flooding**

The project site is outside of the 100-year floodplain and is therefore not subject to inundation from 100-year floodwaters. There are no levees or dams upstream of the project site to the top of the area’s watershed that would threaten the project in the event of a dam or levee failure. The entirety of the site lies outside the City’s Potential Tsunami Run-Up Area as mapped by the City’s GP/CLUP. Therefore, there would be no impacts to people and property associated with flooding, the failure of an upstream levee and/or dam, or inundation as a result of a tsunami.
4.6.4 Cumulative Impacts

As described above, project runoff would be conveyed to El Encanto Creek. Short-term construction activity impacts (e.g., sedimentation from grading, contaminated runoff from washing of construction equipment, vehicles, and materials) and impacts from long-term operations on site (landscaping chemicals, oil and grease in runoff from the parking areas) would result in potentially significant short-term and long-term water quality impacts to the nearby El Encanto Creek from the potential for conveyance of degraded stormwater runoff from the site into the creek. The project would result in a potentially significant contribution to cumulative water quality degradation.

The increased volume of stormwater and the change in drainage patterns would result in less than significant short-term and long-term impacts to stormwater flows and drainage, as the proposed detention basin system is designed with the capacity to contain the post-development project runoff excess and to discharge a runoff volume that is equal to the predevelopment runoff volume from the site, representing no net change. Furthermore, rerouting such runoff through the drainage system instead of directly to El Encanto Creek would not result in any new environmental effect above baseline levels. Therefore, the project would result in a less-than-significant contribution to cumulative stormwater runoff and drainage impacts.

Because the project site is outside 100-year floodplains, levee or dam inundation areas, and tsunami run-up areas, the project would not contribute to a significant flood exposure impact.

4.6.5 Mitigation Measures

**MM HYD-1. Stormwater Pollution Prevention Plan**

The permittee must prepare a Stormwater Pollution Prevention Plan (SWPPP) covering all phases of grading/construction operations.

**Plan Requirements:** The SWPPP must be prepared by a licensed civil engineer or Qualified SWPPP Developer (QSD) and include, at a minimum, the following:

a. Temporary berms and sedimentation traps (such as silt fencing, straw bales, and gravel bags) must be placed at the base of all cut/fill slopes and soil stockpile areas where potential erosion may occur and must be maintained to ensure effectiveness. The sedimentation basins and traps must be cleaned periodically, and the silt must be removed and disposed of in a location approved by the City.

b. Nonpaved areas must be revegetated or restored (i.e., geotextile binding fabrics) immediately after grading and installation of utilities to minimize erosion and to reestablish soil structure and fertility. Revegetation must include noninvasive, drought-resistant, fast-growing vegetation that will quickly stabilize exposed ground surfaces. Alternative materials rather than reseeding (e.g., gravel) may be used, subject to review and approval by the Planning and Environmental Review Director, or designee, and the Public Works Director, or designee.

c. Runoff must not be directed across exposed slopes; all surface runoff must be conveyed in accordance with the approved drainage plans.

d. Energy dissipaters or similar devices must be installed at the end of drainpipe outlets to minimize erosion during storm events.
e. Grading must occur during the dry season (April 15 to November 1), unless a City-approved erosion control plan is in place and all erosion control measures are in effect. Erosion control measures must be identified on an erosion control plan and must prevent runoff, erosion, and siltation. All exposed graded surfaces must be reseeded with groundcover vegetation to minimize erosion. Graded surfaces must be reseeded within 4 weeks of grading completion, with the exception of surfaces graded for the placement of structures; these surfaces must be reseeded if structural development does not commence within 4 weeks of grading completion.

f. Site grading must be completed such that permanent drainage away from foundations and slabs is provided and so that water does not pond near structures or pavements.

**Timing:** The Stormwater Pollution Prevention Plan must be submitted to the Planning and Environmental Review Director, or designee, and the Public Works Director, or designee, for review and approval before issuance of any grading permit. Best management practices must be installed before grading commences and be maintained throughout the grading/construction period, as applicable.

**Monitoring:** The Planning and Environmental Review Director, or designee, must verify that the Stormwater Pollution Prevention Plan has been implemented per the approved plan before grading commences. The Planning and Environmental Review Director, or designee, must inspect the site periodically to verify compliance with the SWPPP throughout the grading/construction period.

**MM HYD-2a. Final Drainage/Stormwater Quality Protection Plan**

The permittee must prepare a final drainage/stormwater quality protection plan consistent with the City’s Stormwater Management Guidance Document and CCRWQCB Post-Construction Stormwater Management Requirements.

**Plan Requirements:** The final drainage/stormwater quality protection plan must be prepared by a licensed civil engineer. The plan must include, without limitation, the following:

a. A final drainage analysis that provides final calculations on pre-/post-development stormwater runoff volumes, peak flows, effective impervious area, required storage capacity, and specifications of all elements of the drainage control system.

b. Catch basin filter inserts capable of capturing sediment, trash, debris, and petroleum products from low-flow (first flush) stormwater runoff will be installed in each stormwater inlet/catch basin to be connected to the storm drain system serving the project site. Catch basin filter inserts must be specified for installation in all project stormwater inlets/catch basins shown on the final grading/drainage plan.

c. Regular maintenance and cleaning must be performed on catch basins and detention basins.

d. Routine cleaning must be performed on streets, parking lots, and storm drains.

e. All storm drain inlets must be stenciled to discourage dumping by informing the public that water flows to the ocean.

f. An integrated pest management program must be developed for landscaped areas of the project, emphasizing the use of biological, physical, and cultural controls, rather than chemical controls.
g. Educational flyers must be provided to residents regarding proper disposal of hazardous water and automotive waste.

h. Trash storage/material storage areas for maintenance of common areas must be provided that are covered by a roof and protected from surface runoff.

i. Drainage improvements associated with the project must route as much roof, parking areas, and surface drainage as possible through onsite landscaped areas and bioswale before drainage enters the drop inlets.

Timing: The final drainage/stormwater quality protection plan must be submitted to the Planning and Environmental Review Director, or designee, and Public Works Director, or designee, for review and approval before issuance of any grading permit. All best management practices must be installed as identified on the final drainage/stormwater quality protection plan and grading/drainage plan before issuance of any Certificate of Occupancy.

Monitoring: The Planning and Environmental Review Director, or designee, and Public Works Director, or designee, must verify implementation per approved plans before the City issues any Certificate of Occupancy.

**MM HYD-2b. Maintenance Agreement**

The permittee must prepare and perform all tasks pursuant to a maintenance agreement that addresses maintenance requirements for all improvements associated with stormwater quality protection/best management practices described in the final drainage/stormwater quality protection plan.

Plan Requirements: At a minimum, the maintenance agreement must include requirements that all inline storm drain filters must be inspected, repaired, and cleaned per manufacturer specifications and before September 30 of each year. Additional inspections, repairs, and maintenance must be performed after storm events, as needed, throughout the rainy season (November 1 to April 15) and/or per manufacturer specifications. Any necessary major repairs must be completed prior to the next rainy season. Before September 30 of each year, the permittee, or designee, must submit to the Public Works Director, or designee, for review and approval a report summarizing all inspections, repairs, and maintenance work done during the previous year. The maintenance agreement must be in a form approved by the City Attorney.

Timing: The permittee must submit the required maintenance agreement to the Public Works Director, or designee, for review, approval, and execution before issuance of any Certificate of Occupancy.

Monitoring: The Public Works Director, or designee, must periodically verify compliance with the provisions of the agreement and respond to instances of noncompliance with the agreement.

4.6.6 Residual Impacts

With implementation of the above mitigation measures, residual project-specific and cumulative impacts on hydrology and water quality are considered less than significant.
SECTION 4.7
TRANSPORTATION AND TRAFFIC
4.7 TRANSPORTATION AND TRAFFIC

This transportation and traffic section is based on Associated Transportation Engineers’ (ATE) “Traffic and Circulation Study for the 7400 Cathedral Oaks Road Project: City of Goleta, CA” (February 23, 2011) and ATE’s memorandum “7400 Cathedral Oaks Road Project – Construction Impacts” (August 13, 2013), which are provided in Appendix E. The traffic analysis follows the City of Goleta’s traffic study criteria and has been peer-reviewed and accepted by the City’s Public Works Department.

4.7.1 Existing Setting

The project site is at 7400 Cathedral Oaks Road, on the north side of Cathedral Oaks Road, east of Northgate Drive, in the western part of the City. Currently the site is for storage of firewood and woodchips, with a single-family residence, a garage, and a barn on the site.

The project site is served by a network of highways, arterial streets, and collector streets as illustrated on Figure 4.7-1 and described further below. Immediate access to the project site is currently provided from Cathedral Oaks Road by a single driveway/private road.

4.7.1.1 Street System

The following roadway segments and intersections were selected for analysis in consultation with City Public Works Department staff in order to determine potential impacts related to the project. City Public Works Department staff identified the affected roadway segments and intersections to be included in the traffic analysis for the project.

Roadway Segments
- Cathedral Oaks Road west of Glen Annie Road
- Glen Annie Road north of U.S. Highway 101
- Storke Road south of U.S. Highway 101

Intersections
- Cathedral Oaks Road at Winchester Canyon Road
- U.S. Highway 101 northbound off-ramp at Calle Real / Winchester Canyon Road
- Cathedral Oaks Road at Northgate Drive / Evergreen Drive
- Cathedral Oaks Road at Alameda Avenue
- Cathedral Oaks Road at Glen Annie Road
- U.S. Highway 101 northbound ramps / Calle Real at Glen Annie Road / Storke Road
- U.S. Highway 101 southbound ramps at Glen Annie Road / Storke Road
- Hollister Avenue at Storke Road

Classifications

The City utilizes the roadway categories recognized by regional, state, and federal transportation agencies. There are four categories in the roadway hierarchy ranging from
freeways, with the highest capacity, to two-lane undivided roadways, with the lowest capacity. The roadway categories are summarized as follows:

- **Freeways** are limited-access and high-speed travelways included in the state and federal highway systems. Their purpose is to carry regional through-traffic. Access is provided by interchanges with typical spacing of 1 mile or greater. No local access is provided to adjacent land uses.

- **Arterial** roadways are major streets that primarily serve through-traffic and provide access to abutting properties as a secondary function. Arterials are generally designed with two to six travel lanes and their major intersections are signalized. This roadway type is divided into two categories: major and minor arterials. Major arterials are typically four-or-more-lane roadways and serve both local and regional through-traffic. Minor arterials are typically two-to-four-lane streets that service local and commuter traffic.

- **Collector** roadways are streets that provide access and traffic circulation within residential and non-residential (e.g., commercial and industrial) areas. Collector roadways connect local streets to arterials and are typically designed with two through-travel lanes (i.e., one through-travel lane in each direction) that may accommodate on-street parking. They may also provide access to abutting properties.

- **Local** roadways distribute traffic within a neighborhood, or similar adjacent neighborhoods, and are not intended for use as through-streets or as links between higher-capacity facilities such as collector or arterial roadways. Local streets are fronted by residential uses and do not typically serve commercial uses.

### 4.7.1.2 Regional Road System

U.S. Highway 101 is a freeway located south of the project site that provides regional vehicular access to the subject property. This highway is a major north/south-oriented freeway connecting the Los Angeles metropolitan area to the San Francisco Bay Area. Locally, this highway connects the City of Goleta to Santa Barbara, Carpinteria, and San Buenaventura (Ventura) to the south and Buellton, Lompoc, and Santa Maria to the north. Access to the site is provided via the Glen Annie Road / Storke Road interchange (located east of the project site) and the Winchester Canyon Road / Hollister Avenue interchange (located west of the project site). In the study area, the highway generally contains two lanes in each direction.

#### Roadway Descriptions

**Cathedral Oaks Road** is a two- and four-lane arterial roadway located along the project site’s southern frontage. This east/west-oriented roadway extends from Goleta to Santa Barbara, providing an alternative travel route to U.S. Highway 101 and Hollister Avenue.

**Glen Annie Road / Storke Road** is east of the project site and is called Glen Annie Road north of U.S. Highway 101 and Storke Road south of the freeway. It extends between Cathedral Oaks Road on the north and El Colegio Road on the south. This roadway provides freeway access to the western portion of the Goleta Valley area via an interchange with U.S. Highway 101. North of the freeway, Glen Annie Road is two lanes; south of the freeway, Storke Road is four lanes, except near its southern terminus, where it narrows to two lanes.

**Hollister Avenue** is south of U.S. Highway 101 and is an east/west-oriented major arterial ranging from two to four lanes. This roadway begins as the continuation of State Street in Santa Barbara to the east and extends through the City of Goleta past the U.S. Highway 101
Figure 4.7-1
Existing Roadway Network
Shelby Residential Project EIR

Source: Associated Transportation Engineers
interchange at Hollister Road / Winchester Canyon Road to the entrance of the Bacara Resort. Hollister Avenue serves at the major alternative east-west travel route to U.S. Highway 101 in the Goleta Valley area.

*Calle Real* is south of the project site. Calle Real acts as a discontinuous frontage road on the north side of U.S. Highway 101 from West Pueblo Street in the city of Santa Barbara to just west of Eagle Canyon Road in Santa Barbara County west of Goleta. In the vicinity of the project site, it is an east/west-oriented arterial with two travel lanes between Glen Annie Road and Cathedral Oaks Road. Calle Real provides the northbound connections to U.S. Highway 101 at the Glen Annie Road / Storke Road and Winchester Canyon Road / Hollister Avenue interchanges.

*Winchester Canyon Road* is west of the project site and is a two-lane north/south-oriented minor arterial providing access between the U.S. Highway 101 northbound off-ramp (at Calle Real) and Cathedral Oaks Road.

**Roadway Operations**

Existing volumes on area roadway segments are identified in Table 4.7-1. Based on existing volumes, all project area roadway segments currently carry volumes within the City’s acceptable capacity designations for arterial highways.

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Roadway Classification</th>
<th>Geometry</th>
<th>Acceptable Capacity</th>
<th>Existing Average Daily Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cathedral Oaks west of Glen Annie Road</td>
<td>Major Arterial</td>
<td>2 lanes</td>
<td>14,300</td>
<td>9,500</td>
</tr>
<tr>
<td>Glen Annie Road north of U.S. Highway 101</td>
<td>Major Arterial</td>
<td>2 lanes</td>
<td>14,300</td>
<td>9,200</td>
</tr>
<tr>
<td>Storke Road south of U.S. Highway 101</td>
<td>Major Arterial</td>
<td>4 lanes</td>
<td>34,000</td>
<td>33,800</td>
</tr>
</tbody>
</table>

**Intersection Operations**

Traffic flow on urban arterials is most constrained at intersections. Intersection operations are rated using Levels of Service (LOS) A through F, with LOS A indicating free flow operations and LOS F indicating congested operations. The minimum acceptable operating level of service for intersections within the City is LOS C, with the exception of the Storke Road at Hollister Avenue intersection, where LOS D is considered acceptable. Table 4.7-2 lists the type of traffic controls and the LOS for the study-area intersections. As shown in the table, all study-area intersections operate at LOS C or better during the morning (AM) and evening (PM) peak hours, and are considered acceptable based on the City’s LOS operating standards.
TABLE 4.7-2
EXISTING INTERSECTIONS LEVELS OF SERVICE

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Control</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ICU or delay (see note)</td>
<td>LOS (see note)</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Winchester Canyon Road</td>
<td>4-way stop (unsignalized)</td>
<td>8.9 seconds delay</td>
<td>A</td>
</tr>
<tr>
<td>U.S. 101 northbound ramp / Calle Real at Winchester Canyon Road</td>
<td>2-way stop (unsignalized)</td>
<td>8.0 seconds delay</td>
<td>A</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Northgate Drive / Evergreen Drive</td>
<td>2-way stop (unsignalized)</td>
<td>11.4 seconds delay</td>
<td>B</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Alameda Avenue</td>
<td>Signal</td>
<td>0.50 V/C ratio</td>
<td>A</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Glen Annie Road</td>
<td>Signal</td>
<td>0.75 V/C ratio</td>
<td>C</td>
</tr>
<tr>
<td>U.S. 101 northbound ramps at Glen Annie Road / Storke Road</td>
<td>Signal</td>
<td>0.71 V/C ratio</td>
<td>C</td>
</tr>
<tr>
<td>U.S. 101 southbound ramps at Glen Annie Road / Storke Road</td>
<td>Signal</td>
<td>0.78 V/C ratio</td>
<td>C</td>
</tr>
<tr>
<td>Hollister Avenue at Storke Road</td>
<td>Signal</td>
<td>0.61 V/C ratio</td>
<td>B</td>
</tr>
</tbody>
</table>

Note: Intersection Capacity Utilization (ICU) methodology was used to calculate LOS for signalized intersections, which generates a volume-to-capacity (V/C) ratio. Highway Capacity Manual methodology was used to calculate LOS for unsignalized intersections, based on average weighted delay in seconds per vehicle.

4.7.2 Regulatory Framework

4.7.2.1 Federal

There are no federal regulations applicable to this transportation and traffic impact analysis.

4.7.2.2 State

There are no state regulations applicable to this transportation and traffic impact analysis.

4.7.2.3 Local

GP/CLUP Policy TE 4.1 sets a standard of LOS C for City roadways and intersections; Policy TE 4.2 establishes a modified standard of LOS D (0.89 V/C) for the Storke Road at Hollister Avenue intersection.

4.7.3 Project Impacts and Mitigation

4.7.3.1 Thresholds of Significance

Based on both the City’s Initial Study Checklist (CEQA Guidelines, Appendix G; Environmental Checklist Form) and the City’s Environmental Thresholds and Guidelines Manual (Thresholds Manual), a significant transportation/traffic impact could occur if the project would:
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

e. Result in inadequate emergency access.

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

g. Increase the V/C ratio by the value provided below or send at least 5, 10, or 15 trips to intersections operating at LOS F, E, or D, respectively, with the addition of project traffic to an intersection.

<table>
<thead>
<tr>
<th>LEVEL OF SERVICE (including the project)</th>
<th>INCREASE IN V/C (greater than)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.20</td>
</tr>
<tr>
<td>B</td>
<td>0.15</td>
</tr>
<tr>
<td>C</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>or the addition of:</td>
</tr>
<tr>
<td>D</td>
<td>15 trips</td>
</tr>
<tr>
<td>E</td>
<td>10 trips</td>
</tr>
<tr>
<td>F</td>
<td>5 trips</td>
</tr>
</tbody>
</table>

h. Require a driveway that would create an unsafe situation, a new traffic signal, or major revisions to an existing traffic signal as a result of project access to a major road or arterial.

i. Result in additional traffic to a roadway that has design features (e.g., narrow width, roadside ditches, sharp curves, poor sight distance, inadequate pavement structure) or receives use which would be incompatible with a substantial increase in traffic (e.g., rural roads with use by farm equipment, livestock, horseback riding, or residential roads with heavy pedestrian or recreational use) that would become potential safety problems with the addition of project or cumulative traffic.

j. Result in project traffic utilizing a substantial portion of an intersection’s capacity where the intersection is currently operating at acceptable levels of service (A through C), but with cumulative traffic would degrade to or approach LOS D (V/C 0.81) or lower. Substantial is defined as a minimum change of 0.03 V/C for intersections that would operate from 0.80 to 0.85 V/C, a change of 0.02 V/C for intersections that would operate from 0.86 to 0.90 V/C, and 0.01 V/C for intersections operating at anything lower.
k. Increase traffic volumes by more than 1.0 percent (either project specific or project contribution to cumulative impacts) on a roadway currently exceeding the acceptable capacity.

Items a–f are from the Initial Study Checklist, and Items g–j are from the Thresholds Manual. Item k is the City’s administrative practice.

It should be noted that the City’s project-specific and cumulative impact thresholds for intersections are determined based on increases in V/C ratios. For purposes of determining project impacts at unsignalized intersections, the Intersection Capacity Utilization (ICU) methodology was utilized to quantify the volume to capacity (V/C) ratio increases over baseline conditions with the LOS determined through use of the Highway Capacity Manual (HCM) method of analysis.

**Congestion Management Program Thresholds**

The Congestion Management Program (CMP) impact thresholds are based on the Santa Barbara County Association of Governments’ (SBCAG) traffic impact thresholds for assessing impacts of land use decisions made by local jurisdictions on regional transportation facilities located within the CMP roadway system. Significant project-generated traffic impacts on the regional CMP system would occur if:

a. For any roadway or intersection operating at LOS A or B, a decrease of two levels of service results from the addition of project-generated traffic.

b. For any roadway or intersection operating at LOS C, project-added traffic results in LOS D or worse.

c. For intersections within the CMP system with existing congestion, the following defined significant impacts result:

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Project-added Peak Hour Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS D</td>
<td>20</td>
</tr>
<tr>
<td>LOS E</td>
<td>10</td>
</tr>
<tr>
<td>LOS F</td>
<td>10</td>
</tr>
</tbody>
</table>

d. For freeway or highway segments with existing congestion, the following defined significant impacts result:

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Project-added Peak Hour Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS D</td>
<td>100</td>
</tr>
<tr>
<td>LOS E</td>
<td>50</td>
</tr>
<tr>
<td>LOS F</td>
<td>50</td>
</tr>
</tbody>
</table>

**4.7.3.2 Project Impacts**

**Impact TRA-1. Long-term Traffic Impacts**

**Project Trip Generation**

The project would construct a neighborhood of 60 single-family homes. Project-related traffic was estimated based on the Institute of Transportation Engineers’ (ITE) *Trip Generation Manual*
8th edition, Land Use Code 210 (Single-family Detached Housing). Table 4.7-3 shows the estimate trip generation for the project. As shown in the table, the project would generate 574 average daily trips, including 45 during the AM peak hour and 61 during the PM peak hour.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Size</th>
<th>Average Daily Rate</th>
<th>AM Peak Hour Trips (in/out)</th>
<th>PM Peak Hour Rate</th>
<th>Trips (in/out)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-family homes</td>
<td>60 units</td>
<td>9.57</td>
<td>574</td>
<td>0.75</td>
<td>45 (11/34)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.01</td>
<td>1.01</td>
<td>61 (39/22)</td>
</tr>
</tbody>
</table>

**Trip Distribution**

Traffic distribution and assignment patterns for the traffic from the project were developed based on existing traffic flows and consideration of the retail, school, and employment centers in the surrounding area.

Figure 4.7-2 shows the project’s trip distribution. In general, the project traffic was distributed to the local roadway system as follows:

- 5% on westbound U.S. Highway 101 via Hollister Avenue / Winchester Canyon Road interchange
- 5% on eastbound U.S. Highway 101 via Hollister Avenue / Winchester Canyon Road interchange
- 45% on eastbound U.S. Highway 101 via Glen Annie Road / Storke Road interchange
- 10% on eastbound Cathedral Oaks Road
- 15% on Hollister Avenue east of Storke Road
- 10% on Hollister Avenue west of Storke Road
- 10% on Storke Road south of Hollister Avenue

**Roadway Segment Impacts**

Table 4.7-4 shows the existing and existing-plus-project roadway volumes for project area road segments. As indicated in the table, Cathedral Oaks Road west of Glen Annie Road and Glen Annie Road north of U.S. Highway 101 are forecast to carry volumes within their acceptable capacity designations with the project. The volume on the segment of Storke Road south of U.S. Highway 101 would slightly exceed the acceptable capacity. However, the increase in traffic attributable to the project would be less than 1% of the existing volume and therefore below the threshold of significance for such impacts.
TABLE 4.7-4
ROADWAY VOLUMES WITH PROPOSED PROJECT

<table>
<thead>
<tr>
<th>Road Segment</th>
<th>Acceptable Capacity</th>
<th>Existing Average Daily Trips</th>
<th>Existing Plus Project Volume</th>
<th>Change</th>
<th>Exceeds Threshold?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cathedral Oaks west of Glen Annie Road</td>
<td>14,300</td>
<td>9,500</td>
<td>10,017</td>
<td>+ 5.4%</td>
<td>No</td>
</tr>
<tr>
<td>Glen Annie Road north of U.S. Highway 101</td>
<td>14,300</td>
<td>9,200</td>
<td>9,659</td>
<td>+ 5.0%</td>
<td>No</td>
</tr>
<tr>
<td>Storke Road south of U.S. Highway 101</td>
<td>34,000</td>
<td>33,800</td>
<td>34,001</td>
<td>+ 0.6%</td>
<td>No</td>
</tr>
</tbody>
</table>

Intersection Impacts

Table 4.7-5 shows the existing and existing-plus-project AM and PM peak hour LOS at study area intersections. Potential project impacts on these intersections were evaluated by considering the existing conditions, the estimated new project trips that would move through these intersections, and whether this net increase in project-generated peak hour trips would result in a significant impact based on City thresholds. The data presented in the table show that the project would not significantly impact the study-area intersections.

TABLE 4.7-5
INTERSECTION LEVELS OF SERVICE WITH PROPOSED PROJECT

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Existing ICU or delay</th>
<th>Existing LOS</th>
<th>Existing + Project ICU or delay</th>
<th>Existing + Project LOS</th>
<th>Project-Added Trips</th>
<th>Change % (see note)</th>
<th>Impact?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AM Peak Hour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cathedral Oaks Road at Winchester Canyon Road</td>
<td>8.9 seconds A</td>
<td>A</td>
<td>8.9 seconds A</td>
<td>A</td>
<td>4</td>
<td>0.008</td>
<td>No</td>
</tr>
<tr>
<td>U.S. 101 northbound ramp / Calle Real at Winchester Canyon Road</td>
<td>8.0 seconds A</td>
<td>A</td>
<td>8.0 seconds A</td>
<td>A</td>
<td>1</td>
<td>0.002</td>
<td>No</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Northgate Drive / Evergreen Drive</td>
<td>11.4 seconds B</td>
<td>B</td>
<td>11.4 seconds B</td>
<td>B</td>
<td>4</td>
<td>0.006</td>
<td>No</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Alameda Avenue</td>
<td>0.50 V/C A</td>
<td>A</td>
<td>0.52 V/C A</td>
<td>A</td>
<td>41</td>
<td>0.018</td>
<td>No</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Glen Annie Road</td>
<td>0.75 V/C C</td>
<td>C</td>
<td>0.77 V/C C</td>
<td>C</td>
<td>41</td>
<td>0.021</td>
<td>No</td>
</tr>
<tr>
<td>U.S. 101 northbound ramps at Glen Annie Road / Storke Road</td>
<td>0.71 V/C C</td>
<td>C</td>
<td>0.72 V/C C</td>
<td>C</td>
<td>36</td>
<td>0.009</td>
<td>No</td>
</tr>
<tr>
<td>U.S. 101 southbound ramps at Glen Annie Road / Storke Road</td>
<td>0.78 V/C C</td>
<td>C</td>
<td>0.79 V/C C</td>
<td>C</td>
<td>31</td>
<td>0.005</td>
<td>No</td>
</tr>
<tr>
<td>Hollister Avenue at Storke Road</td>
<td>0.61 V/C B</td>
<td>B</td>
<td>0.61 V/C B</td>
<td>B</td>
<td>15</td>
<td>0.001</td>
<td>No</td>
</tr>
</tbody>
</table>
Figure 4.7-2
Project Trip Distribution and Assignment
Shelby Residential Project EIR

Source: Associated Transportation Engineers
### Transportation and Traffic

#### Section 4.7. Transportation and Traffic

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Existing</th>
<th>Existing + Project</th>
<th>Project-Added Trips</th>
<th>Change % (see note)</th>
<th>Impact?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ICU or delay</td>
<td>LOS</td>
<td>ICU or delay</td>
<td>LOS</td>
<td></td>
</tr>
<tr>
<td>Cathedral Oaks Road at Winchester Canyon Road</td>
<td>8.2 seconds</td>
<td>A</td>
<td>8.2 seconds</td>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>U.S. 101 northbound ramp / Calle Real at Winchester Canyon Road</td>
<td>8.3 seconds</td>
<td>A</td>
<td>8.3 seconds</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Northgate Drive / Evergreen Drive</td>
<td>8.9 seconds</td>
<td>A</td>
<td>8.9 seconds</td>
<td>A</td>
<td>6</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Alameda Avenue</td>
<td>0.29 V/C</td>
<td>A</td>
<td>0.32 V/C</td>
<td>A</td>
<td>55</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Glen Annie Road</td>
<td>0.55 V/C</td>
<td>A</td>
<td>0.58 V/C</td>
<td>A</td>
<td>55</td>
</tr>
<tr>
<td>U.S. 101 northbound ramps at Glen Annie Road / Storke Road</td>
<td>0.69 V/C</td>
<td>B</td>
<td>0.70 V/C</td>
<td>B</td>
<td>49</td>
</tr>
<tr>
<td>U.S. 101 southbound ramps at Glen Annie Road / Storke Road</td>
<td>0.76 V/C</td>
<td>C</td>
<td>0.76 V/C</td>
<td>C</td>
<td>31</td>
</tr>
<tr>
<td>Hollister Avenue at Storke Road</td>
<td>0.74 V/C</td>
<td>C</td>
<td>0.74 V/C</td>
<td>C</td>
<td>20</td>
</tr>
</tbody>
</table>

Note: Value shown for unsignalized intersections (first three entries) correlates to % change in entering traffic volumes

### Impact TRA-2. Airport

The project’s new development lies outside of the Santa Barbara Municipal Airport Approach Zone and Clear Zone and would not impact air traffic patterns.

### Impact TRA-3. Public Transit/Alternative Modes of Transportation

There is no public transit service directly adjacent to the project site. The nearest Santa Barbara Metropolitan Transit District routes are Route 10 (Cathedral Oaks) and Route 23 (Winchester Canyon). Route 10’s closest stop to the project site is at Cathedral Oaks Road and Alameda Avenue, approximately 0.25 mile east of the project site. Route 23’s closest stop is at Brandon Drive and Evergreen Drive, approximately 0.25 mile southwest of the project site. The project would not affect any existing transit facility.

There is a Class II bicycle route on Cathedral Oaks Road, with striped bike lanes on both sides of the roadway. The proposed project would include two roadway connections to Cathedral Oaks Road, aligning with existing residential roadways on the south side of Cathedral Oaks (Royal Linda Drive and King Daniel Drive). These intersections would be controlled by two-way stop signs for the new roadways. The geometry of these intersections would provide clear visibility. No changes to the bike lanes would occur with the project. Therefore, impacts of the project on bicycle transportation would be less than significant.

There are sidewalks on both sides of Cathedral Oaks Road in the vicinity of the project except for on the north side of the road directly adjacent to the project site. The project would construct the missing sidewalk, providing greater connectivity for pedestrians in the area. This would represent a beneficial impact of the project on non-vehicular transportation.
Impact TRA-4. Access and Circulation

Access and site circulation for the project would be provided via a looped roadway that would connect to Cathedral Oaks Road at two locations. The roadway connections would align with the existing residential roadways on the south side of Cathedral Oaks Road. The new intersections would be controlled by stop signs on the side-street approaches. Table 4.7-6 shows the delay times and LOS for the most critical traffic movements at these driveways: inbound left turns and outbound left and right turns. As shown in the table, the two driveways would operate sufficiently considering the volumes forecast for the project and adjacent segment of Cathedral Oaks Road.

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Delay</th>
<th>AM LOS</th>
<th>PM Delay</th>
<th>PM LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Driveway/Cathedral Oaks Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inbound left turns</td>
<td>7.5 seconds</td>
<td>A</td>
<td>7.8 seconds</td>
<td>A</td>
</tr>
<tr>
<td>West Driveway/Cathedral Oaks Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outbound left and right turns</td>
<td>12.8 seconds</td>
<td>B</td>
<td>11.4 seconds</td>
<td>B</td>
</tr>
<tr>
<td>Eastbound Driveway/Cathedral Oaks Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inbound left turns</td>
<td>7.6 seconds</td>
<td>A</td>
<td>7.8 seconds</td>
<td>A</td>
</tr>
<tr>
<td>Eastbound Driveway/Cathedral Oaks Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outbound left and right turns</td>
<td>13.2 seconds</td>
<td>B</td>
<td>11.6 seconds</td>
<td>B</td>
</tr>
</tbody>
</table>

Impact TRA-5. Short-term Construction Traffic

The project would develop the project site that is presently nearly vacant. Access to the project site would be provided via two new roadway connections to Cathedral Oaks Road: one near the existing driveway on the west side of the site, and one near the east side, aligning with King Daniel Lane south of Cathedral Oaks Road. A new loop road would be constructed to provide internal circulation throughout the site.

The construction period is estimated to be 12 to 14 months. The site would be cleared in the first phase (demolition, excavation, and grading) and then site development would commence. During the peak period of construction activities, a workforce of 55 workers would be required. Construction workers are anticipated to work in one shift, beginning at 7:00 AM and ending at 4:00 PM.

The number of construction worker vehicles was estimated based on occupancy of 1.25 persons per vehicle. Thus, it is estimated that up to 44 inbound trips would occur during the AM peak hour and 44 outbound trips would occur during the PM peak hour on a daily basis during the peak construction period. These trips are slightly less than the long-term project trips during the peak hours discussed above in Impact TRA-1. All of the study-area roadways and intersections would operate at LOS C or better during the AM and PM peak hours with existing plus project traffic, which would meet the City’s LOS C operating standard. It can therefore be concluded that the additional traffic generated by construction traffic would have a less-than-significant impact on the area roadways and intersections.

Truck trips would be required for the first phase (demolition, excavation, and grading) as well as for delivery of construction equipment and material during the course of the construction phase. The site access and circulation system has been designed to accommodate truck traffic.
Equipment staging and storage would occur on the site. Also, construction worker parking would be accommodated on the project site. Therefore, construction-related vehicles would not affect parking and traffic operations on the streets in the immediate vicinity of the site, and impacts would be less than significant.

4.7.4 Cumulative Impacts

Cumulative traffic analysis used the City’s traffic model and assumed traffic generated by approved and pending projects proposed within the Goleta area, the University of California Santa Barbara Long Range Development Plan, the Santa Barbara Airport Specific Plan and terminal expansion, and regional growth in the Goleta-Santa Barbara area. The City’s traffic model also assumes key roadway improvements that are planned in the Goleta area, including a new freeway overcrossing to be built approximately midway between the Glen Annie Road / Storke Road and Winchester Canyon Road / Hollister Avenue interchanges and improvements to the Winchester Canyon Road / Hollister Avenue interchange.

Impact TRA-6. Cumulative Roadway Segment Impacts

Table 4.7-7 shows the cumulative and cumulative plus project roadway volumes for project area road segments. As shown in the table, the segments of Cathedral Oaks Road west of Glen Annie Road and Glen Annie Road north of U.S. Highway 101 would carry volumes within acceptable capacity. The segment of Storke Road south of U.S. Highway 101 is forecast to carry volumes that will exceed the acceptable capacity without the project. The project traffic’s contribution to this cumulative impact would be less than significant because it would represent less than 1% of the change in roadway volume.

<table>
<thead>
<tr>
<th>Road Segment</th>
<th>Acceptable Capacity</th>
<th>Cumulative Average Daily Trips (without project)</th>
<th>Cumulative Plus Project Average Daily Trips</th>
<th>Change due to project</th>
<th>Impact?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cathedral Oaks west of Glen Annie Road</td>
<td>14,300</td>
<td>9,400</td>
<td>9,917</td>
<td>5.5%</td>
<td>No</td>
</tr>
<tr>
<td>Glen Annie Road north of U.S. Highway 101</td>
<td>14,300</td>
<td>9,900</td>
<td>10,359</td>
<td>4.6%</td>
<td>No</td>
</tr>
<tr>
<td>Storke Road south of U.S. Highway 101</td>
<td>34,000</td>
<td>40,500</td>
<td>40,701</td>
<td>0.5%</td>
<td>No</td>
</tr>
</tbody>
</table>

Impact TRA-7. Cumulative Intersection Impacts

Table 4.7-8 shows the cumulative and cumulative plus project roadway volumes for project area intersections. As shown in the table, the proposed project traffic’s contribution to this cumulative impact at study-areas intersection would be less than significant because it would represent less than 1% of the change in intersection V/C ratio or delay.
### TABLE 4.7-8
CUMULATIVE INTERSECTION LEVELS OF SERVICE

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Cumulative without project</th>
<th>Cumulative + Project</th>
<th>Project change (delay or V/C)</th>
<th>Impact?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ICU or delay</td>
<td>LOS</td>
<td>ICU or delay</td>
<td>LOS</td>
</tr>
<tr>
<td><strong>AM Peak Hour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cathedral Oaks Road at Winchester Canyon Road</td>
<td>9.1 seconds</td>
<td>A</td>
<td>9.1 seconds</td>
<td>A</td>
</tr>
<tr>
<td>U.S. 101 northbound ramp / Calle Real at Winchester Canyon Road</td>
<td>9.0 seconds</td>
<td>A</td>
<td>9.0 seconds</td>
<td>A</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Northgate Drive / Evergreen Drive</td>
<td>11.5 seconds</td>
<td>B</td>
<td>11.6 seconds</td>
<td>B</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Alameda Avenue</td>
<td>0.52 V/C</td>
<td>A</td>
<td>0.54 V/C</td>
<td>A</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Glen Annie Road</td>
<td>0.77 V/C</td>
<td>C</td>
<td>0.79 V/C</td>
<td>C</td>
</tr>
<tr>
<td>U.S. 101 northbound ramps at Glen Annie Road / Storke Road</td>
<td>0.74 V/C</td>
<td>C</td>
<td>0.75 V/C</td>
<td>C</td>
</tr>
<tr>
<td>U.S. 101 southbound ramps at Glen Annie Road / Storke Road</td>
<td>0.94 V/C</td>
<td>E</td>
<td>0.94 V/C</td>
<td>E</td>
</tr>
<tr>
<td>Hollister Avenue at Storke Road</td>
<td>0.73 V/C</td>
<td>C</td>
<td>0.74 V/C</td>
<td>C</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Calle Real</td>
<td>0.54 V/C</td>
<td>A</td>
<td>0.55 V/C</td>
<td>A</td>
</tr>
<tr>
<td>US 101 southbound ramps at Cathedral Oaks Road</td>
<td>0.63 V/C</td>
<td>B</td>
<td>0.63 V/C</td>
<td>B</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Hollister Avenue</td>
<td>0.57 V/C</td>
<td>A</td>
<td>0.57 V/C</td>
<td>A</td>
</tr>
<tr>
<td><strong>PM Peak Hour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cathedral Oaks Road at Winchester Canyon Road</td>
<td>8.3 seconds</td>
<td>A</td>
<td>8.3 seconds</td>
<td>A</td>
</tr>
<tr>
<td>U.S. 101 northbound ramp / Calle Real at Winchester Canyon Road</td>
<td>9.4 seconds</td>
<td>A</td>
<td>9.4 seconds</td>
<td>A</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Northgate Drive / Evergreen Drive</td>
<td>8.9 seconds</td>
<td>A</td>
<td>8.9 seconds</td>
<td>A</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Alameda Avenue</td>
<td>0.29 V/C</td>
<td>A</td>
<td>0.32 V/C</td>
<td>A</td>
</tr>
<tr>
<td>Cathedral Oaks Road at Glen Annie Road</td>
<td>0.54 V/C</td>
<td>A</td>
<td>0.57 V/C</td>
<td>A</td>
</tr>
<tr>
<td>U.S. 101 northbound ramps at Glen Annie Road / Storke Road</td>
<td>0.74 V/C</td>
<td>C</td>
<td>0.75 V/C</td>
<td>C</td>
</tr>
<tr>
<td>U.S. 101 southbound ramps at Glen Annie Road / Storke Road</td>
<td>0.89 V/C</td>
<td>D</td>
<td>0.89 V/C</td>
<td>D</td>
</tr>
<tr>
<td>Hollister Avenue at Storke Road</td>
<td>0.92 V/C</td>
<td>E</td>
<td>0.92 V/C</td>
<td>E</td>
</tr>
</tbody>
</table>
### Impact TRA-8.  **SBCAG Congestion Management Program (CMP) Impacts**

The following study-area intersections are within the CMP network:

- U.S. Highway 101 northbound ramps at Glen Annie Road / Storke Road
- U.S. Highway 101 southbound ramps at Glen Annie Road / Storke Road
- Storke Road at Hollister Avenue

The CMP intersections would operate at LOS C or better under existing-plus-project conditions (see Table 4.7-5). Therefore, the project would not generate significant project-specific impacts on the CMP network based on the CMP impact criteria.

As shown in Table 4.7-8, under cumulative-plus-project conditions, the U.S. Highway 101 southbound ramps at Glen Annie Road / Storke Road intersection is forecast to operate at LOS E during the AM peak hour and LOS D during the PM peak hour. The Storke Road at Hollister Avenue intersection is forecast to operate at LOS E during the PM peak hour. The project is forecast to add 20 or more trips to these two locations, which would be a significant contribution to a cumulative impact, based on the CMP criteria.

The CMP requires that deficiency plans be prepared when an intersection reaches LOS E. The City has adopted LOS D as the acceptable operating standard for the Storke Road at Hollister Avenue intersection. The Goleta Transportation Improvement Program (GTIP) was established to collect funds to implement future identified improvements within the City (City of Goleta 2004). The GTIP includes programmed improvements for the Storke Road corridor, which would return service levels to LOS D for the Storke Road at Hollister Avenue intersection. Additional improvements not included within the GTIP would be necessary to return service levels to LOS C at the U.S. Highway 101 southbound ramps at Glen Annie Road / Storke Road intersection. These improvements would thereby allow the two intersections to meet City standards and provide consistency with the CMP. The specific improvements necessary to mitigate the CMP impacts to a less-than-significant level are included as mitigation in Section 4.7.5.

According to the CMP, the segment of U.S. Highway 101 between Storke Road / Glen Annie Road and Los Carneros Road operates at LOS B during the AM peak hour and LOS C during the PM peak hour. The project would add 26 AM peak-hour trips and 29 PM peak-hour trips to this freeway segment. The CMP threshold for freeway impacts is 50 trips for segments operating at LOS E or LOS F, and 100 trips for segments operating at LOS D. Based on these criteria, the project would result in a less-than-significant impact on U.S. Highway 101.
4.7.5 Mitigation Measures

**Recommended MM TRA-5a. Prepare Construction Transportation Plan**

The permittee must prepare a Construction Transportation Plan that designates truck routes, schedules, and the need for any special flag persons to direct traffic during peak volume periods. Truck trips must be scheduled outside peak travel periods to the extent feasible (including, without limitation, peak periods for Dos Pueblos High School). On-site areas must be designated for storage of construction equipment and materials. On-site parking areas must be designated for construction worker vehicles. Traffic control plans will be developed to address any traffic disruption on Cathedral Oaks Road. An on-site construction manager must be designated, and the construction manager’s contact information (telephone number, email, website, etc.) must be prominently posted at site entrances, so that the public can contact the construction manager to address any construction traffic issues.

**Plan Requirements and Timing:** The Construction Transportation Plan will be reviewed and approved by the Public Works Director, or designee, before commencement of any grading or construction activities.

**Monitoring:** The Planning and Environmental Review Director, or designee, and the Public Works Director, or designee, must perform site inspections periodically to ensure compliance with the Construction Transportation Plan.

**Recommended MM TRA-5b. Distribute the Construction Activity Schedule and Construction Routes**

The permittee must provide all adjacent property owners and the principal of Dos Pueblos High School with a construction activity schedule and construction routes as well as the name and telephone number of a contact person responsible for the construction schedule at least 14 days before commencement of construction activities. Any alterations or additions must require a minimum 7-day notification.

**Plan Requirements and Timing:** The permittee must submit a copy of the schedule and mailing list to the Planning and Environmental Review Director, or designee, at least 14 days before commencement of any grading activity.

**Monitoring:** The Planning and Environmental Review Director, or designee, and the Public Works Director, or designee, must perform periodic site inspections to verify compliance with activity schedules.

**MM TRA-8a. Improvements to U.S. Highway 101 / Storke Road Southbound On-Ramp Intersection**

Unless previously constructed by either City or in accordance with City direction, the permittee must modify the northbound right-turn lane channelization island for vehicles turning right from Storke Road onto the U.S. Highway 101 southbound on-ramp (see Figure 4.7-3). The improvements are to be designed and constructed to achieve by an LOS C operating condition during the PM peak hour, thereby providing consistency with the SBCAG Congestion Management Program (CMP). The improvements must include, without limitation, the following:
Figure 4.7-3
Traffic Mitigation for Storke Road and U.S. 101 Southbound Ramps
Shelby Residential Project EIR

Source: Associated Transportation Engineers

Project-Specific Improvement:
Construct physical barrier to allow dedicated right-turn for vehicles entering U.S. 101 southbound. Remove stop bar and modify signal to provide constant green right-turn arrow.

City of Goleta Programmed Improvement:
Add northbound through lane between Hollister Avenue and U.S. 101 Southbound On-Ramp.
- Upgrades to the traffic signal to provide a constant green arrow for northbound right-turn traffic, thereby creating a free right-turn lane;

- Evaluation of the need for, and, if needed, the installation of, ramp meters; and

- Other improvements required to ensure safe bicycle passage through the modified intersection.

The permittee must enter into a subdivision improvement agreement for the construction of the additional northbound through-lane improvements, in a form approved by the City Attorney, and post a performance security deemed adequate by the Public Works Director, or designee, to secure the cost of constructing such improvements before recording the Final Map. The permittee must construct these improvements before the City issues any certificate of occupancy. Should these improvements be previously constructed, the permittee must pay its “fair share” of the construction costs per applicable law.

**Plan Requirements and Timing:** Before recording the Final Map, the permittee must submit the preliminary design of the intersection improvement described above for review and approval by the Public Works Director, or designee, in consultation with California Department of Transportation representatives; execute a subdivision improvement agreement, in a form approved by the City Attorney; and post a performance security deemed adequate by the Public Works Director, or designee. Before the City issues any certificate of occupancy, the permittee must obtain all necessary permits and construct said improvements.

**Monitoring:** The Public Works Director, or designee, in consultation with California Department of Transportation representatives, must verify approval of the preliminary intersection design before the permittee can record a Final Map. The Public Works Director, or designee, must verify that adequate performance securities are provided, necessary construction permits were obtained, and construction of improvements were completed in accordance with approved plans before the City issues any certificate of occupancy.

**MM TRA-8b. Contribute Fees to Goleta Transportation Improvement Program (GTIP)**

The project must pay Development Impact Fees (DIFs) adopted for the purpose of requiring projects to pay a fair share of transportation improvements associated with cumulative development. Fees must be paid before the City issues certificates of occupancy. As a result of payment of these fees, the project’s contribution to cumulative impacts at the Hollister Avenue / Storke Road intersection would be less than cumulatively considerable and would be considered less than significant.

The Goleta Transportation Improvement Program (GTIP) was established in 2004 to collect funds to implement future identified improvements within the City. Two improvements to the Hollister Avenue / Storke Road intersection are included in the GTIP: 1) the addition of a free southbound right-turn lane on Hollister Avenue at the intersection; and 2) the restriping of the intersection to accommodate an additional northbound through lane. These improvements will mitigate the project’s cumulative CMP impacts at this intersection by returning service levels to LOS D. The permittee must contribute fees to the GTIP fund.

**Plan Requirements and Timing:** Before the City issues certificates of occupancy, the permittee must pay the City’s traffic impact fee (GTIP fee) pursuant to the GTIP ordinance.
**Monitoring:** The Public Works Director, or designee, must verify that payment of this fee has been made before the City issues certificates of occupancy.

### 4.7.6 Residual Impacts

With implementation of mitigation measures MM TRA-5a, MM TRA-5b, MM TRA-8a, and MM TRA-8b, significant project-specific impacts and project contributions to significant cumulative impacts would be reduced to less-than-significant levels (Class II).
CHAPTER 5
OTHER CEQA CONCERNS
CHAPTER 5
OTHER CEQA CONCERNS

5.1 GROWTH-INDUCING IMPACTS

CEQA Guidelines § 15126(d) requires that an EIR “discuss the growth inducing impact of the proposed project,” including “ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.” Although the development of 60 single-family residences would increase the population and change the existing land use at the project site, it is not expected to substantially foster economic growth in the project area since it does not represent a substantial increase in the number of housing units in the City and in the general Santa Barbara County South Coast area. Furthermore, the project is surrounded by existing development consisting of both residential and recreational uses; accordingly, the installation of utilities and infrastructure on site would not increase the potential for development of other nearby properties. Therefore, the project is not expected to result in significant growth-inducing impacts.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines § 15126(c) requires that an EIR discuss irreversible environmental changes resulting from the project. The project would modify the existing project site through the addition of structural development and associated infrastructure. These aspects of the project would preclude future use of the site for agricultural use. The project would also generate waste that would be deposited in the local landfill. Development of the site with the project is considered a long-term commitment. Therefore, these changes are considered significant and irreversible.

Development of the project would also result in the use of nonrenewable resources during construction and operation. Construction would require the consumption of natural resources and renewable and nonrenewable materials, including building materials (e.g., wood and metal) and fossil fuels (e.g., gasoline, diesel fuel, and natural gas). Once operational, the project would require consumption of natural resources and renewable and nonrenewable materials (e.g., electricity, natural gas, potable water, and fossil fuels) for building systems, such as heating, air conditioning, and lighting. Currently, these resources are readily available, and are expected to remain available in the foreseeable future. Therefore, the commitment of these resources to the project is not considered significant.
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CHAPTER 6
ALTERNATIVES

CEQA Guidelines § 15126.6 provides a framework for the formulation and analysis of alternatives in an EIR. This section states, “[a]n EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.” Project objectives are listed in Chapter 2, “Project Description.”

Key concepts pertaining to the discussion of alternatives are further specified in the CEQA Guidelines as follows. The range of alternatives required within an EIR is governed by the “rule of reason,” which requires an EIR to set forth only those alternatives necessary to permit a reasoned choice. Although there is no rule for the number of alternatives that must be discussed, the EIR must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation, but need not consider every conceivable alternative to a project. Furthermore, an EIR need not consider an alternative with an unlikely or speculative potential for implementation or an alternative that would result in effects that cannot be reasonably ascertained.

An EIR is not required to include alternatives that are not feasible. The term “feasible” is defined in the CEQA Guidelines § 15364 as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” (see Public Resources Code § 21061.1). CEQA Guidelines § 15126.6(f)(1) provides additional factors that may be taken into account when addressing the feasibility of alternatives. These factors include site suitability; economic viability; availability of infrastructure; general plan consistency; other plans or regulatory limitations; jurisdictional boundaries; and whether the proponent can reasonably acquire, control, or otherwise have access to potential alternative sites.

Alternative locations should be discussed where any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. CEQA Guidelines § 15126.6(f)(2)(A) specifies that only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR. CEQA Guidelines § 15126.6(f)(2)(B) states, “If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR.”

Finally, the analysis of environmental effects of project alternatives need not be as thorough or detailed as the analysis of the project itself. Rather, CEQA Guidelines § 15126 specifies that the EIR shall include “sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.”

6.1 SIGNIFICANT ENVIRONMENTAL IMPACTS IDENTIFIED IN THIS EIR

As described above, the primary purpose of the alternatives analysis is to identify changes to the project that would reduce or avoid significant impacts of the project as proposed. As described in Chapter 4, “Environmental Impact Analysis,” the project would result in the following significant unavoidable impacts and potentially significant impacts that can be mitigated to less-than-significant levels.
6.1.1 Aesthetics and Visual Resources

The project would result in significant and unavoidable (Class I) impacts on scenic vistas and scenic resources due to loss of foothill and mountain views from a designated scenic corridor (Cathedral Oaks Road). (This impact would also represent a considerable contribution to cumulative impacts along Cathedral Oaks Road.) The project would also result in potentially significant, but mitigable (Class II), impacts related to potential excessive light and glare.

6.1.2 Biological Resources

The project would result in potentially significant, but mitigable (Class II), impacts on special-status plants (Santa Barbara honeysuckle) and animals (California red-legged frog, least Bell’s vireo, western pond turtle, bats, nesting and foraging raptors, riparian wildlife species, and nesting birds). In addition, it would result in potentially significant, but mitigable (Class II), indirect impacts to riparian communities, wetlands, and wildlife movement (El Encanto Creek).

6.1.3 Cultural Resources

The project would result in potentially significant, but mitigable (Class II), impacts on archaeological resources due to the potential for discovery of unknown archaeological resources, paleontological resources, or human remains.

6.1.4 Hydrology and Water Quality

The project would result in the potential for significant, but mitigable (Class II), surface water quality and groundwater quality impacts if final plans did not include adequate best management practices (BMPs). Similarly, the project would result in Class II impacts on stormwater flows and drainage if final design details, related installation, and/or long-term maintenance of the onsite drainage control systems were not adequate; or if stormwater detention, retention and treatment prior to discharge was not sufficient to prevent substantial flooding or erosion on or off site, prevent channelization of El Encanto Creek, or prevent other impacts related to stormwater flows and drainage.

6.1.5 Transportation and Traffic

The project would result in the potential for significant, but mitigable (Class II), traffic impacts related to consistency with the SBCAG Congestion Management Program (CMP).

6.2 ALTERNATIVES CONSIDERED IN THIS EIR

The alternatives assessed in this chapter include various approaches to reducing or avoiding one or more of the proposed project’s impacts. Table 6-1 provides a comparison of environmental impacts associated with the proposed project and the various alternatives.
TABLE 6-1
COMPARISON OF ENVIRONMENTAL IMPACTS FOR PROJECT ALTERNATIVES

<table>
<thead>
<tr>
<th>Proposed Project</th>
<th>Alt. 1: No Project</th>
<th>Alt. 2: Reduced Scale A</th>
<th>Alt. 3: Reduced Scale B</th>
<th>Alt. 4: Multi-family Residential Development</th>
<th>Alt. 5: Girsh/Westen Alternative Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics and Visual Resources</td>
<td>I</td>
<td>I / Less</td>
<td>I / Similar</td>
<td>I / Greater</td>
<td>I / Similar</td>
</tr>
<tr>
<td>Biological Resources</td>
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<td>II / Similar</td>
<td>II / Less</td>
<td>II / Similar</td>
<td>II / Less</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>II</td>
<td>II / Similar</td>
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<tr>
<td>Transportation and Traffic</td>
<td>II</td>
<td>II / Less</td>
<td>II / Less</td>
<td>II / Similar</td>
<td>II / Greater</td>
</tr>
<tr>
<td>Other impacts</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>Land Use</td>
</tr>
</tbody>
</table>

6.2.1 Alternative 1: No Project Alternative

The No Project Alternative as defined in CEQA Guidelines § 15126.6(e) is “the existing conditions at the time of the notice of preparation is published...as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.” Existing conditions at the project site are described in each of the impact analyses in Chapter 4, “Environmental Impact Analysis.”

In this case, if the project is not approved, the site is expected to remain in its existing condition. The existing setting includes a 2,015-square-foot residence, 726-square-foot garage, and 1,152-square-foot barn. The project site had an avocado orchard until the late 1990s, a remnant of which is evident on the northern third of the lot. The property is currently used in part for the storage of woodchips and firewood. The avocado orchard could be re-established. Other land uses allowed by right under the property’s existing zoning of Agriculture-II are listed in Goleta Municipal Code § 35-217.3; the major uses are summarized below.

- All types of agriculture, except commercial livestock feed or sales yard.
- Sale of agricultural products produced on the premises.
- Greenhouses not exceeding a total of 20,000 square feet.
- One single-family dwelling unit per legal lot.
- One guest house or artist studio per legal lot.
- Home occupations.
- One Residential Agricultural Unit.
- Animal hospitals.
- Commercial boarding of animals and riding stables.
For the purposes of this analysis, the No Project Alternative would include the largest amount of structural development allowable on the project site by right, which would be a complex of greenhouses totaling 20,000 square feet in floor area (e.g., 10 greenhouses at 2,000 square feet each). Row crops, orchards, or animal grazing would also be allowed over most of the project site.

6.2.1.1 Aesthetics and Visual Resources

The structural development allowed under the No Project Alternative would be approximately one-sixth of the building floor area to be developed under the proposed project (a 20,000-square-foot complex of greenhouses vs. 60 single-family dwellings averaging 2,000 square feet each). If the greenhouse complex were to be located with the minimum required setback from Cathedral Oaks Road (20 feet from the right-of-way line), it would be highly visible from Cathedral Oaks Road, Royal Linda Drive, and King Daniel Lane.

Therefore, the impacts on aesthetics and visual resources of the No Project Alternative would be similar to those for the proposed project. Views from Cathedral Oaks Road, other local roadways, and nearby land uses would be similar to views of the proposed project. A reduction of views of the foothills and mountains would result in significant adverse impacts on scenic resources. The potential impacts related to night-lighting and glare would be less than those for the proposed project, due to the smaller scale of development under the No Project Alternative.

6.2.1.2 Biological Resources

Due to the smaller scale of development under the No Project Alternative, it would be feasible to locate the greenhouse complex to avoid the Santa Barbara honeysuckle plants observed on the project site, as well as the Streamside Protection Area (SPA) for El Encanto Creek and its associated riparian habitat. Ground disturbances and construction activities would not occur in areas potentially used by sensitive wildlife species (California red-legged frog, least Bell’s vireo, western pond turtle, bats, and nesting birds).

Agricultural uses on the project site could cause impacts to biological resources. Fertilizers and pesticides used on crops could run off the project site into El Encanto Creek. Such agricultural discharges must be managed in compliance with regulations of the State Water Resources Control Board; however, some amount of fertilizers and/or pesticides in discharges could still continue to El Encanto Creek and affect the quality of the watershed. If not fenced off properly, grazing activities could encroach on the SPA. Such agricultural uses could degrade the quality of habitat of sensitive wildlife species within El Encanto Creek and the SPA; these impacts are considered potentially significant, but mitigable.

Therefore, impacts to biological resources under the No Project Alternative would be similar in scale to those of the proposed project.

6.2.1.3 Cultural Resources

Under the No Project Alternative, ground disturbances and construction would occur but at a lesser scale than the proposed project. However, because the location (or existence) of cultural resources, paleontological resources, and human remains on the project site is not known, the No Project Alternative’s potential risk for impacts on these resources would be similar to that for the proposed project.
6.2.1.4 Hydrology and Water Quality

Under the No Project Alternative, grading activities would occur for the construction of the greenhouse complex and, to a lesser extent, for any crop plantings. The greenhouse buildings would result in new impervious areas on the project site, but at a smaller scale than the proposed project.

Fertilizers and pesticides resulting from agricultural uses could run off the project site into El Encanto Creek. Such agricultural discharges must be managed in compliance with regulations of the State Water Resources Control Board; however, some amount of fertilizers and/or pesticides in discharges could still continue to El Encanto Creek and affect the quality of the watershed. These discharges would be considered a potentially significant, but mitigable, impact.

Therefore, the No Project Alternative would result in lower impacts due to grading and construction than the proposed project, but would result in a new water quality impact due to fertilizer and pesticide use associated with agriculture.

6.2.1.5 Transportation and Traffic

The agricultural uses of the No Project Alternative would likely result in less vehicular trips on area roadways and intersections than the proposed project (several agricultural employees vs. 60 households). The No Project Alternative would likely not result in a cumulative contribution to the Storke Road/Hollister Avenue intersection, as the proposed project would. Therefore, the No Project Alternative’s impacts on transportation and traffic would be less than for the proposed project.

6.2.1.6 Other Impacts of Alternative 1

No other environmental impacts would result from Alternative 1, the No Project Alternative.

6.2.2 Alternative 2: Reduced Scale Alternative A—Avoidance of Streamside Protection Area

This alternative would be similar to the proposed project, but with all development pulled out of a 100-foot SPA buffer measured from the eastern edge of the riparian corridor of El Encanto Creek. Under the proposed project, a detention/retention basin, vegetated bioswale, children’s tot lot, walking path, small portions of two residential lots, and a portion of the internal road system would occur within the 100-foot SPA buffer. Under Alternative 2, the detention/retention basin, walking path, and segment of the internal road system would be relocated out of the SPA buffer. The children’s tot lot and up to 6 residential lots would be eliminated, leaving a total of 54 residential lots.

6.2.2.1 Aesthetics and Visual Resources

Under Alternative 2, most of the proposed project would be constructed. Views from Cathedral Oaks Road, other local roadways, and nearby land uses would be similar to views of the project. Therefore, Alternative 2 would have a similar reduction of views of the foothills and mountains due to the additional development, resulting in significant adverse impacts on scenic resources. Potential impacts related to night-lighting and glare would be similar to those for the project.
6.2.2.2 Biological Resources

Alternative 2 would avoid development within the SPA. This alternative would not affect the existing Santa Barbara honeysuckle plants, avoiding this potentially significant, but mitigable impact. Direct impacts on foraging and dispersal habitat for California red-legged frog would still potentially occur because this species may use areas outside the SPA. Indirect impacts on California red-legged frog, least Bell’s vireo, western pond turtle, bats, raptor nesting and foraging, and nesting birds would be somewhat reduced, but would still occur, potentially at significant levels due to construction dust, noise, pets, and human activity in the area. Indirect impacts on riparian vegetation in El Encanto Creek during construction and over the lifetime of the project would be reduced, but would still be potentially significant (reduced water quality and habitat quality). Indirect impacts on wetlands and wildlife movement would also be reduced, but would still be potentially significant (water quality degradation, night-lighting, and noise).

6.2.2.3 Cultural Resources

Because the location (or existence) of cultural resources, paleontological resources, and human remains is not known, the potential for impacts on these resources from Alternative 2 would be similar to that for the proposed project.

6.2.2.4 Hydrology and Water Quality

Grading activities associated with Alternative 2 would be similar to those for the proposed project, though located slightly further from El Encanto Creek and outside the SPA. However, soil erosion and potential sedimentation of El Encanto Creek would potentially occur. Potential for polluted runoff and infiltration of the groundwater would be similar to that for the proposed project—potentially significant, but mitigable. Long-term pollutant discharges from the operation of Alternative 2 would be similar to those for the proposed project.

It is assumed that a similar detention/retention basin would be constructed for Alternative 2, although not within the SPA. Runoff for the project would be slightly less because slightly fewer houses would be constructed. However, the impacts of runoff from new impervious surfaces would still result in a potentially significant, but mitigable impact.

6.2.2.5 Transportation and Traffic

Alternative 2 would result in slightly fewer residences being built and slightly fewer vehicular trips being generated. Because of this slight reduction in the number of trips, Alternative 2’s contribution to cumulative traffic would be slightly less, but this alternative would still likely add 20 or more trips to the U.S. Highway 101 southbound ramps at the Glen Annie Road/Storke Road intersection. Alternative 2 may be able to avoid a significant cumulative contribution to the Storke Road/Hollister Avenue intersection if the reduction in the trips resulted in less than 20 new trips.

6.2.2.6 Other Impacts of Alternative 2

No other environmental impacts would result from Alternative 2, the Reduced Scale Alternative A—Avoidance of Streambed Protection Area.
6.2.3 Alternative 3: Reduced Scale Alternative B—Minimum 65-Foot Lot Frontage

This alternative would be a project similar to the current project, but with all lots meeting the 65-foot minimum lot frontage requirement of the 7-R-1 zone district, and no lots exceeding the subdivision standard maximum lot depth-to-width ratio of 3:1. The proposed project includes 46 lots that do not meet the 65-foot lot frontage requirement. For the purposes of this analysis, it is assumed that the site would be reconfigured to include 48 units, rather than 60, a 20% reduction compared to the proposed project. For the purposes of this analysis, it is assumed that the land cover amount would be similar to that of the proposed project, with the same scope of development activities within the 100-foot SPA of El Encanto Creek. These include placement of the detention/retention basin, vegetated bioswale, children’s tot lot, walking path, small portions of two residential lots, and a portion of the internal road system.

6.2.3.1 Aesthetics and Visual Resources

Under Alternative 3, structural development would be reduced in scale compared to the proposed project, but the land cover amount would be similar. Views from Cathedral Oaks Road, other local roadways, and nearby land uses would be similar to those for the proposed project. Therefore, Alternative 3 would have a similar reduction of views of the foothills and mountains due to the additional development, resulting in significant adverse impacts on scenic resources. Potential impacts related to night-lighting and glare would be similar to those for the proposed project.

6.2.3.2 Biological Resources

Alternative 3 would include development within the same area proposed by the project. This alternative would not reduce impacts on the existing Santa Barbara honeysuckle plants or direct impacts on foraging and dispersal habitat for California red-legged frog. Indirect impacts on California red-legged frog, least Bell's vireo, western pond turtle, bats, raptor nesting and foraging, and nesting birds would be similar to those for the proposed project (potentially significant levels, but mitigable due to construction dust, noise, pets, and human activity in the area). Indirect impacts on riparian vegetation in El Encanto Creek during construction and over the lifetime of the project would be similar to those for the proposed project (reduced water quality and habitat quality). Indirect impacts on wetlands and wildlife movement would also be similar (potentially significant, but mitigable for water quality degradation, night-lighting, and noise).

6.2.3.3 Cultural Resources

Because the location (or existence) of cultural resources, paleontological resources, and human remains is not known, the potential for impacts on these resources from Alternative 3 would be similar to the proposed project.

6.2.3.4 Hydrology and Water Quality

Grading activities associated with Alternative 3 would be similar to those for the proposed project. Soil erosion and potential sedimentation of El Encanto Creek would potentially occur. Potential for polluted runoff and infiltration of the groundwater would be similar to those for the proposed project and would be potentially significant but mitigable. Long-term pollutant
discharges from the operation of Alternative 3 would be similar to those for the proposed project.

It is assumed that a similar detention/retention basin would be constructed for Alternative 3, although potentially a small basin would be required due to the slightly reduced amount of impervious surfaces and runoff. Runoff for the project would be slightly less because 20% fewer houses would be constructed. However, the impacts of runoff from the impervious surfaces would still result in a potentially significant, but mitigable impact.

6.2.3.5 Transportation and Traffic

Alternative 3 would result in 20% fewer residences being built and fewer vehicular trips being generated. Because of this slight reduction in the number of trips, Alternative 3’s contribution to cumulative traffic would be less, but this alternative would still likely add 20 or more trips to the U.S. Highway 101 southbound ramps at the Glen Annie Road/Storke Road intersection. Alternative 3 would be able to avoid a cumulative contribution to the Storke Road/Hollister Avenue intersection if the reduction in the trips resulted in less than 20 new trips.

6.2.3.6 Other Impacts of Alternative 3

No other environmental impacts would result from Alternative 3, the Reduced Scale Alternative B—Minimum 65-Foot Lot Frontage.

6.2.4 Alternative 4: Multi-family Residential Development

This alternative would be a project of 60 multi-family units (such as duplexes, triplexes, or other medium-density residential buildings) on the same project site.

6.2.4.1 Aesthetics and Visual Resources

Under Alternative 4, the residential units would be clustered into larger, taller buildings. The land cover amount would be reduced as fewer buildings would be constructed. Impacts on views from Cathedral Oaks Road, other local roadways, and nearby land uses would potentially be more adverse than for the proposed project due to the increased height and bulk of the buildings. Potential impacts related to night-lighting and glare would be similar to those for the proposed project.

6.2.4.2 Biological Resources

Alternative 4 would result in more compact development on the project site and may locate all development activities outside of the SPA of El Encanto Creek (a 100-foot wide buffer from the riparian environmentally sensitive habitat area [ESHA] boundary). This alternative would potentially reduce impacts on the existing Santa Barbara honeysuckle plants or direct impacts on foraging and dispersal habitat for California red-legged frog by locating development activities further from the riparian habitat area of El Encanto Creek. Indirect impacts on California red-legged frog, least Bell’s vireo, western pond turtle, bats, raptor nesting and foraging, and nesting birds would be similar to those for the proposed project (potentially significant levels, but mitigable due to construction dust, noise, pets, and human activity in the area). Indirect impacts on riparian vegetation in El Encanto Creek during construction and over the lifetime of the project would be similar to those for the proposed project (reduced water quality and habitat quality). Indirect impacts on wetlands and wildlife movement would also be
similar (potentially significant, but mitigable for water quality degradation, night-lighting, and noise).

6.2.4.3 Cultural Resources

Because the location (or existence) of cultural resources, paleontological resources, and human remains is not known, the potential for impacts on these resources from Alternative 4 would be similar to the proposed project.

6.2.4.4 Hydrology and Water Quality

Grading activities associated with Alternative 4 would be similar to those for the proposed project. Soil erosion and potential sedimentation of El Encanto Creek would potentially occur. Potential for polluted runoff and infiltration of the groundwater would be similar to those for the proposed project and would be potentially significant, but mitigable. Long-term pollutant discharges from the operation of Alternative 4 would be similar to those for the proposed project.

It is assumed that a similar detention/retention basin would be constructed for Alternative 4, although potentially a small basin would be required due to the slightly reduced amount of impervious surfaces and runoff. However, the impacts of runoff from the impervious surfaces would still result in a potentially significant, but mitigable impact.

6.2.4.5 Transportation and Traffic

Alternative 4 would result in a similar number of vehicular trips being generated to the proposed project. Therefore, Alternative 4’s contribution to cumulative traffic would be similar, and would still likely add 20 or more trips to the U.S. Highway 101 southbound ramps at the Glen Annie Road/Storke Road intersection and Storke Road/Hollister Avenue intersection.

6.2.4.6 Other Impacts of Alternative 4

Alternative 4 could potentially result in a land use impact as the project site would result in a different subdivision pattern and feel than that of the surrounding neighborhoods (single-family residential and agricultural), given the clustered nature of the buildings on the site. This alternative would have the same density as the proposed project, using a different configuration of units. This alternative would require a change to the site’s General Plan land use designation and a zone change that allows multi-family residential development.

6.2.5 Alternative 5: Girsh/Westen Alternative Site

The Girsh/Westen site is located in the 7100 block of Hollister Avenue, west of Santa Felicia Drive. It is comprised of three parcels totaling approximately 10 acres in area (APN 073-003-005, -006, and 009). A church is located on the westernmost parcel; the remainder of the Girsh/Westen site is vacant. The site has a land use designation of Medium Density Residential (R-MD) for its northern half and General Commercial (G-C) for its southern half. For the purposes of this analysis, the entire site would be developed for a 60-unit residential project. The site is smaller than the 14.38-acre Shelby property; therefore some clustering of units into duplexes or triplexes would likely be necessary to accommodate 60 units on this site.
6.2.5.1 **Aesthetics and Visual Resources**

Under Alternative 5, the density of residential units would be similar or higher than the proposed project. The height of the buildings would be similar to the proposed project (one and two story buildings not exceeding 30 feet in height). The Girsh/Westen site is mostly flat, and views to the Santa Ynez Mountains are available from the site. Hollister Avenue is denoted as a scenic corridor in the GP/CLUP. Alternative 5 could result in significant and unavoidable impacts to visual resources that are similar to those for the proposed project. Potential impacts related to night-lighting and glare would be similar to those for the proposed project.

6.2.5.2 **Biological Resources**

The Girsh/Westen site is not located adjacent to a creek; however, there are riparian and sage scrub habitats denoted on the site in the Conservation Element of the GP/CLUP (GP/CLUP Figure 4-1, *Special Status Species and Environmentally Sensitive Habitat Areas*). These appear to be associated with a depression in the site’s terrain. For this analysis, the mapped riparian and sage scrub habitats are considered ESHAs. The quality of the ESHAs is likely to be similar to that of the Shelby property; therefore this alternative would result in similar impacts to biological resources to that of the proposed project (Class II).

6.2.5.3 **Cultural Resources**

Because the location (or existence) of cultural resources, paleontological resources, and human remains is not known, the potential for impacts on these resources from Alternative 5 would be similar to the proposed project.

6.2.5.4 **Hydrology and Water Quality**

Grading activities associated with Alternative 5 would be similar to those for the proposed project. Potential for polluted runoff and infiltration of the groundwater would be similar to those for the proposed project and would be potentially significant, but mitigable. Long-term pollutant discharges from the operation of Alternative 5 would be similar to those for the proposed project. It is assumed that a similar detention/retention basin would be constructed for Alternative 5. The impacts of runoff from the impervious surfaces would still result in a potentially significant but mitigable impact.

6.2.5.5 **Transportation and Traffic**

Alternative 5 would result in a similar number of vehicular trips being generated to the proposed project. However, a greater proportion of these trips would likely be routed through the Storke Road/Hollister Avenue intersection and the U.S. Highway 101 southbound ramps at the Glen Annie Road/Storke Road intersection. These two intersections are projected to operate at LOS E under cumulative conditions. Therefore, Alternative 5 could result in greater cumulative impacts and greater Congestion Management Program (CMP) impacts at these intersections as compared to the proposed project. These impacts would still be mitigable.

6.2.5.6 **Other Impacts of Alternative 5**

The Union Pacific Railroad right-of-way adjoins the northern boundary of the Girsh/Westen site. Alternative 5 would result in a significant and unavoidable risk of upset associated with derailment of hazardous materials transported on the railroad line. Also, there is a high-pressure
natural gas pipeline that runs along the southern boundary of the Girsh/Westen site. Alternative 5 would result in a significant, but mitigable impact associated with the rupture of this line.

6.3 ADDITIONAL ALTERNATIVES DETERMINED TO BE INFEASIBLE

Other alternative sites for developing a project similar to the proposed project were considered, but determined to be infeasible. Of the remaining vacant sites within the City that could accommodate development of similar scale to the proposed project, some are currently designated as Agriculture in the GP/CLUP and others have a non-agricultural land use designation. Development on vacant sites with an Agriculture designation would result in losses of agricultural lands that are larger or more severe than the proposed project. The remaining vacant sites with non-agricultural designations all have pending applications for development with the City, and therefore were not further considered for analysis as alternatives to the proposed project.

6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines § 15126.6(e)(2) require that an environmentally superior alternative be identified among the alternatives. The environmentally superior alternative is defined as the alternative that would result in the least adverse environmental impacts, when compared to the impacts of the proposed project. If the No Project Alternative is found to be the environmentally superior alternative, the EIR must identify an environmentally superior alternative among the other alternatives.

Table 6-1 above provides a comparison of environmental impacts associated with the proposed project and the various alternatives. Of these alternatives, Alternative 2, the Reduced Scale Alternative A—Avoidance of Streamside Protection Area, results in the greatest overall reduction of impacts as compared to the proposed project. By relocating all development outside the 100-foot SPA buffer of El Encanto Creek, Alternative 2 would reduce impacts under three areas: biological resources, hydrology/water quality, and transportation/traffic. The reduction in impacts to biological resources is Alternative 2’s most significant reduction. Direct impacts on existing Santa Barbara honeysuckle plants would be avoided, and indirect impacts on sensitive species and the quality of riparian habitat within the SPA buffer would be reduced (though not to a less-than-significant level). For these reasons, Alternative 2 is the Environmentally Superior Alternative. Alternative 2 achieves the proposed project’s objectives.
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CHAPTER 7
PREPARERS, CONTACTS, AND REFERENCES

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7.2 REFERENCES

7.2.1 Chapter 1, Executive Summary

No references found in this section.

7.2.2 Chapter 2, Project Description

No references found in this section.

7.2.3 Chapter 3, Related Projects

No references found in this section.

7.2.4 Chapter 4, Potential Environmental Impacts

7.2.4.1 Section 4.1, Aesthetics and Visual Resources


7.2.4.2 Section 4.2, Air Quality


7.2.4.3 Section 4.3, Biological Resources


County of Santa Barbara. 2009. *Special Status Species and Environmentally Sensitive Habitat Areas Map*.


### 7.2.4.4 Section 4.4, Cultural Resources


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### 7.2.4.5 Section 4.5, Greenhouse Gas Emissions


7.2.4.6 **Section 4.6, Hydrology and Water Quality**


7.2.4.7 **Section 4.7, Transportation and Traffic**


7.2.5 **Chapter 5, Other CEQA Concerns**

No references found in this section.

7.2.6 **Chapter 6, Alternatives**

No references found in this section.