WESTON RANCH TOWNE CENTER PROJECT
Draft Environmental Impact Report
EIR No. 5-04
State Clearinghouse No. 2005012056

Prepared for: City of Stockton
Community Development Department

December 2006
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Draft Environmental Impact Report

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CHAPTER 1
Introduction

1.1 Purpose and Use of this EIR

The City of Stockton (City) has prepared this Draft Environmental Impact Report (EIR) to provide the public and Responsible and Trustee Agencies with information about the potential environmental effects of the Weston Ranch Towne Center Project (project). This EIR was prepared in compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended), and the CEQA Guidelines (California Code of Regulations, Title 14).

As described in the CEQA Guidelines Section 15121(a), an EIR is a public information document that assesses potential environmental effects of a proposed project, as well as identifies mitigation measures and alternatives to the project that could reduce or avoid adverse environmental impacts. CEQA requires that state and local government agencies consider the environmental consequences of projects over which they have discretionary authority. The Weston Ranch Towne Center constitutes a “project” under CEQA. The EIR is an informational document used in the planning and decision-making process. It is not the purpose of an EIR to recommend either approval or denial of a project.

The procedures required by CEQA “are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects” (Pub. Resources Code, section 21002). As a general rule “public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects.” However, “in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof” (ibid.).

Stated differently, under CEQA, a lead agency must make certain determinations before it can approve or carry out a project if the EIR reveals that the project will result in one or more significant environmental impacts.

The lead agency must “certify” the final EIR. According to the “CEQA Guidelines,” “certification” consists of three separate steps. The agency’s decision-making body must conclude, first, that the document “has been completed in compliance with CEQA;” second, that the body has reviewed and considered the information within the EIR prior to approving the project; and third, that “the final EIR reflects the lead agency’s independent judgment and analysis” (CEQA Guidelines, section 15090(a); see also Pub. Resources Code, section 21082.1(c)(3)).
Before approving a project for which a certified final EIR has identified significant environmental effects, the lead agency must make one or more specific written findings for each of the identified significant impacts. These findings include and are limited to the following:

1. Changes or alternations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the EIR.

2. Such changes or alternations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

3. Specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures or project alternatives identified in the final EIR (CEQA Guidelines, section 15091(a)).

If there remain significant environmental effects, even with the adoption of all feasible mitigation measures or alternatives, the agency must adopt a “statement of overriding considerations” before it can proceed with the project. The statement of overriding consideration must be supported by substantial evidence in the record (CEQA Guidelines, sections 15092–93).

These overriding considerations include the economic, legal, social, technological, or other benefits of the project. The lead agency must balance these potential benefits against the project’s unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a project outweigh the unavoidable adverse environmental effects, the lead agency may consider the adverse environmental impacts to be “acceptable” (CEQA Guidelines, section 15093(a)). These benefits should be set forth in the statement of overriding considerations, and may be based on the final EIR and/or other information in the record of proceedings (CEQA Guidelines, section 15093(b)).

Notably, the California Supreme Court, reflecting on this multi-step process for considering project impacts and benefits, has stated that, “[t]he wisdom of approving … any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced” (see Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 576).

### 1.2 CEQA EIR Process

#### 1.2.1 Type of EIR

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR is prepared as a Project EIR pursuant to the CEQA Guidelines, Section 15161. The CEQA Guidelines Section 15161 describes a Project EIR as:

*The most common type of EIR (which) examines the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation.*
A Project EIR format is considered a relevant environmental document for the project. The EIR will be used by the lead agency (City of Stockton) to evaluate the project’s environmental impacts, and can be further used to modify, approve, or deny approval of the project based on the analysis provided in the EIR.

1.2.2 Initial Study and Notice of Preparation

In accordance with Sections 15082(a), 15103, and 15375 of the CEQA Guidelines, the City circulated a Notice of Preparation (NOP) of an EIR for the Project on January 14, 2005, with a 30-day comment period through February 14, 2005. Subsequently, a revised Notice of Preparation was circulated on November 15, 2005 to reflect changes in the project (see Appendix A). The project had been expanded to include two additional parcels (APN 16819008 and 16819009), owned by Manthey road Holdings LLC, and referred to hereafter as the “Barkett Property.” The Initial Study and Notice of Preparation were amended to reflect the potential for environmental impacts (particularly hazards) related to the future development of the additional parcels, which are currently used as an asbestos disposal site. The 30-day comment period for the revised NOP, ended December 15, 2005. In both the original and recirculated NOPs, the City of Stockton was identified as the Lead Agency for the project. Both NOPs were circulated to the public; to local, state, and federal agencies; and to other interested parties in order to solicit comments on the project. Concerns raised in response to the NOPs were considered during preparation of the Draft EIR (see Appendix B).

1.2.3 Draft EIR

This document constitutes the Draft EIR. The Draft EIR contains a description of the project, a description of the environmental setting, discussions of project impacts, discussions of measures to be implemented to mitigate impacts found to be significant, as well as an analysis of project alternatives.

As required by CEQA, this Draft EIR focuses on significant or potentially significant environmental effects (CEQA Guidelines Section 15143). The purpose of the NOP is to identify issues to be evaluated in the Draft EIR (Appendix A). Comments received on the NOP help to further refine the list of environmental issues to be evaluated in this EIR.

All of the impacts analyzed in this EIR, including those considered to be less than significant, are summarized in Table 2-1 in Chapter 2, Executive Summary, of this document.

1.2.4 Public Review

The Draft EIR for the project is being distributed directly to numerous agencies, organizations, and interested groups and persons for comment during the 45-day public review period for the Draft EIR. The EIR is also available for public review during regular business hours at the following locations during the review period:
City of Stockton
Community Development Department, Planning Division
345 N. El Dorado Street
Stockton, CA 95202-1997

Local Libraries:
Cesar Chavez Central Library
605 N. El Dorado St
Stockton, CA 95202-1907
209-937-8221

Maya Angelou Southeast Branch Library
2324 Pock Ln
Stockton, CA 95205-7821
209-937-8221

Fair Oaks Branch Library
2370 E. Main St
Stockton, CA 95205-6558
209-937-8221

Margaret K. Troke Branch Library
502 W. Ben Holt Dr
Stockton, CA 95207-3827
209-937-8221

To obtain a copy of the EIR, please contact Mark Martin by phone at (209) 937-8569 or by e-mail (mark.martin@ci.stockton.ca.us). Written comments or questions concerning the Draft EIR must be directed to the name and address listed below by no later than 5:00 p.m. on February 5, 2007.

City of Stockton
Community Development Department, Planning Division
Attn: Mark Martin, Project Manager
345 N. El Dorado Street
Stockton, CA 95202-1997

The City will receive public input on the EIR at a hearing(s) before making a decision on the project. The public hearing(s) will be held on various dates to be separately noticed. Public comment is encouraged during the 45-day public review period and at all public hearings before the City of Stockton Planning Commission and City Council.

1.2.5 Final EIR and EIR Certification

Written and oral comments received in response to the Draft EIR will be addressed in a response to comments document, which, together with the Draft EIR, will constitute the final EIR. City of Stockton Community Development Department staff will make recommendations to the Planning Commission whether to approve or deny the project. After a public hearing on the project, the
City Council will then review the project, the Final EIR, the Planning Commission’s recommendations, and public testimony and decide whether to certify the EIR and whether to approve or deny the project.

If the City Council approves the project, even though significant impacts identified by the EIR cannot be mitigated, the City Council must state in writing the reasons for its actions. A statement of overriding considerations must be included in the record of the project approval and mentioned in the notice of determination (CEQA Guidelines, Section 15093(c)).

1.2.6 Mitigation Monitoring and Reporting

Throughout this EIR, mitigation measures have been clearly identified and presented in language that will facilitate establishment of a mitigation monitoring and reporting program. These identified mitigation measures are listed in Table 2-1 in Chapter 2, Executive Summary of this Draft EIR. CEQA Statutes (Section 21081.6(a)(1) of the Public Resources Code) require public agencies, as part of the certification of an EIR, to prepare and approve a mitigation monitoring and reporting program. This program should be structured to ensure that changes to the project that the lead agency has adopted to mitigate or avoid significant environmental impacts are carried out during project implementation. A mitigation monitoring and reporting program will be prepared at the time of the Final EIR for this project and will identify the specific timing and roles and responsibilities for the implementation of mitigation measures.

1.3 Terminology Used in this Document

This Draft EIR uses the following terminology to describe environmental effects of the project.

- **Significance Criteria**: A set of criteria used by the lead agency to determine at what level or “threshold” an impact would be considered significant. Significance criteria used in this EIR include those discussed in the CEQA Guidelines; criteria based on factual or scientific information; criteria based on regulatory standards of local, state, and federal agencies; and criteria based on goals and policies identified in the City of Stockton General Plan.

- **Less-than-Significant Impact**: A project impact is considered less than significant when it does not reach the standard of significance and would therefore cause no substantial change in the environmental (no mitigation required).

- **Potentially Significant Impact**: A potentially significant impact is potentially substantial adverse change in the physical conditions of the environment. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.

- **Significant Impact**: A project impact is considered significant if it results in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects in the context of specified significance criteria. Mitigation measures and/or project alternatives are identified to reduce these effects to the environment.
• **Significant Unavoidable Impact:** A project impact is considered significant and unavoidable if it would result in a substantial adverse change in the environment that cannot be avoided or mitigated to a less-than-significant level if the project is implemented.

• **Cumulative Significant Impact:** A cumulative impact can result when a change in the environment results from the incremental impact of a project when added to other related past, present, or reasonably foreseeable future projects. Significant cumulative impacts may result from individually minor but collectively significant projects taking place over a period of time.

The EIR also identifies mitigation measures. The CEQA Guidelines (Section 15370) defines mitigation as:

(a) Avoiding the impact altogether by not taking a certain action or parts of an action;

(b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation;

(c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment;

(d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and

(e) Compensating for the impact by replacing or providing substitute resources or environments.

### 1.4 Document Organization

This Draft EIR is organized into nine chapters as discussed below.

• **Chapter 1, Introduction.** This chapter describes the purpose and organization of the EIR and the EIR preparation, review and certification process.

• **Chapter 2, Executive Summary.** A summary of the project description, a description of issues of concern, project alternatives, and a summary of environmental impacts is provided in this chapter.

• **Chapter 3, Project Description.** Chapter 3 describes the project background, outlines project objectives, and summarizes components of the project. The Project Description also describes subsequent development and approvals for which this EIR may be used.

• **Chapter 4, Environmental Analysis.** For each environmental issue area, such as Land Use, this chapter describes the existing environmental setting, discusses the environmental impacts associated with project construction and operation, and identifies mitigation measures for the impacts.

• **Chapter 5, Analysis of Alternatives.** Chapter 5 describes alternatives to the project at a level of detail consistent with CEQA requirements. The alternatives are not analyzed at the same level of detail as the project; they are presented in order to identify options that could mitigate significant environmental impacts.
• **Chapter 6, Other Statutory Considerations.** Chapter 6 discusses several issues required to be analyzed by CEQA, including cumulative impacts, and the potential for the project to induce urban growth and development.

• **Chapter 7, EIR Authors, Consultants, and Persons/Organizations Consulted.** Chapter 7 provides the names of the EIR authors and consultants, and agencies or individuals consulted during preparation of the EIR.

• **Chapter 8, Acronyms.** Chapter 8 provides a list of all the abbreviations used in the EIR.

• **Chapter 9, Bibliography.** Chapter 9 provides a list of reference materials and persons consulted during the preparation of the EIR.

• **Appendices.** The appendices consist of the NOP and technical background reports and data.

### 1.5 EIR Preparation

This EIR has been prepared by consulting staff from ESA under contract to Vestar Development Company, the project proponent. The Draft EIR has been prepared for the City in accordance with CEQA (Public Resources Code section 21000 *et seq.*) and the CEQA Guidelines (14CCR 15000 *et seq.*). Staff members from the City of Stockton and ESA who helped prepare this EIR are identified in Chapter 7, Authors, Consultants, and Persons/Organizations Consulted.
CHAPTER 2
Executive Summary

2.1 Introduction

This Draft Environmental Impact Report (DEIR) was prepared by the City of Stockton (City) and its consultants to identify the potential environmental effects associated with the development of the proposed Weston Ranch Towne Center Project (project). A Notice of Preparation for the project was circulated January 14, 2005, with a 30-day comment period through February 14, 2005. A revised Notice of Preparation was circulated November 15, 2005, also with a 30-day comment period, to reflect changes in the project. The project has been expanded to include two additional parcels (APN 16819008 and 16819009), owned by Manthey Road Holdings, LLC, and known as the Barkett Property. Requested entitlements include a rezone and a City of Stockton General Plan Amendment, and a Use Permit and development agreement for the commercial development of the approximately 60-acre portion of site for use as a regional shopping center. The entitlements requested for the Barkett Property (6.1 acres) are limited to a General Plan Amendment and rezone. Specific uses and/or development plans have not been proposed for this property at this time and are designated as a “Future Phase” of the development. While the future commercial development of the Barkett Property is contemplated within the scope if this EIR, additional CEQA review may be required for “future phases” on the Barkett property. The project site is located at the south boundary of Stockton, north of French Camp Road, west of Interstate 5 (I-5) at the northwest quadrant of the I-5/French Camp Road interchange, and east of McDougald Boulevard and the existing Weston Ranch residential subdivision.

In 1987, the City prepared an EIR addressing the proposed annexation of 1,623 acres known as the Weston Ranch Development, which included the entire project site. The Weston Ranch Annexation also involved a General Plan amendment and pre-zoning of the annexation area, including the area encompassing the project Site. The Weston Ranch area was annexed into the City in July 1988. In 1998, the City prepared a Supplemental EIR addressing a proposed General Plan amendment and rezoning of portions of the Weston Ranch Annexation area, including land within the Weston Ranch Towne Center project site. No residential, commercial, or other development has occurred in the project site subsequent to these analyses. Portions of both the 1987 EIR and 1998 Supplemental EIR are incorporated by reference throughout this document.

Land uses in the area of the project are governed by the City’s General Plan Land Use Designation and by the City’s zoning ordinance. The Stockton General Plan sets forth several goals and policies that are discussed in detail in Section 4.2, Land Use and Planning. The project site currently has the City land use designation of Commercial and Low-Medium Residential and City’s zoning of
Commercial, General (CG) and Residential, Low Density (RL). The project includes a General Plan Amendment to redesignate the land use designation of a portion of the project site from Low-Medium Density Residential to Commercial and to rezone the entire project site to CL (Commercial, Large Scale) District. The project applicant, Vestar Development Company, proposes development of the project site with large-scale retail stores, in-line shops, retail pad stores, restaurants, fuel centers, and parking as well as various public improvements and changes in traffic circulation.

It should be noted that the City of Stockton is currently in the process of updating the General Plan. The City has proposed the Stockton 2035 General Plan and Infrastructure Master Plans Project. Under the Stockton General Plan 2035 Preferred Land Use Alternative, the Weston Towne Center project site would be designated for commercial use. Because this project is expected to be considered prior to the City’s adoption of the 2035 General Plan, a General Plan amendment is being requested for the City’s current General Plan.

2.2 Issues of Concern

A Notice of Preparation (NOP) for the project was first circulated for public review on January 14, 2005, and a second NOP for the project was circulated on November 15, 2005, pursuant to Sections 15082(a), 15103, and 15375 of the California Environmental Quality Act (CEQA) Guidelines. The NOP’s included a summary of probable environmental impacts resulting from the project to be evaluated in the EIR (Appendix A). Comments received on the NOP’s were considered in the preparation of this EIR and are included in Appendix B. A list of issues raised during the NOP process is presented below.

- Land use
- Aesthetics
- Socio-economic (urban decay)
- Population and housing
- Public services and utilities
- Transportation/traffic and circulation
- Air quality
- Noise
- Hydrology and water quality
- Biological resources
- Cultural resources
- Agricultural resources
- Hazards and hazardous materials

2.2.1 Issues Not Potentially Affected by the Project

Issue areas that would not potentially be affected by the project are listed below. These issues were addressed during the NOP process and were discussed in the Initial Study (Appendix A). Because the Initial Study identified that no potentially significant impacts would occur in these issues areas, no further analysis is presented in the DEIR.

- Mineral Resources
- Recreation
- Geology/Soils
2.3 Alternatives to the Project

CEQA Guidelines (Sections 15123(b)(3) and 15126(f)) require that an EIR consider a range of alternatives that could feasibly attain the basic objectives of the project. The following alternatives are discussed in detail in Chapter 5, Alternatives to the Proposed Project:

- Alternative 1 – No Project Alternative
- Alternative 2 – Alternative Location, South of French Camp Road
- Alternative 3 – Alternative Location, State Route 99 at Arch Road
- Alternative 4 – Reduced Density Alternative
- Alternative 5 – Reconfigured Project Design Alternative

2.4 Summary of Environmental Impacts

Table 2-1 presents a summary of project impacts and proposed mitigation measures that would avoid or minimize potential impacts. In the table, the level of significance of each environmental impact is indicated both before and after the application of the recommended mitigation measure(s).

For detailed discussions of all project impacts and mitigation measures, the reader is referred to environmental analysis sections in Chapter 4, Environmental Analysis.
## Table 2-1
### Summary of Impacts and Mitigation Measures

<table>
<thead>
<tr>
<th>Environmental Impact</th>
<th>Level of Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land Use and Agricultural Resources</strong></td>
<td></td>
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<tr>
<td>Impact 4.2.1. The project has the potential to physically divide an established community. This impact is considered less than significant.</td>
<td>LS</td>
<td></td>
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</tr>
<tr>
<td>Impact 4.2.2. The project would conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. This impact is considered less than significant.</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact 4.2.3. The project would conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. This impact is considered less than significant.</td>
<td>LS</td>
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<tr>
<td>Impact 4.2.4. The project could conflict with an applicable habitat conservation plan (HCP) or natural community conservation plan (NCCP). This impact is considered potentially significant.</td>
<td>PS</td>
<td>Implement Mitigation Measure 4.11-1a or 4.11-1b.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 4.2.5. The project would convert economically viable prime farmland to a non-agricultural use. This impact is considered potentially significant.</td>
<td>PS</td>
<td>Mitigation Measure 4.2.5. The applicant shall be required to mitigate for converted farmland by obtaining agricultural conservation easements on farmland of equal quality at a ratio of 1:1 acre. The land on which the easements are acquired shall be located not more than twenty miles from the project site, and shall be of equal or greater quality as the farmland converted by the project. Prior to approval of the final map, the applicant must acquire agricultural conservation easements. The easements, which will remove the development rights from the subject agricultural lands, shall be granted to an appropriate third party, as directed by the Community Development Department. The land on which easements are acquired must be designated for agricultural use and must consist of farmland of equal or better quality as the project site, and shall not be within the sphere of influence of an incorporated city. The agricultural conservation easement may overlap a habitat easement acquired under Mitigation Measure 4.11.1a or 4.11.1b. However, an existing habitat easement does not meet the requirement for mitigating the loss of agricultural land. A 1:1 mitigation, where the easement land is of equal or greater agricultural value as the project site, is roughly proportional to the impact of the project to prime farmland. A ratio greater than 1:1 would not be roughly proportional. (See CEQA Guidelines, §15041.) Should the City of Stockton approve an agricultural mitigation fee program prior to approval of the final map, the developer may meet this requirement by paying the appropriate in-lieu fee to the City.</td>
<td>SU</td>
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</table>
### TABLE 2-1 (Continued)  
**SUMMARY OF IMPACTS AND MITIGATION MEASURES**

<table>
<thead>
<tr>
<th>Environmental Impact</th>
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<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aesthetics</strong></td>
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<tr>
<td>Impact 4.3.1. Aesthetic Resources – Degradation of Local Visual Character. This is a potentially significant impact.</td>
<td>PS</td>
<td>Mitigation Measure 4.3.1. Impacts will be reduced by the project's compliance with all municipal design guidelines (e.g., design review, landscaping, building articulation, etc.).</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 4.3.2. Aesthetic Resources - Create new source of light or glare. The project would require a significant amount of new lighting for security and for parking areas. This new lighting would create a new source of light and/or glare that could be considered an impact to adjacent residential areas. Additionally, the project could contribute to additional lighting that would diminish the degree of darkness in the project area and effectively obscure night sky views. However, the project is subject to the City of Stockton Municipal Code. The lighting and glare guidelines outlined in the City of Stockton Municipal Code are designed to reduce and minimize these impacts. Therefore, this impact is considered less than significant.</td>
<td>LS</td>
<td></td>
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<tr>
<td>Impact 4.3.3. Architecture and Design – Consistency with City of Stockton General Plan, Municipal Code, and Citywide Design Guidelines. The project has been designed in accordance with the designed standards contained within the City of Stockton General Plan, Municipal Code, and Citywide Design Guideline. Therefore, this impact is considered less-than-significant.</td>
<td>LS</td>
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<tr>
<td><strong>Urban Decay</strong></td>
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<tr>
<td>Impact 4.4.1. The project would introduce retail uses that would add $200.9 million in new sales to the Stockton retail market - equivalent to up to 8.7 percent of existing (2005) retail sector sales. The net projected “sales shift” impact from the project on existing retailers would be less than 2.5 percent. This shift is not expected to result in a substantial number of existing business closures. If some business closures were to occur and to result in vacancies, the EIR analysis indicates that vacated properties would be re-tenantened or redeveloped and thus unlikely to deteriorate physically. The project in itself would not result in significant urban decay impacts.</td>
<td>LS</td>
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<tr>
<td>Impact 4.4.2. Combined with other major new retail developments proposed in Stockton and considered reasonably foreseeable, the project would result in up to a 14.8 percent shift in retail sales away from existing Stockton retailers. A sales shift of this magnitude could result in a substantial number of business closures among existing competing retailers. However, the EIR analysis indicates that most of the properties would be re-tenantened due to the continuing strong commercial and residential real estate demand in Stockton. In the event that vacant properties were not reoccupied in the near term, City of Stockton economic development, oversight and code-enforcement would ensure that vacant properties would not be permitted to</td>
<td>LS</td>
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December 2006
### TABLE 2-1 (Continued)
#### SUMMARY OF IMPACTS AND MITIGATION MEASURES

<table>
<thead>
<tr>
<th>Environmental Impact</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Population, Housing, and Employment</strong></td>
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<tr>
<td><strong>Impact 4.5.1.</strong> Induce substantial population growth. The project could directly and/or indirectly induce substantial population growth in the City of Stockton by creating new employment opportunities through commercial development. This impact is considered less than significant.</td>
<td>LS</td>
<td></td>
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<tr>
<td><strong>Public Services and Utilities</strong></td>
<td></td>
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<tr>
<td><strong>Impact 4.6.1.</strong> The project would increase the need for law enforcement services from the City of Stockton Police Department. This impact is considered less-than-significant.</td>
<td>LS</td>
<td></td>
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</tr>
<tr>
<td><strong>Impact 4.6.2.</strong> The project has the potential to impact the stormwater drainage system. This impact is considered potentially significant.</td>
<td>PS</td>
<td>Mitigation Measure 4.10.5 (see Hydrology, below)</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 4.6.3.</strong> The project has the potential to impact energy distribution facilities and infrastructure. This impact is considered potentially significant.</td>
<td>PS</td>
<td>Mitigation Measure 4.6.3. The project applicant and/or developer shall coordinate with PG&amp;E to ensure that all upgrades to the energy distribution facilities and infrastructure comply with state and federal energy standards.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Transportation and Circulation</strong></td>
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</tbody>
</table>
| **Impact 4.7.1.** The project would contribute to the need to construct planned roadway improvements under Near-Term conditions. This impact is considered significant. | S | Mitigation Measure 4.7.1. The project applicant shall implement the following improvement:  
• Widen French Camp Road along the project frontage from two lanes to four lanes | LS |
| **Impact 4.7.2.** The French Camp Turnpike/Downing Avenue intersection is projected to operate at a deficient LOS F in the Near-Term condition during the PM peak hour prior to the addition of project traffic. The proposed project is not projected to increase traffic through this intersection in the near-term condition. Therefore, this impact is less than significant. | LS | | |
| **Impact 4.7.3.** The addition of traffic generated by the project in conjunction with traffic shifts associated with the vacation of Henry Long Boulevard, proposed to occur with the project, would result in deficient service levels at the French Camp Road/McDougal Road intersection in the Near-Term With Project condition during the PM peak hour. This impact is considered significant. | S | Mitigation Measure 4.7.3. The project applicant shall widen French Camp Road to provide a westbound right-turn only lane and install stop-signs on all intersection approaches. | LS |
## TABLE 2-1 (Continued)
### SUMMARY OF IMPACTS AND MITIGATION MEASURES

<table>
<thead>
<tr>
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</table>
| **Impact 4.7.4.** The French Camp Road/Manthey Road (east) intersection is projected to operate at a deficient LOS F in the Near-Term condition during both peak hours prior to the addition of project traffic. Average delay would increase through this intersection by more than 5 seconds with the addition of project traffic. This impact is considered significant. | 7 | Mitigation Measure 4.7.4. The project applicant shall contribute its fair share (26 percent based on the 1990 General Plan) towards the planned interchange improvements at the French Camp Road/I-5 interchange through the payment of traffic impact fees. With construction of the French Camp Road interchange improvement project, the southern leg of Manthey Road intersection would be relocated approximately 800 feet from the I-5 southbound ramps/French Camp Road intersection and incorporated into the Weston Ranch Towne Center project driveway (it was assumed that as part of the project, the northern leg of the intersection would be realigned and that French Camp Road would be widened to provide two lanes in each direction along the project frontage). With implementation of these planned improvements, this intersection would operate at an acceptable service level. Should construction of the planned interchange improvements be scheduled for completion subsequent to project completion, the project applicant shall make the following interim improvements:  
• Signalize the French Camp Road/Manthey Road (east) intersection and provide a 270-foot westbound left-turn pocket  
• Interconnect and coordinate the traffic signals at the following intersections along French Camp Road: Secondary Project Driveway, Manthey Road (east), I-5 southbound ramps, I-5 northbound ramps, and Val Dervin Parkway. Preliminary Synchro 6.0/SimTraffic analyses indicate that as an interconnected system, these intersections would operate acceptably, as shown on Table 4.7-20, with minimal queue spillback. | S | LS |
| **Impact 4.7.5.** The French Camp Road/I-5 Southbound Ramps intersection is projected to operate at an acceptable overall service level in the Near-Term condition during both peak hours prior to the addition of project traffic. The addition of project traffic would result in overall LOS F conditions. This impact is considered significant. | 7 | Mitigation Measure 4.7.5. The project applicant shall contribute its fair share (26 percent based on the 1990 General Plan) towards the planned interchange improvements at the French Camp Road/I-5 interchange through the payment of traffic impact fees. Should construction of the planned interchange improvements be scheduled for completion subsequent to project completion, the project applicant shall install a traffic signal at the I-5 southbound ramps/French Camp Road intersection. This signal shall be interconnected and coordinated with the adjacent traffic signals on French Camp Road. | S | LS |
TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Impact 4.7.6. The French Camp Road/I-5 Northbound Ramps intersection is projected to operate at a deficient LOS F in the Near-Term condition during both peak hours prior to the addition of project traffic. Average delay through this intersection would increase by more than 5 seconds with the addition of project traffic. This impact is considered significant.</td>
<td>S</td>
<td>Mitigation Measure 4.7.6. The project applicant shall contribute its fair share (26 percent based on the 1990 General Plan) towards the planned interchange improvements at the French Camp Road/I-5 interchange through the payment of traffic impact fees. Should construction of the planned interchange improvements be scheduled for completion subsequent to project completion, the project applicant shall install a traffic signal at the I-5 Northbound Ramp/French Camp Road intersection; modify the eastbound approach to provide dual eastbound left-turn lanes; and modify the westbound approach to provide a 200-foot right-turn-only lane. This signal shall be interconnected and coordinated with the adjacent traffic signals on French Camp Road. These improvements can be implemented within the existing right-of-way.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 4.7.7. The French Camp Road/Val Dervin Parkway intersection is projected to operate at a deficient LOS F in the Near-Term condition during the AM peak hours prior to the addition of project traffic. Average delay would increase through this intersection by more than 5 seconds with the addition of project traffic during the AM peak hour. The addition of project traffic would also result in overall LOS F conditions during the PM peak hour. This impact is considered significant.</td>
<td>S</td>
<td>Mitigation Measure 4.7.7. The project applicant shall contribute its fair share (26 percent based on the 1990 General Plan) towards the planned interchange improvements at this interchange, Val Dervin Parkway would be closed at French Camp Road, and a new roadway constructed connecting the business park at the new French Camp Road/Sperry Road intersection. Should construction of the planned interchange improvements be scheduled for completion subsequent to project completion, the project applicant shall install a traffic signal at this intersection. This signal shall be interconnected and coordinated with the adjacent traffic signals on French Camp Road.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 4.7.8. Mathews Road/Manthey Road intersection is projected to operate at a deficient LOS F in the Near-Term condition during the AM peak hour and a deficient LOS E during the PM peak hour prior to the addition of project traffic. Average delay would increase through this intersection by more than 5 seconds with the addition of project traffic during both peak hours. This impact is considered significant.</td>
<td>S</td>
<td>Mitigation Measure 4.7.8. The project applicant shall install a traffic signal at this intersection.</td>
<td>SU</td>
</tr>
<tr>
<td>Impact 4.7.9. Mathews Road/I-5 Northbound Ramps intersection is projected to operate at a deficient LOS F in the Near-Term condition during both the AM and PM peak hours Average delay would increase through this intersection by more than 5 seconds with the addition of project traffic during both peak hours. This impact is considered significant.</td>
<td>S</td>
<td>Mitigation Measure 4.7.9. The project applicant shall install a traffic signal at this intersection.</td>
<td>SU</td>
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</tbody>
</table>
TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

<table>
<thead>
<tr>
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<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact 4.7.10.</td>
<td>S</td>
<td>Mitigation Measure 4.7.10. The project applicant shall pay their proportionate share of the widening of northbound Interstate 5 to four lanes north of Downing Avenue through the payment of the Public Facilities Fee Street Improvements.</td>
<td>SU</td>
</tr>
<tr>
<td>Impact 4.7.11.</td>
<td>S</td>
<td>Mitigation Measure 4.7.11. The project applicant shall contribute its fair share towards the implementation of the following improvements:</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 4.7.12.</td>
<td>S</td>
<td>Mitigation Measure 4.7.12. The project applicant shall contribute its fair share (6 percent) towards the improvements at this intersection that would result in acceptable service levels. Improvements include signalization (Mitigation Measure 4.7.8) and the constriction of left-turn channelization on all approaches.</td>
<td>LS</td>
</tr>
</tbody>
</table>

Mitigation Measure 4.7.10. The project applicant shall pay their proportionate share of the widening of northbound Interstate 5 to four lanes north of Downing Avenue through the payment of the Public Facilities Fee Street Improvements.

Mitigation Measure 4.7.11. The project applicant shall contribute its fair share towards the implementation of the following improvements:
- Widening of I-5 to eight lanes from French Camp Road to Charter Way (5 percent)
- Widening of French Camp Road to six lanes from Wolfe Road to Manthey Road (47 percent)
- Widening of French Camp Road to eight lanes from Manthey Road to Val Dervin Parkway (5 percent)
- Construction of an L-9 interchange including loop on-ramps in the southeast and northwest quadrants. In conjunction with this improvement, Manthey Road would be realigned to the west and Val Dervin Parkway to the east across from the Sperry Road/French Camp Road intersection (26 percent)
- Widening of El Dorado Street to six lanes north of the proposed Sperry Road extension to McKinley Avenue and four lanes south of the proposed Sperry Road extension to I-5 (1 percent)
- Widening of Sperry Road/Arch-Airport Road to eight lanes from French Camp Road to Airport Way (4 percent)

This measure may be satisfied by direct contribution, payment of adopted impact fee programs to the extent the improvements are included in the programs, or other means deemed appropriate by the City.

Mitigation Measure 4.7.12. The project applicant shall contribute its fair share (6 percent) towards the improvements at this intersection that would result in acceptable service levels. Improvements include signalization (Mitigation Measure 4.7.8) and the constriction of left-turn channelization on all approaches.
TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

<table>
<thead>
<tr>
<th>Environmental Impact</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Impact 4.7.13. The proposed project site access would result in safety and operational deficiencies. This impact is considered potentially significant.</td>
<td>S</td>
<td>Mitigation Measure 4.7.13. The project applicant shall modify the site plan as shown on Figure 4.7-15 and described below.</td>
<td>LS</td>
</tr>
<tr>
<td>1. French Camp Road/Secondary Entrance – The recommended lane configuration and turn pocket storage lengths for this intersection are shown on Figure 4.7-15. Interconnecting and coordinating the traffic signal at this location to the French Camp Road/Realigned Manthey Road intersection is recommended. Although this intersection is located away from the main circulation areas of the site, congestion at the Manthey Road/French Camp Road intersection will make this an heavily used access location.</td>
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<tr>
<td>2. Right-in/right-out driveway on French Camp Road west of Manthey Road – This driveway would serve a substantial amount of project traffic because it provides direct access to several uses including the proposed Wal-Mart building. The project applicant proposes to provide a right-turn lane on French Camp Road for vehicles using this driveway.</td>
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<tr>
<td>3. French Camp Road/Realigned Manthey Road – The ultimate lane configuration and turn pocket storage lengths for this intersection are shown on Figure 4.7-15. Interconnecting and coordinating the traffic signal at this location to the French Camp Road/Secondary Entrance intersection is recommended. The proposed design would allow for a southbound through lane to be converted to a left-turn lane, resulting in three left-turn lanes, and a through-right shared lane should future traffic volumes warrant a modified circulation scheme.</td>
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<tr>
<td>4. Realigned Manthey Road/Driveway A – This driveway is in close proximity (less than 300 feet) of the signalized French Camp Road/Realigned Manthey Road intersection. A northbound left-turn lane to provide access to the site is proposed. No left-turns from this driveway to Manthey Road would be permitted. A median would be constructed on Manthey Road to prevent outbound left-turn movements.</td>
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<tr>
<td>5. Realigned Manthey Road/Driveway B – This driveway is located approximately 400 feet from the signalized French Camp Road/Realigned Manthey Road intersection and would provide access to the eastern portion of site, currently proposed to contain approximately 90,000 square feet of retail uses. As currently proposed, this driveway would provide right-in/right-out access, in addition to left-turns in. No left-turns out would be permitted. A median would be constructed on Manthey Road to prevent outbound left-turn movements. Left-turns out of this area would be provided at Driveway C, which is proposed to be signalized, in addition to a driveway on the vacated Henry Long Boulevard.</td>
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### TABLE 2-1 (Continued)
**SUMMARY OF IMPACTS AND MITIGATION MEASURES**

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<thead>
<tr>
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<tbody>
<tr>
<td>Realigned Manthey Road/Driveway C – This driveway would be the primary driveway to the proposed Wal-Mart and would also provide access to the other major retailer. As such, it is anticipated that vehicle turning movements would be substantial at this location. The peak hour volume warrant is satisfied during the PM peak hour at this location. A traffic signal is proposed for installation at this intersection. This signal would be located approximately 800 feet from the signalized French Camp Road/Manthey Road intersection. This signal should be interconnected and coordinated with the traffic signal at Manthey Road/Vacated Henry Long Boulevard. In addition to traffic signal installation, the driveway and adjacent parking area should be reconfigured to provide a through depth of at least 150 feet to accommodate projected vehicle queues at the signalized intersection.</td>
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<tr>
<td>Driveway D/Manthey Road Entrance – This driveway is proposed to be right-in/right-out only. Although this driveway is in close proximity to Driveway C and the intersection Manthey Road/Vacated Henry Long Boulevard (west intersection), volumes through this intersection are projected to be low and it is projected to operate acceptably with minimal queuing.</td>
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<tr>
<td>Realigned Manthey Road/Vacated Henry Long Boulevard (west intersection) – In the 2025 condition, this driveway is projected to operate at LOS F with all-way stop control, primarily due to the through traffic on Manthey Road making the northbound right-turn and westbound left-turn movements. The peak hour volume warrant is satisfied during the PM peak hour at this location with projected volumes. It is recommended that all the necessary underground components of a traffic signal shall be installed at this intersection during project construction so that a traffic signal can be installed when actual conditions warrant. This signal should be interconnected and coordinated with the traffic signal at Driveway C to ensure that traffic flows are maintained on Manthey Road.</td>
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<tr>
<td>Driveway F/Vacated Henry Long Boulevard – It is recommended that the westbound approach be modified to provide a left-turn pocket. One westbound and one eastbound travel lanes should be provided on vacated Henry Long Boulevard.</td>
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### TABLE 2-1 (Continued)
**SUMMARY OF IMPACTS AND MITIGATION MEASURES**

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<tbody>
<tr>
<td>10. Driveway G/Vacated Henry Long Boulevard</td>
<td>It is recommended that the eastbound approach be modified to provide a left-turn pocket. One westbound and one eastbound travel lanes should be provided on vacated Henry Long Boulevard.</td>
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<tr>
<td>11. Manthey Road/Vacated Henry Long Boulevard (east intersection)</td>
<td>With development of the I-5/French Camp Road interchange project, Manthey Road would be rerouted through the project site and would continue along a portion of the vacated Henry Long Boulevard. The resulting intersection would operate with southbound right-turns and eastbound left-turns only, with no conflicting movements.</td>
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<tr>
<td>12. Manthey Road/Service Entrance 1</td>
<td>This driveway should be restricted to right-in/right-out operation only and should be side-street stop controlled.</td>
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<tr>
<td>13. Manthey Road/Project Driveway</td>
<td>A northbound left-turn pocket should be provided into this driveway in addition to side-street stop control. Additionally, it should be designed to accommodate the turning movements of large delivery vehicles.</td>
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<td>14. Consult with the City of Stockton fire department to ensure adequate emergency access.</td>
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<td>15. Conduct a detailed review of the final site plan to ensure pedestrian crossings are provided and pedestrian paths are identified throughout the site.</td>
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<td>16. Schedule large semi-truck deliveries for off-peak periods to minimize conflicts between delivery trucks and passenger vehicles.</td>
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<td>17. Design project driveways and internal roadways to accommodate the turning movements of large delivery vehicles.</td>
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<td>18. Provide sufficient bicycle parking designed to City standards to satisfy City code requirements.</td>
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<tr>
<td>19. Coordinate with SJRTD and City staff to identify the location of potential transit features and shall modify the site plan accordingly.</td>
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<td>20. Designate Park and Ride parking locations adjacent to planned transit facilities.</td>
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### TABLE 2-1 (Continued)
**SUMMARY OF IMPACTS AND MITIGATION MEASURES**

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<tbody>
<tr>
<td><strong>Air Quality</strong></td>
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<tr>
<td>Impact 4.8.1. Construction activities associated with development of the project would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter (PM10) and equipment exhaust emissions. This impact would be significant.</td>
<td>S</td>
<td>Mitigation Measure 4.8.1a: The applicant shall comply with Regulation VIII Rule 8011 and implement the following control measures during construction:</td>
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<td>• The applicant shall submit a Dust Control Plan subject to review and approval of the SJVAPCD at least 30 days prior to the start of any construction activity on a site that includes 40 acres or more of disturbed surface area.</td>
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<td>• All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover in order to comply with Regulation VIII’s 20 percent opacity limitation.</td>
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<td>• All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.</td>
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<td>• All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.</td>
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<td>• When materials are transported offsite, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.</td>
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<td>• All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. However, the use of blower devices is expressly forbidden, and the use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.</td>
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<td></td>
<td>• Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.</td>
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<td>• Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.</td>
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<td>• Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.</td>
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<td>Environmental Impact</td>
<td>Level of Significance Before Mitigation</td>
<td>Mitigation Measures</td>
<td>Level of Significance After Mitigation</td>
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<td>Enhanced and additional control measures for construction emissions of PM10 shall be implemented where feasible. These measures include:</td>
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<td>• Limit traffic speeds on unpaved roads to 15 mph.</td>
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<td>• Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.</td>
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<td>• Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.</td>
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<td>• Install wind breaks at windward side(s) of construction areas.</td>
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<tr>
<td>• Suspend excavation and grading activity when winds exceed 20 mph.</td>
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<tr>
<td>• Limit area subject to excavation, grading, and other construction activity at any one time.</td>
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</table>

**Mitigation Measure 4.8.1b.** The applicant shall implement feasible control measures during construction to mitigate NOx and ROG emissions from construction equipment, which may include:

- Require construction equipment used at the site to be equipped with catalysts/particulate traps to reduce particulate and NOx emissions. These catalysts/traps require the use of ultra-low sulfur diesel fuel (15 ppm). Currently, CARB has verified a limited number of these devices for installation in several diesel engine families to reduce particulate emissions. At the time bids are made, have the contractors show that the construction equipment used is equipped with particulate filters and/or catalysts or prove why it is infeasible.

- Use alternative fueled construction equipment, where feasible.

- Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

- Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.

- Require that all diesel engines be shut off when not in use on the premises to reduce the emissions from idling.

**Mitigation Measure 4.8.1c:** Implementation Plans prepared by the applicant, and subsequent development projects, shall comply with Rule 9510 Indirect Source Review. Compliance with Rule 9510 would require reductions of 20% of the NOx construction emissions and 45% of the PM10 construction emissions, or payment of fees (as calculated in Rule 9510) to offset NOx or PM10 construction emissions not reduced to the specified levels.
### TABLE 2-1 (Continued)
#### SUMMARY OF IMPACTS AND MITIGATION MEASURES

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Impact 4.8.2. Construction activities associated with development of the Barkett property would potentially produce short-term emissions of suspended asbestos. This impact would be potentially significant.</td>
<td>PS</td>
<td>Mitigation Measure 4.8.2. Before any site work is done on the Barkett Property parcels, the applicant shall contact the SJVAPCD Compliance Division and follow all appropriate asbestos cleanup procedures.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 4.8.3. The project would result in an increase in operational emissions of criteria air pollutants (ROG, NOx and PM10) from on-road motor vehicle traffic traveling to and from the project area and onsite area sources associated with the project. This impact would be significant.</td>
<td>S</td>
<td>Mitigation Measure 4.8.3a: To reduce the operational impacts of the project, feasible mitigation measures from the following list shall be implemented as required by the City:</td>
<td>SU</td>
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<tr>
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<td></td>
<td>1. Transit service infrastructure shall be approved by the City prior to development of each phase of the project</td>
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<td>Rideshare Measures: Implement carpool/vanpool program (e.g., carpool, ride matching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.).</td>
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<td>Transit Measures: Construct transit facilities such as bus turnouts/bus bulbs, benches, transit shelters, and, route signs and displays. The project applicant would provide transit enhancing infrastructure that includes transit shelters, benches, street lighting, etc. at the project site. Contribute to regional transit systems (e.g., right-of-way, capital improvements, and park-and-ride lots)</td>
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<td></td>
<td>Bicycle and Pedestrian Measures: Provide direct, safe, attractive pedestrian and bicycle access to transit stops and adjacent development Provide bicycle lanes and/or paths, connected to community-wide network. Provide street lighting Improve or construct onsite and offsite pedestrian facilities (e.g., overpasses, wide sidewalks, and building access for pedestrians) Provide pedestrian safety designs/infrastructure at crossings</td>
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<td>2. Implement feasible energy-conserving features from the list provided by the SJVAPCD (SJVAPCD, 2005). Prior to the implementation of the project, the applicant will present for City approval an energy-conservation plan that includes consideration of each of the following potential measures. The City, in consultation with the SJVAPCD, will require implementation of clearly feasible measures from this list.</td>
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<td>• Increased energy efficiency (meet or exceed California Title 24 Requirements) • Increased wall and ceiling insulation (meet or exceed California Title 24 Requirements)</td>
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TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

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<td></td>
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<td>Energy efficient windows (double pane and/or Low-EE)</td>
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<td>High-albedo (reflecting) roofing material, or similar</td>
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<td>Cool paving</td>
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<td>Radiant heat barrier</td>
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<td></td>
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<td>Energy efficient lighting, appliances, and heating and cooling systems</td>
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<td>Solar water-heating systems</td>
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<td>Photovoltaic cells</td>
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<td></td>
<td></td>
<td>Programmable thermostats for all heating and cooling systems</td>
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<td>Awnings or other shading mechanism for windows</td>
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<td></td>
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<td>Porch, patio, and walkway overhangs</td>
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<td>Ceiling fans and whole house fans</td>
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<td>Orient the units to maximize passive solar cooling and heating when practicable</td>
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<tr>
<td></td>
<td></td>
<td>Use passive solar cooling and heating designs</td>
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<td>Use daylighting (natural lighting) systems such as skylights, light shelves, interior transom windows, etc.</td>
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<td>Electrical outlets around the exterior of the units to encourage use of electric landscape maintenance equipment</td>
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<td>Bicycle parking facilities for patrons, employees, and/or students in a covered secure area</td>
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<td>Employee shower and locker areas for bicycle and pedestrian commuters</td>
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<td></td>
<td>On-site employee cafeterias or eating areas</td>
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<td>Low or non-polluting landscape maintenance equipment (e.g., electric lawn movers, reel mowers, leaf vacuums, electric trimmers, and edgers, etc.)</td>
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<td>Exits to adjoining streets should be designed to reduce time to re-enter traffic from the project site.</td>
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<td>The project will include an information center for residents to coordinate carpooling and vanpooling.</td>
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# TABLE 2-1 (Continued)
## SUMMARY OF IMPACTS AND MITIGATION MEASURES

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<tbody>
<tr>
<td><strong>Impact 4.8.4:</strong> Project traffic would increase localized carbon monoxide concentrations at intersections in the project vicinity. This impact would be less than significant.</td>
<td>LS</td>
<td>Mitigation Measure 4.8.3b: Implementation Plans for the project shall comply with Rule 9510 Indirect Source Review. Compliance with Rule 9510 will require reductions of 33.3% of the NOx operational emissions and 50% of the PM10 construction emissions, or payment of fees (as calculated in Rule 9510) to offset NOx or PM10 operational emissions not reduced to the specified levels.</td>
<td>SU</td>
</tr>
<tr>
<td><strong>Impact 4.8.5:</strong> Emissions of diesel particulate matter could pose a risk to human health. This impact would be significant.</td>
<td>S</td>
<td>Mitigation Measure 4.8.5a. All diesel truck operators shall be monitored to strictly abide by the applicable state law requirements for idling, as described in the air borne toxic control measure (CCR, Title 13, section 2485), which limits vehicles with gross vehicular weight ratings of more than 10,000 pounds to no more than 5 minutes of idling of the primary engine or the diesel-fueled auxiliary power system at any location, unless exempt as identified in provisions of the measure. This limit shall be posted onsite. Mitigation Measure 4.8.5b. TRU operation will be limited to no more than 120 minutes within the loading dock area or anywhere else on the project site. This limit will be posted onsite, and enforceable by City code enforcement staff. Mitigation Measure 4.8.5c. To support the requirements of Mitigation Measure 4.8.5a, overhead panels shall be installed over the loading bays to provide shade for docked trucks in order to keep the truck cabin and trailer cooler and to decrease the need for truck idling to power air conditioning units. The panels shall be of sufficient size and oriented to shade the cabin during the summer season.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Cumulative Impact 4.8.6:</strong> The project would contribute to a cumulative air quality impact in the project area. This impact is considered significant.</td>
<td>S</td>
<td>Mitigation Measure 4.8.6: Implement Mitigation Measure 4.8.3a and Mitigation Measure 4.8.3b.</td>
<td>SU</td>
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<tr>
<td><strong>Noise</strong></td>
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<tr>
<td><strong>Impact 4.9.1:</strong> Construction and grading activities associated with the development of the project would temporarily and intermittently increase noise levels at nearby sensitive receptor locations. This impact would be potentially significant.</td>
<td>PS</td>
<td>Mitigation Measure 4.9.1a. The applicant shall implement the following measures: • Construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Saturday to avoid noise-sensitive hours of the day. Construction activities shall be prohibited on Sundays and holidays. • Construction equipment noise shall be minimized during project construction by muffling and shielding intakes and exhaust on construction equipment (per the manufacturer’s specifications) and by shrouding or shielding impact tools.</td>
<td>LS</td>
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| Construction noise   | LS                                     | • Construction contractors shall locate fixed construction equipment (such as compressors and generators) and construction staging areas as far as possible from nearby residences.  
• Construction contractors shall prohibit material haul trucks from using William Moss Boulevard and the segment of Manthey Road north of William Moss Boulevard to access the project site. Instead, haul trucks shall exit Interstate 5 at French Camp Road and approach the project site via French Camp Road, Henry Long Boulevard, and/or the segment of Manthey Road between French Camp Road and Carolyn Weston Boulevard.  
**Mitigation Measure 4.9.1b.** To further address the nuisance impact of project construction, construction contractors shall implement the following:  
• Signs will be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a contact number with the City of Stockton in the event of problems.  
• An onsite complaint and enforcement manager shall track and respond to noise complaints.  
**Mitigation Measure 4.9.2a.** The project applicant shall incorporate the following design features into the final site plans:  
• Building equipment (e.g., HVAC units) shall be located away from nearby residences, on building rooftops, and properly shielded by either the rooftop parapet or within an enclosure that effectively blocks the line of sight of the source from the nearest receptors to the west.  
• For the proposed Wal-Mart Supercenter and other major retailer that would be located on the western edge of the project site, appropriate wing-walls around the truck wells, rubberized gaskets at the loading bays, and acoustically absorptive materials shall be implemented at the primary loading docks of each facility to reduce noise.  
• A 13-foot tall sound wall shall be constructed along the entire western edge of the Wal-Mart Supercenter property, and 12-foot tall sound walls shall be constructed along the entire western edge of the other major retail site and along the entire northern edge of the project site, to reduce noise that would reach the existing and planned residences to the west and north of the project. Please refer to Figures 4.9-11 and 4.9-12 for illustrations of sound wall mitigation efficacy. | LS GPA |
| Operational noise   | PS                                     | Impact 4.9.2. Operational activities (non-transportation) associated with the project could increase ambient noise levels at nearby existing and planned residences. This impact would be potentially significant. | LS GPA |

Impact 4.9.2. Operational activities (non-transportation) associated with the project could increase ambient noise levels at nearby existing and planned residences. This impact would be potentially significant.
### TABLE 2-1 (Continued)
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<td>LS</td>
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<tr>
<td>Impact 4.9.3.</td>
<td>S</td>
<td>• Any outdoor public announcement (P.A.) system speakers shall be directed away from residences. Speaker volumes shall be adjusted so to minimize noise at nearby residences. Mitigation Measure 4.9.2b. The following activities shall be prohibited between the hours of 10:00 p.m. and 7:00 a.m., per section 16-340.030 of the City of Stockton Noise Ordinance: • Use of loudspeakers or loudspeaker systems. • On-site truck circulation and truck unloading behind the store. • Use of parking lot sweeping units (e.g., air system sweeping devices, truck-mounted parking lot sweeping devices or other similar devices) and landscape equipment (e.g., leaf blowers). Mitigation Measure 4.9.3. The project applicant shall provide a fair-share contribution (based on project related traffic noise) to future sound wall construction along French Camp Road between McDougald Boulevard and I-5.</td>
<td></td>
</tr>
<tr>
<td>Cumulative Impact 4.9.4.</td>
<td>S</td>
<td>Mitigation Measure 4.9.4. Increases in traffic from the project in combination with other development would result in cumulative noise increases. This impact would be significant.</td>
<td></td>
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<tr>
<td>Hydrology and Water Quality</td>
<td></td>
<td>Impact 4.10.1. Construction of the project could potentially degrade water quality and/or violate water quality standards. This impact is considered potentially significant. Mitigation Measure 4.10.1. All construction plans and activities shall implement multiple BMPs to provide effective erosion, runoff, and sediment control. These BMPs shall be selected to achieve maximum soil protection and sediment removal, and represent the best available technology that is economically achievable. BMPs to be implemented as part of this mitigation measure shall include, but are not limited to, the following measures: • Temporary erosion control measures (such as staked straw bales/wattles, soil mats, earthen berms, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover) will be employed for disturbed areas. • Onsite storm drain inlets and in downstream offsite areas will be protected from sediment with the use of BMPs acceptable to Stockton Municipal Utilities Department. • Dirt and debris will be swept from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events.</td>
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</tbody>
</table>
### TABLE 2-1 (Continued)

SUMMARY OF IMPACTS AND MITIGATION MEASURES

<table>
<thead>
<tr>
<th>Environmental Impact</th>
<th>Level of Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Grass or other vegetative cover will be established on the construction site as soon as possible after disturbance. At minimum, vegetative application shall be done by September 15th to allow for plant establishment. No disturbed surfaces will be left without erosion control measures in place during the wet season (October 15th to April 15th).</td>
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<tr>
<td>• Hazardous materials such as fuels and solvents used on the construction sites shall be stored in covered containers and protected from rainfall, runoff, vandalism, and accidental release to the environment. All stored fuels and solvents will be contained in an area of impervious surface with containment capacity equal to the volume of materials stored. A stockpile of spill cleanup materials shall be readily available at all construction sites. Employees shall be trained in spill prevention and cleanup, and individuals shall be designated as responsible for prevention and cleanup activities.</td>
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<tr>
<td>• Equipment shall be properly maintained in designated areas with runoff and erosion control measures to minimize accidental release of pollutants.</td>
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</tbody>
</table>

As shown in Table 4.10-1, multiple BMPs used in combination, assuming proper installation and maintenance, can achieve nearly complete sediment removal. Therefore, the City shall require the applicant and its construction contractor(s) to incorporate multiple BMPs to achieve this result and protect water quality. The final selection and design of erosion and sediment controls shall require approval from Stockton Municipal Utilities Department and demonstrate that this result can be achieved. In all cases, these BMPs shall be subject to approval by the City at its discretion, and the applicant shall incorporate into contract specifications the requirement that the contractor(s) comply with and implement these provisions, as well as provisions for monitoring to verify that these standards are met.

**Impact 4.10.2.** Project operation could increase non-storm and stormwater runoff, thereby potentially transporting contaminants to nearby surface waters. This impact is considered potentially significant.

**Mitigation Measure 4.10.2a.** To minimize the amount of pollutants entering the storm drain system, project roadways and parking areas will be cleaned regularly using street sweeping equipment. Additionally, litter and debris that may accumulate on the project site will be regularly collected and properly disposed. Collection and disposal activities shall be the responsibility of the City provider (Sunrise Sanitation).

**Mitigation Measure 4.10.2b.** The Applicant shall develop and implement a pesticide and fertilizer management plan for landscaped areas with the goal of reducing potential discharge of such chemicals, chlorpyrifos, and diazinon in particular, to adjacent waterways. The Applicant will ensure that the Plan is issued to all future owners and tenants.
### TABLE 2-1 (Continued)
**SUMMARY OF IMPACTS AND MITIGATION MEASURES**

<table>
<thead>
<tr>
<th>Environmental Impact</th>
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<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mitigation Measure 4.10.2c. As required by the Stormwater Quality Control Criteria Plan, the owners, developers, and/or successors-in-interest must establish a maintenance entity acceptable to the City to provide funding for the operation, maintenance, and replacement costs of the stormwater best management practices.</td>
<td>LS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mitigation Measure 4.10.2d. The property owners, developers, and/or successors-in-interest shall comply with any and all requirements, and pay all associated fees, as required by the City’s Stormwater Pollution Prevention Program as set forth in its NPDES Stormwater Permit.</td>
<td>LS</td>
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<tr>
<td></td>
<td>Mitigation Measure 4.10.2e. The Drainage Plan for the project will include BMPs to maximize non-storm and stormwater quality. The Drainage Plan will include both BMPs that will address the project site as a whole, as well as guidance for BMPs to be implemented for future tenants. These BMPs shall be selected to achieve maximum contaminant removal and represent the best available technology that is economically achievable. The BMPs will include a combination of source control, structural improvements, and treatment systems. BMPs will include, but not be limited to the following:</td>
<td>LS</td>
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<tr>
<td></td>
<td>• Water quality units to be located within the storm drain system. The selected units will provide effective water quality control for the pollutants that are commonly present in stormwater runoff generated by retail centers. These pollutants include trash and debris, oil and grease, and limited amounts of sediment. The water quality units will be periodically inspected and maintained to the levels and at the frequencies that are recommended by the product manufacturers. The units will accommodate the following parameters:</td>
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<tr>
<td></td>
<td>1. Treatment capabilities for the expected pollutants (trash and debris, oil and grease, and limited amounts of sediment).</td>
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<td></td>
<td>2. Ability to treat the amount of runoff generated by the low-flow storm event that is specified by the local jurisdiction.</td>
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<tr>
<td></td>
<td>3. Ability to accommodate or bypass the flood control design storm event as determined by the local jurisdiction.</td>
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<td></td>
<td>• Grass strips, high infiltration substrates, and grassy swales shall be used where feasible throughout the project site to reduce runoff and provide initial storm water treatment. This type of treatment will apply particularly to parking lots.</td>
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</tbody>
</table>
### TABLE 2-1 (Continued)
**SUMMARY OF IMPACTS AND MITIGATION MEASURES**

<table>
<thead>
<tr>
<th>Environmental Impact</th>
<th>Level of Significance Before Mitigation</th>
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<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Small settling, treatment, and/or infiltration devices will be installed beneath large parking areas to provide initial filtration prior to discharges into flood control basins. This will include the use of oil and grease separators.</td>
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<td></td>
<td></td>
<td>Roof drains shall drain to natural surfaces or swales where possible to avoid excessive concentration and channelization of storm water. Roof drains may be directly connected to the storm drain system, if treatment control measures are provided downstream.</td>
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<td></td>
<td>All drain inlets shall be permanently stamped with the message &quot;NO DUMPING, FLOWS TO DELTA.&quot;</td>
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<td></td>
<td></td>
<td>Permanent energy dissipaters will be included for drainage outlets.</td>
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</tbody>
</table>

Because the assimilative capacity of the receiving waters is impaired, the Applicant shall remove the maximum level of pollutants from stormwater discharges using the best available technology to maintain ambient water quality. To achieve this goal, the Applicant shall select a combination of BMPs that is expected to reach a target goal of 100 percent removal of suspended solids, nitrogen, phosphorus, pathogens, and metals from stormwater discharges, given the lowest expected pollutant removal efficiencies identified in Table 4.10-1 or elsewhere. While 100 percent contaminant removal is often not feasible, the final selection and design of BMPs shall provide maximum contaminant removal, represent the best available technology that is economically achievable, and shall explicitly identify the expected level of effectiveness at contaminant removal. A monitoring program shall be implemented to verify BMP effectiveness and compliance with water quality standards for the San Joaquin River, as outlined in the Central Valley RWQCB’s Basin Plan (1998). In the event that the BMPs are not meeting the identified performance standards, BMPs shall be redesigned, or new BMPs implemented, to achieve this result.

The Drainage Plan shall include, and the Applicant shall implement, a schedule that implements BMPs prior to or concurrent with new development such that water quality is maintained. The City shall require the incorporation of these BMPs into project designs as a condition of project approval.
## TABLE 2-1 (Continued)
### SUMMARY OF IMPACTS AND MITIGATION MEASURES

<table>
<thead>
<tr>
<th>Environmental Impact</th>
<th>Level of Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact 4.10.3. Implementation of the project would not substantially interfere with</td>
<td>LS</td>
<td>Mitigation Measure 4.10.5. The Applicant shall prepare a Master Drainage Plan for</td>
<td>LS</td>
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<tr>
<td>groundwater recharge or result in adverse impacts to groundwater quality. This</td>
<td></td>
<td>the project site. The Drainage Plan should incorporate measures to minimize the</td>
<td></td>
</tr>
<tr>
<td>impact is considered less than significant.</td>
<td></td>
<td>increased runoff during peak conditions. The applicant will implement measures</td>
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</tr>
<tr>
<td>Impact 4.10.4. Domestic water demands generated by the project could deplete</td>
<td>LS</td>
<td>provided in the Drainage Plan. A detailed drainage report shall be prepared by a</td>
<td></td>
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<tr>
<td>groundwater supplies. This impact is considered less than significant.</td>
<td></td>
<td>registered civil engineer prior to site development. The report shall include the</td>
<td></td>
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<tr>
<td>Impact 4.10.5. Development of the project would increase the amount of impervious</td>
<td>PS</td>
<td>following items:</td>
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<tr>
<td>surfaces, which in turn would increase local storm runoff volumes that could exceed</td>
<td></td>
<td>• An assessment of existing drainage facilities within the project vicinity, and an</td>
<td></td>
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<tr>
<td>the capacity of on- and offsite drainage systems, and create localized flooding or</td>
<td></td>
<td>inventory of necessary upgrades, replacements, redesigns, and/or rehabilitation.</td>
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<tr>
<td>contribute to a cumulative flooding in down-gradient locations. This impact is</td>
<td></td>
<td>• A description of the proposed maintenance program for the onsite drainage system.</td>
<td></td>
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<tr>
<td>considered potentially significant.</td>
<td></td>
<td>• Standards for drainage systems to be installed on a project-specific basis.</td>
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</tr>
<tr>
<td>Impact 4.10.6. Construction of the proposed project could place structures within a</td>
<td>LS</td>
<td>• The drainage system shall be designed to meet standards in the Stockton Municipal</td>
<td></td>
</tr>
<tr>
<td>100-year flood area and expose people or structures to a significant risk of loss,</td>
<td></td>
<td>Code and the City of Stockton Department of Public Works Standard Specifications</td>
<td></td>
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<tr>
<td>injury, or death involving flooding. This impact is considered less than significant.</td>
<td></td>
<td>(current edition).</td>
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<td></td>
<td></td>
<td>The Drainage Plan shall include, and the Applicant shall implement, a schedule for</td>
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<td>identified drainage improvements. In addition, when approving specific developments</td>
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<td>that may result in increased drainage flows on the project site, the Applicant</td>
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<td></td>
<td>shall concurrently implement any necessary drainage improvements such that new</td>
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<td></td>
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<td>development does not exceed the capacity of Master-Planned drainage facilities.</td>
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</tbody>
</table>
TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

<table>
<thead>
<tr>
<th>Biological Resources</th>
<th>Level of Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
</table>
| Impact 4.11.1.       | PS                                    | Mitigation Measure 4.11.1. The SJMSCP provides a means of providing mitigation for species covered by the plan. Regulatory agencies (USFWS, DFG) have approved the SJMSCP. All of the special-status species potentially present at the site are covered species under the SJMSCP. Thus, compliance with the SJMSCP would provide adequate mitigation for the project’s impacts to special-status species. As an alternative, the applicant could provide mitigation for each of the special-status species potentially present at the site, without complying with the SJMSCP. Either approach would provide adequate mitigation. Accordingly, the Applicant shall mitigate impacts to special status species by one of the following approaches:

a) The Applicant shall comply with the terms of the SJMSCP. In the event the Applicant complies with the SJMSCP, the Applicant shall implement one of the following measures:

• Pay the applicable in-lieu fee to the JPA, as indicated in section 7.4.1 of the SJMSCP. The site is currently categorized as agricultural land under the SJMCSP.
• Dedicate conservation easements, fee title, or in-lieu dedications.
• Purchase approved mitigation bank credits as specified in section 5.3.2.4.
• Propose an alternative mitigation plan consistent with SJMSCP goals and equivalent in biological value to the other options, subject to SPA approval.

These measures may also be combined, provided the combined measures provide equivalent biological value, subject to confirmation of compliance with this standard by the JPA. (See SJMSCP, p. 5-52). Or; | LS                                  |

- Construction activities in the project area could result in adverse impacts to special-status species, including Swainson’s hawks, burrowing owls, Greater western mastiff-bat and Yuma myotis bat, Ferruginous hawk, Mountain plover, White-tailed (black shouldered) kite, Greater sandhill crane, and Loggerhead shrike. This impact is potentially significant.
### TABLE 2-1 (Continued)
#### SUMMARY OF IMPACTS AND MITIGATION MEASURES

<table>
<thead>
<tr>
<th>Environmental Impact</th>
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<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>b)</strong> The project shall implement pertinent avoidance and mitigation measures commensurate with those described in Sections 5.2 and 5.3 of the SJMSCP subject to review and approval by the appropriate regulatory agencies. Mitigation measures shall include, but are not limited to, the following:</td>
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<tr>
<td>1. Pre-construction clearance surveys for presence of special-status species, particularly nesting Swainson’s hawks, Loggerhead Shrikes, burrowing owls, and other raptors, and roosting special-status bats.</td>
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<tr>
<td>• Surveys for nesting Swainson’s hawk shall be conducted in accordance with the Swainson’s Hawk Technical Advisory Committee (2000) guidelines in the project area and within one-half mile of the project area. This survey consists of six visits during the breeding season.</td>
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<tr>
<td>• A pre-construction clearance survey shall be completed for Loggerhead Shrikes in the project area and within one-half mile of the project area. This survey consists of six visits during the breeding season.</td>
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<tr>
<td>• Surveys for burrowing owl shall be conducted in accordance with the CDFG (1995) guidelines in the project area and a 150-meter buffer area. Surveys shall be conducted during both the wintering and nesting seasons, unless burrowing owls are detected on the first survey, to determine if the site is occupied. A subsequent survey within 30 days prior to the construction shall be performed to ensure that the site has not become occupied since the previous surveys.</td>
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<tr>
<td>2. Specified construction timing to avoid impacts to migratory or seasonal species or breeding periods.</td>
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<tr>
<td>• Construction activities shall be avoided within one-quarter mile of an active nest of a Swainson’s hawk from March 1 to September 15 in accordance with the CDFG (1994) guidelines unless the approval of a local CDFG biologist is obtained.</td>
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<tr>
<td>• If the project site is occupied by burrowing owls, a buffer area of 250 feet shall be maintained around the occupied burrow, unless a qualified biologist determines that the birds have not begun egg-laying and incubation or the juveniles are foraging independently and capable of independent survival, in accordance with CDFG (1995) guidelines. If owls must be moved away from the area, passive relocation techniques rather than trapping shall be used.</td>
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</table>
### TABLE 2-1 (Continued)
### SUMMARY OF IMPACTS AND MITIGATION MEASURES

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<th>Level of Significance After Mitigation</th>
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<tbody>
<tr>
<td>3. Replacement of lost habitat.</td>
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<td></td>
<td>• Swainson’s hawk foraging habitat shall be replaced at a ratio specified in the November 1994 CDFG Staff Report on Mitigation for Impacts to Swainson’s Hawks in the Central Valley of California. This includes a 1:1 ratio for lands within 1 mile of an active nest tree, 0.75:1 for lands within 1 to 5 miles of an active nest tree, and 0.5:1 for areas within 5 to 10 miles of an active nest tree. This may include purchase of credits at an approved mitigation bank.</td>
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<td></td>
<td>• To offset the loss of burrowing owl foraging and burrow habitat, preservation of 6.5 acres per owl pair or unpaired resident bird shall be acquired and permanently protected in accordance with the CDFG (1995) guidelines. If occupied burrows cannot be avoided, existing unsuitable burrows shall be enhanced or new burrows created on these protected lands at a ratio of 2:1. This may include purchase of credits at an approved mitigation bank. A monitoring plan and reports for the protected lands shall be submitted to CDFG.</td>
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<td></td>
<td>• Construction activities within 250 feet of other active raptor nests shall be prohibited unless approval from CDFG biologists is obtained.</td>
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<tr>
<td>4. Swainson’s hawk nest trees shall not be removed for the project unless there is no feasible way to avoid them and a Management Authorization from CDFG is received. Swainson’s hawk nest trees shall be removed between October 1 and February 1.</td>
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<tr>
<td>5. If roosting special-status bat species are detected, one-way exclusion devices shall be implemented so that bats may exit but not reenter structures prior to demolition.</td>
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<tr>
<td>6. Construction monitoring shall be performed by a qualified biologist to ensure compliance with all of the above avoidance, protection, and mitigation measures. Swainson’s hawk monitoring shall be performed in accordance with the CDFG (1994) guidelines. Burrowing owl monitoring shall be performed in accordance with the CDFG (1995) guidelines.</td>
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</table>

**Impact 4.11.2.** The project may result in impacts to heritage and other oak trees as defined in the Stockton Municipal Code. This impact is considered less than significant.

LS
### TABLE 2-1 (Continued)
**SUMMARY OF IMPACTS AND MITIGATION MEASURES**

<table>
<thead>
<tr>
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<th>Mitigation Measures</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cultural and Historic Resources</strong></td>
<td>Before Mitigation</td>
<td>Mitigation Measure 4.12.1. Pursuant to CEQA Guidelines 15064.5 (f),</td>
<td>After Mitigation</td>
</tr>
<tr>
<td>Impact 4.12.1. Implementation of the project could result in damage to previously unidentified buried archaeological and/or human remains during project construction. This impact is considered potentially significant.</td>
<td>PS</td>
<td>provisions for historical or unique archaeological resources accidentally discovered during construction should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project proponent and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist and/or paleontologist would meet to determine the appropriate avoidance measures or other appropriate mitigation, with the ultimate determination to be made by the City. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards. In considering any suggested mitigation proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, City Planning Staff shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for historical resources or unique archaeological resources is carried out. If the discovery includes human remains, CEQA Guidelines 15064.5 (e)(1) shall be followed, which is as follows: (e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken: (1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: (A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and</td>
<td>LS</td>
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</tbody>
</table>
TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

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<th>Level of Significance After Mitigation</th>
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</thead>
<tbody>
<tr>
<td>(B) If the coroner determines the remains to be Native American:</td>
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<tr>
<td>1. The coroner shall contact the Native American Heritage Commission within 24 hours.</td>
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<tr>
<td>2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.</td>
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<tr>
<td>3. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or</td>
<td></td>
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<tr>
<td>(2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.</td>
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<tr>
<td>(A) The Native American Heritage Commission is unable to identify a most likely descendant or the most likely descendant failed to make a recommendation within 24 hours after being notified by the commission.</td>
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<tr>
<td>(B) The descendant identified fails to make a recommendation; or</td>
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<tr>
<td>(C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.</td>
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</tbody>
</table>

Hazards and Hazardous Materials

**Impact 4.13.1.** Construction of the project would occur in an area with wells and septic systems. This impact is considered potentially significant.

| Location | Mitigation Measure 4.13.1. | PS | All onsite water supply wells and sewage disposal systems shall be properly destroyed by the project applicant in accordance with applicable under permit and inspection by the San Joaquin County Environmental Health Department. | LS |

**Impact 4.13.2.** Construction activities associated with the project could uncover areas of unknown contamination by hazardous substances. This impact is considered potentially significant.

| Location | Mitigation Measure 4.13.2. | PS | If contaminated soil and/or groundwater are encountered or suspected contamination is encountered during project construction, work shall be stopped in the suspected area of contamination, and the type and extent of the contamination be identified by the project applicant or the applicant's consultant. If necessary, a remediation plan shallbe implemented in conjunction with continued project construction. A contingency plan shall be developed and implemented to dispose of any | LS |
TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Impact 4.13.3.</td>
<td>PS</td>
<td>contaminated soil or groundwater. In addition, if groundwater is encountered and any dewatering is to occur at this location, the RWQCB would need to be consulted for any special requirements such as containing the water until it can be sampled and analyzed to ensure that no contaminants are in the groundwater. Mitigation Measure 4.13.3a. The project applicant shall ensure, through the enforcement of contractual obligations, that all contractors transport, store and handle construction-related hazardous materials in a manner consistent with relevant regulations and guidelines, including those recommended and enforced by the DOT, California RWQCB, SJCEMD, and the Stockton Fire Department. Recommendations may include, but are not limited to, transporting and storing materials in appropriate and approved containers, maintaining required clearances, and handling materials using the applicable federal, state and/or local regulatory agency protocols. In addition, all precautions required by the RWQCB issued NPDES construction activity stormwater permits would be taken to ensure that no hazardous materials enter any nearby waterways. Mitigation Measure 4.13.3b. The project applicant shall ensure, through the enforcement of contractual obligations, that all contractors immediately control the source of any leak and immediately contain any spill utilizing appropriate spill containment and countermeasures. If required by the SJCEMD, Stockton Fire Department, or any other regulatory agency, contaminated media shall be collected and disposed of at an offsite facility approved to accept such media.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 4.13.4.</td>
<td>PS</td>
<td>The natural gas well shall be properly abandoned by the project applicant in consultation with and in accordance with the regulations of the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources and the San Joaquin County Environmental Health Department. Mitigation Measure 4.13.4. The natural gas well shall be properly abandoned by the project applicant in consultation with and in accordance with the regulations of the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources and the San Joaquin County Environmental Health Department.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 4.13.5.</td>
<td>PS</td>
<td>The project applicant shall ensure that the design of structures and other features of the project include the following land use guidelines as provided in the San Joaquin County Airport Land Use Plan (adopted 1983): • Non-reflective materials • No transmissions (such as communication towers) • No visual distractions • No very tall structures</td>
<td>LS</td>
</tr>
</tbody>
</table>

Impact 4.13.3. Construction of the project may involve the temporary use and storage of hazardous materials such as gasoline, diesel fuel, solvents, hydraulic fluids, oils, paints, and other materials. This impact is considered potentially significant.

Impact 4.13.4. A natural gas well was identified on the project site at the northwest corner of Manthey Road and Henry Long Boulevard that has not been in use for 15 to 20 years. This impact is considered potentially significant.

Impact 4.13.5. The project site is located within the Stockton Metropolitan Airport Area of Influence Boundary and the Conical Surface Outer Boundary. This impact is considered potentially significant.
### TABLE 2-1 (Continued)

#### SUMMARY OF IMPACTS AND MITIGATION MEASURES

<table>
<thead>
<tr>
<th>Environmental Impact</th>
<th>Level of Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact 4.13.6.</strong> During construction, equipment and vehicles may come in contact with vegetated areas and accidentally spark and ignite dry vegetation. This impact is considered potentially significant.</td>
<td>PS</td>
<td>Mitigation Measure 4.13.6. The Stockton Fire Department provides fire protection and emergency services to the project site. However, the following mitigation measures are recommended to reduce this potentially significant impact:&lt;br&gt;• The project applicant shall ensure, through the enforcement of contractual obligations that during construction, staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. The contractor shall keep these areas clear of combustible materials in order to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.&lt;br&gt;• The project applicant, in consultation with the Stockton Fire Department, shall create fire-safe landscaping near the structures, develop a maintenance plan, and develop a plan for emergency response and evacuation at the project site.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 4.13.7.</strong> Exposure of individuals to asbestos-containing dust and lead-based paint. This impact is considered potentially significant.</td>
<td>PS</td>
<td>Mitigation Measures 4.13.7. An asbestos survey and a lead-based paint survey shall be completed by the project applicant on all of the structures located on the project site prior to any demolition activities. All asbestos work must comply with the NESHAP, California Occupational Safety and Health Administration (Cal/OSHA) regulations, San Joaquin Valley Unified Air Pollution Control District, and/or California Air Resources Board (CARB) regulations, as well as any local ordinances. The California Department of Health Services (DHS) recommends that a contractor who is State certified be hired to perform lead-related construction work. Cal/OSHA requires contractors and workers to be state-certified for high exposure lead work. Prior to renovation or demolition of any structures on the project and alternative sites, painted surfaces should be tested by a State certified lead inspector to determine if the paint contains lead and what action, according to DHS recommendations and Cal/OSHA requirements, are recommended and required for the project and alternatives.</td>
<td>LS</td>
</tr>
<tr>
<td><strong>Impact 4.13.8.</strong> An asbestos landfill has been identified on the project site that if disturbed could result in a release of asbestos fibers into the air. This impact is considered potentially significant.</td>
<td>PS</td>
<td>Mitigation Measure 4.13.8a. Until the asbestos landfill has been remediated and approved for development by the California Integrated Waste Management Board, State of California Department of Toxic Substance Control and the San Joaquin Valley APCD, the asbestos landfill shall be sectioned off from the rest of the project site by a fence (chain-link or better) so that the area cannot be accessed by construction workers or the public.</td>
<td>LS</td>
</tr>
</tbody>
</table>
## TABLE 2-1 (Continued)
### SUMMARY OF IMPACTS AND MITIGATION MEASURES

<table>
<thead>
<tr>
<th>Environmental Impact</th>
<th>Level of Significance Before Mitigation</th>
<th>Mitigation Measures</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitigation Measure 4.13.8b.</td>
<td></td>
<td>Pursuant to 27 CCR, Section 21190, all proposed land use of the asbestos landfill must be submitted to the Enforcement Agency (EA) section of the CIWMB for review and approval, including any future excavation of this former disposal site.</td>
<td>LS</td>
</tr>
<tr>
<td>Mitigation Measure 4.13.8c.</td>
<td></td>
<td>Prior to development of any uses on the Barkett property (the asbestos landfill), the developer shall supply the City of Stockton with a report showing that either the asbestos has been removed from the site (constituting “a clean closure”) or evidence that the site would be adequately capped so that the buried asbestos would have no potential to expose future users of the site. The City of Stockton must accept the report prior to approval of a Use Permit for the Barkett property.</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 4.13.9.</td>
<td>LS</td>
<td>Exposure of individuals to agricultural chemical residue in the soils on the project site. This impact is considered less than significant.</td>
<td></td>
</tr>
<tr>
<td>Impact 4.13.10.</td>
<td>LS</td>
<td>The project itself, once developed, would involve the use of underground fuel storage tanks at the two proposed fuel centers (gasoline stations). This impact would be less than significant.</td>
<td></td>
</tr>
<tr>
<td>Impact 4.14.1.</td>
<td>LS</td>
<td>Construction of the project would result in use of non-renewable energy resources.</td>
<td>Implement Mitigation Measure 4.8.1b (not required)</td>
</tr>
<tr>
<td>Impact 4.14.2.</td>
<td>PS</td>
<td>Over the long term, the project would result in increased energy consumption from vehicle trips and building operations.</td>
<td>Implement Mitigation Measure 4.8.3a.</td>
</tr>
<tr>
<td>Impact H.3.</td>
<td>PS</td>
<td>The project would incrementally contribute to cumulative energy consumption.</td>
<td>Implement Mitigation Measure 4.8.3a.</td>
</tr>
<tr>
<td>LS = Less than Significant; PS = Potentially Significant; S = Significant; SU = Significant and unavoidable.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 3
Project Description

3.1 Introduction

This environmental impact report (EIR) is being prepared by the City of Stockton to identify potential environmental effects that may result from implementation of the proposed Weston Ranch Towne Center project (project). The project site consists of approximately 65.8 acres, located north of French Camp Road, west of I-5, and east of McDougald Boulevard, in the City of Stockton (Figure 3-1). The project applicant, Vestar Development Company, is applying to the City to amend the General Plan designation of the project site from Low/Medium Density Residential and Commercial to Commercial for the entire site and develop the majority (60 acres) of the project site with a regional shopping center. Other entitlements requested include a rezoning, development agreements, tentative map(s), and permits for the shopping center and other uses, as required by the City’s Development Code. The project site is currently zoned RL (Residential, Low density) and CG (Commercial, General). The proposed zoning designation is CL (Commercial Large-Scale) District. This chapter provides background and setting information, a description of the proposed uses of the project site, and a description of government actions required for completion of the project.

3.2 Project Location

The project is located in Stockton, north of French Camp Road, west of I-5 at the northwest quadrant of the I-5/French Camp Road interchange, and east of McDougald Boulevard and the existing Weston Ranch residential subdivision (Figure 3-2). The project is located within the City of Stockton and is bounded on the south by the Stockton City limit. The project site consists of six parcels (Assessor’s Parcels Numbers 16819010, 16819009, 16819008, 16819007, 16819006, and the southerly portion of 16817007) of land totaling approximately 65.8 acres (see Figure 4.2-2). The project site is located in portions of Sections 12 and 13, Township 1N, Range 6E, Mount Diablo Baseline and Principal Meridian, which is within the C. M. Weber Land Grant boundaries.

The existing Weston Ranch residential subdivision is located north of the project site (north of William Moss Boulevard) and also abuts a portion of the west side of the project site. Agricultural land is located adjacent to the site to the south and southwest.

Regional access to the project site is provided by I-5 (French Camp Road and Downing Avenue off-ramps). Local project access is provided by French Camp Road on the south and Manthey Road via Downing Avenue and William Moss Boulevard on the north.
Figure 3-1
Regional Location

SOURCE: DeLorme Street Atlas USA, 2000; and ESA, 2006
Figure 3-2
Project Site

SOURCE: City of Stockton Community Development Department Planning Division, 2002; and ESA, 2006
3.2.1 Project Background

In 1987, the City prepared and circulated for public comment a Draft EIR addressing the proposed annexation of 1,623 acres known as the Weston Ranch Development. The proposed annexation area included the entire project site. The Weston Ranch Annexation also involved a General Plan amendment and pre-zoning of the annexation area, including the project site, and development of 1,454 acres. Proposed pre-zoning in the areas encompassing the project site included both residential and commercial designations. The Weston Ranch Annexation, pre-zoning, and development project was approved by the City in 1988, concurrent with a General Plan amendment. The Weston Ranch area was annexed into the City in July 1988.

A Tentative Subdivision Map (Weston Ranch Phase 3 and portions of Phases 5, 6, 7, and 12) with planned residential development in areas comprising portions of the project site was filed in 1989 and approved in 1990, although no subsequent development occurred in the area comprising the project site.

In 1998, the City of Stockton circulated a Supplemental EIR addressing a proposed General Plan amendment and rezoning of 85.6 acres within the Weston Ranch Annexation area. Portions of the proposed rezoned parcels included land within the project site. Proposed rezoning within the project site included Low-Medium Density Residential to Commercial (R-1 to C-2); and High Density Residential to Commercial (R-3 to C-2) in Parcels E, and F respectively.

The Final Supplemental EIR (September 1998) reflected a change in the proposed rezoning and General Plan amendment, reducing the size of the areas proposed to be rezoned (Parcels D and E) and changing the proposed High Density Residential to Commercial (R-3 to C-2) in Parcel F to a slightly larger area with a zoning of Low-Medium Density Residential (R-1) (Figure 3-3). No residential, commercial, or other development has occurred in the project site subsequent to these analyses.

The project site is entirely within the Weston Ranch Annexation EIR project site, but the parcels directly adjacent to French Cam Road (southern portion of the project site) were not included in the development plan which was also analyzed in the EIR. Because the project is substantially different from the project addressed by the 1987 Weston Ranch EIR and because further discretionary actions by the City would be necessary, an EIR is considered to be the appropriate CEQA document to be prepared at this time.

3.2.2 Project Setting

The project site consists of nearly flat agricultural land which is currently fallow (Figure 3-3). The site has an elevation of between 10 and 15 feet above mean sea level (msl) and slopes gently toward the west-northwest. The site contains two inhabited residences and two dilapidated and abandoned residences. Several utility structures are located in the southern portion of the project site and along Manthey Road. These include a storage tank, pump, pump shed, and several sets of low-voltage electrical distribution lines.
Figure 3-3
Aerial Photograph of Proposed Project Site

SOURCE: AFS (Aerial Photograph), 2003; and ESA, 2006
A few scattered native trees including heritage oaks, cottonwood, and walnut trees are also located within the project site. A drainage ditch, which flows north toward French Camp Slough, extends along the east edge of Manthey Road, outside the project site. Additional information regarding existing environmental conditions at the site is provided in each of the sections of Chapter 4 of this Draft EIR.

Two additional parcels, known together as the Barkett Property and totaling approximately 6.1 acres, are located along the eastern side of the project. Unlike the rest of the project site, specific uses and plans will be determined in a later phase of development. This Draft EIR considers the potential environmental impacts (particularly hazards) related to the future development of the additional parcels, which are currently used as an asbestos disposal site. The Applicant does not own or control the Barkett property. The entitlements requested by the Applicant do not encompass the Barkett property. The City has, on its own initiative, included the Barkett property in the requested General Plan amendment and rezone of the site. The City has determined that it is appropriate to revise the General Plan and zoning designations on the Barkett property because of its physical relationship to the balance of the site, and the fact that the existing General Plan and zoning designations need to be revised to ‘fit’ with the balance of the property. In particular, in the City’s view, it would not make sense from a planning perspective to allow the Barkett property to remain an isolated island of residentially-zoned land. Rather, the development of Weston Ranch Town Center means that the Barkett property would ultimately be more suitable for commercial development, rather than for residential development. Thus, from the City’s perspective, it makes sense to change the General Plan and zoning designations now, rather than at some point in the future. The location of the Barkett property is shown on Figure 3-3.

Existing conditions on land surrounding the site are as follows:

- Land to the west of the project site consists of a residential subdivision and fallow agricultural land where additional residential construction is planned.

- Land to the south of the project site consists of agricultural land located on the opposite side of French Camp Road.

- Land to the east of the site, between Manthey Road and the I-5 corridor, consists of vacant parcels zoned General Business and Single Family Residential. On the opposite side of the I-5 corridor, the land consists of warehouses and light industrial uses.

- Land to the north consists of an approximately 35 acre parcel of vacant land zoned for residential and commercial uses. Further north is a residential neighborhood.
3.3 Description of the Project

3.3.1 Project Objectives

The City of Stockton is San Joaquin County’s (County) largest metropolitan center and has the most extensive supply of developable urban land based on zoning classifications. Consequently, it is assumed under the County’s General Plan that it will absorb the bulk of the County’s growth through the year 2010 and that commercial activities and the need for commercial space will grow at a rate similar to population growth. Continuing regional growth, as well as the cost and availability of housing in other parts of California are expected to promote continuation of strong housing demands in the Stockton area for the immediately foreseeable future. In light of these above-mentioned factors, the objectives of the project are as follows:

1. To construct a regional commercial and retail space along the Interstate 5 corridor in south Stockton that will accommodate the existing and future demand for such services in the southern portion of the City.

2. To augment the City’s available commercial space for continuing growth demands.

3. To provide job opportunities for members of Stockton’s work force.

4. To provide an expanded economic base for the City by generating substantial property and sales tax and fee revenue and by increasing the proportion of local income invested and spent locally.

5. To provide retail and commercial services at a currently vacant location that is safe and convenient for customer access by locating the project immediately adjacent to an existing regional interchange with Interstate 5 and where economic viability can be sustained.

6. To provide a commercial center on a large, undeveloped site in close proximity to an existing highway and near other commercial centers, that will minimize travel lengths and utilize existing infrastructure to the extent possible.

7. To provide a commercial center that provides sufficient development area to allow a mixture of uses in outlying parcels in addition to major anchor tenants, in order to create a destination commercial center that will attract various types of customers to the City.

8. To provide a commercial development that is of a high quality design and that can be adequately served by public services and utilities.

9. To provide large-scale retail activities that will compliment existing smaller scale retail activities located throughout the City.
3.3.2 Project Description

The project includes an application to the City of Stockton to amend the General Plan designation and to rezone the project site. The current and proposed General Plan designation and zoning are summarized in the following table:

<table>
<thead>
<tr>
<th>Current</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Plan designation</td>
<td>Low-Medium Density Residential; Commercial</td>
</tr>
<tr>
<td>Zoning district</td>
<td>RL Residential, Low Density CG Commercial; General</td>
</tr>
</tbody>
</table>

The other entitlements requested by the applicants are Development Agreements, Tentative Maps covering the project site, and a Use Permit(s). No site specific entitlements are sought at this time on the Barkett property.

The project proposes development of the project site (Table 3-1) with a regional shopping center including large-scale retail stores; in-line shops (located contiguously between large-scale retail stores); retail pad stores; restaurants (including quick service restaurants and traditional restaurants); fuel centers; and parking (Figure 3-5, Preliminary Site Plan). The shopping center would be located on 60 acres and would be developed in the near future. Timeframe for development of the additional 6.1 acres would occur at a future date not yet determined.

The floor area and design of the stores, particularly the inline stores and pads, may change during the design process. Therefore Table 3-1 shows estimated floor areas which exceed those shown on the current site plan. The most recent site plan provides for approximately 619,000 square feet (excluding the Barkett property). This EIR assumes a maximum floor area of 710,000 square feet. The larger “envelope”, which is 91,000 square feet larger than currently envisioned, allows the lead agency to consider future revisions to the regional shopping center and future commercial development of the Barkett property. The future development of the Barkett property, or additional development within the regional shopping center, allowable under the proposed general plan amendment and rezoning is considered part of the “whole of the action” for the purpose of this EIR.

It is assumed for purposes of the EIR that the project, excluding the Barkett property, would be fully operational sometime in 2008. This is the “buildout” year for the project, when the major tenants, and the majority of the in-line shops and pads would be occupied.
The principal retail stores planned to "anchor" the project include a Wal-Mart Supercenter (a large-scale discount department store with a grocery department) and a major retailer (such as a warehouse-style retail club store). Other smaller retail stores may include clothing stores, home furnishings and domestic supplies, pet supplies, electronics, and other types of retail sales, although specific prospective tenants have not been determined. The following descriptions for the Wal-Mart Supercenter and other commercial development have been provided by the applicant:

**TABLE 3-2**

<table>
<thead>
<tr>
<th>Proposed Land Use</th>
<th>Proposed Maximum Space Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large-Scale Retail</td>
<td>500,000 square feet</td>
</tr>
<tr>
<td>In-Line Shops</td>
<td>100,000 square feet</td>
</tr>
<tr>
<td>Retail Pads, including 2 fuel stations</td>
<td>60,000 square feet</td>
</tr>
<tr>
<td>Restaurants</td>
<td>50,000 square feet</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>710,000 square feet</strong></td>
</tr>
</tbody>
</table>

**Wal-Mart Supercenter**

Wal-Mart intends its Supercenters to provide for one-stop family shopping. Supercenters combine full grocery lines and general merchandise under one roof. In addition to general merchandise, Supercenters feature bakery goods, deli foods, frozen foods, meat and dairy products, and fresh produce. Supercenters include many specialty shops such as vision centers, Tire & Lube Expresses, Radio Grill, McDonald’s or Subway restaurants, portrait studios, one-hour photo centers, hair salons, banks, and employment agencies. Supercenters typically employ 400 associates and offer approximately 116,000 different items.

**Description of Buildings/Operations**

The Weston Ranch Towne Center Supercenter would be approximately 206,400 square feet, excluding the outdoor areas of the garden center (20,900 SF). It would include floor area for general merchandise sales, including an enclosed garden center and grocery sales as well as storage/stockrooms, and miscellaneous support functions (kitchen area, training room, break room, etc.) The outdoor retail/garden center would include a canopy area; a fenced, unenclosed area; and an outdoor seasonal sales area. The store would also include a drive-through pharmacy and tire and lube express services.

The building design may change slightly prior to construction, so for purposes of environmental review, the EIR assumes a Supercenter of up to 232,000 square feet (including garden center and seasonal sales area). The building architecture uses construction materials that are widely found in the local area. Architectural materials such as concrete masonry block, brick veneer, standing seam metal roof, and exterior plaster finish would be utilized on the building. Proposed colors are earth tone with multicolor accents. The walls would be broken up by offsets of the roofline, architectural pop-outs, articulated entry vestibules, accent wall colors, and other design features.
The truck loading docks would provide sealed rubber gaskets to reduce noise from loading and unloading activities. Unloading would take place directly from the truck to the interior of the building (with the reverse for loading). The sealed rubber gaskets would minimize the noise impacts from loading and unloading. Also, extended engine idling would be prohibited at the docks. A screen wall would be constructed at the edge of the truck wells to further mitigate noise impacts.

In addition, the roof top parapets would help mitigate noise from roof-top HVAC systems and a barrier would shield noise from ground-level mechanical equipment.

The proposed Supercenter would sell alcohol, including wine, beer and spirits and would operate 24 hours a day, seven days a week.

**Security Measures**

The following security measures would be undertaken at the proposed Supercenter:

- Conduct a risk analysis (crime survey) of the area to evaluate the security needs for the store and implement a security plan based upon this analysis.
- Install closed-circuit camera systems (surveillance cameras) inside and outside the stores.
- Establish a parking lot patrol for both Wal-Mart Supercenter and other major retailer in order to assist customers, ensure safety and take action to identify and prevent any suspicious activity (such as loitering and vandalism) both during the day and nighttime hours.
- Establish a plainclothes patrol inside the stores to enhance safety and security.
- Establish a Risk Control Team, which is a team of employees responsible and trained to identify and correct safety and security issues at the site.
- Provide lighting in the parking areas that would enhance public safety.
- Prohibit consumption of alcohol in the parking lots by having employees regularly “patrol” the parking areas while collecting shopping carts and report any inappropriate activity to the store managers. (Also, per state law, alcohol sales would be limited to the hours of 6 AM to 2 AM of the following day.)

### 3.3.3 Public Improvements and Facilities

The project would include installation of all necessary infrastructure to serve the development. It is anticipated that new (proposed) adjoining streets; existing and proposed streets within the project site; realigned streets; and utilities would be improved in conjunction with development of the project site, as required by adopted mitigation measures and/or conditions of approval by the City
Department of Public Works, and in accordance with the Development Agreement. The Preliminary Site Plan and area of circulation plan is schematic and subject to revision/modification as part of the Use Permit and design review process. Relevant improvements expected to be completed prior to or in conjunction with development of the project include:

- Lighting for streets, parking, and other outdoor areas.
- Landscaping of the project site and street frontages.
- A sign program.
- Design and installation of appropriate noise barriers adjacent to existing and proposed residences.
- Improvements to circulation and access to the site (see further discussion, below).
- Installation of off-street bikeways, curbs, gutters, and sidewalks in appropriate areas.
- Installation of streetlights, landscaping, signs, and signals in appropriate areas.
- Extension of sewer, water, and storm drain lines as required and in accordance with the Use Permit and Project Plan and Development Agreements for the project, and
- Installation/relocation of underground electrical, telephone, natural gas, and other utilities in the project site.

Some of the project facilities and improvements have not been designed in detail, but would be designed in conformance with applicable sections of the Stockton Municipal Code, Chapter 16, Development Code. Development and general uses would adhere to the standards set forth in section 16-230.110, pertaining to Commercial, Large Scale (CL) zoning districts. The provisions of the Development Code are generally considered to be minimum standards; more stringent requirements identified as Mitigation Measures in this document (see applicable sections of Chapter 4) and/or identified in the Development Agreement may supersede the standards set forth in the Development Code.

General Performance Standards are addressed in section 16-305 of the Development Code and include, but are not limited to, air pollution standards for the operation of proposed facilities (16-305.040) and light and glare standards (16-305.060). Standards for structure height are described in section 16-310.090, standards for screening and buffering in section 16-310.100; setback requirements in section 16-310.110; and landscaping standards and requirements are described in section 16-335. As described in section 16-325.060 of the Development Code, screening walls separating commercial uses from residential uses, which are proposed to be placed along the north and west edges of the project site, must be at least eight feet in height.

Requirements for other public improvements such as street improvements, storm drainage facilities, sanitary sewers, and utilities are addressed in section 16-355 of the Development Code.
Parking
Parking would be provided in accordance with the requirements described in section 16-345.040 of the Development Code and would include, at a minimum, 2,000 parking spaces for 400,000 square feet of building space plus 1 additional parking space for each additional 250 square feet of retail space. Parking demand is analyzed in Section 4.07, Traffic.

3.3.4 Proposed Access and Circulation
The project site is located at the northwest quadrant of the I-5/French Camp Road interchange, with primary project access provided from French Camp Road. Manthey Road would be realigned with the proposed project and would bisect the project site, intersecting French Camp Road approximately 800 feet west of the I-5 southbound off-ramp. A new private driveway extending north from French Camp Road would form the western boundary of the project site and provide additional site access. Two full access signalized intersections and one right-in/right-out intersection from French Camp Road are proposed to serve the project site. From Manthey Road and the Vacated Henry Long Boulevard, nine driveways are proposed to serve the project site. A detailed operations analysis of these access locations is proved in Section 4.07, Traffic.

3.4 Project Proponents
The project applicant and representative are listed below.

Applicant: Vestar Development Company  Representative: Jeffrey M. Axtell
7575 Carson Boulevard  Vestar Development Company
Long Beach, CA 90808  7575 Carson Boulevard

3.5 Regulatory Requirements, Permits, and Approvals
The principal discretionary permits and approvals for the project will be granted by the City. The City will use information contained in this EIR during the decision-making process. Other permits and approvals from other agencies may be necessary prior to the development of the project. For this project, site specific entitlements are not being sought for the Barkett property. The entire project would be constructed in a single phase, with the exception of the Barkett property, which would be developed at some undefined point in the future depending on whether or when the owners of that property decide to submit an application. Known entitlements, permits, and approvals required for the project by the City are identified below:
3.5.1 City of Stockton

- Adoption of a Stockton General Plan amendment including re-designation of a portion of the site from Low/Medium Density Residential to Commercial.
- Approval of the rezone, from RL (Residential, Low Density) and CG (Commercial, General) to CL (Commercial Large-Scale) District, to provide for proposed commercial uses.
- Approval of Development Agreements.
- Approval of Tentative Maps.
- Certification of adequate water supply via a Water Supply Assessment (WSA), which is included as Appendix D of this EIR.
- Issuance of a Use Permit(s) including a Project Plan.
- Design and site plan review and approval.
- Approvals for sewer, water, drainage and transportation connections and improvements.
- Approval of grading and erosion control permits.
- Issuance of building permits.

3.5.2 Other Governmental Agency Approvals

Additional subsequent approvals and other permits that may be required from local, regional, state, and federal agencies are identified below.

- The San Joaquin Valley Air Pollution Control District may require an authority to construct and a permit to operate for equipment related to the operation of the project that emits air pollution.
- Issuance of Regional Water Quality Control Board (RWQCB) National Pollutant Discharge Elimination System General permit under Section 402 of the Clean Water Act for storm water drainage. In addition, the applicant must prepare and implement a Stormwater Pollution Prevention Plan (SWPP) and obtain a well destruction permit from the RWQCB.
- The project applicant would participate in and pay fees in accordance with the requirements of the San Joaquin County Multiple Species Habitat Conservation Plan.
- DTSC, County Health and Waste Board and APCD approvals for development of Barkett site.
CHAPTER 4
Environmental Analysis

4.1 Introduction to Environmental Analysis

The following sections (4.1 through 4.13) of this DEIR provide a discussion of the environmental setting, potential environmental impacts, and proposed mitigation measures for the project. The potential effects of implementing the project are identified, along with mitigation measures recommended to lessen or avoid identified impacts. In cases where no mitigation is feasible, this fact is noted. The potential cumulative effects of implementing the project are further discussed in Chapter 6, Other CEQA Considerations.

4.1.1 Setting, Impact, and Mitigation Measure Sections

Pursuant to section 15125(a) of the CEQA Guidelines, an EIR must include a description of the physical environmental conditions in the vicinity of the project as they exist at the time the Notice of Preparation is published. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The setting is presented from site, local, sub-regional and/or regional perspectives, as appropriate to each environmental topic. The environmental effects of the project are defined as changes to the environmental setting that are attributable to the project. The environmental setting is normally the baseline physical condition by which the lead agency determines whether an impact is significant.

In determining the relative significance of project impacts, each impact is identified to be potentially significant, significant, cumulatively significant, significant and unavoidable, less-than-significant, or beneficial. The cumulative impact analysis in this EIR is based on the implementation of the project as well as approved and anticipated development in the region. A summary of cumulative impacts is provided in Chapter 6, Other CEQA Considerations.

According to the CEQA Guidelines Section 15382, a significant effect on the environment means “... a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project.” For each category of physical condition evaluated in this EIR, thresholds of significance have been developed using criteria discussed in the CEQA Guidelines; criteria based on factual or scientific information; criteria based on regulatory standards of local, state, and federal agencies; and criteria based on goals, objectives, and policies identified in the City of Stockton General Plan.
As noted in Chapter 1, Introduction, Section 1.1, Public Resources Code section 21002 provides that “public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects” (emphasis added). The same statute states that the procedures required by CEQA “are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects” (emphasis added).

Section 21002 also states that “in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.” This statutory formulation makes “feasibility” a key concept under CEQA.

CEQA Guidelines section 15364 states that “‘Feasible’ means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.”

The concept of “feasibility” encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project (City of Del Mar v. City of San Diego (1982) 133 Cal. App. 3d 410, 417). “‘[F]easibility’ under CEQA encompasses ‘desirability’ to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors” (Id.; see also Sequoyah Hills Homeowners Assn. v. City of Oakland (1993) 23 Cal. App. 4th 704, 715).

Mitigation measures identified in this report are characterized in one of two categories: (1) measures necessary to reduce the identified impact below a level of significance; and (2) measures recommended to reduce the magnitude of a significant impact, but not below a level of significance. Where implementation of more than one mitigation measure is needed to reduce an impact below a level of significance, this is noted.

### 4.1.2 Issues Eliminated from Consideration

Issues that would not potentially be affected by the proposed project are listed below. These issues were addressed during the NOP process and were discussed in the Initial Study (Appendix A). Because the Initial Study identified that no potentially significant impacts would occur in these issues areas, no further analysis is presented in the DEIR.

- Mineral resources
- Recreation
- Geology and soils
4.2 Land Use and Agricultural Resources

This section identifies the setting, regulatory framework, and potential environmental impacts to land use resulting from implementation of the project. This section describes existing land uses, planned future land uses, applicable City of Stockton General Plan policies, consistency of the project with relevant land use policies, and identifies potential land use conflicts arising from the project. Policy conflicts do not, in and of themselves, constitute a significant environmental impact. Policy conflicts are considered to be environmental impacts only when they would result in direct physical impacts. Therefore, land use policies are discussed in this section for informational purposes only. Specific land use compatibility issues, such as air quality, noise, and hazardous materials are discussed in their respective sections of this EIR.

4.2.1 Setting

The project is located in Stockton, north of French Camp Road, west of I-5 at the northwest quadrant of the I-5/French Camp Road interchange, and east of McDougald Boulevard and the existing Weston Ranch residential subdivision (Figure 3-2). The project is located within the City of Stockton and is bounded on the south by the Stockton City limit. The project site consists of six parcels (Assessor’s Parcels Numbers 16819010, 16819009, 16819008, 16819007, 16819006, and the southerly portion of 16817007) of land totaling approximately 65.8 acres.

The existing Weston Ranch residential subdivision is located north of the project site (north of William Moss Boulevard) and also bounds a portion of the west side of the project site. Agricultural land is located adjacent to the southwest and southern portions of the project site.

Regional access to the project site is provided by I-5 (French Camp Road and Downing Avenue off-ramps). Local project site access is provided by French Camp Road on the south and Manthey Road via Downing Avenue and William Moss Boulevard on the north.

Existing Conditions

Existing Onsite and Adjacent Land Uses

The project site consists of nearly flat agricultural land which is currently fallow. The site has an elevation of between 10 and 15 feet above mean sea level (amsl) that slopes gently toward the west/northwest. The site contains two inhabited residences and two dilapidated and abandoned residences. Several utility structures are located in the southern portion of the project site and along Manthey Road. These structures include a storage tank, pump, pump shed, and several sets of low-voltage electrical distribution lines. Numerous large valley oak, cottonwood, and walnut trees are also located within the project site. A drainage ditch, which flows north toward French Camp Slough extends along the east edge of Manthey Road, outside the project site. Two other irrigation ditches occur on site. One of these is an abandoned ditch along the eastern side of the site that does not appear to carry drainage and is not connected to offsite drainages. The other, a concrete channelized drainage, is located on the western side of the site and flows to storm drains.
Land uses surrounding the project site include an existing residential subdivision and fallow agricultural land to the west where additional residential construction is planned. To the south, on the south side of French Camp Road is agricultural land. To the east, between Manthey Road and the I-5 corridor, are vacant parcels zoned Commercial, General Business and Residential, Low Density. On the opposite side of the I-5 corridor, the land consists of existing warehouses and light industrial uses. Land to the north consists of a 35-acre parcel of vacant land zoned for residential uses. Further north is a residential neighborhood.

**Agricultural Resources**

A majority of the project site (59.68 acres of the 65.8 total acres) is classified as prime farmland, according to the Important Farmland Maps for San Joaquin County (DOC 2002). Although the project site is currently considered fallow agricultural land, the parcels are not zoned for agricultural use. As a result of pre-zoning associated with the annexation of the Weston Ranch area, including the area of the project, and subsequent rezoning, the project site currently has a City of Stockton General Plan designation of Commercial and Low-Medium Residential and City of Stockton zoning of Commercial, General (CG) and Residential, Low Density (RL).

**Regulatory Setting**

**City of Stockton General Plan**

The City of Stockton General Plan, as amended (adopted 1990 [amended in 1998]), serves as the principal land use planning document-guiding development within the City and would serve as the principal land use planning document for the project site. Goals and policies of the General Plan applicable to the project, as well as the General Plan-designated land uses are described in detail below.

**Urban Growth and Overall Development**

Goal 1: Ensure that Stockton’s future growth will proceed in an orderly planned manner, thereby preventing urban sprawl and the wasteful use of land and promoting the efficient and equitable provision of public services.

Policies 1. The General Plan shall designate an Urban Service Area at or beyond the existing City limits where City services and facilities will be available for extension upon annexation and where future urban development shall be in conformance with City Council adopted master utility and circulation plans.

6. The city shall regulate the levels of building intensity and population density according to the standards and General Plan Diagram Designation stated in Section II (pages II-2 through II-5 of the General Plan).

7. The City will continue to apply the regulations and procedures of the zoning ordinance and will continue to utilize the environmental assessment and environmental impact review processes as methods to prevent and mitigate land use conflicts in the development review process.
Goal 2: Promote development and redevelopment within the City of those areas already served, or which may be readily served, by City Services and facilities in order to maintain and revitalize the existing urban area.

Policy 2. Vacant land already served by City services should receive development priority over vacant, unserved land.

Goal 4: Promote and maintain environmental quality and the preservation of agricultural land while promoting logical and efficient urban growth.

Policies 1. The wasteful and inefficient sprawl of urban uses into agricultural lands surrounding the urban area should be avoided by regulating the location or urban uses through the Urban Growth and Overall Development policies to maintain the consumption of agricultural and other open areas containing valuable natural resources or scenic beauty.

2. Urban growth shall be geographically limited by such environmental hazards as flood vulnerability and unstable soil characteristics.

3. Urban growth, particularly sensitive developments (i.e., homes, schools) should avoid locating in areas which are subject to adverse environmental or noise impacts.

4. Environmentally sensitive areas, such as the Delta, Oak Groves and areas of archaeological/historic value, should be preserved for the benefit of present and future generations.

5. Storm water quality measures shall be undertaken to enhance to the maximum extent practicable the quality of the water in the sloughs, creeks and rivers in this area.

Goal 5: Promote the balanced growth and development of all geographic areas of Stockton.

Policy 1. Seek the revitalization of south/central Stockton including increased employment opportunities, expanded private investment, construction of new housing and the provision of various services to address existing social problems.

City Concept and Design

Goal 1: Enhance the sense of community identity in Stockton.

Policies 1. Encourage the development of identifiable boundaries for the City to maintain a sense of community identity. The City should also consider the development of some type of “gateway” treatment at major entrances into the City.

3. Residential subdivisions shall be designed to provide for internal circulation within neighborhoods and to prevent through traffic from traversing neighborhoods.
Goal 2: Develop a balanced and complete community in terms of land use distribution and densities, housing types and styles, job opportunities and opportunities for social and cultural expression.

Policy: 2. Business and industry should be encouraged to provide job opportunities for members of Stockton’s work force.

**Commercial Land Use**

Goal 1: Direct commercial development to areas where it is complementary to and compatible with surrounding land uses and will visually enhance the environment.

Policies 1. Support the City’s growth in business and financial services while also reasserting Stockton’s historic role as a major retail center (this will help increase the proportion of local income invested and spent locally).

3. The compatible integration of commercial and new residential uses shall be encouraged. Existing residential areas shall be buffered from new commercial uses through the provisions of the zoning code.

4. Commercial areas shall be provided with frontage roads and/or access controls to reduce traffic congestion. Landscaping and design controls should be utilized to create an aesthetically pleasing environment.

8. Signing in commercial development shall be planned to complement rather than detract from its overall design or the design of its surrounding environment.

10. The integration of new residential uses in commercial areas (existing or new) shall be subject to Use Permit review to insure compatibility.

Goal 2: Encourage commercial facilities at locations that provide convenient service where their economic viability can be sustained.

Policy 2. Clustering of commercial uses shall be encouraged and the splitting of commercial clusters or centers by roadways shall be discouraged.

**Land Use Designation**

The project site currently has a City of Stockton land use designation of Commercial and Low-Medium Residential. Current general plan land use designations are shown in Figure 4.2-1 (actual existing land use may not reflect the general plan classification). The project includes a General Plan amendment to redesignate the land use designation of a portion of the project site from Low-Medium Density Residential to Commercial. These General Plan Land Use designations are specifically defined as follows:

**Commercial:** This designation provides for a wide variety of retail, service, and commercial recreational uses, business, medical and professional offices, residential uses, public and quasi-public uses and other similar compatible uses. Community or regional commercial centers as well as freestanding commercial establishments are permitted. The building
intensity standard is a maximum FAR of 0.3 outside of the downtown area. Within the
downtown area, shown as an inset on the Land Use/Circulation Diagram, a maximum FAR
of 5.0 is allowed. Residential densities are allowed up to 29 dwelling units per gross acre
outside of the downtown area.

**Low-Medium Density Residential:** This designation provides for single-family residential units,
duplexes, triplexes, semi-detached patio homes, townhomes, public and quasi-public uses, and other
similar and compatible uses. Residential densities are allowed up to 17.4 dwelling units per gross acre.

**City of Stockton Development Code**

The project site currently has a City of Stockton zoning of CG Commercial, General and RL
Residential, Low Density (Figure 4.2-2). As part of the project, the entire project site will be
rezoned to CL Commercial Large-Scale District. These zones are defined below:

**CG Commercial General:** This zoning district closely corresponds to the General Plan
designation of Commercial. Allows for a variety of uses, such as repair shops, antique stores,
garment repair, and press shops.

**RL Residential, Low Density:** This zoning district closely corresponds to the General Plan
designation of Low-Medium Density Residential. One family dwellings are permitted as well as
certain uses requiring Use Permits, such as churches, schools, guest homes, for no more than six
ambulatory, well, aged guests, on lots at least 5,000 square feet in area.

**CL Commercial, Large-Scale District:** This zoning district is applied to areas appropriate for
large-scale integrated commercial retail centers with shared parking facilities. This zoning district
is intended to serve a regional market area, and is to be applied to sites of at least 25 acres. The
CL zoning district is consistent with the Commercial land use designation of the General Plan.

**City of Stockton 2035 General Plan Update**

The City is currently in the process of updating its existing 1990 General Plan. As part of the
current update, the City is also considering expansions to both its existing Urban Services
Boundary (USB) and Sphere of Influence (SOI). The Project is located within the limits of the
existing Urban Services Boundary. The proposed boundaries of the expanded SOI include
Armstrong and Live Oak Roads on the north; portions of State Route 99, the Stockton Diverting
Canal, and Jack Tone Road on the east; and Manila and Roth Roads on the south. The western
boundary is formed by several features including a portion of the San Joaquin River, State Route
4, Burns Cutoff and Bishop Cut. Key land use goals of the updated General Plan will be to
increase infill development and expand the City’s growth pattern to accommodate anticipated
population growth, with future residential growth to occur in the form of villages located along
the northern, eastern, and southwestern edges of the existing urban area. Regional commercial
and office centers are also planned for these growth areas.
APN 16817002  1.901192 Acres
APN 16817001  3.587440 Acres
APN 19304027  15.158850 Acres
APN 16817007  50.008941 Acres
APN 19304026  0.559548 Acres
APN 16819008  5.010038 Acres
APN 16819009  1.100279 Acres
APN 16819006  14.459972 Acres
APN 16819007  19.299781 Acres
APN 16819010  4.270141 Acres
APN 16819011  1.760742 Acres

SOURCE: City of Stockton, 2003; and ESA, 2006

Figure 4.2-1
City of Stockton General Plan
Designation Map
Figure 4.2-2
Project Area Zoning and Assessor Parcel Numbers

SOURCE: City of Stockton, 2003; and ESA, 2006
To date the City has completed a General Plan Background Report, which provides a detailed description of the conditions (e.g., economic, housing, environmental, etc.) that existed within the study area during the development of the General Plan. A draft policy document and several land use alternatives are currently being considered by the City and the General Plan Action Team (a reviewing body comprised of various public and private citizen groups). Additionally, an EIR addressing the environmental impacts of the proposed General Plan Update is currently being prepared. The City prepared a Notice of Preparation for the EIR, which will be released for public review during the spring of 2006.

City of Stockton Right to Farm Ordinance

The City has a “right to farm” ordinance relating to agricultural production within the City limits (Sec. 16-013.1). The ordinance states that agricultural production is encouraged and that residents in or adjacent to agricultural lands should be prepared to accept inconveniences associated with farming (such as odor, noise, dust, smoke, and other impacts).

**Williamson Act**

California’s Land Conservation Act of 1965 (the “Williamson Act”) is designed to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. The Act creates an arrangement whereby private landowners contract with counties and cities to voluntarily restrict their land to agricultural and compatible open-space uses. The vehicle for these agreements is a rolling term 10-year contract (i.e., unless either party files a “notice of nonrenewal,” the contract is automatically renewed for an additional year.). In return, restricted parcels are assessed for property tax purposes at a rate consistent with their actual use, rather than potential market value.

The project site does not include property subject to a Williamson Act contract. According to the San Joaquin County Assessor’s Office, all Williamson Act Contracts for parcels less than 10 acres have been cancelled and none of the onsite parcels larger than 10 acres is currently under contract.

**4.2.2 Impacts and Mitigation Measures**

**Significance Criteria**

The significance criteria for this analysis were developed from criteria presented in Appendix G of the CEQA Guidelines and based on the professional judgment of the City of Stockton and its consultants. The project (or the project alternatives) would result in a significant impact if it would:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including but not limited to, a general plan, specific plan, coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating a significant environmental effect;
• Conflict with any applicable habitat conservation plan or natural community conservation plan;

• Convert economically viable prime farmland, unique farmland, or farmland of statewide importance as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to non-agricultural use; or

• Conflict with existing zoning for agricultural use, or a Williamson Act contract in an area in which continued agriculture is economically viable.

**Methodology**

The project is compared with the policies of the Stockton General Plan as well as the City’s Development Code and Citywide Design Guidelines. The standard for consistency used here is based on *The Planners Guide to Specific Plans* (Office of Planning and Research [OPR] 2001): “An action, program, or project is consistent with the General Plan if, considering all its aspects, it will further the objectives and policies of the General Plan and not obstruct their attainment.” Table 4.2-1 provides an overall assessment of the project’s consistency with current General Plan policies. Courts have also recognized that, because General Plans often contain numerous policies emphasizing differing legislative goals, a development project may be “consistent” with a General Plan, taken as a whole, even though the project appears to be inconsistent or arguably inconsistent with some such policies. (*Sequoyah Hills Homeowners Association v. City of Oakland* (1993) 23 Cal.App.4th 704, 719.) Furthermore, courts strive to “reconcile” or “harmonize” seemingly disparate General Plan policies. (*No Oil Inc. v City of Los Angeles* (1987) 196 Cal.App.3d 223, 244.) The ultimate decision on General Plan consistency, moreover, lies with agency decision-makers (here, the Stockton City Council) rather than with City staff or consultants. Thus, the opinions addressed herein on consistency issues are not binding on the City Council, but rather represent the best efforts of staff and consultants to provide good advice to the elected officials.

Impacts to agricultural land are determined using the California Department of Conservation’s Farmland Mapping and Monitoring Program (FMMP) data. Conversion of one or more parcels consisting of “important farmland” or protected by a Williamson Act contract to an urban use would be considered potentially significant.

**Impacts**

**Impact 4.2.1. The project has the potential to physically divide an established community. This impact is considered less than significant.**

The project site is located within the City of Stockton planning area boundary. The project site is also located within the Urban Service Area. Adjacent lands are designated for low-medium density residential and commercial, and are zoned for Residential, Low Density and Commercial, General. The proposed commercial uses of the project site would not result in the physical division of the existing community. The commercial development would be a compatible use and would support the existing and planned residential uses of the surrounding area.
Mitigation Measure. No mitigation is required.

Impact 4.2.2. The project would conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. This impact is considered less than significant.

The development of commercial uses at the project site is consistent with the portion of the property that is designated under the General Plan as Commercial and zoned as Commercial, General. However, the project is inconsistent with the portion of the project site that has the General Plan designation of Low-Medium Density Residential and zoning of Residential, Low Density.

**TABLE 4.2-1**

<table>
<thead>
<tr>
<th>General Plan Policy</th>
<th>Project Consistency</th>
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<tr>
<td><strong>Goal 1.</strong> Ensure that Stockton’s future growth will proceed in an orderly planned manner, thereby preventing urban sprawl and the wasteful use of land and promoting the efficient and equitable provision of public services.</td>
<td>Consistent. The Project is contiguous with current development in the city and is easily accessible by major roadways.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 1.</strong> The General Plan shall designate an Urban Service Area at or beyond the existing City limits where City services and facilities will be available for extension upon annexation and where future urban development shall be in conformance with City Council adopted master utility and circulation plans.</td>
<td>Consistent. The Project is within the City and Urban Service Area.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 2.</strong> The city shall regulate the levels of building intensity and population density according to the standards and General Plan Diagram Designation stated in Section II (pages II-2 through II-5 of the General Plan).</td>
<td>Consistent. The Project will conform to City standards.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 3.</strong> Future urban development adjacent to the City should occur within the City. This requires that vacant unincorporated properties shall annex to the city prior to the provision of any City services.</td>
<td>Consistent. The Project is within the city limits.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 4.</strong> The City will continue to apply the regulations and procedures of the zoning ordinance and will continue to utilize the environmental assessment and environmental impact review processes as methods to prevent and mitigate land use conflicts in the development review process.</td>
<td>Consistent. The Project proposes a General Plan amendment and zoning change, and an environmental impact report is being prepared for the project.</td>
</tr>
<tr>
<td><strong>Goal 2.</strong> Promote development and redevelopment within the City of those areas already served, or which may be readily served, by City services and facilities in order to maintain and revitalize the existing urban area.</td>
<td>Consistent. The Project is contiguous with current development within the city, and is served by city streets, sewer, water, and storm drainage utilities.</td>
</tr>
<tr>
<td><strong>Goal 2, Policy 2.</strong> Vacant land already served by City services should receive development priority over vacant, unserved land.</td>
<td>Consistent. See above explanation.</td>
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TABLE 4.2-1
GENERAL PLAN CONSISTENCY

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<thead>
<tr>
<th>General Plan Policy</th>
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<tbody>
<tr>
<td><strong>Goal 4.</strong> Promote and maintain environmental quality and the preservation of agricultural land while promoting logical and efficient urban growth.</td>
<td><strong>Consistent.</strong> The Project is contiguous with current development in the city, surrounded on three sides by urban uses, and does not displace land currently in agricultural production. As discussed under impact 4.2.5, the project involves the conversion of approximately 60 acres of prime farmland. MM 4.2.5 requires the applicant to provide a conservation easement at a 1:1 ratio on land of equal or better value, with the compensation land designated for agricultural uses. MM 4.2.5 will therefore provide permanent protection for land suitable for agriculture. The project, as mitigated, is therefore consistent with goal 4.</td>
</tr>
</tbody>
</table>

**Goal 4, Policy 1.** The wasteful and inefficient sprawl of urban uses into agricultural lands surrounding the urban area should be avoided by regulating the location of urban uses through the Urban Growth and Overall Development policies to minimize the consumption of agricultural land and other open areas containing valuable natural resources or scenic beauty. | **Consistent.** See above explanation. |

**Goal 4, Policy 2.** Urban growth shall be geographically limited by such environmental hazards as flood vulnerability and unstable soil characteristics. | **Consistent.** The Project area is on level ground and is outside the 100-year floodplain of the San Joaquin River. |

**Goal 4, Policy 3.** Urban growth, particularly sensitive developments (i.e., homes, schools, hospitals) should avoid locating in areas which are subject to adverse environmental or noise impacts. | **Consistent.** The project will involve less sensitive uses, appropriate to the noise levels present on the site. |

**Goal 4, Policy 4.** Environmentally sensitive areas, such as the Delta, Oak Groves and areas of archaeological/historic value, should be preserved for the benefit of present and future generations. | **Consistent.** No such sensitive areas exist within the project site. |

**Goal 4, Policy 5.** Storm water quality measures shall be undertaken to enhance to the maximum extent practicable the quality of the water in the sloughs, creeks and rivers in this area. | **Consistent.** Storm water quality measures to be taken are described in Section 4.10. See in particular mitigations 4.10.2a-c. |

**Goal 5.** Promote the balanced growth and development of all geographic areas of Stockton. | **Consistent.** See above explanation. |

**Goal 5, Policy 1.** Seek the revitalization of south/central Stockton including increased employment opportunities, expanded private investment, construction of new housing and the provision of various services to address existing social problems. | **Consistent.** The Project will significantly expand private investment in the South Stockton area, and will provide employment. |

City Concept and Design

**Goal 1.** Enhance the sense of community identity in Stockton. | **Consistent.** The Project is being designed as a "gateway."

**Goal 1, Policy 1.** Encourage the development of identifiable boundaries for the City to maintain a sense of community identity. The City should also consider the development of some type of "gateway" treatment at major entrances into the City. | **Consistent.** See above explanation. One of the goals of the project is to provide a defined gateway to the City. |

**Goal 2.** Develop a balanced and complete community in terms of land use distribution and densities, housing types and styles, job opportunities and opportunities for social and cultural expression. | **Consistent.** The Project will create commercial retail uses in an area of the City that lacks such facilities, serving residential development in the area.
<table>
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<tbody>
<tr>
<td><strong>Goal 2, Policy 2.</strong> Business and industry should be encouraged to provide job opportunities for members of Stockton’s work force.</td>
<td>Consistent. The Project will provide approximately 600 temporary construction jobs and 800 permanent jobs when complete.</td>
</tr>
</tbody>
</table>

### Commercial Land Use

**Goal 1.** Direct commercial development to areas where it is complementary to and compatible with surrounding land uses and will visually enhance the environment.

**Goal 1, Policy 1.** Support the City’s growth in business and financial services while also reasserting Stockton’s historic role as a major retail center (this will help increase the proportion of local income invested and spent locally).

**Goal 1, Policy 3.** The compatible integration of commercial and new residential uses shall be encouraged. Existing residential areas shall be buffered from new commercial uses through the provisions of the zoning code.

**Goal 1, Policy 4.** Commercial areas shall be provided with frontage roads and/or access controls to reduce traffic congestion. Landscaping and design controls should be utilized to create an aesthetically pleasing environment.

**Goal 1, Policy 8.** Signing in commercial development shall be planned to complement rather than detract from its overall design or the design of its surrounding environment.

**Goal 1, Policy 10.** The integration of new residential uses in commercial areas (existing or new) shall be subject to Use Permit review to insure compatibility.

**Goal 2.** Encourage commercial facilities at locations that provide convenient service where their economic viability can be sustained.

**Goal 2, Policy 2.** Clustering of commercial uses shall be encouraged and the splitting of commercial clusters or centers by roadways shall be discouraged.

### Streets and Highways

**Goal 1.** Develop a street and highway system which promotes the safe, efficient and reliable movement of people and goods.

**Goal 1, Policy 2.** The street system shall provide at least two (2) independent access routes for all major developed areas.

**Goal 1, Policy 3.** Significant trip generating land uses should be served by roadways adequate to provide vehicular access with a minimum of delay.

**Goal 1, Policy 4.** The construction of new road systems or the expansion of existing streets shall consider the potential impacts on air quality, noise, and sensitive biological areas.
### TABLE 4.2-1
**GENERAL PLAN CONSISTENCY**

<table>
<thead>
<tr>
<th>General Plan Policy</th>
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<tbody>
<tr>
<td><strong>Public Facilities</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Goal 1.</strong> Provide public facilities and City services throughout the urbanized area.</td>
<td>Consistent. The Project will be accessible to the public and provide public infrastructure.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 2.</strong> Capital improvements and facility needs generated by new development shall be financed by new development. The community should not be burdened by increased taxes and fees or by lowered service levels to accommodate the needs created by new development. Exceptions to this policy may be considered in an effort to encourage affordable housing.</td>
<td>Consistent. The Project will generate net revenue for the city.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 5.</strong> Development proposals shall be reviewed for their impacts on various infrastructure components (i.e., sewer, water, fire stations, libraries, streets) and should be required to provide appropriate mitigation measures if development reduces service levels.</td>
<td>Consistent. That analysis is documented within Section 4.6 of this document. The project would not create impacts on infrastructure that could not be reduced to less than significant with mitigation measures.</td>
</tr>
<tr>
<td><strong>Water Facilities</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Goal 1.</strong> Conserve groundwater and surface water resources in order to ensure sufficient supplies of good quality water.</td>
<td>Consistent. The project will not interfere with any existing groundwater or surface water resources.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 3.</strong> All urban development shall be served by a sanitary sewage system to avoid possible contamination of groundwater from septic systems.</td>
<td>Consistent. The project area is served with sewage collection lines adequate to serve the Project. See Section 4.6.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 4.</strong> The use of Best Management Practices for the reduction of pollutant in urban runoff shall be encouraged within the storm drainage system in order to reduce the amount of pollutants entering surface water resources.</td>
<td>Consistent. Storm water quality measures to be taken are described in Section 4.10. See in particular Mitigation Measures 4.10.2a through 4.10.2c. Mitigation Measure 4.10.2c directs the use of Best Management Practices for the Project’s Drainage Plan.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 7.</strong> Encourage and support water conservation measures by all City water users.</td>
<td>Consistent. The project proposes the use of drought-tolerant plants.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 10.</strong> The City shall require preparation of detailed watershed drainage plans for those areas identified in the City of Stockton Drainage Infrastructure Plan. These plans should be completed before development occurs in the areas and shall identify required drainage improvements and costs. The watershed drainage plans shall include Best Management Practices which will reduce pollutants in urban runoff to the maximum extent practicable.</td>
<td>Consistent. See above comments; a drainage plan has been prepared. Storm water quality measures to be taken are described in Section 4.10. See in particular Mitigation Measures 4.10.2a through 4.10.2c. Mitigation Measure 4.10.2c directs the use of best management practices for the Project’s Drainage Plan.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 12.</strong> The City will comply with the requirements of the Clean Water Act with the intent of minimizing the discharge of pollutants into surface waters.</td>
<td>Consistent. The Stormwater Management Division within the City’s Municipal Utilities Department has developed the Model SWPPP for Construction Activities.</td>
</tr>
<tr>
<td><strong>Fire Safety</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Goal 1.</strong> Incorporate fire safety precautions in existing urbanized areas and in planning for new development.</td>
<td>Consistent. Appropriate fire safety precautions will be incorporated into this project.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 1.</strong> Protection from fire hazards shall be a consideration in all planning, regulatory and capital improvement programs.</td>
<td>Consistent. Fire hazards are considered in the design of the project.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 3.</strong> Locate and maintain fire stations according to fire service area standards and maintain the water supply system necessary to provide the required water flow for fire-fighting purposes.</td>
<td></td>
</tr>
</tbody>
</table>
## Table 4.2-1

### General Plan Consistency

<table>
<thead>
<tr>
<th>General Plan Policy</th>
<th>Project Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 1, Policy 4.</strong> New development shall provide adequate access for emergency vehicles, particularly firefighting equipment, as well as provide evacuation routes.</td>
<td><strong>Consistent.</strong> Emergency vehicle access is considered in the design of the project.</td>
</tr>
</tbody>
</table>

### Natural and Cultural Resources Element

| Goal 1. Guide urban development toward vacant or under-used land within the urbanized area and direct new growth toward contiguous lands to protect agricultural lands and other open spaces used for the managed production of resources from premature urban development. | **Consistent.** The project is contiguous with an urbanized part of the city and does not take agricultural land out of production. |
| Goal 1, Policy 1. Existing agricultural soils capable of producing a wide variety of valuable crops shall be retained in agricultural use until the time that such soils are needed for logical urban expansion. | **Consistent.** See above explanation. |
| Goal 1, Policy 2. Land use decisions shall consider the proximity of industrial and commercial uses to major residential areas in order to reduce commuting. | **Consistent.** See above comment. The project is contiguous with a residential area. |
| Goal 5. Actively contribute to the solution of local and regional air quality problems. | **Consistent.** Air quality impacts are reviewed in Section 4.8. |
| Goal 5, Policy 2. Review proposed development for both local and regional air quality impacts. | **Consistent.** Air quality impacts are reviewed in Section 4.8. |
| Goal 5, Policy 3. Assist project applicants in understanding and meeting the air quality mitigation requirements established by the San Joaquin Valley Air Pollution Control District. | **Consistent.** Air quality impacts are discussed in Section 4.8 and mitigated where feasible, according to the guidelines of the San Joaquin Valley Air Pollution Control District. |

### Open Space

| Goal 1. Preserve and enhance open space areas for the preservation of natural resources including plant life, habitat for fish and wildlife species, ecologically sensitive areas, and historic and cultural resources. | **Consistent.** See policy specific responses, below. |
| Goal 1, Policy 4. Significant wildlife and natural vegetation areas shall be protected and preserved for environmental, educational and research purposes. | **Consistent.** As described in Section 4.11, the project, with mitigation measures, would result in a less-than-significant impacts to wildlife or natural vegetation. |
| Goal 1, Policy 5. Seek to preserve existing Valley Oak trees which are healthy. | **Consistent.** As described in Section 4.11, the project must comply with the City’s tree ordinance, and would have a less-than-significant impact to heritage trees. |
| Goal 1, Policy 6. Continue to recognize and preserve Stockton’s historical and cultural resources. | **Consistent.** No historically or culturally resources of importance are know to be located on the project site. Potential damage to previously unidentified buried archaeological and/or human remains is mitigated as described in Section 4.12. |

### Seismic and Other Geologic Hazards

| Goal 1. Protect the community from the hazards of expansive soils, seismic dangers and other geologic activity. | **Consistent.** The project does not place the community at significant risk from natural geologic hazards. |
4.2 Land Use and Agricultural Resources

TABLE 4.2-1
GENERAL PLAN CONSISTENCY

<table>
<thead>
<tr>
<th>General Plan Policy</th>
<th>Project Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 1, Policy 2.</strong> Structures utilized by large numbers of people (i.e., schools, hospitals, theaters, larger office buildings, hotels, large apartment complexes) shall be designed to minimize the damage caused by the most severe probable earthquake.</td>
<td><strong>Consistent.</strong> The project is designed to withstand the most severe probable earthquake.</td>
</tr>
<tr>
<td><strong>Goal 1, Policy 3.</strong> Major public facilities (i.e., treatment plants and pumping stations, major communication lines and terminals, evacuation routes) and emergency/disaster facilities (i.e., police and fire stations, ambulance services) shall be designed to withstand the most severe probable earthquake and remain operational.</td>
<td><strong>Not applicable.</strong></td>
</tr>
</tbody>
</table>

**Flood Hazards**

| **Goal 1.** Protect the community from the risk of flood damage.              | Consistent. The Project area is on level ground and outside the 100-year floodplain of the San Joaquin River. |
| **Goal 1, Policy 1.** New urban development shall be approved only when the developer shows it to be protected from “100-year” floods. | Consistent. See above explanation.                                               |

**Noise Goals and Policies**

| **Goal 1.** Protect the Citizens of the Stockton Planning Area from the harmful and annoying effects of exposure to excessive noise. | Consistent as mitigated per Section 4.9. See Section 4.9 for a discussion of noise impacts and Mitigation Measures. |
| **Goal 2.** Protect the economic base of the Stockton Planning Area by preventing incompatible land uses from encroaching upon areas with existing noise-producing uses. | Consistent. The project proposes uses compatible with existing sound levels from adjacent noise sources. |
| **Goal 2, Policy 2.** The compatibility of Proposed Projects with existing and future noise levels due to traffic on public roadways, railroad line operations and aircraft in flight shall be evaluated. | Consistent. A detailed evaluation of noise impacts is described in Section 4.9. See above explanation. |
| **Goal 2, Policy 6.** Noise produced by commercial uses shall not exceed 75 A-weighted decibel (dBA) day-night average sound level (Ldn) or Community Noise Equivalent Level (CNEL) at the nearest property line. | Consistent as mitigated per Section 4.9. Noise level increase would be significant at the nearest property line, but with Mitigation Measures described in Section 4.9, will not exceed 75 A-weighted Ldn or CNEL. |
| **Goal 2, Policy 8.** Exceptions to the noise standards for commercial and industrial uses may be granted only if a recorded noise easement is conveyed by the affected property owners. | Does not apply. See above comment.                                                  |
| **Goal 2, Policy 9.** Enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the Uniform Building Code. | Consistent. The project is designed to California Administrative Code, Title 24 noise insulation standards. |

The City will amend its General Plan to redesignate a portion project site from Low-Medium Density Residential to Commercial. The General Plan Amendment will eliminate the inconsistency between the proposed use and the existing General Plan Land Use Designation.

As a part of the project the site will be rezoned from Commercial, General and Residential, Low Density to Commercial, Large Scale. The rezone will eliminate the inconsistency between the proposed uses and the land uses allowed in the existing zoning. As noted above, Table 4.2-1 provides an overall assessment of the project’s consistency with current General Plan policies.
Under the proposed 2035 General Plan Update, it is anticipated that the project site would be
designated for commercial uses. The project would be consistent with this land use designation.

**Mitigation Measure.** No mitigation is required.

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**Impact 4.2.3.** The project has the potential to conflict with existing land uses surrounding
the project site. This impact is considered potentially significant.

Impacts of the project related to land use compatibility could result in short-term construction
related impacts and long-term traffic related impacts. Implementation of the project would result
in temporary conflicts and construction-related nuisances during construction of each phase of the
project. Residents located adjacent to the project site could experience traffic, noise, and air
quality impacts associated with construction-related activities proposed under the project.
Residents could also experience long-term traffic related impacts associated with expected traffic
at the commercial businesses proposed under the project. All of these potential nuisance related
impacts for project construction and operation are addressed in greater detail in the relevant
sections of this EIR.

**Mitigation Measure.** No mitigation measures are required under land use. However, the reader is
directed to Sections 4.7, Transportation and Circulation, 4.8, Air Quality, and 4.9, Noise for a
discussion of impacts and related mitigation as they relate to other impact areas.

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**Impact 4.2.4.** The project could conflict with an applicable habitat conservation plan (HCP)
or natural community conservation plan (NCCP). This impact is considered potentially
significant.

Construction activities in the project area could conflict with the San Joaquin County Multi-
species Habitat Conservation and Open Space Plan (SJMSCP). The SJMSCP covers 97 special
status plant, fish, and wildlife species in five designated zones. The project area is located entirely
within the Central Zone. To the extent that construction activities would not avoid, minimize, or
mitigate impacts to special-status species, riparian habitat, or other sensitive natural communities,
the project would conflict with the goals of the SJMSCP.

Refer to Section 4.11, Biological Resources for a more detailed discussion of impacts to
biological resources.

**Mitigation Measure 4.2.1.** Implement Mitigation Measure 4.11-1a or 4.11-1b.

**Impact Significance after Mitigation:** With implementation of the mitigation measure
listed above, this impact would be reduced to a less-than-significant level.
Impact 4.2.5. The project would convert economically viable prime farmland to a non-agricultural use. This impact is considered potentially significant.

Implementation of the project would convert 59.68 acres of prime farmland to commercial use. Significant unavoidable environmental impacts resulting from conversion of agricultural land in the project site have been addressed in previous documents and have been considered and accepted through previous Statements of Overriding Considerations in connection with the approval of Weston Ranch Annexation. Nevertheless, the project, if implemented, would result in direct conversion of prime farmland to a non-agricultural use, and the impact is therefore considered potentially significant.

Mitigation Measure 4.2.5. The applicant shall be required to mitigate for converted farmland by obtaining agricultural conservation easements on farmland of equal quality at a ratio of 1:1 acre. The land on which the easements are acquired shall be located not more than twenty miles from the project site, and shall be of equal or greater quality as the farmland converted by the project.

Prior to approval of the final map, the applicant must acquire agricultural conservation easements. The easements, which will remove the development rights from the subject agricultural lands, shall be granted to an appropriate third party, as directed by the Community Development Department. The land on which easements are acquired must be designated for agricultural use and must consist of farmland of equal or better quality as the project site, and shall not be within the sphere of influence of an incorporated city. The agricultural conservation easement may overlap a habitat easement acquired under Mitigation Measure 4.11.1a or 4.11.1b. However, an existing habitat easement does not meet the requirement for mitigating the loss of agricultural land.

1:1 mitigation, where the easement land is of equal or greater agricultural value as the project site, is roughly proportional to the impact of the project to prime farmland. A ratio greater than 1:1 would not be roughly proportional. (See CEQA Guidelines, §15041.

Should the City of Stockton approve an agricultural mitigation fee program prior to approval of the final map, the developer may meet this requirement by paying the appropriate in-lieu fee to the City.

Significance after Mitigation: Implementation of Mitigation Measure 4.2.5 would protect important farmland, and therefore partially offset effects of urban conversion to local and regional agricultural resources and production. However, because agricultural conservation easements would be acquired on existing farmland, there would still be a net loss of important farmland within the county. Therefore, this impact would remain significant and unavoidable.
4.3 Aesthetics

This section analyzes the impacts to the existing aesthetics or visual resources of the project area. Visual impacts would include obstruction of views and vistas or the degradation of the visual character of a locale. This section presents the visual setting of the project area and the regulatory policies governing these resources as presented in the City of Stockton General Plan, Development Code, and Citywide Design Guidelines, and the potential impacts on aesthetic resources.

4.3.1 Setting

Existing Conditions

The project is located in Stockton, north of French Camp Road and west of I-5 at the northwest corner of the Interstate 5 (I-5)/French Camp Road interchange. The project area is located within the Stockton city limits. The project site consists of six parcels of land totaling approximately 65.8 acres.

The existing Weston Ranch residential subdivision is located to the northwest of the project area and borders a portion of the western edge of the project site. Agricultural land is located adjacent to the southwest and southern portions of the project site.

The project area is accessed from I-5 using the French Camp Road and Downing Avenue off-ramps. Local project access is provided by French Camp Road on the south and Manthey Road via Downing Avenue and William Moss Boulevard on the north.

Built Environment

The project site is located on a nearly flat piece of land just west of I-5, at the southern end of the Stockton city limits. The project area consists of approximately 65.8 acres of what is mostly fallow agricultural land. The site has an elevation of between 10 and 15 feet amsl that slopes gently toward the west/northwest. The project area is bordered on the south by French Camp Road and active agricultural fields, to the west and north by medium density suburban housing developments, and on the east by both Manthey Road (frontage road) and I-5. There is an unlined drainage ditch located along the eastern edge of the project area and a concrete lined drainage ditch along the western edge which flow northward to French Camp Slough, which is outside the project area.

The site area contains two inhabited residences and two dilapidated abandoned residences. Aerial utility lines are located along Manthey Road to the corner of French Camp Road, crossing the project area from French Camp to Henry Long, and along both sides of Henry Long Boulevard. Land uses surrounding the project site include an existing residential subdivision and fallow agricultural land to the west where future residential construction is planned. To the south is agricultural land. To the east, between Manthey Road and the I-5 corridor, are vacant parcels.
zoned General Business and Single Family Residential. On the opposite side of the I-5 corridor, the land consists of existing warehouses and light industrial uses. Land to the north consists of a 35-acre parcel of vacant land zoned for residential uses. Further north is an existing residential neighborhood.

**Views and Visual Character**

The visual character of the project area is that of a rural agricultural community with sweeping open viewsheds due to the flat cultivated fields which are interspersed with residential structures and trees.

The view presented by the project site is limited because of the flat topography which allows any elevated feature to then dominate the viewshed. Current views of the project area are dominated by sparse trees and the existing residential structures but these do not block the extended views that are often typical in the valley. The project area is most visible from the Weston Ranch residences and French Camp Road. The most dominating features in the surrounding viewshed are the Weston Ranch Residential Development homes and soundwall to the northwest, I-5 to the east, and the hospital structure to the south. Views from I-5 are mostly obscured by trees and vegetation along this segment because I-5 is not elevated along this section until it reaches the overpass at the south end of the project area.

Approximately 28.5 acres of agricultural fields occur in the project area, mainly in the northern half of the project area. This field has historically been cultivated, but is now barren, except for new growth of grasses and other weed species. Approximately 5.8 acres of developed lands occur in the southeast and western portions of the project area.

**Light and Glare**

The majority of the project area is undeveloped and contains no light sources. The current sources of light in the project area are the scattered residences in and near the project area, the overhead street lighting along French Camp Road, I-5, and the street lighting for the Weston Ranch residential development, as well as the porch lights and lights from windows.

**Regulatory Setting**

**City of Stockton General Plan**

**Land Use Goals and Policies**

**Residential Land Use**

Goal 2: Promote and maintain a safe, healthful and aesthetically pleasing environment for residential development and conserve and enhance distinctive neighborhood identities.
**Commercial Land Use**

**Goal 1:** Direct commercial development to areas where it is complementary to and compatible with surrounding land uses and will visually enhance the environment.

**Policies**

2. Encourage the upgrading, beautification and revitalization of existing commercial areas and shopping centers.

3. The compatible integration of commercial and new residential uses shall be encouraged. Existing residential areas shall be buffered from new commercial uses through the provisions of the zoning code.

4. Commercial areas shall be provided with frontage roads and/or access controls to reduce traffic congestion. Landscaping and design controls should be utilized to create an aesthetically pleasing environment.

5. The creation of new strip commercial areas along arterial streets shall be discouraged to reduce traffic congestion and to enhance the visual appearance of the City.

**Stockton Development Code**

Article 3, Site Planning and General Development Regulations, of Chapter 16, Development Code contains several sections that regulate aesthetic or visual standards for development in the City. These include standards for light and glare, general development considerations such as height measurements and limitations, and screening and buffering, and landscaping. All of these standards are applicable to the project, including the following:

**Division 16-305 – General Performance Standards:**

- 16-305.060 (A) Exterior lights shall be located so as to eliminate spillover illumination or glare onto adjoining properties and to prohibit any interference with the normal operation or enjoyment of adjacent property.

- 16-305.060 (B) Exterior lights shall be made up of a light source, reflector, and shielding devices so that, acting together, the light beam is controlled and not directed across a property line or upward into the sky. Bare bulbs shall not be allowed.

- 16-305.060 (C) Lighting fixtures used to illuminate an outdoor advertising display shall be mounted on the top of the advertising structure and be directed downward.

**Division 16-310 – General Development and Use Standards**

- 16-310.090 (A) The height of structures shall not exceed the standard established by the applicable zoning district in Table 2-3 (Zoning District Development Standards).

- 16-310.100 (A) A screen consisting of plant material and a solid masonry wall shall be installed along parcel boundaries whenever a commercial or industrial development adjoins a residential zoning district or a multi-family project adjoins single-family homes. The screen shall be a minimum of eight feet in height for commercial or industrial development and six feet in height for multi-family
development, except if the Director determines that no activities will occur adjacent to the residential zoning district that would be harmful to the neighboring properties or that the project is an infill project in compliance with Division 16-330 or a downtown project. The maximum height of walls shall comply with the provisions of Division 16-325 (Fences, Hedges, and Walls); heights may be increased if needed to mitigate an impact. Landscaping (trees and shrubs) shall be incorporated adjacent to the non-residential side of the walls to help break up and soften the impact of long, flat surfaces at the discretion of the Director.

- 16-310.110 (B.4) Commercial structures adjacent to residential zoning districts over 35 feet in height shall be set back from the property line adjoining the residential zoning district an additional one foot for each two feet of building height over 35 feet.

Division 16-365 – Standards for Specific Land Uses

- 16-365.310 (D.2) The shopping center or large-scale commercial retail development shall be designed:
  a. So as to have a public street between the commercial use and any residential zoning district, except existing shopping centers or large-scale commercial retail development. An exception may be granted by the Director or Commission, as applicable, for existing development that contains a public street;
  b. So as to preclude bisecting the site with a public street. Any expansion of the commercial development shall not be separated from the original commercial site by a public street. An exception may be granted by the Director or Commission, as applicable, for existing development that contains a public street;
  c. So that all on-site circulation shall occur on private access easements. If the site consists of multiple parcels, a reciprocal access and parking agreement shall be recorded by the property owners and a copy filed with the City;
  d. So that the on-site pedestrian and vehicular circulation system minimizes pedestrian/vehicle conflicts; and
  e. So that the spaces for loading and unloading are in compliance with 16-345.110 (Off-Street Loading Space Standards).

- 16-365.310 (D.3) If a proposed shopping center or large retail use is in a commercial zoning district, except the CD zoning district, and adjoins a residential zoning district, but is not separated by a street, the following shall be provided:
  a. Structure setback. The setback for a structure adjacent to a residential zoning district shall be equal to the height of the building, but in no case shall the setback be less than the landscaping strip required in compliance with Table 3-15 (Width of Landscaping Strip), which requires a 50-foot landscaping strip for project sites over 25 acres.
b. Screening required.

1) Wall. A solid masonry sound wall with a minimum height of 8 feet, or higher if required by an acoustical analysis, shall be constructed and maintained on the project site along the common property line in compliance with 16-310.100 (Screening and Buffering). Pedestrian access may be provided through the wall from a residential neighborhood to a neighborhood-serving commercial use subject to the approval of the Director.

2) Landscaping required. A landscaping strip shall be provided adjacent to the commercial side of the wall with the intention of providing a planting area for trees and shrubs on the commercial site.

a) The width of the landscaping strip shall be in compliance with Table 3-15 (Width of Landscaping Strip), which requires a 50-foot landscaped strip for project sites over 25 acres. If an existing shopping center or large-scale commercial retail use has existing physical constraints (structures, parking, circulation, etc.) that limit the amount of landscaping that can be provided when there is an addition or renovation, landscaping shall be required subject to the Director.

b) Landscaping shall be designed to visually screen the commercial development from the residences and to effectively break up the otherwise long, flat appearance of the wall.

Stockton Citywide Design Guidelines

In March 2004, the City of Stockton adopted the Stockton Citywide Design Guidelines to assist persons involved in the design, construction, and review and approval of development within the City. The guidelines should be used during the development approval process in compliance with design review procedures contained in Chapter 16 of the Stockton Municipal Code. The guidelines are intended as a reference point for the City’s expectations for quality development. The design guidelines present minimum design criteria for the achievement of functional and attractive developments that fit within the context of their surroundings and do not clash with neighboring buildings. In general, the guidelines are intended to ensure that new or modified development preserves or improves the positive characteristics of the City’s image while avoiding negative impacts. The project is subject to the general commercial design guidelines outlined in Section 4.01 of the design guidelines as well as the specific guidelines addressing big box retail (4.02.050) and freeway corridors (4.06). The following design guidelines for big box retail projects along a freeway corridor are applicable to the project:

Big Box Retail

4.02.050

Issues: Big box retail outlets are typically housed in large single story structures more reminiscent of warehouse buildings than retail. The primary design issues related to big box retail are the need to accommodate large parking areas and creating architectural interest to an otherwise plain, unadorned "big box" structure.
Objectives Supported:

- Quality development
- Compatibility with surrounding uses
- Functional site arrangement
- Safe/convenient circulation and parking
- Architectural character

Site Organization:

1. Large commercial sites should be separated from residentially zoned properties by public or private streets, landscaped buffers, and decorative masonry walls in compliance with the Development Code (see above)

2. To reduce the visual impact of large paved areas, parking lots should be broken up into smaller areas separated by landscaping and drive aisles.

3. Storage areas and loading facilities should be limited in number and should be designed, located, and screened to minimize their visibility from adjacent public areas, surrounding streets, freeways, and freeway on/off ramps. Landscaping should be used to reduce the impact of screen walls.

Building Design:

1. The building should be designed with an identifiable base, extending 3 to 5 feet up from the finished grade.

2. The base material should be highly resistant to damage, defacing, and general wear and tear. Stucco should not be utilized as a base material. Precast decorative concrete, stone masonry, brick and commercial grade ceramic tile are examples of acceptable base materials.

3. Distinct and interesting roof lines instead of flat roofed structures are encouraged. A substantial cornice should be used at the top of a parapet wall or roof curb, providing a distinctive cap to the building facade.

4. Big box retail buildings that include shops along the exterior of the building with entrances from the exterior of the building are desirable in order to create a more human scale and pedestrian-oriented character.

5. Building walls should incorporate substantial articulation and changes in plane. Exterior wall treatments such as arcades, portico’s, insets, and colonnades should be used to mitigate the flat, windowless appearance of the typical big-box building.

6. Outdoor sales and storage areas should be screened to blend with the architecture of the main building. The height of the screening elements should be tall enough to screen all stored materials.
Freeway Corridor Design Guidelines

4.06

Applicability:

The design guidelines in this section are applicable to all projects throughout the City that are visible from any of the City's three freeways and their associated interchange and on/off ramps.

Design Guidelines (4.06.040):

Issues: The elevated portions of freeways, interchanges, and on/off ramps afford motorists many views of the City. Some are inspiring, such as views of the Channel area and downtown’s tall, prestigious buildings, while other views, such as disorganized storage and equipment areas, and dilapidated structures offer a less appealing view of the City. The main issues related to views from the City’s freeway corridors include:

- Ensuring that potentially negative visual impacts are mitigated through appropriate design techniques.
- Ensuring that development adjacent to freeways, including on/off ramps is of the highest quality.
- Ensuring that views to the Channel area and downtown are protected and enhanced where possible.
- Ensuring that developments along freeways at regional entry gateways to the City achieve exemplary design quality.

City Gateways:

Stockton’s two major freeways (I-5 and SR-99) serve as regional entry points to the City. As visitors enter the City, their first impressions of what lies ahead are often formed at these important gateways. The City considers the visual impressions created by the physical appearance of these gateway areas to be very important in providing an appropriate positive image for Stockton. For this reason, the City’s expectations for its gateway areas are one of high quality design and for buildings that create landmark architectural statements. The City’s freeway corridor gateways are considered to be those areas within one-quarter mile of the following intersections:

- I-5 and Eight Mile Road
- SR99 and Eight Mile Road
- I-5 and French Camp Road
- SR99 and Arch Road

Within these areas, the City encourages and expects superior quality architectural design that establishes a strong entry statement and a positive image for the City. Developments within gateway areas should exhibit the following characteristics:
• Well-articulated buildings with a high degree of architectural detail on the freeway frontage. Buildings should not turn their backs to the freeways

• Vertical elements (e.g., clock tower) that create points of visual interest when viewed from the freeways

• Roof designs that are visually interesting and designed to completely screen all rooftop equipment from freeway views

• Use of high quality materials

• Extensive use of landscaping and open space

• Well-designed site layouts that place uses with potentially negative visual impacts away from the freeway frontage

Site Organization and Screening

1. The overall site design of a project should consider the project's visibility from nearby freeways, including on/off ramps, and should arrange areas with potentially negative visual impacts, such as outside storage and service or loading areas so that they are screened from view by buildings.

2. In areas where outdoor storage is allowed, including residential areas, the storage of materials should be organized in a neat, orderly manner and screened from view to the greatest extent feasible.

3. When it is necessary to turn the backs of buildings toward an adjacent freeway or on/off ramp, areas provided for storage, trash enclosures storage, utilities, and loading should be adequately screened with walls, overhead structures, and significant landscaping to screen their view from the freeway or on/off ramp.

4. Outdoor sales/storage areas such as those associated with warehouse-type commercial businesses should be screened from view from adjacent freeways and ramps.

5. Roof mounted equipment is required to be screened from public view in compliance with requirements of the Development Code (Screening and Buffering). In cases where buildings are located near elevated freeways and roof mounted equipment may, therefore, be more visible, such equipment should be relocated or provided with appropriate screening so that it is not visible from the freeway. The design of screening devises should consider the following:

a. Architectural screens should be an extension of the development's architectural character.

b. Screen walls should be constructed of low maintenance and durable materials, which are consistent with the main building's materials.
Building Design:

When buildings back up to and are visible from freeways or on/off ramps, extra care should be taken to provide wall and roofline articulation and architectural detailing so that all sides of the building create visual interest.

Landscaping:

Extensive landscaping should be provided at the perimeter of the project, adjacent to the freeway or on/off ramps to effectively screen nonpublic portions of the project. The use of tall, evergreen trees is encouraged.

**California Scenic Highway Program**

The California Department of Transportation (Caltrans) manages the California Scenic Highway Program. The program’s goal is to preserve and protect scenic highway corridors from changes that would affect the aesthetic or visual value or character of the adjacent lands and scenery.

There are no state-designated scenic highways in the vicinity of the project site. The nearest highway segment designated as scenic highway within San Joaquin County is a 0.7-mile segment of I-5 from the Stanislaus County border to its intersection with the 580 corridor. This segment is located approximately 22 miles southwest of the Weston Ranch project area.

### 4.3.2 Impacts and Mitigation Measures

**Significance Criteria**

The significance criteria for this analysis were developed from criteria presented in Appendix G of the CEQA Guidelines and based on the professional judgment of the City of Stockton and its consultants. The project would result in a significant impact to aesthetic resources if it would:

- Have a substantial adverse effect on a scenic vista;

- Cause a substantial inconsistency between the project and guidelines in the City of Stockton General Plan, Municipal Code, or Citywide Design Guidelines;

- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway or county scenic route;

- Substantially degrade the existing visual character or quality of the site and its surroundings; or

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

Construction of the project would not impact an identified or unique scenic vista, cause a substantial inconsistency with policies outlined in the City General Plan, or substantially damage any scenic resources such as a historic building, landmark trees, or rock outcroppings. However, impacts associated with the degradation of local visual character and light and glare will be discussed further below.

Impact 4.3.1. Aesthetic Resources – Degradation of Local Visual Character. This is a potentially significant impact.

Implementation of the project would substantially alter the local visual character of the project site through conversion of open, agricultural land to developed commercial uses. Assessing the visual quality of an area is a subjective process and reasonable people can disagree as to whether such an alteration in the visual character of the project site would be considered a substantial degradation of the existing visual character or quality of the site and its surroundings. A conservative approach was taken for this analysis and the potential for degradation of the visual character of the project site is considered a potentially significant impact.

The project site consists primarily of agricultural land and rural residential uses. Implementation of the project would result in the permanent conversion of the 65.8-acre site to commercial development. Conversion of the project area from agricultural and rural residential uses to commercial development would result in a substantial alteration of the local visual character of the project area. Sensitive receptors of the post-project altered visual character of the project site would be the current residents living in Weston Ranch residential housing development, the scattered rural residents living in the vicinity of the project area, any future residential development planned for areas west of the project area, and travelers on I-5.

Altered east facing views would be most affected for those residences living nearest the western edge of the project area. An approximately 10 foot concrete soundwall exists along the eastern edge of the housing development which already blocks most of the east facing views for the single story residences. However, the majority of the houses along what would become the western edge of the commercial center are two storey structures that currently command an open east facing viewed. This open viewed is moderately interrupted by I-5 but the mature trees and vegetation along the highway and the open area in between prevent I-5 from being a visual nuisance. Views from the residential developments located beyond and to the north of the project area, north of William Moss Boulevard, and those residences located further to the west of the project area, west of Mossbrook Lane would be become interrupted with the development of the project area.

The project area consists of what is a common agricultural viewed found in many locations throughout San Joaquin County. The proposed commercial development would create visual conditions in the project area similar to existing views in urban settings found in the nearby Stockton area. Implementation of the development and design standards established in the
City of Stockton General Plan and Municipal Codes would ensure that the general visual character and quality of the development would be consistent with the public’s view of similar urban environments. Nevertheless, some people may regard the conversion of the current view of agricultural land to that of a shopping center (even if in compliance with applicable design guidelines) as the loss of a desirable and aesthetically pleasing local view shed.

Under the applicable thresholds established by Appendix G, the project would only create a significant impact if it “substantially degraded the visual character or quality of the site and its surroundings.” Although conversion of the site from agricultural land to a commercial development alters the character of the property, it does not “substantially degrade” it. The City of Stockton General Plan and Municipal Design Codes provide standards and policies of urban design and development to ensure that new development adheres to certain aesthetic guidelines, which will serve to mitigate the aesthetic impact of the development. Therefore, impacts related to the degradation of the local visual character from agricultural to commercial due to development of the project are considered **less than significant with mitigation**.

**Mitigation Measure 4.3.1.** Impacts will be reduced by the projects compliance with all municipal design guidelines (e.g., design review, landscaping, building articulation, etc.).

**Impact 4.3.2. Aesthetic Resources - Create new source of light or glare.** The project would require a significant amount of new lighting for security and for parking areas. This new lighting would create a new source of light and/or glare that could be considered an impact to adjacent residential areas. Additionally, the project could contribute to additional lighting that would diminish the degree of darkness in the project area and effectively obscure night sky views. However, the project is subject to the City of Stockton Municipal Code. The lighting and glare guidelines outlined in the City of Stockton Municipal Code are designed to reduce and minimize these impacts. Therefore, this impact is considered less than significant.

Current conditions in the project area are that of minimal development, being primarily a rural agricultural area. The current primary sources of light in the vicinity of the project area are the street lighting along French Camp Road and the residential and street lighting located in the Weston Ranch housing development. Development of the project site would require new lighting for the parking area and for security purposes. The project would create a new source of light and/or glare in the area. Additionally, the project could contribute to additional lighting that would diminish the degree of darkness in the project area and effectively obscure night sky views. However, lighting and glare guidelines provided in the City of Stockton’s Municipal Codes for Design and Development require that all light sources be shielded and directed downwards so as to minimize trespass light and glare to adjacent residences. Design standards adhering to the City’s developmental regulations and guidelines for commercial lighting would reduce glare and the amount of light trespass. Therefore, the impacts related to nighttime light and glare and light trespass to adjacent residences would be considered less than significant. Impact 4.13-2 is considered less than significant, and therefore, no mitigation measures are necessary.
Mitigation. No mitigation is required.

Impact 4.3.3. Architecture and Design – Consistency with City of Stockton General Plan, Municipal Code, and Citywide Design Guidelines. The project has been designed in accordance with the design standards contained within the City of Stockton General Plan, Municipal Code, and Citywide Design Guidelines. Therefore, this impact is considered less-than-significant.

The project site is located along the I-5 freeway corridor just north of the French Camp Roan/I-5 freeway interchange, an identified City freeway corridor gateway and is therefore subject to the Freeway Corridor Design Guidelines contained within the Citywide Design Guidelines. In addition, the project consists of a big box retail commercial development project and is also therefore, subject to the Citywide Design Guidelines Big Box Retail guidelines (as outlined above). As Figure 3-6 (Landscape Plan) illustrates, the entire perimeter of the project site consists of a landscaped buffer comprised of a variety of planting types, including American Sweet Gum, Chinese Pistache, London plane Tree, Mondell Pine, and Holly Oak. In addition, the parking areas and internal road network are also heavily landscaped in accordance with applicable City guidelines.

In addition, all architectural elements, including signage (Figures 3-7 and 3-8), building materials, architectural design (see Figure 4.3-1 for preliminary building elevations for the Wal-Mart Supercenter) and character, height, setback, landscaping, and lighting, associated with the project will be designed in accordance with all applicable established City policies and guidelines and will be subject to City approval prior to project approval. Design standards relating to architectural design and character adhering to the City’s design standards contained within the Municipal Code and the Citywide Design Guidelines will be followed to ensure that the project conforms to the City’s standards for development. Therefore, impacts associated with architecture and design would be considered less than significant.

Mitigation: No mitigation is required.
4.4 Urban Decay

Introduction

This chapter of the EIR analyzes the potential of the proposed Weston Ranch Towne Center Project ("project") to result in urban decay impacts. The chapter discusses the various factors involved in assessing such impacts, evaluates relevant current economic and demographic trends in the Stockton area, and considers whether implementation of the proposed project would lead to significant adverse physical effects on retail and other properties within its market area, either by itself or cumulatively.

For the purposes of this section, “project” refers to the proposed Wal-Mart Supercenter and a second major retailer, as well as the associated smaller retail developments planned for the Weston Ranch Towne Center. This section presents key data, analysis, and findings of the urban decay analysis for the proposed project, which can be found in its entirety in Appendix C. Specific analysis of future development of the Barkett property was not included because it is uncertain when the property will be developed and with what uses. However, the total size of the proposed project and the associated urban decay analysis is sufficient to include potential development of the Barkett property.

Background

According to the California Environmental Quality Act (CEQA) Guidelines (15358 [b]), impacts to be analyzed in an environmental impact report (EIR) must be “related to physical changes” in the environment. While the CEQA Guidelines (15131 [a]) do not directly require an analysis of a project’s social or economic effects because such impacts are not in and of themselves considered significant effects on the environment, the guidelines also state:

An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes caused in turn by economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.

The CEQA Guidelines also provide that physical effects on the environment related to changes in land use, population, and growth rate induced by a project may be indirect or secondary impacts of the project and should be analyzed in an EIR if the physical effects would be significant (see Guidelines 15358[a][2]).

The State of California Fifth District Court of Appeal recently ruled that CEQA can require analysis of physical urban decay or deterioration resulting from the development of new shopping centers (Bakersfield Citizens for Local Control v. City of Bakersfield (2004) F044943 (Super. Ct.
No. 249669)).¹ The Court also ruled that the cumulative impact analysis for the proposed shopping centers should consider all other past, present, or reasonably foreseeable future retail projects within the project’s market area.

In a second recent case (Anderson First Coalition v. City of Anderson [2005] 130 Cal. App. 4th 1173) the Third District Court of Appeal upheld an EIR analyzing a proposed shopping center. In this case, the EIR included an economic analysis that evaluated the proposed retail development project’s impact on other businesses. In upholding the EIR, the court determined that the lead agency had evaluated the urban decay issue adequately and had provided sufficient substantial evidence to support its findings.

**Urban Decay Analysis Approach**

Since the project is likely to compete with a number of existing businesses within Stockton, ESA performed an urban decay impact analysis for the project. Particular attention was devoted to assessing the extent of the contributory effect associated with the project and other proposed retail development on local urban decay.

The analysis presented in this chapter of the EIR:

- Evaluates the expected economic effects of the project on Stockton’s retail businesses.
- Considers the extent to which these effects would be expected to result in changes in the extent and severity of urban decay in Stockton.

The project would provide additional retail competition with existing retail businesses within Stockton and in the general Stockton area. Depending on the nature of this new competition and the retail market at the time of project completion, the project could cause the closure of businesses. If insufficient retail demand exists for the vacated properties to be re-tenanted, these business closures could result in long-term or permanent vacancies, which could, in turn, contribute to, or be the cause of, urban decay within Stockton. A number of factors in addition to changes in retail sales influence changes in levels of financial decay and are therefore considered in this analysis. These factors include property value trends, demographic changes, and governmental programs and actions aimed at ameliorating or preventing urban decay.

**Method**

The analysis presented in this chapter of the EIR is based upon the more detailed assessment of economic factors relevant to urban decay in Appendix C. The following tasks were conducted as part of the detailed assessment:

- Compilation of a comprehensive inventory and assessment of the major local retail businesses and shopping centers to identify the competing retailers that could potentially be most impacted by the project (see: Inventory of Existing Retailers).

¹ The Appeals Court specifically noted that “urban decay” is distinct from “urban blight,” which, per the California Health & Safety Code (Sections 33030 to 33039) definition, is not applicable to this project.
4.4 Urban Decay

- Analysis of Stockton’s current retail sector and demand conditions (see: Current Retail Sales in Stockton, Retail Leakage Analysis, Retail Demand Trends).

- Identification of Stockton’s current economic development policies and programs for urban renewal (see: Current Redevelopment Policies and Projects).

- “Leakage” analysis assessing the inflows and outflows of consumer retail spending to and from the Stockton economy (see: Retail Leakage Analysis).

- Analysis of the current commercial and residential real estate markets in the Stockton region (see: Real Estate Analysis).

- Estimation of the project’s future sales by retail category (see: Retail Sales for the Project).

- Projection of future sales by potential/likely future new Stockton retailers by retail category (see: Sales by Potential Future Stockton Retail Developments).

- Market analysis to identify the project’s expected market area (see: Market Analysis).

- Estimation of the average annual expected growth in Stockton’s future retail demand (see: Future Retail Demand Growth).

- Projection of potential “sales shift” impacts on existing retailers both from the project and from potential new Stockton retailers, in order to evaluate the likelihood of project-related business closures (see: Potential Sales Shift Impacts to Existing Retailers).

- Real estate analysis to evaluate the potential for re-tenanting of vacated properties and the likelihood of project-related long-term building vacancies and related urban decay impacts (see: Real Estate Analysis).

4.4.1 Existing Conditions

The existing conditions analysis identifies the current retail sector conditions to identify and understand the baseline conditions for the subsequent impact analysis. In addition to evaluating the Stockton retail sector and major potential project competing retailers, the section also identifies Stockton’s economic development policies and its program for fostering urban renewal within Stockton.

Inventory of Existing Retailers

ESA conducted an extensive inventory of the retailers currently operating in Stockton and the neighboring cities of Manteca, Tracy, and Lathrop to evaluate general retail conditions for Stockton and south San Joaquin County. The inventory included background research, data collection, and site visits to most of the principal retailers and shopping centers. In addition, key contacts were identified and, when possible, interviewed to gather additional information on the region’s retail market. However, most of this information is qualitative in nature. Some financial

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2 An initial assessment of the greater Stockton region was performed to understand the Stockton retail sector’s broader context.
information was obtained from Info-USA on store sales, although the data may under-report actual sales due to survey response biases and data collection approaches. Retailers were selected, based on their reported Standard Industrial Classification (SIC) codes and operations. The retailers selected for analysis were those expected to be in direct competition with the Weston Ranch project due to similarities in goods and customer base.

The analysis concluded that most of the retail stores in the Stockton region are relatively well-established in the market. Numerous major large-scale discount retailers have been operating in Stockton and the region for many years. Furthermore, during the last several years, several national retailers have added new stores or upgraded their facilities, thereby indicating confidence in and a commitment to the local retail market. Tables 3-1 and 3-2 in Appendix C identify most of the major general department store retailers, groceries, and drugstores in the Stockton area expected to compete with the proposed project. Figures 4.4-1 to 4.4-3 show the major competing retailers’ locations. As the figures indicate, most of Stockton’s retailers are clustered in north Stockton, with a very limited number serving the south and central Stockton areas despite the considerable residential populations living in those areas.

The City of Stockton was contacted in order to obtain information on the square footage estimates for the major retailers within Stockton and thus develop estimates of sales per square foot for the major retailers. The retailer list was cross-verified for selected retailers that were either missing from the Info-USA database or that appeared to have inaccurate or incomplete data. ESA contacted individual store managers and reviewed public financial reports to obtain the best available data for these retailers. The primary retailers expected to experience the majority of the retail impact from the proposed Weston Ranch project are major general merchandise department store retailers (i.e., those other retailers most similar to Wal-Mart), major supermarkets, and drugstores. Therefore ESA did not include smaller grocery stores and drugstores (with less than 15,000 square feet) in the inventory of competing retailers (see Tables 3-1 and 3-2 in Appendix C).

During the 1990s, Stockton went through a prolonged period when little retail development occurred. As a result, many of the real estate brokers who were interviewed for the retail market analysis indicated that the recent, ongoing retail development boom can be partially attributed to the market “catching up” after years of inactivity. This period of low retail development activity in the 1990s also likely explains much of the deferred maintenance at many of the area’s shopping centers.

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3  SIC Codes for General Merchandise Stores (53), Food Stores (54), Apparel & Accessory Stores (56) and Miscellaneous Retail (59) were searched.
4  Initial data was collected for all such business with 10 or more employees.
Major Large Scale Discount and Department Store Retailers Operating in the Stockton Region (2005)

SOURCE: InfoUSA, 2005; MapQuest, 2005; and ESA, 2006

Figure 4.4-1
Figure 4.4-2

Major Grocery Stores
Operating in the Stockton Region (2005)

SOURCE: InfoUSA, 2005; MapQuest, 2005; and ESA, 2006
PROPOSED PROJECT LOCATION

MAJOR DRUG STORE LOCATIONS*

- L: Longs Drugs
- R: Rite Aid Pharmacy
- W: Walgreens

* Locations more than 15,000 square feet in size.

SOURCE: InfoUSA, 2005; MapQuest, 2005; and ESA, 2006

Figure 4.4-3
Major Drugstore Retailers Operating in the Stockton Region (2005)
**Major Stockton Area Shopping Centers**

Brief descriptions of major existing Stockton retail shopping centers, based on site surveys conducted in March 2005, are presented in Appendix C. Consistent with recent decisions by the Courts of Appeal concerning urban decay analyses in CEQA documents, the occupancy levels and physical condition of facilities are noted in these descriptions, as well as the types of retail activity and goods stocked. The names, primary anchor tenants, estimated size, and date of construction of the principal major shopping centers in Stockton are presented in Appendix C (see Table 4-2). Figure 4.4-4 shows their locations; the centers are listed in order of their increasing distance from the proposed Weston Ranch project.

As can be seen from the Figures 4.4-1 through 4.4-4, there is relatively little retail development in south and central Stockton. The great majority of retail development is located in north Stockton, generally along the principal retail corridors of Hammer Lane, Pershing Lane, Pacific Avenue, and March Lane. Stockton’s central downtown area currently has relatively little retail business activity, and the area has been undergoing significant redevelopment efforts under the City’s waterfront redevelopment plan. Recent and planned new development includes the new City Center Cinema complex, the Stockton Ballpark, hotel redevelopment, and the Stockton Events Center, now under construction.

Many of Stockton’s shopping centers were constructed before 1991, after which relatively little new retail development occurred until the late 1990s. As discussed in detail in the real estate analysis sections in Appendix C, considerable new retail development in Stockton occurred in the late 1990s. This retail expansion is continuing as the strong local housing and commercial real estate markets generate demand for new retail development.

**Major Competing Retailers**

In addition to surveying the principal shopping centers, information was also collected on most of the principal retailers operating in Stockton to qualitatively evaluate their condition, operations, product selection, and clientele. The purpose of these assessments was to determine which stores would be expected to be most competitively affected by the project and to evaluate the ability of these businesses to absorb and respond to additional retail competition. While the detailed findings and observations are presented in Appendix C, the major observations are summarized below.

Large-scale discount retailers such as Wal-Mart, Target, and K-Mart are classified as “general merchandise stores” by the California Board of Equalization and these retailers compete extensively through the country. Other big-box retailers and grocery stores such as Costco, Food 4 Less and Winco are present in the Stockton region and may also be expected to compete with the proposed project. In addition, many smaller grocery stores or specialized retailers are currently operating in Stockton that could be affected by increased retail competition from the proposed project.
Figure 4.4-4
Major Shopping Centers Operating in the Stockton Region (2005)

SOURCE: USGS, 1993; San Joaquin County; City of Stockton; and ESA, 2006
According to several local commercial real-estate brokers interviewed as well as in ESA’s professional opinion, most of the retail and grocery stores in the Stockton region are well-established in the market. Most of the major large-scale discount retailers have been operating locally for many years. More recently, several national retailers have upgraded or added new stores, thereby showing their confidence in and commitment to the local retail market. The long standing presence of large-scale discount retailers has likely ensured that most of the less profitable retailers that were unable to compete effectively with these large-scale discount retailers have already ceased their retail operations in the region. In past retail impact studies, the greatest impacts on existing retailers from new retail development typically occurs in more rural communities, where prior to the discount retailers arrival there generally had been relatively limited retail competition. In more urban and relatively mature retail markets like Stockton’s, smaller retailers may be affected by a new large-scale discount retailer but a major portion of the proposed project’s competition for customers is likely to be from similar larger retailers.

**Current Redevelopment Programs and Projects**

In addition to the inventory and assessment of major retailers in Stockton, site visits were used to evaluate the project surroundings and to evaluate the extent of existing urban decay and current City of Stockton urban renewal efforts. Extensive background research and telephone interviews were conducted with local government agencies and organizations to obtain background information and analysis on the nature of existing urban decay within Stockton. Agencies contacted included: the City of Stockton Redevelopment Department, the City of Stockton Economic Development Department, the City of Stockton Neighborhood Services Section, the San Joaquin Council of Governments, and the San Joaquin Partnership.

While there is very limited quantitative data or analysis, respondents generally agreed that the areas of Stockton subject to urban decay are generally located within Stockton’s redevelopment areas. Although there are urban decay conditions associated with other buildings and businesses within Stockton, staff from the City of Stockton’s Neighborhood Services Section indicated that run-down residential buildings in low-income neighborhoods are the main contributors to blight in most of Stockton (Daly, 2005). Over the last ten years, major efforts have been made to improve Stockton’s. Since 1995, the Neighborhood Services Section’s staff has increased from 3 to 16 employees and other staff resources and program funding within the City have also expanded considerably, greatly increasing the City’s resources and capacity to monitor and enforce code compliance. Previously, enforcement was relatively weak and consequently non-compliance by local residents was common.

Stockton redevelopment areas as well as the City’s recently completed and ongoing redevelopment projects are identified and discussed below. The City’s key economic development programs and funding sources focused on urban decay are also discussed below.
City of Stockton Redevelopment Programs and Funding

The City works in partnership with housing organizations and relies on numerous federal, state, local and private entities to fund its housing and community development programs. It currently operates several programs that are specifically intended to assist and encourage Stockton residents to improve and maintain their homes. The City’s main funding sources and principal redevelopment programs include:

- The Community Development Block Grant (CDBG) program provides federal funding specifically targeted to: (1) provide benefits to low- and moderate-income persons; (2) eliminate slums and blight; and (3) meet urgent community needs. Stockton successfully obtained a total $15.5 million budget for the 2005–2006 fiscal year.

- The Home Investment Partnership (HOME) Program provides funding for housing rehabilitation, new construction, and/or the acquisition of affordable. The City acquired a total $9.6 million budget for the 2005–2006 fiscal year (City of Stockton, 2005).

- The U.S. Department of Housing and Urban Development provides additional loan assistance to CDBG entitlement communities for large-scale economic development. Since 1998, the City has received Section 108 loans totaling $29 million for numerous urban renewal projects in the downtown and surrounding areas.

- Stockton also receives support for its housing and economic development efforts from a variety of state loans and grant assistance programs including: the Low Income Housing Tax Credit Program; Tax Exempt Bond Program; Proposition 46 Housing Bond; Cal Home Program and tax incentives from the State Enterprise Zone Program.

- The Stockton Redevelopment Agency uses tax increment funds earned from businesses and property owners within designated redevelopment areas to foster redevelopment within these areas. The City also offers tax and fee deferral incentives to foster new housing and business development within Stockton.

Redevelopment Areas within Stockton

City governments throughout California establish redevelopment areas to assist in eliminating blight and urban decay by encouraging reconstruction and rehabilitation of deteriorated and underused urban areas. As a result, redevelopment areas are frequently strong indicators of a city’s economic health. Areas of urban blight or areas that are vulnerable to potential future decay impacts are often targeted by redevelopment agencies specifically to avoid potential future adverse economic impacts. Figure 4.4-5 shows the six redevelopment areas that encompass most of the existing urban decay within Stockton.

Recent and Ongoing City Redevelopment Projects

Over the last several years, the City has completed a number of major individual redevelopment projects designed to foster economic redevelopment and address urban decay within Stockton. Recently completed redevelopment projects now contributing to Stockton’s downtown revitalization include:
• Children’s Museum;
• City Center Cinemas Project;
• Stockton Event Center – the baseball stadium and a 10,000-seat Stockton Arena has been built. A future hotel and conference center is under construction;
• Gateway Block – the 60,000-square-foot commercial development was completed in 2001 to attract visitors and local residents downtown;
• Weber Point Event Center – this public space development complements the ongoing Weber Avenue Streetscape Beautification project and recent Fox Theater restoration;
• Downtown Transit Center;
• Renovation of the Historic Hotel Stockton – adaptive reuse of the hotel will include 156 low-income and senior apartments and 20,000 square feet of new retail; and
• Edmund Coy Parking Garage.

Other economic development projects now planned or under construction include:

• Stockton Event Center – A hotel and conference center is under construction;
• Gleason Park Master Development Area – 96 affordable housing units and an elementary school will be built first followed by additional residential, commercial, and
• University Park at the CSUS Campus – approximately 500,000 square feet of primarily office space will be built with some other mixed use development.

While most of its current economic development efforts are focused on the downtown area, the City is also creating redevelopment plans for other areas throughout the City. The successful revitalization of Stockton’s downtown is expected to have a positive influence throughout the City by improving the quality of life for residents and visitors, as well as improving its general attractiveness to commercial businesses.

Current Retail Sales in Stockton

The following section adjusts published taxable sales data for 2003, obtained from the California State Board of Equalization, into 2008 dollar terms. In addition, the taxable sales estimated were adjusted to account for untaxed sales to estimate the total annual gross sales by Stockton retailers.

The major new retailers entering the Stockton retail market were identified and their annual sales have been estimated and combined with the year 2003 sales data to estimate the Stockton retail sector’s total gross sales in 2005. These gross sales estimates were then reduced to isolate only the retail sales of project-competing goods and thus determine the baseline conditions for the subsequent retail impact analysis.
**Taxable Sales**

Taxable sales information for 2003 published by the California State Board of Equalization provides the most current, as well as the most reliable and comprehensive, retail sales information available for Stockton (California State Board of Equalization, 2005). The California State Board of Equalization reports quarterly on retail sales activity within California, which is measured by observing the sales transactions subject to state sales and use tax. Taxable sales statistics are reported (categorized according to type of business) for all California counties and most cities. State Board of Equalization data represents a primary source of sales data for retail businesses operating in California.

The 2003 taxable sales figures were used as the basis for estimating total gross sales in Stockton through 2005, the year the revised Notice of Preparation for this EIR was issued and thus the environmental setting’s baseline year. The 2003 taxable retail sales by all retail groups for Stockton and California are presented in Table 4.4-1. Stockton’s reported $2.5 billion in total taxable retail in 2003 qualified it as the sixteenth largest retail market in California and the fourth largest in Northern California (Eureka Group, 2005). The City of Tracy reported $850 million in taxable retail sales in 2003; combined retail sales for Stockton and Tracy were almost as large as the City of Sacramento’s retail sales in the same year.

In terms of retail sales growth, over the five year period from 1998 to 2003, the Stockton region had the third highest annual growth rate in California. San Joaquin County’s retail sales grew by an average of 10.8 percent per year between 1998 and 2003, with Stockton itself the fastest growing area of the County. In comparison, California’s annual retail growth in the same period was 6.9 percent (Eureka Group 2005). Furthermore, Stockton itself has been the fastest growing area San Joaquin County. These figures indicate both the increasing importance that the retail sector plays in the Stockton region’s economy and the importance of the Stockton region as a major retail center in California.

**Gross Sales**

As shown in Table 4.4-1, the total taxable retail spending in Stockton was over $2,511 million. On a per capita basis, Stockton’s average taxable sales are approximately $9,382 per capita (in 2003 dollars) and were more than 5 percent higher than the corresponding statewide average of $8,911. A significant portion of grocery store and general merchandise retail sales consist of non-taxable items that are unreported in the California Board of Equalization figures. Therefore, taxable sales were adjusted to determine gross retail sales estimates that account for sales of non-taxable goods. Based on discussions with State Board of Equalization analysts, it was determined that to estimate gross general merchandise sales, taxable sales should be increased by 5 percent to account for un-taxed drug store sales. State Board of Equalization analysts estimated that taxable sales at grocery stores likely range between 30 percent and 35 percent of their total sales revenues (California State Board of Equalization, 2005). The reported taxable grocery sales were approximately tripled to estimate gross sales of grocery items per capita. It is estimated that gross average grocery sales reported in the food category were $2,109 (i.e., assuming taxable sales are 32.5 percent of the total sales).
### TABLE 4.4-1
GROSS RETAIL SALES IN STOCKTON AND CALIFORNIA (2003)

<table>
<thead>
<tr>
<th>Retail Sector Categories</th>
<th>California</th>
<th>Stockton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>$15,179.7 m</td>
<td>$17,580.7 m</td>
</tr>
<tr>
<td>General Merchandise(^b)</td>
<td>$50,550.8 m</td>
<td>$61,514.0 m</td>
</tr>
<tr>
<td>Food(^c)</td>
<td>$19,407.8 m</td>
<td>$69,212.5 m</td>
</tr>
<tr>
<td>Eating and Drinking</td>
<td>$40,049.7 m</td>
<td>$46,413.1 m</td>
</tr>
<tr>
<td>Home Furnishings and Appliances</td>
<td>$15,104.2 m</td>
<td>$17,506.7 m</td>
</tr>
<tr>
<td>Building Materials(^d)</td>
<td>$30,693.8 m</td>
<td>$35,568.6 m</td>
</tr>
<tr>
<td>Auto Dealers and Auto Supplies</td>
<td>$67,052.1 m</td>
<td>$77,725.2 m</td>
</tr>
<tr>
<td>Service Stations</td>
<td>$27,714.6 m</td>
<td>$32,126.4 m</td>
</tr>
<tr>
<td>Other Retail Stores(^e)</td>
<td>$54,464.3 m</td>
<td>$63,142.5 m</td>
</tr>
<tr>
<td>Total – All Retail</td>
<td>$300,217.1 m</td>
<td>$420,863.7 m</td>
</tr>
</tbody>
</table>

**NOTES:** Totals may not add up exactly, due to rounding; \(m\) = millions.

Stockton MSA population for July 2003 estimated to be 267,675.
San Joaquin County Population for July 2003 estimated to be 627,124.
State of California population for July 2003 estimated to be 35,934,000.

\(^a\) 2003 dollar terms adjusted into 2008 dollar terms assuming a 3% annual rate of inflation.
\(^b\) General Merchandise taxable sales increased by 5% to account for non-taxed drug store sales.
\(^c\) Grocery sales increased to account for sales of non-taxable goods which are estimated to account for 65% to 70% of total sales.
\(^d\) Gross sales shown in this table include farm equipment dealers.
\(^e\) Gross sales shown in this table include specialty goods (such as sporting goods, office supplies, jewelry) as well as garden supplies.

**SOURCE:** ESA; State Board of Equalization, 2005; California Department of Finance, Demographic Research Unit, 2005.

Based on these gross retail sales estimates and census population figures shown in **Table 4.4-1**, total average per-capita gross retail spending in Stockton was estimated to be $12,397 (in 2008 dollars).\(^5\) For the general merchandise and food categories, it was estimated that the average person spent $2,047 and $2,109, respectively, per year (in 2008 dollars).

**Sales by Major New Stockton Retailers**

To estimate the total Stockton retail sales for 2005, the 2003 retail sales were adjusted to incorporate additional sales from the new retail sales by the major new retail development that has occurred within Stockton since January 2003.\(^6\) The new Stockton retail development consisted primarily of the three major shopping centers and several minor stores identified below:

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\(^5\) Retail sales estimates for the impact analysis are expressed in 2008 dollars to facilitate comparisons of past and future retail sales projections. 2008 dollars are used because, if approved, the project would be completed in 2008.

\(^6\) New retailers since January 2003 were identified so that annualized adjustments to the State Board of Equalization 2003 data could be made, to represent the retail sales of Stockton for 2005.
The Pacific Town Shopping Center. Approximately 170,000 square feet of new retail opened at the shopping center in August 2003. Since the Pacific Town retailers operated and reported retail sales during part of 2003, the net pro-rata adjustment for annual retail sales for subsequent years is estimated to be $20.0 million in 2008 dollars (furniture sales were excluded because such sales will not compete with the proposed project’s expected future retail development).

Spanos Park West. Approximately 765,000 square feet of new retail construction at the site was completed between 2004 and 2006. Based on national sales per square foot averages and the retail configurations detailed in the NOP submission for the Spanos Business Park (LSA, 2006), it is estimated that the new Park West Place will generate approximately $217.8 million in annual total retail sales, of which $157.6 million will be from goods that would also be sold by Weston Ranch retailers (i.e., excluding sales at Lowe’s and large-item furniture stores).

Hammer Lane Wal-Mart Supercenter. The relocation of the North Stockton to the new 3223 East Hammer Lane site added another 83,000 square feet of retail for a total of 208,000 square feet that would have annual sales of up to $85.9 million. It has been conservatively estimated that the former site at 3702 East Hammer Lane has been back-filled by new retail that competes with the project.7

Other minor miscellaneous retail development. Several other individual new retail and restaurants have also opened since 2003 throughout Stockton. However, most of these businesses are small (i.e. less than 3,000 sq. ft.). Due to their small size and local market focus, these minor developments would be expected to have negligible effects on major retail centers. The Downtown City Centre Cineplex added approximately 18,000 square feet of retail development, which is primarily focused to serve downtown visitors and therefore is not considered likely to compete directly with the project. In 2004, Food-4-Less opened a new store of its Rancho San Miguel supermarket franchise in South Stockton. The 41,000 square foot grocery store also has an associated gas station operation. Together, Rancho San Miguel is estimated to add $19.4 million in sales annually.

As shown in Table 4.4-2, new retail development within Stockton between 2003 and 2005 is estimated to have added $283.3 million in gross sales to the Stockton 2003 retail sector’s economy. As discussed in detail in the Market Analysis for the project in Appendix C, a considerable portion of these sales may be expected to be generated from secondary and tertiary market customers who are not Stockton residents. A conservative reduced market area assumption of 15 percent for these customers has been applied. Accordingly, it is projected that approximately $241.8 million (85 percent) of these new sales have been generated as new sales from Stockton residents. Otherwise, these new retail developments would be expected to draw retail sales away from existing Stockton retailers.

The per capita gross retail sales for Stockton estimated in Table 4.4-1 were multiplied by the Stockton’s estimated 2003 population to estimate the total gross sales in Stockton for all goods as shown in Table 4.4-3. It is estimated that the gross retail sales for all goods were approximately $3,319 million (in 2008 dollars). Based on analysis identifying the expected retail goods to be sold by the proposed Weston Ranch project, the total gross sales were then adjusted to determine the gross sales project competing goods. As shown in Table 4.4-3, Stockton’s estimated annual gross sales of project competing goods is estimated to be approximately $2,071 million.

7 The former North Stockton Wal-Mart building (at 3223 East Hammer Lane) was sold in May 2005 to Lifestyle Furniture who current operates a furniture store at the location.
### TABLE 4.4-2
MAJOR NEW STOCKTON RETAILERS (2003-2005) SALES OF PROJECT-COMPETING GOODS

<table>
<thead>
<tr>
<th>State Board of Equalization Retail Sector Category</th>
<th>Pacific Town&lt;sup&gt;a&lt;/sup&gt; (a)</th>
<th>Spanos Park West&lt;sup&gt;b&lt;/sup&gt; (b)</th>
<th>Hammer Lane Wal-Mart&lt;sup&gt;c&lt;/sup&gt; (c)</th>
<th>Other&lt;sup&gt;d&lt;/sup&gt; (d)</th>
<th>Total&lt;sup&gt;e&lt;/sup&gt; (e = a+b+c+d)</th>
<th>Estimated Stockton Originating Sales&lt;sup&gt;b&lt;/sup&gt; (f = e x 85%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>$4.5 m</td>
<td>$15.1 m</td>
<td>$7.9 m</td>
<td>~</td>
<td>$27.6 m</td>
<td>$23.5 m</td>
</tr>
<tr>
<td>General</td>
<td>~</td>
<td>$65.6 m</td>
<td>$15.1 m</td>
<td>~</td>
<td>$80.8 m</td>
<td>$68.9 m</td>
</tr>
<tr>
<td>Food</td>
<td>~</td>
<td>~</td>
<td>$36.4 m</td>
<td>$16.5 m</td>
<td>$53.0 m</td>
<td>$45.1 m</td>
</tr>
<tr>
<td>Eating and Drinking</td>
<td>~</td>
<td>~</td>
<td>~</td>
<td>~</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Home Furnishings</td>
<td>$2.4 m</td>
<td>$6.4 m</td>
<td>$9.4 m</td>
<td>~</td>
<td>$18.2 m</td>
<td>$15.7 m</td>
</tr>
<tr>
<td>Building</td>
<td>~</td>
<td>~</td>
<td>~</td>
<td>~</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Auto Dealers</td>
<td>~</td>
<td>~</td>
<td>~</td>
<td>~</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Service Stations</td>
<td>~</td>
<td>~</td>
<td>~</td>
<td>$3.2 m</td>
<td>$3.2 m</td>
<td>$2.8 m</td>
</tr>
<tr>
<td>Other Retail Stores</td>
<td>$13.1 m</td>
<td>$70.6 m</td>
<td>$17.2 m</td>
<td>~</td>
<td>$101.0 m</td>
<td>$85.9 m</td>
</tr>
<tr>
<td>Total</td>
<td>$20.0 m</td>
<td>$157.6 m</td>
<td>$85.9 m</td>
<td>$19.7 m</td>
<td>$283.3 m</td>
<td>$241.8 m</td>
</tr>
</tbody>
</table>

**NOTES:** Figures expressed in 2008 dollar terms; Totals may not add up exactly due to rounding; m = millions of dollars.

<sup>a</sup> Net sales adjustment accounting for reported 2003 sales.

<sup>b</sup> Estimated Stockton originating sales based on conservatively assuming 85% of sales generated from Stockton residents.

**SOURCES:** ESA; City of Stockton, 2005; Urban Land Institute, 2002.
The 2005 existing Stockton retail sector sales are estimated to be $2,313 million, as shown in Table 4.4-3. Total retail sales in 2005 were determined by adding the new Stockton retailers’ (i.e., from the new retail developments between 2003 and 2005) estimated $240.8 million of additional competing goods sales from Stockton residents to the 2003 gross sales of project competing goods.

### TABLE 4.4-3
STOCKTON RETAILERS SALES OF PROJECT-COMPETING GOODS – BASELINE CONDITIONS (2005)

<table>
<thead>
<tr>
<th>Retail Sector Categories</th>
<th>Gross Sales in Stockton</th>
<th>Project Competing Goods&lt;sup&gt;a&lt;/sup&gt;</th>
<th>New Stockton Retailers (2003–2005)&lt;sup&gt;c&lt;/sup&gt;</th>
<th>All Stockton Retailers (2005) – Baseline Conditions&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>$100.9 m</td>
<td>$100.9 m</td>
<td>$23.5 m</td>
<td>$124.4 m</td>
</tr>
<tr>
<td>General Merchandise</td>
<td>$548.0 m</td>
<td>$548.0 m</td>
<td>$68.9 m</td>
<td>$616.9 m</td>
</tr>
<tr>
<td>Food</td>
<td>$564.4 m</td>
<td>$564.4 m</td>
<td>$45.1 m</td>
<td>$609.5 m</td>
</tr>
<tr>
<td>Eating and Drinking</td>
<td>$270.9 m</td>
<td>$270.9 m</td>
<td>~</td>
<td>$270.9 m</td>
</tr>
<tr>
<td>Home Furnishings</td>
<td>$96.8 m</td>
<td>$96.8 m</td>
<td>$15.7 m</td>
<td>$112.5 m</td>
</tr>
<tr>
<td>Building Materials</td>
<td>$442.9 m</td>
<td>~</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Auto Dealers and Auto Supplies</td>
<td>$689.1 m</td>
<td>$58.6 m</td>
<td>~</td>
<td>$58.6 m</td>
</tr>
<tr>
<td>Service Stations</td>
<td>$175.1 m</td>
<td>$175.1 m</td>
<td>$2.8 m</td>
<td>$177.9 m</td>
</tr>
<tr>
<td>Other Retail Stores</td>
<td>$429.5 m</td>
<td>$256.0 m</td>
<td>$85.9 m</td>
<td>$341.9 m</td>
</tr>
<tr>
<td>Total – All Retail</td>
<td>$3,318.7 m</td>
<td>$2,070.7 m</td>
<td>$241.8 m</td>
<td>$2,312.5 m</td>
</tr>
</tbody>
</table>

**NOTES:** Figures expressed in 2008 dollar terms; totals may not add up exactly due to rounding; m = millions of dollars.

<sup>a</sup> Retail sales have been adjusted to include only those sales of goods sold by the Weston Ranch project.

<sup>b</sup> Figures taken from Table 4.4-1.

<sup>c</sup> Figures taken from Table 4.4-2.

<sup>d</sup> Annual new retail demand growth adjusted to include only project-competing goods.

**SOURCES:** ESA.

### Current Retail Leakage Analysis

A retail sales leakage analysis was performed to determine the extent to which Stockton residents currently shop within Stockton or travel to other destinations to make their retail purchases.

A leakage analysis evaluates an area’s retail market performance by comparing the actual reported retail sales made in an area to the potential purchases that residents would be expected to make, based on average shopper behavior. If actual sales are greater than would be expected, this “sales surplus” suggests that the area is attracting people from outside to shop within the area and/or that the local residents have a higher than average amount of per capita retail spending. Conversely, a “retail leakage” (i.e., when actual sales are less than would otherwise be predicted) indicates that local residents are making their retail purchases outside their local shopping area.
Using the estimates of California and Stockton per capita gross spending from Table 4.4-1, the leakage analysis was performed to estimate the amount of retail sales attraction or leakage by the Stockton retail sectors (see Table 4.4-4). As can be seen in Table 4.4-4, Stockton is a sales attractor for all retail categories. While the “auto dealers” and “building materials” retail sectors have the strongest retail attraction, both the general merchandise and food categories also show a high degree of sales attraction. Overall, it is estimated that Stockton retail businesses draw more than $1 billion annually in retail sales (in 2008 dollars) from non-residents and/or from greater than average local spending. This effect could indicate that little consumer retail demand by Stockton residents is unmet locally and, therefore, that only minor retail sales are leaking out of Stockton. The findings may also indicate that Stockton’s retail market currently has a major impact on the regional economy as non-Stockton residents are being drawn to make purchases from Stockton retailers. Stockton’s current position as a major regional retail hub would also suggest that there are limits to the extent that any new Stockton retailers may be expected to increase retail sales from current residents in the region.

However, interviews with City economic development specialists and local commercial realtors suggest that north Stockton’s strong regional retail attraction effect may be obscuring significant ongoing retail leakage, particularly among south Stockton residents. Unfortunately, due to insufficient sales data as well as restrictions on proprietary information, a south Stockton-specific leakage analysis could not be performed to quantify the magnitude of this effect. Several local real estate brokers have suggested that much of Stockton’s current shopping attraction is being generated from Lodi and residents of unincorporated San Joaquin County areas, particularly the northern and eastern areas. Additional retail sales may be coming from Sierra foothill residents traveling significant distances westward to shop in Stockton due to the limited retail options locally. Stockton retail real estate brokers also stated that residents of south and central Stockton that are currently under-served by retailers may do a major portion of their retail shopping at other locations outside Stockton such as Tracy or Livermore. This spending behavior is considered particularly likely to be prevalent among recently relocated homeowners who commute daily to typically higher-paying jobs in Contra Costa or Alameda Counties. Local real estate brokers expect that new and more convenient retail development in south Stockton could recapture a major proportion of these Stockton residents’ spending that is currently lost from the Stockton economy.

**Retail Demand Trends**

The Stockton region has experienced a major housing construction boom and large influx of new residents who are purchasing homes and moving into the area. Between 2000 and 2004, San Joaquin County’s population grew by approximately 3.1 percent annually; nearly half of that population growth was the result of domestic immigration as new residents moved to San Joaquin County from other areas of California, while the remaining population growth came from other immigration and new births (California Department of Finance, 2004). These new residents have added and will continue to add new customer demand for Stockton retailers. The Stockton General Plan projects future population growth at an average 2.65% per year.

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8 Apparel sales, home furnishing, and service stations categories show a very minor sales attraction effect.
According to local realtors, the majority of these new residents are derived from the Bay Area and many commute daily to work in the Bay Area (Hodgeson, 2005). Real estate analysis by Grubb & Ellis estimated that in 2004, more than 10 percent of San Joaquin County’s population identified themselves as county residents commuting to the Bay Area for work as a result of the housing/employment imbalance in the Bay Area (Grubb & Ellis, 2004). At least an estimated 60,000 commuters travel daily from San Joaquin westward to jobs in the Bay Area (San Joaquin Partnership, 2005). Generally, these new residents have significantly higher average per capita incomes than typical Stockton residents. As a result of their higher incomes, these new residents can support greater retail spending. Considerable new retail demand is expected to be associated with the continuing population growth anticipated in Stockton over the foreseeable future.

**Real Estate Analysis**

Current residential real estate trends influence population growth and socioeconomic changes that will support continued strong growth in overall consumer demand by local residents. New consumers added to the market and/or changes in existing consumer demand are likely to expand activity in Stockton’s retail sector. In addition to the increased retail demand effects associated with local housing growth, real estate demand for commercial properties (and especially retail properties) also directly determines the likelihood of re-tenanting properties vacated by current retailers leaving the area as a result of the competition from new retail development including the proposed project.

Stockton’s housing market has been growing strongly for many years. Between 1998 and 2005, the median price of existing detached homes rose from approximately $100,000 to $350,000. Between 2004 and 2005, the median home price increased by 26.6 percent with even faster rates of appreciation in the neighboring cities of Manteca, Lodi, and Tracy (California Association of Realtors, 2005). As noted above, Stockton has experienced an increasingly large influx of new residents with generally high incomes from other parts of California and outside the state who are purchasing homes in the area.

The Stockton real estate brokers interviewed generally agreed that both current residential and commercial real estate markets are very strong and are expected to continue to remain so. The residential market in Stockton and throughout San Joaquin County has grown vigorously since the late 1990s, and real estate brokers consulted in preparing this study reported that currently and for the foreseeable future the commercial retail real estate market will remain strong with very low property vacancy rates (Hodgson, 2005). They expect strong local housing demand to continue and to support continued growth in both general commercial and retail real estate demand (Dougherty, 2005).
<table>
<thead>
<tr>
<th>Retail Categories</th>
<th>California</th>
<th>Stockton</th>
<th>Stockton Sales Attraction (+) / Leakage (–)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sales Per Capita&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Expected&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Actual&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Apparel</td>
<td>$489</td>
<td>$350</td>
<td>$377</td>
</tr>
<tr>
<td>General Merchandise&lt;sup&gt;d&lt;/sup&gt;</td>
<td>$1,712</td>
<td>$1,228</td>
<td>$2,047</td>
</tr>
<tr>
<td>Food&lt;sup&gt;e&lt;/sup&gt;</td>
<td>$1,926</td>
<td>$1,379</td>
<td>$2,109</td>
</tr>
<tr>
<td>Eating and Drinking</td>
<td>$1,292</td>
<td>$925</td>
<td>$1,012</td>
</tr>
<tr>
<td>Home Furnishings and Appliances</td>
<td>$487</td>
<td>$349</td>
<td>$362</td>
</tr>
<tr>
<td>Building Materials</td>
<td>$990</td>
<td>$709</td>
<td>$1,653</td>
</tr>
<tr>
<td>Auto Dealers and Auto Supplies</td>
<td>$2,163</td>
<td>$1,549</td>
<td>$2,574</td>
</tr>
<tr>
<td>Service Stations</td>
<td>$894</td>
<td>$641</td>
<td>$655</td>
</tr>
<tr>
<td>Other Retail Stores</td>
<td>$1,757</td>
<td>$1,258</td>
<td>$1,605</td>
</tr>
<tr>
<td>Total - All Categories</td>
<td>$11,712</td>
<td>$8,386</td>
<td>$12,397</td>
</tr>
</tbody>
</table>

NOTES:  
<sup>a</sup> Retail sales are based on 2003 reported taxable sales figures and are expressed in 2008 dollar terms assuming an annual inflation rate of 3%. See Table 4.4-1.  
<sup>b</sup> Stockton residents' annual per capita spending by category, based on California averages and adjusted for average income.  
<sup>c</sup> See Table 4.4-1.  
<sup>d</sup> General merchandise taxable sales increased by 5% to account for non-taxable drug stores sales.  
<sup>e</sup> Grocery sales were adjusted to account for sales of non-taxable goods, which are estimated to account for 67.5% of total sales.  

Strong demand for retail space in particular is evident in CB Richard Ellis’s most recent annual real estate report (CB Richard Ellis, 2005), which estimates that Stockton’s current retail vacancy rate is less than 1 percent (excluding the former Wal-Mart store on 3701 Hammer Lane). Similarly, the retail real estate markets in Manteca and Tracy are estimated to have 1 percent and 0.5 percent vacancy rates, respectively. CB Richard Ellis projected that vacancy rates would continue to decrease throughout 2005, resulting in increased net absorption, lease rates and new construction activity (CB Richard Ellis, 2005). Similarly, Grubb & Ellis’s retail property assessment (Grubb & Ellis, 2004) for Northern California notes that the retail real estate market has generally been strong, and it emphasizes in particular strong investor demand for grocery-anchored centers. While it acknowledges the potential competitive effects of large-scale retailers, the report concludes that the future economy may be expected to provide continued support to the commercial real estate market.

These indicators suggest that the current strong demand for commercial retail properties in Stockton will continue for the foreseeable future. Vacancy rates are low and expected to remain so; since real estate demand is strong then vacated properties will likely be re-tenanted or redeveloped. Over the last few years, several major retail locations vacated by Stockton retailers have been successfully re-tenanted shortly after coming on the real estate market. Within approximately a year after Montgomery Wards bankruptcy resulted in its store closure at Sherwood Mall, Best Buy occupied the location in mid-2002. Similarly, following Wal-Mart’s departure from its former Hammer Lane location, Lifestyle Furniture purchased the site and has re-tenanted the building.

Lisa Hodgson at Colliers International also reported that the K-Mart on Pacific Avenue is expected to close in the near future and that there are already plans for redevelopment of the site for a “Lifestyle Center” anchored by a Whole Food Grocery that would cater to higher-income customers (Hodgson, 2005). Re-tenanting can occur by several different means including occupancy by new retailers with similar products and customers but also adaptive re-use by other businesses (such as service businesses or offices). In addition, the strong real estate market also suggests that site redevelopment may be expected, particularly for well-situated, in-fill properties within north Stockton.

**Consistency with Applicable General and Regional Plans**

The City of Stockton’s current redevelopment programs and projects addressing its existing economic development needs and urban decay conditions have been discussed in this section above. The proposed Weston Ranch project does not conflict with any applicable redevelopment or urban renewal plan. Other plans applicable to the project, including the Stockton General Plan, are discussed in Chapter 4.2 - Land Use of this EIR.

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9 K-Mart officials contacted would not confirm the store’s future closure.
4.4.2 Impacts and Mitigation Measures

Significance Criteria

Under criteria based on the CEQA Guidelines and the professional judgment of City staff and consultants, a project would be considered to have a significant urban decay impact if it would result in the following:

- A substantial adverse change in the physical condition of any shopping area(s) in Stockton.

Urban decay impacts result in physical deterioration sufficient in magnitude and extent to diminish the proper use of the properties affected. Physical changes typically indicative of urban decay may include (but are not limited to) higher than average business vacancies; abandoned and deteriorating properties; inadequately maintained buildings (frequently chained off by unsightly chain-linked fencing; widespread graffiti, litter, and trash; unkempt trees and shrubbery and excessive weeds; parked trucks and long-term unauthorized use of property and parking lots; and homeless encampments.

Several interrelated causal links must be demonstrated to properly establish and ascribe future urban decay impacts on a retail development from a proposed new project. As the Court of Appeal for the recent Bakersfield urban decay ruling states in its findings:

“CEQA is not a fair competition statutory scheme.” (citation omitted). Therefore, the economic and social effects of proposed projects are outside of CEQA’s purview (unless they will lead to adverse physical changes in the environment [italicized qualification added]).

The court’s judgment also states that (1) it “explicitly reject(s) certain philosophical and sociological beliefs that some of the parties have vigorously expressed” and (2) existing CEQA case law clearly establishes that construction of a new shopping centers does not in and of itself trigger a conclusive presumption of urban decay. Rather, a determination that a significant urban decay impact is likely to result from a proposed project relies upon a showing that the following sequence of events is likely to occur:

- The project will introduce new retail competition that will cause existing retailers to go out of business.
- The failed retailers’ vacated properties will not be re-tenanted (or otherwise reused) due to insufficient real estate demand.
- These untenanted properties will be vacant for prolonged periods of time and will be abandoned or otherwise permitted to deteriorate significantly by their owners.

The analyses of the proposed Western Ranch project in this section assess whether the proposed project, either in itself or together with other existing and probable future developments, will result in substantial adverse physical impacts, specifically a substantial increase in physical deterioration in retail property in any Stockton shopping center. In order to determine the nature and extent of the project’s potential effects on Stockton’s urban decay conditions, several related analyses were performed.
The types and magnitudes of the project’s future retail sales were estimated. To assess the future effects of the project’s retail sales on its competitors, a market analysis was performed. Future expected growth in retail demand (both from increased population and demographic changes) was also determined to estimate the extent of future “sales shift” impacts the project could have on other retailers, including possible business closures. Local real estate brokers were interviewed to assess the local retail and other real estate demand to assess: (1) the likelihood of future re-tenanting of any vacated properties (either by other business or adaptive reuse); and (2) the extent to which property-owners would be expected to neglect any long-term vacant properties so that urban decay impacts could result.

**Retail Sales for the Project**

Total future retail sales for the project at buildout in 2008 are estimated to be approximately $268 million in 2008 dollars (see Table 4.4-5). This retail sales projection was based on national average sales-per-foot for Wal-Mart, a discount warehouse retailer (such as Sam’s Club), and average specialty retailers, partially adjusted to account for the Stockton region’s relatively lower income levels.

<table>
<thead>
<tr>
<th>Store Types</th>
<th>Predominant Retail Categories</th>
<th>Proposed Maximum Space Use</th>
<th>Dollars per Square Foot</th>
<th>Annual Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Retail</td>
<td>Wal-Mart Supercenter Food, Other Retail, General Merchandise, Home, Apparel</td>
<td>232,000</td>
<td>$414</td>
<td>$96.0 m</td>
</tr>
<tr>
<td></td>
<td>Discount Warehouse Retail Food, General Merchandise, Home, Other, Apparel, Service Stations, Auto</td>
<td>142,000</td>
<td>$505</td>
<td>$71.8 m</td>
</tr>
<tr>
<td></td>
<td>Specialty Retailers General, Home, Other, Apparel</td>
<td>126,000</td>
<td>$264</td>
<td>$33.2 m</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>500,000</td>
<td></td>
<td>$201.0 m</td>
</tr>
<tr>
<td>In-line Shops</td>
<td>Specialty Retailers General, Home, Other, Apparel</td>
<td>100,000</td>
<td>$264</td>
<td>$26.4 m</td>
</tr>
<tr>
<td>Retail Pads</td>
<td>Specialty Retailers General, Home, Other, Apparel</td>
<td>50,000</td>
<td>$264</td>
<td>$13.2 m</td>
</tr>
<tr>
<td></td>
<td>2 x Fuel Stations Service Stations</td>
<td>10,000 @ $3.2 m each</td>
<td></td>
<td>$6.4 m</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>60,000</td>
<td></td>
<td>$19.6 m</td>
</tr>
<tr>
<td>Restaurants</td>
<td>Eating and Drinking</td>
<td>50,000</td>
<td>$421</td>
<td>$21.0 m</td>
</tr>
<tr>
<td>Total Retail</td>
<td></td>
<td>710,000</td>
<td></td>
<td>$267.9 m</td>
</tr>
</tbody>
</table>

NOTES: All sales figures are expressed in 2008 dollars; total may not add up exactly due to rounding; m = millions of dollars.

SOURCES: ESA; Urban Land Institute, 2002.
Market Analysis for the Project

The full market analysis for the project is presented in Appendix C. The following section summarizes the key factors determining retailer’s trade areas and performance. The primary, secondary and tertiary market trade areas determined for the Weston Ranch project are also identified as well as the proportion of store sales expected to be generated from each trade area.

Factors Affecting Store Trade Areas and Sales Performance

Using the methodology discussed in Appendix C, a representative market area for the project’s proposed retail development was determined. The retail market analyses identified both primary and secondary trade areas that reflect differences in the origin of customers, their shopping patterns, and the proportion of sales they generate for a retailer. A tertiary trade area identified customers distinctly different from those living in the secondary trade area.

The primary trade area defines the area around the store from which the majority of a store’s sales are expected to be generated. Typically, the primary trade area is the area from which 60 to 80 percent of the store’s sales originate. According to ICSC (2004), for a power center such as the proposed retail development, the primary market area will be 5 to 10 miles. For a specific store, the trade area and its sales performance may be determined by several factors:

- **Other Stores:** The locations of the other store branches are likely to be major factors in determining the trade area as these will represent a ready substitute retail option.

- **Competing Retailers:** The proximity and/or accessibility of alternate comparable and competing retailers will also be an important factor in determining a store’s market area. Consumers in more rural locations with few retail store options will likely be willing to drive greater distances to shop. Accordingly, retailers near rural locations and/or few competing business will have larger trade areas than stores in predominantly urban locations.

- **Convenience:** All else being equal, consumers generally will choose to shop at a closer and/or more convenient retail location. However, if a store is located in a frequently congested part of town or the store itself is frequently overcrowded, consumers may redirect their business to other stores.

- **Type of Goods:** The type of goods will also affect a store’s trade area. Typically, general retailers have larger trade areas than grocery stores, reflecting consumer shopping habits and preferences for convenience in everyday shopping. For more frequent shopping and service needs, consumers typically travel shorter distances. According to ICSC, trade areas of three miles are common for supermarkets.

- **Attraction of Complementary Businesses:** Under certain circumstances, another business may enlarge the customer capture area by drawing customers to a store’s location, which will increase the store’s potential customers. This is the foundation of shopping center anchor stores that can pull customers from a wider geographical area.
Urban sites in more mature retail markets with other competing retailers (such as Stockton) will be expected to have a smaller primary trade area. Typically, larger stores or stores with attractive additional retail components (such as Superstores) may be expected to have somewhat wider trade areas because they can attract customers to travel longer distances to their stores.

According to industry experts, value-oriented anchor tenants, such as those proposed for the project, generally have smaller trade areas than department stores anchoring traditional malls. Value-oriented retailers generally have less demanding demographic and market requirements and often locate in rapid growth markets (Lam, 2002).

**Project Trade Area**

The market analysis performed for the urban decay analysis is discussed in greater detail in Appendix C. The market analysis identified all the existing and planned Wal-Mart stores and other major competing large discount retailers in San Joaquin County. To assist in determining an appropriate market area for the proposed retail development, for each Wal-Mart a five-mile radius (representing a typical urban trade area) was examined. With the exception of the proposed Wal-Mart Supercenter at Eight Mile Road in northwest Stockton, all of the Wal-Marts have relatively limited overlapping populated areas between them. Also, as discussed in the existing conditions section, south Stockton is currently underserved by retailers (see Figures 4.4-1 through 4.4-4). Nearly all of the past and recent new retail development has been located in north Stockton.

While there has also been considerable residential development in north Stockton, the housing-retail imbalance within Stockton continues. As a result, south and central Stockton remain underserved by retail stores and its residents must either travel north or out of the city to shop.

Based on general and site-specific considerations discussed above, for purposes of this urban decay analysis, ESA staff’s professional judgment is that the primary trade area for the proposed retail development is defined as the City of Stockton and nearby unincorporated areas within a five-mile radius of the site (see Figure 4.4-6). This trade area is broadly defined, reflecting the likely interrelationships and interdependencies of travel times that existing shopping patterns and competing retailers will have with the project’s proposed retail development in south Stockton.

Furthermore, given the trade area for the proposed Supercenter (whose larger size and full grocery, as compared to a regular Wal-Mart store, may be expected to have some additional attractiveness to potential customers), the proposed retail development is expected to obtain 75 percent of its future sales from residents within its primary trade area. Given the project’s location in south Stockton, its secondary trade area is expected to consist of the remaining areas of Lathrop, Lodi, Manteca, Tracy, and unincorporated county areas near the site’s five-mile radius. So defined, the secondary trade area may be expected to generate 15 percent of the proposed retail development’s retail sales. For purposes of this urban decay analysis, a 10 percent tertiary market area was used to represent the sales to other non-area residents.\(^{10}\)

\(^{10}\) This approach is conservative as it will tend to increase the magnitude of projected sales impacts on local businesses because it reduces the proportion of the project’s future sales expected to be obtained from out-of-region customers.
TABLE 4.4-6
SALES ORIGINS FOR THE WESTON RANCH PROJECT

<table>
<thead>
<tr>
<th>Market Composition</th>
<th>Estimated Market Share</th>
<th>Estimated Annual Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary market: Stockton and southern areas</td>
<td>75%</td>
<td>$200.9 million</td>
</tr>
<tr>
<td>within 5 miles of project site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary market: Lathrop, Lodi, Manteca, Tracy, and</td>
<td>15%</td>
<td>$40.2 million</td>
</tr>
<tr>
<td>southern San Joaquin County</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tertiary Market: Non-area residents</td>
<td>10%</td>
<td>$26.8 million</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>$267.9 million</td>
</tr>
</tbody>
</table>

NOTES: Sales estimates are for fully established retailers and are expressed in 2008 dollar terms.

SOURCE: ESA.

As mentioned above, the market analysis concluded that the proposed project’s primary market area would likely consist of the City of Stockton and a five-mile southerly radius of the project site (see Figure 4.4-6). The market analysis also estimated that 75 percent of the project’s retail development’s future sales would likely be obtained from residents within the primary market area. Based on these sales origin projections, an estimated $200.9 million in future retail sales would be generated by the project from the primary market area of Stockton (see Table 4.4-6). The project’s estimated future sales by retail category originating from Stockton residents are shown in Table 4.4-7.

TABLE 4.4-7
FUTURE WESTON RANCH SALES BY RETAIL CATEGORY

<table>
<thead>
<tr>
<th>Retail Sector Category</th>
<th>Total Weston Ranch Sales</th>
<th>Stockton-Originating Weston Ranch Salesa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>$17.6 m</td>
<td>$13.2 m</td>
</tr>
<tr>
<td>General</td>
<td>$76.8 m</td>
<td>$57.6 m</td>
</tr>
<tr>
<td>Food</td>
<td>$69.4 m</td>
<td>$52.1 m</td>
</tr>
<tr>
<td>Eating &amp; Drinking</td>
<td>$21.0 m</td>
<td>$15.8 m</td>
</tr>
<tr>
<td>Home</td>
<td>$24.0 m</td>
<td>$18.0 m</td>
</tr>
<tr>
<td>Building</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Auto Dealers</td>
<td>$0.9 m</td>
<td>$0.7 m</td>
</tr>
<tr>
<td>Service Stations</td>
<td>$8.7 m</td>
<td>$6.5 m</td>
</tr>
<tr>
<td>Other Retail</td>
<td>$49.5 m</td>
<td>$37.0 m</td>
</tr>
<tr>
<td>Total</td>
<td>$267.9 m</td>
<td>$200.9 m</td>
</tr>
</tbody>
</table>

NOTES: Sales figures expressed in 2008 dollar terms; m = millions of dollars; Totals may not add up exactly, due to rounding

a Assumes 75% of total project sales are originating from Stockton residents (see Table 4.4-6).

SOURCES: ESA; City of Stockton, 2005; Urban Land Institute, 2002
The proposed retail development's primary market area is the 5 mile radius of the project site and the City of Stockton.

Uncolored areas within this area represent non-residential areas.
**Total Sales of Project-Competing Goods in Primary Market Area**

The project’s impact on the Stockton economy and retailers is evaluated by comparing its projected retail sales to the 2005 baseline retail conditions (existing conditions), as identified in Table 4.4-3. It is estimated that Stockton retailers in 2005 sold approximately a total of $2,313 million dollars of project competing retail.

### Future Retail Demand Growth

As noted in the discussion of existing conditions, considerable new retail demand is expected to be associated with continuing population growth in the Stockton region. Using the same methodology as the leakage analysis (see Table 4.4-3), the additional potential sales growth associated with the future population growth is estimated in Table 4.4-8. It is assumed that the recent and future population growth rate for the City will be 2.65% in accordance with the current projections for the Stockton General Plan. (This is a conservative assumption given that the actual Stockton growth rate was 3.1% between 2000 and 2004.) In addition, it is also conservatively assumed that both new migrants and new natural population growth would have average per-capita incomes similar to the county averages. In fact and as previously noted, for new domestic migrants, future per-capita incomes would be expected to be significantly higher than the current San Joaquin County average, which is 25 percent below the state average (Factfinder, 2005). For new domestic migrants, an average per capita income level of $33,971 (in 2008 dollars) was assumed, which is comparable to (but slightly lower than) the per capita incomes of Alameda, Contra Costa and Santa Clara residents.

Based on these income assumptions and consistent with the leakage analysis, an estimated $83.6 million of new retail sales could potentially be associated with future Stockton population growth annually, as shown in Table 4.4-8. This estimate does not include the additional market growth from population growth and demographic changes occurring within the secondary market areas of Manteca, Stockton and elsewhere in San Joaquin County. While future Stockton population growth will increase total retail demand by an estimated $83.6 million per year, Table 4.4-9 adjusts the total demand growth to exclude demand for non-project competing goods. On this basis, it is estimated that $57.5 million of new retail demand growth of Weston Ranch competing goods will occur annually from future Stockton population growth.
### TABLE 4.4-8

**STOCKTON RETAIL DEMAND GROWTH, BASED ON FUTURE ANNUAL POPULATION INCREASES**

<table>
<thead>
<tr>
<th>Retail Categories</th>
<th>California Gross Sales per Capita&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Natural Growth</th>
<th>Immigrants</th>
<th>New Migrants</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Future Population Growth&lt;sup&gt;b&lt;/sup&gt;</td>
<td>$28,310</td>
<td>2,495</td>
<td>1,300</td>
<td>3,685</td>
<td>7,480</td>
</tr>
<tr>
<td>Est. Average Per Capita Income&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td>$20,269</td>
<td>$20,269</td>
<td>$33,971&lt;sup&gt;d&lt;/sup&gt;</td>
<td>$27,019</td>
</tr>
<tr>
<td>Apparel</td>
<td>$489</td>
<td>$0.88 m</td>
<td>$0.46 m</td>
<td>$2.17 m</td>
<td>$3.50 m</td>
</tr>
<tr>
<td>General Merchandise</td>
<td>$1,712</td>
<td>$3.06 m</td>
<td>$1.59 m</td>
<td>$7.57 m</td>
<td>$12.22 m</td>
</tr>
<tr>
<td>Food</td>
<td>$1,926</td>
<td>$3.44 m</td>
<td>$1.79 m</td>
<td>$8.52 m</td>
<td>$13.75 m</td>
</tr>
<tr>
<td>Eating and Drinking</td>
<td>$1,292</td>
<td>$2.31 m</td>
<td>$1.20 m</td>
<td>$5.71 m</td>
<td>$9.22 m</td>
</tr>
<tr>
<td>Home Furnishings and Appliances</td>
<td>$487</td>
<td>$0.87 m</td>
<td>$0.45 m</td>
<td>$2.16 m</td>
<td>$3.48 m</td>
</tr>
<tr>
<td>Building Materials</td>
<td>$990</td>
<td>$1.77 m</td>
<td>$0.92 m</td>
<td>$4.38 m</td>
<td>$7.07 m</td>
</tr>
<tr>
<td>Auto Dealers and Auto Supplies</td>
<td>$2,163</td>
<td>$3.87 m</td>
<td>$2.01 m</td>
<td>$9.57 m</td>
<td>$15.44 m</td>
</tr>
<tr>
<td>Service Stations</td>
<td>$894</td>
<td>$1.60 m</td>
<td>$0.83 m</td>
<td>$3.95 m</td>
<td>$6.38 m</td>
</tr>
<tr>
<td>Other Retail Stores</td>
<td>$1,757</td>
<td>$3.14 m</td>
<td>$1.64 m</td>
<td>$7.77 m</td>
<td>$12.54 m</td>
</tr>
<tr>
<td><strong>Total - All Categories</strong></td>
<td><strong>$11,712</strong></td>
<td><strong>$20.93 m</strong></td>
<td><strong>$10.90 m</strong></td>
<td><strong>$51.79 m</strong></td>
<td><strong>$83.62 m&lt;sup&gt;e&lt;/sup&gt;</strong></td>
</tr>
</tbody>
</table>

<sup>a</sup> As found in Table 4.4.-1. Distribution of sales amongst retail categories differs from actual Stockton sales. All figures are expressed in 2008 dollar terms; m = millions

<sup>b</sup> The average annual future population growth is based on City of Stockton projections of a 2.65% increase annually from 2003 to 2006.

<sup>c</sup> Per capita income based on U.S. Census estimates, adjusted into 2008 dollar terms.

<sup>d</sup> Per capita income assumed to be 20% above state average based on comparative income levels of Alameda, Contra Costa and Santa Clara Counties, the counties from which most migrants have relocated.

<sup>e</sup> This is a conservative estimate as it does not include the 48% sales attraction by current residents’ spending (see Table 4.4-4).

**SOURCES:** ESA, State Board of Equalization, 2005.
### TABLE 4.4-9
STOCKTON RETAIL DEMAND GROWTH
FOR PROJECT-COMPETING GOODS FROM NEW RESIDENTS

<table>
<thead>
<tr>
<th>Retail Sector Categories</th>
<th>Stockton Gross Sales</th>
<th>Project-Competing Goods</th>
<th>% (a)</th>
<th>New Stockton Retail Demand</th>
<th>Project-Competing Goods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Retail Goods</td>
<td>Project-Competing Goods</td>
<td></td>
<td>All Retail Goods</td>
<td>Project-Competing Goods</td>
</tr>
<tr>
<td></td>
<td>$100.9 m</td>
<td>$100.9 m</td>
<td>100%</td>
<td>$3.5 m</td>
<td>$3.5 m</td>
</tr>
<tr>
<td>Apparel</td>
<td>General Merchandise</td>
<td>$548.0 m</td>
<td>100%</td>
<td>$12.2 m</td>
<td>$12.2 m</td>
</tr>
<tr>
<td></td>
<td>Food</td>
<td>$564.4 m</td>
<td>100%</td>
<td>$13.8 m</td>
<td>$13.8 m</td>
</tr>
<tr>
<td></td>
<td>Eating and Drinking</td>
<td>$270.9 m</td>
<td>100%</td>
<td>$9.2 m</td>
<td>$9.2 m</td>
</tr>
<tr>
<td></td>
<td>Home Furnishings and Appliances</td>
<td>$96.8 m</td>
<td>100%</td>
<td>$3.5 m</td>
<td>$3.5 m</td>
</tr>
<tr>
<td></td>
<td>Building Materials</td>
<td>$442.9 m</td>
<td>0%</td>
<td>$7.7 m</td>
<td>~</td>
</tr>
<tr>
<td></td>
<td>Auto Dealers and Auto Supplies</td>
<td>$689.1 m</td>
<td>8.5%</td>
<td>$15.4 m</td>
<td>$1.3 m</td>
</tr>
<tr>
<td></td>
<td>Service Stations</td>
<td>$175.1 m</td>
<td>100%</td>
<td>$6.4 m</td>
<td>$6.4 m</td>
</tr>
<tr>
<td></td>
<td>Other Retail Stores</td>
<td>$429.5 m</td>
<td>59.6%</td>
<td>$12.5 m</td>
<td>$7.5 m</td>
</tr>
<tr>
<td></td>
<td>Total - All Retail</td>
<td>$3,318.7 m</td>
<td>~</td>
<td>$83.6 m</td>
<td>$57.5 m^d ^d</td>
</tr>
</tbody>
</table>

NOTES: Figures expressed in 2008 dollar terms; Totals may not add exactly due to rounding; m = millions of dollars.

^a See Table 4.4-1.
^b See Table 4.4-3.
^c See Table 4.4-8.
^d The sales distribution for Stockton’s new retail demand is based on California averages and therefore differs from the past Stockton sales as shown Table 4.4-1.

SOURCES: ESA; State Board of Equalization 2005.

### Potential Retail Sales Shift Impacts to Existing Stockton Retailers

The Weston Ranch project’s impacts on Stockton retailers will depend on both the magnitude and the origin of its future sales. Weston Ranch’s future retail sales can be generated from three principal sources: (1) new customers (i.e., typically from previously unserved markets or population growth); (2) transferred sales from the retailers’ other nearby locations; or (3) sales captured from competing retailers (“sales shifts”). The following section identifies the approach and findings of the sales shift analysis used to evaluate the project’s impact both by itself as well as cumulatively with other possible future major retail developments in Stockton.

**Approach**

Sales transfers among a retailer’s stores can be a significant source of a new store’s future retail sales. The project’s Wal-Mart Supercenter may be expected to attract some current Wal-Mart customers from other stores especially because the proposed new retail store would offer significantly expanded goods. There are currently three Wal-Marts operating in the project’s primary and secondary market area with a total estimated square footage of approximately 470,000 square feet and estimated annual sales of at least $194 million.\(^1^3\) Even a minor transfer of 5 percent of sales would provide more than $9.7 million in retail sales for the new store. However, no inter-store sales redistributions have been assumed to occur.

\(^{13}\) Based on our regionally adjusted national average sale projections of $414 per square foot (in 2008 dollar terms).
The maximum potential sales captured from competing retailers may therefore be determined by estimating the net new sales that the project would be expected to generate (after adjusting for new customer growth). For the purposes of the impact analysis, it is assumed that the current Stockton retail market is saturated and that no sales transfers would occur from other stores of Weston Ranch’s retail tenants. On this basis, all net new retail sales surpluses would be expected to be derived as sales shifts from the competing Stockton retailers.

The magnitude of the identified retail impacts has been assessed as a proportional change to the 2005 baseline conditions. These estimated percentage impacts to the 2005 baseline conditions provide an indication of the maximum magnitude of the project’s retail impact that would be expected in its first year of operation. As a result, they are very conservative representations of the potential project impact and very likely overstate the actual retail impacts that might reasonably be expected to occur. This impact represents the estimated maximum potential retail impact solely attributable to the Weston Ranch project on existing Stockton retailers as of its projected opening in July 2008. It is also important to emphasize that retail sales do not in themselves cause urban decay impacts; additional causal links are required, as discussed below, for a change in retail sales to affect the potential for urban decay to occur.

**Overall Sales Shift Impact**

As shown in **Table 4.4-10**, the proposed project is expected to generate approximately $200.9 million in annual sales from Stockton residents. Compared with the $2,312.5 million baseline conditions in 2005, the project would be expected to result in up to 8.7% increase in new retail sales. If the existing Stockton retail market is saturated and there has been no growth in retail demand, then the entire $200.9 million of added retail sales from the proposed project would be expected to result in a sales shift from the other Stockton retailers.

<table>
<thead>
<tr>
<th>Retail Sector Categories</th>
<th>Competing Retailers’ Sales – Baseline Conditions (2005)(^a)</th>
<th>Project’s Sales (Stockton Originating)</th>
<th>Project’s Sales as % of Baseline (c = b / a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>$124.4 m</td>
<td>$13.2 m</td>
<td>10.6%</td>
</tr>
<tr>
<td>General Merchandise</td>
<td>$616.9 m</td>
<td>$57.6 m</td>
<td>9.3%</td>
</tr>
<tr>
<td>Food</td>
<td>$609.5 m</td>
<td>$52.1 m</td>
<td>8.5%</td>
</tr>
<tr>
<td>Eating and Drinking</td>
<td>$270.9 m</td>
<td>$15.8 m</td>
<td>5.8%</td>
</tr>
<tr>
<td>Home Furnishings and Appliances</td>
<td>$112.5 m</td>
<td>$18.0 m</td>
<td>16.0%</td>
</tr>
<tr>
<td>Building Materials</td>
<td>~</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Auto Dealers and Auto Supplies</td>
<td>$58.6 m</td>
<td>$0.7 m</td>
<td>1.2%</td>
</tr>
<tr>
<td>Service Stations</td>
<td>$177.9 m</td>
<td>$6.5 m</td>
<td>3.7%</td>
</tr>
<tr>
<td>Other Retail Stores</td>
<td>$341.9 m</td>
<td>$37.0 m</td>
<td>10.8%</td>
</tr>
<tr>
<td><strong>Total – All Retail</strong></td>
<td><strong>$2,312.5 m</strong></td>
<td><strong>$200.9 m</strong></td>
<td><strong>8.7%</strong></td>
</tr>
</tbody>
</table>

**NOTES:** Figures expressed in 2008 dollar terms, m = millions of dollars

\(^{a}\) Baseline conditions consist of all project-competing retail sales by Stockton retailers. See Table 4.4-3.

**SOURCE:** ESA.
The actual magnitude of the project’s retail impact to the existing Stockton retailers will likely be less than the $200.9 million estimated above for several reasons. The impact analysis has conservatively evaluated the impacts on an annual basis, as if the Weston Ranch retail development would immediately achieve full sales levels at its opening in mid-2008. However, in actuality, it is likely that it would take six months to a year for sales to fully “ramp up,” in which case, there would be a lesser retail shift impact as customers gradually alter their shopping patterns. Thus, existing retailers would likely see a more gradual reduction to their revenues over time resulting from any sales shifts.

If no other major new retail development occurs, then expected retail demand growth above 2005 levels from future Stockton population growth at the assumed General Plan rate would result in up to $143.8 million in new retail demand by mid 2008 (i.e. $57.5 million per year over 2.5 years). This new growth in retail demand could absorb all but $57.1 million of Weston Ranch’s estimated future new sales. In this case, this “surplus” of project sales would represent the maximum potential “sales shift” impact on the existing retailers.

Over the course of the project’s first operating year that it might take for the estimated retail sales shift impacts to accumulate, additional retail demand would be generated by continued Stockton population growth and demographic changes. By mid-2009, if no other new major retail development had been completed, a year after its opening any project-related net new sales “surplus” would be offset by another $57.5 million in new Stockton retail demand growth. Compared with the project’s estimated net $57.1 million of unabsorbed sales shift, subsequent retail demand growth would more than offset the project’s remaining “surplus” retail impact within a year of operation, therefore resulting in no future sales shift impacts on Stockton’s other retailers. The offsetting growth in retail demand also suggests that even if there were some retail impacts to existing retailers (perhaps as a result of other new competing retail developments), the project’s retail impact would be short-term.

The key issue for determining the project’s potential for contributing to a substantial increase in urban decay conditions in Stockton is the likely consequences of the expected retail impacts. As discussed above, the projected 8.7% maximum sales shift effect is a high estimate of Weston Ranch’s overall impact on existing Stockton retailers and thus provides a conservative basis for evaluating potential impacts. While this magnitude of retail sales shifts could be expected to result in some possible store closures, the impact is expected to be short term in duration and is of a type and magnitude that is within the range for typical retail sector business cycles.

Furthermore, as discussed in the market analysis, several other factors specific to existing Stockton retailers will determine their vulnerability to new competition from the proposed project or other future new retailers moving into the Stockton retail market. Existing retailers may have some control and flexibility over certain factors (e.g., their store management, types of goods and customer service). However, other factors may be largely independent of their control or resources (e.g. convenience of their location, proximity to attractive complementary businesses). As a result, it is difficult to identify the stores most vulnerable to new competition and determine other stores likely response.
Given both the conservative assumptions used for the retail impact analysis and the comparatively short term and limited magnitude of its potential sales shift impact findings, most of the proposed project’s retail impact to the overall Stockton retail sector is expected to be absorbed. As a result, relatively few businesses would be expected to be affected, especially over the longer term as future demand growth and demographic change would significantly increase Stockton retail demand.

Even if businesses were to leave the area as a result of the increased competition, based on the findings of the real estate analysis, it is anticipated that their vacated properties would be re-tenanted within a reasonable period of time – if not by other retailers then by other users. Even if some properties were to remain vacant for more extended periods of time, the underlying strength of the real estate market would ensure that owners would maintain their properties adequately and in compliance with the City’s code-compliance requirements. Accordingly, even under the relatively rare circumstances that properties were to be unused for a more extended period of time, the vacated properties would not contribute Stockton’s urban decay conditions.

**Distribution of Retail Sales Shifts**

The expected distribution of the Weston Ranch project’s retail impact across Stockton’s retail sales categories has also been projected to evaluate the potential effects within Stockton on the various retail sales categories. The projected allocation of sales impacts from the proposed project are based on past spending patterns and retail conditions, which are subject to change. These estimates also represent expected maximum potential retail impacts because they assume that the Stockton retail market is fully saturated at present (i.e., no sales leakage from existing Stockton’s residents is occurring that could be captured by a new retailer). On this assumption, all of the project’s sales would represent sales captured from the existing retailers. However, if the Stockton market were not saturated and sales leakage has been occurring then the potential impact on existing retailers would likely be reduced.

**Retail Category-Specific Sales Shift Impacts**

Table 4.4-10 shows the estimated retail impacts of the Western Ranch project distributed among the retail sector categories. Despite the data and methodological limitations previously discussed, the analysis findings provide indicators of the possible magnitude of the expected sales impacts.

Generally, across most of the retail sector categories the proportional impacts are fairly comparable in size to the overall 8.7% impact on Stockton’s retail sector of competing goods. This suggests that the findings for the retail sector overall are likely to be applicable to individual categories.

The highest proportional impact on a retail sector category, the home furnishing retail sector (16.0 percent), likely corresponds to that sector’s weak sales attraction, which could also indicate that the home furnishing sector currently experiences sales leakage (see Table 4.4-3). In that event, the actual retail impact on Stockton’s economy would be reduced because the project would then capture current and/or future sales from current Stockton residents and workers that would otherwise leak out of Stockton. Also, it should be recognized that this sector’s relatively smaller size means that the project’s net new sales impact will represent a greater proportional change to baseline conditions than would occur to a larger retail sector.
The project’s greatest absolute retail sales impact is expected to be on the general merchandise retail category, within which the Weston Ranch retail development is projected to add over $57 million in annual sales, an increase of approximately 9.3 percent over total 2005 sales. The second largest impact (by proportion) is projected to the “other retail” sector, where the $37.0 million in net new sales from the proposed project would represent a 10.8 percent increase over 2005 total sales.

The expected $52.1 million in net new food sales resulting from the proposed project represents an approximately 8.5 percent increase to the food retail sector. This suggests that even if the food sector is fully saturated, the proposed project would be expected to at most require a 8.5 percent sales shift among the all food retailers. Some food retailers may find it difficult to absorb such a decrease in their future sales because of the traditionally narrow profit margins for grocery stores.

**Future Growth in Retail Demand**

If Stockton’s retail sector for project competing goods was fully saturated in 2005, as assumed in this analysis, retail demand will nonetheless continue to grow by $57.5 million in project competing goods in Stockton each year over the foreseeable future (as shown in Table 4.4-9). By mid-2008, when the proposed project is expected to be completed, up to $143.8 million in new retail demand will have been generated (i.e. 2.5 years of accumulated annual demand growth). If no new major retail development were constructed by this year, there would be approximately $143.8 million in “excess” retail demand.

Such “excess demand” could be readily absorbed by the proposed project, thus reducing its net impact on other Stockton retailers to approximately $57.1 million. This smaller “net” retail impact corresponds to a sales shift of less than 2.5 percent sales shift impact to Stockton’s competing retail sector baseline.

**Real Estate Analysis**

**Real Estate Demand**

As discussed above in the environmental setting, Stockton’s real estate market has been growing strongly for many years and vacancy rates for Stockton and the region are low and expected to remain low for commercial property, including retail facilities.

**Vacant Properties Analysis**

As noted in the environmental setting discussion, real estate demand indicators suggest that there is strong demand for commercial retail properties in Stockton that is expected to continue in the foreseeable future. This is a primary reason for expecting that sales shift impacts of the project on existing Stockton retailers would not result in business closures. Moreover, few, if any, long-term vacancies are expected to be associated with business closures that may occur for any reason. As noted in the environmental setting discussion, vacant properties are uncommon; either redevelopment or re-tenanting by retail or other users is likely to occur under current and projected future market conditions in Stockton.
Typical urban decay indicators such as abandoned and deteriorating properties, litter and graffiti, and unauthorized property uses can be avoided if property owners adequately maintain their property (which is generally advisable for owners wanting to maintain its real estate value). Such urban decay impacts may be expected to result when property values are not appreciating and, as a result, owners see these property management costs as unrecoverable and/or unnecessary expenses. However, given Stockton’s recent and foreseeable strong commercial real estate market, it seems unlikely that property owners would generally permit their properties to deteriorate in a manner that would result in urban decay impacts.

Impact 4.4-1. The project would introduce retail uses that would add $200.9 million in new sales to the Stockton retail market - equivalent to up to 8.7 percent of existing (2005) retail sector sales. The net projected “sales shift” impact from the project on existing retailers would be less than 2.5 percent. This shift is not expected to result in a substantial number of existing business closures. If some business closures were to occur and to result in vacancies, the EIR analysis indicates that vacated properties would be re-tenanted or redeveloped and thus unlikely to deteriorate physically. The project in itself would not result in significant urban decay impacts.

In summary, the findings of the urban decay analysis conclude that a direct short-term retail impact to existing retailers of up to $200.9 million could result from the project. This impact would, at most, represent up to an 8.7 percent shift in Stockton’s competing retail sales compared to 2005 existing conditions. This is a conservative impact assessment since it assumes that no retail sales leakage among current Stockton residents or workers would absorb any of the estimated net new sales.

Taking growth in demand into account, the proposed project is expected to result in at most a 2.5% sales shift affecting Stockton retailers and thus to have no or only negligible effects in terms of business closures. The real estate analysis suggests that the strong residential and commercial retail markets will likely ensure that any vacated retail properties would be re-tenanted or redeveloped. In addition to the probability that the project would not result in long-term vacancies, vacancies in themselves do not cause urban decay impacts. Additional conditions are necessary for urban decay to occur, including owner neglect that leads to physical deterioration, the absence of government code enforcement and regulatory programs, lack of investment in economic redevelopment, stagnant or declining property values and a general decline in consumer demand. These factors are absent in the Stockton region at present and for the foreseeable future.

Mitigation Measure: The project would not introduce additional retail competition that would result in business closures by current retailers that would be expected to generate long-term vacancies of existing retail properties, causing significant urban decay impacts. Therefore, no mitigation is required.
The year 2011 has been used for the cumulative impact analysis because all reasonably foreseeable retail development projects are expected to be fully constructed and operational by that date. Future development beyond 2011 is currently unknown. Moreover, the uncertainty inherent in economic forecasting increases with the forecast period horizon. The geographic area for the cumulative impact analysis is City of Stockton, since it is the primary area of concern for any incidence of potential future urban decay impacts.

**Sales by Potential Future Stockton Retail Developments**

According to the City of Stockton Planning Department, several major new retail developments that would compete with the Weston Ranch retail development are considered probable:

- **The Lodi Wal-Mart Supercenter Relocation.** This planned shopping center development would construct 340,000 square feet of commercial retail with a variety of retail sales and services. The major retailer for the proposed project would be a Wal-Mart Supercenter, which would occupy a 226,868-square-foot new Supercenter to replace its existing Lodi Wal-Mart store (120,352 square feet).

- **Spanos Park West (Phase 2).** A new Wal-Mart Supercenter and club discount store are planned for construction next to the recently completed Spanos Park West (Phase 1) shopping center (located at Eight Mile Road and Interstate 5 in northwest Stockton). If approved, up to 615,486 square feet of new development is proposed under the project of which 103,000 square feet would consist of Auto Dealers that would not compete with the project. Therefore, 512,486 square feet of the new development proposed for Spanos Park West (Phase 2) would potentially compete with Weston Ranch.

- **Cannery Park.** A 450-acre mixed-use development project is proposed for the Cannery Park property, which lies directly southwest of the Eight Mile Road and Route 99 interchange in northeast Stockton. The projected potential maximum of approximately 500,000 square feet of new retail (Stockton, 2006) is assumed that the retail development would consist of one similar large-scale discount store (assumed to be approximately 150,000 square feet) with the remaining retail composed of specialty retailers.

- **Origone Ranch.** The site is situated directly southwest of the Hammer Lane and Route 99 interchange in northeast Stockton. Due to the lack of information on the Origone Ranch development, for the purposes of the impact analysis it is assumed that its future commercial development would be of a comparable type and size as that planned for the Cannery Park. According to the City of Stockton Planning Department, the Origone Ranch project is proceeding rapidly and may be completed as soon as July 2009.

Projected sales for these four future retail developments are shown in Table 4.4-11. The Lodi Wal-Mart Supercenter project’s future sales are estimated to be $125.8 million in competing sales (ADE, 2004). The future sales projections for the other potential major new retail developments are based on national sales per square foot averages consistent with the projections for Weston Ranch. It is estimated that the new Spanos Park West Phase 2 project will generate approximately $199.1 million in retail sales annually. Projected sales for the proposed Cannery Park and Origone Ranch retail development are approximately $154.2 million.

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14 Up to 13,160 square feet of this new Lodi development could include non-retail uses (e.g. hairdressers or financial institutions that would not be competitive with the project.)
If all four of these potential retail development projects were constructed, together they would be expected to generate approximately $633.5 million in new retail sales annually. The expected distribution of new sales among the major retail categories is also shown in Table 4-11. The majority of competing retail sales are projected to be food sales ($171.0 million), general merchandise sales ($178.2 million), and other retail ($165.2 million).

A considerable portion of these retailers’ future sales may be expected to be generated from their secondary and tertiary market customers (i.e., non-Stockton residents) (see the market analysis section in Appendix C). As a result, only a portion of these new future retailers’ sales will compete with the project in serving Stockton residents’ retail demand. Using a reduced market area assumption of 15 percent for these customers, as shown in Table 4-12, approximately $538.5 million of these major new future retailers’ total $633.5 million of new sales would be expected to be directly competitive with the proposed Weston Ranch retail development and existing Stockton retailers.

The 2011 retail sector conditions for Weston Ranch competing sales in 2005 are shown in Table 4-13 in the Baseline Stockton Retail Sector column. The estimated total competing sales are approximately $2,312.5 million per year (in 2008 dollar terms). If all the future new retail developments identified in Table 4-11 were developed as assumed, the combined impact of these retailers plus the proposed project would add $739.4 million annually to total 2005 retail sales by existing Stockton retailers. This cumulative retail impact would represent approximately a 32.0% increase to Stockton’s existing retail sector.

### TABLE 4.4-11
SALES BY POTENTIAL FUTURE MAJOR RETAIL DEVELOPMENTS

<table>
<thead>
<tr>
<th>State Board of Equalization Category</th>
<th>Lodi Walmart Expansion&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Spanos Park West (Phase 2)</th>
<th>Cannery Park</th>
<th>Origone Ranch</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned Area (Square Feet)</td>
<td>326,806</td>
<td>512,486</td>
<td>Approx. 500,000</td>
<td>Approx. 500,000</td>
<td>Up to 1,839,300</td>
</tr>
<tr>
<td>Apparel</td>
<td>$8.2 m</td>
<td>$14.1 m</td>
<td>$13.6 m</td>
<td>$13.6 m</td>
<td>$49.5 m</td>
</tr>
<tr>
<td>General</td>
<td>$15.8 m</td>
<td>$54.2 m</td>
<td>$54.1 m</td>
<td>$54.1 m</td>
<td>$178.2 m</td>
</tr>
<tr>
<td>Food</td>
<td>$44.9 m</td>
<td>$74.1 m</td>
<td>$26.0 m</td>
<td>$26.0 m</td>
<td>$171.0 m</td>
</tr>
<tr>
<td>Eating and Drinking</td>
<td>$6.0 m</td>
<td>$20.6 m</td>
<td>--</td>
<td>--</td>
<td>$26.6 m</td>
</tr>
<tr>
<td>Home</td>
<td>$10.0 m</td>
<td>--</td>
<td>$14.9 m</td>
<td>$14.9 m</td>
<td>$39.8 m</td>
</tr>
<tr>
<td>Building</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Auto Dealers</td>
<td>--</td>
<td>$0.8 m</td>
<td>--</td>
<td>--</td>
<td>$0.8 m</td>
</tr>
<tr>
<td>Service Stations</td>
<td>--</td>
<td>$2.4 m</td>
<td>--</td>
<td>--</td>
<td>$2.4 m</td>
</tr>
<tr>
<td>Other Retail</td>
<td>$41.0 m</td>
<td>$33.0 m</td>
<td>$45.6 m</td>
<td>$45.6 m</td>
<td>$165.2 m</td>
</tr>
<tr>
<td>Total</td>
<td>$125.8 m</td>
<td>$199.1 m</td>
<td>$154.2 m</td>
<td>$154.2 m</td>
<td>$633.5 m</td>
</tr>
</tbody>
</table>

NOTES: Figures expressed in 2008 dollar terms; m = millions of dollars; Totals may not add up exactly, due to rounding.

<sup>a</sup> Assumes full increase in retail square footage and sales except for the 13,160 sq. ft. for non-retail services.

SOURCES: ESA; City of Stockton, 2005; Urban Land Institute, 2002

15 This does not include the additional retail demand for project competing goods expected to be brought to Stockton retailers by new Stockton residents (see Table 4-17). If a major proportion of this new retail demand is captured by Stockton retail business, then the actual 2008 baseline conditions would correspondingly be higher.
TABLE 4.4-12
STOCKTON ORIGINATING SALES BY POTENTIAL FUTURE MAJOR RETAIL DEVELOPMENTS

<table>
<thead>
<tr>
<th>State Board of Equalization Category</th>
<th>Total Project-Competing(^b)</th>
<th>Stockton-Originating(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>$49.5 m</td>
<td>$42.1 m</td>
</tr>
<tr>
<td>General</td>
<td>$178.2 m</td>
<td>$151.5 m</td>
</tr>
<tr>
<td>Food</td>
<td>$171.0 m</td>
<td>$145.4 m</td>
</tr>
<tr>
<td>Eating &amp; Drinking</td>
<td>$26.6 m</td>
<td>$22.6 m</td>
</tr>
<tr>
<td>Home Furnishings</td>
<td>$39.8 m</td>
<td>$33.8 m</td>
</tr>
<tr>
<td>Building</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Auto Dealers</td>
<td>$0.8 m</td>
<td>$0.7 m</td>
</tr>
<tr>
<td>Service Stations</td>
<td>$2.4 m</td>
<td>$2.0 m</td>
</tr>
<tr>
<td>Other Retail</td>
<td>$165.2 m</td>
<td>$140.4 m</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$633.5 m</strong></td>
<td><strong>$538.5 m</strong></td>
</tr>
</tbody>
</table>

NOTES: Figures expressed in 2008 dollar terms; \(m\) = millions of dollars; Totals may not add up exactly due to rounding.

\(^a\) See Table 4.4-11.
\(^b\) Estimated Stockton sales, conservatively assuming 85 percent of sales generated in Stockton.

SOURCES: ESA.

TABLE 4.4-13
CUMULATIVE RETAIL IMPACT ON STOCKTON RETAILERS – 2005 BASELINE

<table>
<thead>
<tr>
<th>Retail Sector Categories</th>
<th>Competing Stockton Retailers – Baseline Conditions (2005)(^a)</th>
<th>Potential New Retailers (2005-11)(^b)</th>
<th>Project Sales(^c)</th>
<th>Total Potential Cumulative Sales (d = b + c)</th>
<th>% of Baseline Conditions (e = d / a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>$124.4 m</td>
<td>$42.1 m</td>
<td>$13.2 m</td>
<td>$55.3 m</td>
<td>44.5%</td>
</tr>
<tr>
<td>General Merchandise</td>
<td>$616.9 m</td>
<td>$151.5 m</td>
<td>$57.6 m</td>
<td>$209.1</td>
<td>33.9%</td>
</tr>
<tr>
<td>Food</td>
<td>$609.5 m</td>
<td>$145.4 m</td>
<td>$52.1 m</td>
<td>$197.5 m</td>
<td>32.4%</td>
</tr>
<tr>
<td>Eating and Drinking</td>
<td>$270.9 m</td>
<td>$22.6 m</td>
<td>$15.8 m</td>
<td>$38.4</td>
<td>14.2%</td>
</tr>
<tr>
<td>Home Furnishings</td>
<td>$112.5 m</td>
<td>$33.8 m</td>
<td>$18.0 m</td>
<td>$51.8 m</td>
<td>46.0%</td>
</tr>
<tr>
<td>Building Materials</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Auto Dealers</td>
<td>$58.6 m</td>
<td>0.7 m</td>
<td>$0.7 m</td>
<td>$1.4 m</td>
<td>2.4%</td>
</tr>
<tr>
<td>Service Stations</td>
<td>$177.9 m</td>
<td>$2.0 m</td>
<td>$6.5 m</td>
<td>$8.5 m</td>
<td>4.8%</td>
</tr>
<tr>
<td>Other Retail Stores</td>
<td>$341.9 m</td>
<td>$140.4 m</td>
<td>$37.0 m</td>
<td>$177.4 m</td>
<td>51.9%</td>
</tr>
<tr>
<td><strong>Total - All Retail</strong></td>
<td><strong>$2,312.5 m</strong></td>
<td><strong>$538.5 m</strong></td>
<td><strong>$200.9 m</strong></td>
<td><strong>$739.4 m</strong></td>
<td><strong>32.0%</strong></td>
</tr>
</tbody>
</table>

NOTES: Figures expressed in 2008 dollar terms; \(m\) = millions of dollars; Totals may not add up exactly due to rounding.

\(^a\) See Table 4.4-3.
\(^b\) See Table 4.4-12.
\(^c\) See Table 4.4-7.

SOURCES: ESA.
It should be recognized that distribution of the future cumulative retail impact among the retail sector categories is uncertain due to the limited availability of information on future retail development. However, given the assumed allocation of the sales projections, the analysis indicates that the largest retail impact would occur in the general merchandise sector where over $209 million in additional sales would be expected. The retail impacts to the food and “other retail” sectors would be only slightly less at $197.5 million and $177.4 million, respectively. The greatest proportional change would occur to the “other retail” sector, where the projected total new sales would be nearly 52% of the 2005 sales. The central issue for the urban decay analysis is whether substantial changes in the level of physical urban decay in Stockton would be expected to result from these cumulative sales increases.

Major increases in retail sales in a local economy will not in and of themselves result in adverse impacts on existing retailers. If the existing retail market is leaking sales out of the economy or major new retail demand growth is expected that would offset the new competition, then no retail impacts would occur. The key factor in determining the severity of adverse retail impacts (and hence the likelihood of vacancies by existing businesses closing down) is whether there are “sales-shift” impacts that could redirect sales to such an extent that some businesses are forced out of the market.

In the case of the cumulative impact analysis, the most meaningful indication of the likely effect on Stockton’s existing businesses is the degree of imbalance between future retail sales and demand. Table 4.4-14 provides an assessment of the potential sales shift in 2011 (i.e. when all the currently foreseen major future retail developments are assumed to have been completed and would be fully operational).

### TABLE 4.4-14
**CUMULATIVE SALES SHIFT IMPACT TO STOCKTON RETAILERS – BASELINE (2011)**

<table>
<thead>
<tr>
<th>Retail Sector Categories</th>
<th>Estimated Baseline Stockton Sales&lt;sup&gt;a&lt;/sup&gt; (2011) (a)</th>
<th>Potential Cumulative New Sales (2005-11) (b)</th>
<th>Stockton Retail Demand Growth&lt;sup&gt;b&lt;/sup&gt; (2005-11) (c)</th>
<th>Estimated Future Sales Shift Impact (2011) (d = b - c)</th>
<th>% of Baseline Conditions (e = d / a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>$145.3 m</td>
<td>$55.3 m</td>
<td>$21.0 m</td>
<td>$34.3 m</td>
<td>23.6%</td>
</tr>
<tr>
<td>General</td>
<td>$690.4 m</td>
<td>$209.1 m</td>
<td>$73.5 m</td>
<td>$135.6 m</td>
<td>19.6%</td>
</tr>
<tr>
<td>Food</td>
<td>$692.3 m</td>
<td>$197.5 m</td>
<td>$82.8 m</td>
<td>$114.7 m</td>
<td>16.6%</td>
</tr>
<tr>
<td>Eating and Drinking</td>
<td>$326.5 m</td>
<td>$38.4 m</td>
<td>$55.6 m</td>
<td>-$17.2 m</td>
<td>-5.3%</td>
</tr>
<tr>
<td>Home Furnishings</td>
<td>$133.5 m</td>
<td>$51.8 m</td>
<td>$21.0 m</td>
<td>$30.8 m</td>
<td>23.1%</td>
</tr>
<tr>
<td>Building Materials</td>
<td>~</td>
<td>~</td>
<td>~</td>
<td>~</td>
<td>~</td>
</tr>
<tr>
<td>Auto Dealers</td>
<td>$66.6 m</td>
<td>$1.4 m</td>
<td>$8.0 m</td>
<td>-$6.6 m</td>
<td>-10.0%</td>
</tr>
<tr>
<td>Service Stations</td>
<td>$216.2 m</td>
<td>$8.5 m</td>
<td>$38.3 m</td>
<td>$29.8 m</td>
<td>13.8%</td>
</tr>
<tr>
<td>Other Retail Stores</td>
<td>$387.0 m</td>
<td>$177.4 m</td>
<td>$45.1 m</td>
<td>$132.3 m</td>
<td>34.2%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$2,657.8 m</td>
<td>$739.4 m</td>
<td>$345.3 m</td>
<td>$394.1 m</td>
<td>14.8%</td>
</tr>
</tbody>
</table>

NOTES: Figures expressed in 2008 dollar terms; m = millions of dollars; Totals may not add up exactly due to rounding.

<sup>a</sup> 2011 baseline conditions based on 2005 baseline (Table 4.4-3) adjusted to include future retail demand growth (column c).

<sup>b</sup> Future retail demand growth based on Table 4.4-9 and six years of annual growth from 2005 to 2011.

SOURCES: ESA.
The discussion in the preceding section concludes that implementation of the proposed Weston Ranch project would not in itself cause significant urban decay impacts, in part because the retail sales shift effects of the project would be minor. Few (if any) existing retail businesses would be expected to close as a result of competition from the project and in the event of any closures, the strong commercial real estate market in Stockton would prevent extended retail facility vacancies. After project build-out any retail facilities that became vacant due to business closures would likely be re-tenanted, either by another retailer or a different type of tenant, or redeveloped in a relatively short period of time.

However, the cumulative impact on existing retailers of the proposed project together with other retail projects considered reasonably foreseeable would be greater than the effects of the project alone, especially if the new retailers entered the Stockton market concurrently or in rapid succession in the near term future. In that case, the cumulative effects of new retail sales competition, including the proposed project, could be expected to result in existing retail businesses leaving the market.

The retail sales shift analysis of 2011 conditions suggests that over the longer term, any cumulative impacts may be expected to decrease in magnitude as a result of future retail demand growth sales. However, given the magnitude of the projected imbalance in 2011 between retail supply and demand, the cumulative sales impacts of the proposed project together with other probable retail development could result in closures of existing businesses. Although the real estate market in Stockton is strong and will likely remain so, it is uncertain whether demand for retail space would be sufficient to ensure re-tenanting (by retail or other uses) or redevelopment of all or most properties vacated by business closures due to the cumulative effects of the proposed project and other future retail centers.

As noted previously in the discussion of the urban decay impact significance criteria, adverse effects of increased competition on existing Stockton retailers are not in themselves sufficient to cause an increase in blight, or more specifically, a substantial adverse change in the physical condition of existing Stockton shopping areas. For a significant urban decay effect to result, the general causal chain described in the discussion of significance criteria must occur. Schematically, the causal chain begins with retail market effects that lead to business closures. But business closures alone do not produce urban decay. Business closures must first result in vacancies and then these vacancies must lead to physical deterioration of property. There is abundant evidence that at present and in the future, the strong commercial real estate market in Stockton makes rapid re-tenanting or conversion to a new use of vacant facilities highly likely.

If longer term property vacancies were to occur as a result of cumulative retail development including the proposed project, additional causal effects would be necessary for urban decay impacts to result. Vacant properties, even long-term vacant properties, do not, in and of themselves, necessarily result in the impacts associated with urban decay. If adequately managed and maintained, underused or underdeveloped properties may remain in urban areas without contributing to the cycle of adverse physical conditions that result in, and are indicative of, urban decay. As discussed in Appendix C, typical urban decay indicators such as abandoned and deteriorating properties, litter and graffiti, and unauthorized property uses can be avoided if
property owners adequately maintain their properties (which is generally advisable for owners wanting to maintain the value of their properties). Such urban decay impacts may also be expected to occur when property values are not appreciating and, as a result, owners see these property management costs as unrecoverable and/or unnecessary expenses. In addition, the City’s substantial urban redevelopment programs and its recently expanded code compliance and enforcement efforts are all additional factors that are likely to prevent or at least minimize urban decay even if there were to be an increase in vacant retail space due to competitive pressures.

In addition to these considerations, it is important to emphasize that the cumulative scenario is in effect a worst case analysis of future conditions for the Stockton retail sector because it assumes that all of the future projects considered reasonably foreseeable for CEQA purposes will be constructed as and when proposed; in fact, the facility sizes and buildout years assumed in this analysis are extremely optimistic. As a result, the analysis findings likely represent the upper limit of the potential magnitude of cumulative competitive impacts to the existing Stockton retail sector.

The assumptions used in this analysis include:

- *The Stockton retail market was fully saturated under the 2005 baseline conditions.* The retail impact analysis determined a maximum estimate of the potential sales shift impact since it conservatively assumes that the under 2005 existing conditions Stockton’s retail market was fully saturated. Therefore, none of the new retail sales would be absorbed by current residents or workers. However, if the current Stockton retail market is not already saturated, then some of the projected new retail sales surplus would be absorbed by Stockton residents who are otherwise “leaking” their sales to other non-Stockton retailers. As discussed in greater detail in Appendix C, many of the local real estate experts interviewed stated their view that the Stockton retail market was not fully saturated and was still in a process of “catching up” after many years of stagnation in retail development during the 1990s. The respondents also suggested that the “under-retailing” of south Stockton and, to a lesser extent, central Stockton currently results in significant retail leakage by its residents.

- *No future growth in Stockton residents’ real income levels occurs.* Current average Stockton per capita income is approximately 71% of California average. Successful economic development programs and improvements in Stockton’s local economy could improve local residents’ income levels and thereby increase local retail demand. In that event, the projected sales shifts to new retailers would be reduced as a greater proportion of the potential new retail sales could be absorbed.

- *Current residents’ net worth and purchasing power will not increase.* Home value appreciation and increased refinancing opportunities have significantly raised most California home owner’s effective income (i.e., disposable income available for retail purchases). This factor may help explain the apparent considerable sales attraction by existing Stockton retail identified in the leakage analysis. Continued increases in effective income (i.e., from continued home appreciation) could also increase future retail demand.

- *Build-out and operation of all the new retail development projects considered probable will occur by 2011 and as assumed by the analysis.*
• Most (85 percent) of the proposed Lodi Wal-Mart Supercenter and other potential new Stockton retailers’ future sales total sales would be obtained from the proposed project’s primary market (i.e. Stockton residents).

• The retail analysis is limited solely to those other retailers selling project-competing goods.

• Recently vacated stores would generally be re-tenanted by competitive retailers.

In addition to these assumptions, which result in a worst-case analysis of the competitive effects on existing retailers of cumulative retail development, a number of uncertainties make it difficult to determine whether an increase in business closures in Stockton by 2011 would result in an increase in urban blight. These uncertainties include the following:

• Existing retailers’ profitability/vulnerability to increased competition. The complex interrelationships of store locations, customer preferences, business management responses and extent of current retail market saturation add to the difficulty of identifying the nature and extent of vacancies that could result from cumulative retail sales impacts.

• Existing retailers’ likely business response to new competition. The extent that specific retailers can withstand and respond to any cumulative future sales shift losses will depend on several factors. Each store’s profitability will be an important factor determining the extent to which it can absorb sales reductions and yet continue to generate sufficient earnings. Specific businesses (and even individual stores) will have differing abilities to adapt their management, operations, and fixed costs to respond to sales reductions from sales shifts resulting from increased competition. The competing businesses’ corporate management assistance, investment and other resource may help some business to reposition themselves or otherwise respond so as to limit the competitive effect of the project to their business. Similarly, while sales shift impacts could be a major and/or deciding factor in a given retailer’s continued operation, other independent factors (e.g., poor management, long-term deferred maintenance, building obsolescence, corporate performance) may also affect and determine their future financial performance.

• Allocation of retailer and future customer sales across retail sector categories. As discussed earlier in the analysis, due to the differences California State Board of Equalization retail categories used for tax reporting purposes and the actual categories of retail goods sold, allocation of sales by different retailers is necessarily approximate. Furthermore, the actual distribution of future retail sales could differ considerably from the existing distribution.

Finally and as previously noted, a number of factors affect whether increased retail competition from the proposed Weston Ranch project together with other probable future projects would result in an increase in urban decay in Stockton, and specifically in adverse physical effects to any existing shopping area. These factors include the following.

• Strong demand for commercial and residential real estate. Based on interviews with local real estate brokers, the real estate analysis concludes that there is currently relatively strong demand for both commercial retail and residential properties within Stockton, as reflected in low vacancy rates, and that demand will continue to be strong throughout the cumulative analysis period. Because demand for commercial retail is strong and will continue to be so, any buildings vacated by businesses leaving Stockton as a result of the cumulative competitive effects would most likely be re-tenanted over time. Re-tenancing could involve
both new retailers and adaptive re-use by other businesses such as service businesses or offices. The strong real estate market also suggests that site redevelopment may occur, particularly for well-situated, in-fill properties in north Stockton. The strong residential market, which is expected to generate increased future retail demand, could also create demand for in-fill redevelopment of former retail areas in Stockton.

- **Cumulative retail sales impacts could result in increased retail space vacancies that would add to the supply of available properties.** If the demand for the properties were less than the new supply, vacant properties could be on the market longer and prices might adjust downward. However, in that event, reduced rents coupled with continuing strong demand would encourage re-tenanting or re-use.

- **Location and extent of any resulting vacancies.** The influence that any increase in long term vacancies may be expected to have on urban decay in Stockton may be affected by both the magnitude and location of any vacancies. Generally, clustering of vacancies would be expected to increase the potential for urban decay conditions to develop. If any future vacancies are instead distributed throughout the entire community, new urban decay would be less likely to develop.

- **Property Neglect.** Property vacancies, even long-term vacancies, do not, in and of themselves, necessarily result in urban decay impacts. If adequately managed and maintained, underused or underdeveloped properties may persist in urban areas without suffering physical deterioration. Typical urban decay indicators (such as abandoned properties, litter and graffiti, breakage and disrepair, and unauthorized property use) can be avoided if property owners adequately maintain their properties, which they are likely to do if, as in Stockton, their properties are holding their value or appreciating in value.

- **Role of Government Agencies in Urban Decay Abatement and Economic Development.** As discussed in more detail in **Appendix C**, local government planning, oversight and economic development programs can have a major effect both on property re-tenanting and the prevention of blight. Stockton’s extensive economic development efforts and recently completed projects (particularly in the downtown area) are significantly improving past blighted conditions in the City, fostering new businesses and adding major infrastructure improvements and attractions to improve the quality of life within Stockton. City agencies’ efforts to foster building preservation and infrastructure can have an important effect on attracting and retaining businesses and residents. City and County government efforts at better planning, marketing and developing effective business incentives may be expected to have a positive contribution in addressing existing and potential future urban blight within the city. In particularly, the expanded City of Stockton Neighbor Services Section has improved code compliance and enforcement capabilities that are focused on reducing existing urban blight conditions in the City. These programs and initiatives will continue in the future and are expected to prevent or retard any ultimate urban decay effects of increased retail competition from the project and other probable retail developments.

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**Impact 4.4-2.** Combined with other major new retail developments proposed in Stockton and considered reasonably foreseeable, the project would result in up to a 14.8 percent shift in retail sales away from existing Stockton retailers. A sales shift of this magnitude could result in a substantial number of business closures among existing competing retailers.
However, the EIR analysis indicates that most of the properties would be re-tenanted due to the continuing strong commercial and residential real estate demand in Stockton. In the event that vacant properties were not reoccupied in the near term, City of Stockton economic development, oversight and code-enforcement would ensure that vacant properties would not be permitted to deteriorate. The proposed project would not result in a cumulatively considerable adverse change in the physical condition of any shopping area in Stockton. This impact is less than significant.

In summary, the findings of the urban decay analysis conclude that up to a $739 million cumulative retail impact of additional retail sales competition to existing retailers could result from the project and other potential future new Stockton retailers. This impact could represent up to a 14.8 percent short term sales shift in Stockton’s competing retail sales to the Stockton’s future 2011 retail sector. This is a highly conservative assessment of the future cumulative impact due to the many conservative assumptions and methodology used in the urban decay impact analysis which have been identified and discussed previously. As a result, this figure represents a “worst case” impact estimated on the assumption that the four planned large retail projects would be completed and fully operational. The analysis assumes that no retail sales leakage among Stockton residents or workers currently exists that would absorb any of the projected sales shift.

While future sales shift impacts of the magnitude of 14.8 percent could result in business closures among competing retailers, the real estate analysis suggests that Stockton’s relatively strong residential and commercial retail markets will likely ensure that most of any vacated retail properties would be re-tenanted or redeveloped. In addition, even under the unlikely possibly that the project has the cumulative effect of resulting in long-term vacancies, vacancies in themselves do not cause urban decay impacts. Additional conditions are necessary for urban decay to occur, including owner neglect that leads to physical deterioration, the absence of government code enforcement and regulatory programs, lack of investment in economic redevelopment, stagnant or declining property values and a general decline in consumer demand. These factors are absent in the Stockton region at present and for the foreseeable future.

Given the major contributory role that other non-project factors may potentially have both determining any future retail impacts to existing retailers and on Stockton’s urban decay conditions, the causal linkage between any future cumulative retail impacts of the project on existing retailers is not clear, especially since other factors can have a greater role in influencing the urban decay conditions within Stockton. As a result, it is concluded that the project’s cumulative impacts on existing retailers will not be expected to result in business closures and related long term property vacancies that would lead to urban decay impacts of a sufficient magnitude and/or prevalence to result in a substantial increase in Stockton’s physical urban decay conditions.

**Mitigation Measure:** The project would not result business closures by current retailers that would be expected to generate long-term vacancies of existing retail properties of a magnitude or prevalence sufficient to cause significant urban decay impacts. Therefore, no mitigation is required.
4.5 Population, Housing, and Employment

This section provides a brief setting of the existing conditions for population, housing, and employment, and assesses changes that could trigger adverse physical effects in the City or the region due to the project. Much of the information presented here has been extrapolated from the City of Stockton General Plan 1990 Background Report and 2003 Housing Element. A complete in-depth discussion of the economic impact of the project is presented in Section 4.4, Urban Decay.

4.5.1 Setting

Existing Conditions

Population

According to the U.S. Census Bureau, the 2003 population of the City of Stockton is estimated at 271,466. Furthermore, the population has increased from 210,943 in 1990 to 243,771 in 2000. Population growth within the City and its sphere of influence is projected to continue and, according to the San Joaquin Council of Governments, Stockton’s population is projected to exceed 400,000 by the year 2025. The population of Stockton is estimated to have increased by 2.9 percent during 2005 from 2004 population estimates. The primary factors accounting for population growth in the City of Stockton are affordable housing for bay area commuters, increased local middle income jobs, and immigration. Stockton’s rate of population growth is over the average growth rate for San Joaquin County and California overall. Table 4.5-1 illustrates the comparison of population growth in Stockton to both San Joaquin County and the State of California.

<table>
<thead>
<tr>
<th>Population and Household Information</th>
<th>City of Stockton</th>
<th>San Joaquin County</th>
<th>State of California</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003 Population</td>
<td>261,253</td>
<td>613,490</td>
<td>35,590,952</td>
</tr>
<tr>
<td>1990 Population</td>
<td>210,943</td>
<td>480,628</td>
<td>29,758,213</td>
</tr>
<tr>
<td>Percentage Population Growth (1990–2003)</td>
<td>23.9%</td>
<td>27.6%</td>
<td>19.6%</td>
</tr>
<tr>
<td>2003 Number of Households</td>
<td>85,988</td>
<td>201,398</td>
<td>12,600,651</td>
</tr>
<tr>
<td>1990 Number of Households</td>
<td>72,525</td>
<td>166,274</td>
<td>11,182,513</td>
</tr>
<tr>
<td>Household Growth (1990–2003)</td>
<td>18.6%</td>
<td>21.1%</td>
<td>12.7%</td>
</tr>
<tr>
<td>2003 Average Household Size</td>
<td>3.11</td>
<td>3.08</td>
<td>2.93</td>
</tr>
<tr>
<td>1990 Average Household Size</td>
<td>3.00</td>
<td>2.94</td>
<td>2.79</td>
</tr>
</tbody>
</table>


**Housing**

The U.S. Census Bureau reports that housing units in the City of Stockton have increased from 72,525 in 1990 to 85,988 in 2003. The City’s housing growth rate from 1990–2003 was 18.6 percent. Based on the City General Plan, the number of housing units is anticipated to increase to approximately 135,300 by 2010.

**Employment**

Within the City of Stockton, 105,500 people are currently employed. The unemployment rate for the City is currently 10.1 percent which is more than the County estimate of 8.4 percent. Table 4.5-2 provides the percentage of employees working in various job sectors.

<table>
<thead>
<tr>
<th>TABLE 4.5-2</th>
<th>INDUSTRY EMPLOYMENT AND LABOR FORCE BY YEAR FOR STOCKTON MSA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1990</td>
</tr>
<tr>
<td>Number</td>
<td>% of Total Employment</td>
</tr>
<tr>
<td>Total Wage and Salary Jobs, All Industries</td>
<td>168,300</td>
</tr>
<tr>
<td>Total Farm Jobs</td>
<td>15,600</td>
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<tr>
<td>Total Non-Farm Jobs</td>
<td>152,700</td>
</tr>
<tr>
<td>Construction, Mining &amp; Natural Resources</td>
<td>9,600</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>24,300</td>
</tr>
<tr>
<td>Transportation and Utilities</td>
<td>6,100</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>6,800</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>17,900</td>
</tr>
<tr>
<td>Education &amp; Health Services</td>
<td>16,500</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>9,300</td>
</tr>
<tr>
<td>Professional &amp; Business Services</td>
<td>9,200</td>
</tr>
<tr>
<td>Hospitality Services</td>
<td>11,700</td>
</tr>
<tr>
<td>Government</td>
<td>33,800</td>
</tr>
<tr>
<td>Information</td>
<td>2,700</td>
</tr>
<tr>
<td>Other Services</td>
<td>4,800</td>
</tr>
</tbody>
</table>


**Regulatory Setting**

**City of Stockton General Plan 2003 Housing Element**

The Housing Element includes the following goals, objectives, and policies related to housing that are relevant to this analysis:
Goal H-1: Ensure the adequate provision of sites for housing of all types, recognizing the importance of a jobs-to-housing ratio that encourages living and working in our community.

Policies H-1.1 The City shall designate sufficient vacant land for housing to accommodate anticipated population growth.

H-1.2 The City shall maintain an adequate supply of undeveloped land designated for low-, medium- and high-density residential uses.

H-1.4 The City shall insure that sites designated for new residential development are adequately served by public utilities, are minimally impacted by noise and blighting conditions, and are compatible with the surrounding land uses.

Goal H-2: Ensure the adequate provision of housing for all economic segments of the community with special attention to encouraging affordable housing.

Policies H-2.1 The city shall pursue federal and state housing assistance programs designed to help meet the needs of low-and moderate-income households.

H-2.4 The City shall expand homeownership opportunities for moderate-income households.

H-2.5 To minimize impacts on Stockton, the City shall work with the San Joaquin County, Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, and Tracy to encourage these jurisdictions to provide their fair share of affordable housing.

4.5.2 Impacts and Mitigation Measures

Significance Criteria
The project would result in significant population, employment, and housing impacts if it would:

- Induce substantial unplanned population growth in the City of Stockton, either directly (by proposed new homes and businesses) or indirectly (through the extension of roads or other infrastructure);

- Generate a substantial demand for new housing, the construction of which could cause significant environmental impacts;

- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere; or

- Result in employment or housing conditions inconsistent with goals, policies, or objectives in the City General Plan.
Impacts

The project is intended to serve the existing and planned population within the City of Stockton and adjacent communities. Given the number of new employees (less than 800) anticipated with the project it would not result in a substantial demand for new housing or result in employment or housing conditions inconsistent with City of Stockton General Plan goals, policies or objectives. In addition, only two homes currently exist at the site and only a small portion of the site is currently designated for residential use. The project would therefore not displace a substantial number of existing people or housing.

The project would require a rezoning of approximately 60 acres from RL to CG. If this land were instead developed residentially, in accordance with current zoning, approximately 295 units would be built. The Housing Element of the General Plan for the city of Stockton plans for 7,497 new units zoned R-1 zoned through the year 2035. The project would reduce the number of units that could be built on R1 land by only 3.9 percent. Thus, the potential residential development the project would displace is not significant.

The potential for the project to induce unplanned population growth is discussed below.

Impact 4.5.1. Induce substantial population growth. The project could directly and/or indirectly induce substantial population growth in the City of Stockton by creating new employment opportunities through commercial development. This impact is considered less than significant.

The commercial development would provide new job opportunities, prompting employees to either move or commute to the area or transfer from other businesses in and around Stockton. However, due to the nature of the types of businesses proposed to occupy the commercial center, the majority of employees are likely to be hourly wage earners in the estimated pay range of $6.75 to $9.00 per hour (using wage estimates provided by San Joaquin County Occupational Outlook, 2002–2003 for Cashiers), this is well below the 2004 average hourly wage estimates for non-farm employees in the Stockton-Lodi area of $17.00 to $18.99 per hour according to 2004 estimates provided by the Occupational Employment Statistics Survey by the State Employment Development Department. It is more likely that the jobs created by this project will provide new employment opportunities for the City’s unemployed, student, and retired sectors. The 59.7-acre commercial development is not likely to create a substantial draw of in-migration for these newly created jobs. The increase in employment generated by this project would not result in substantial population growth in the City of Stockton. Therefore, this impact is considered less than significant.

The other technical sections in Chapter 4 (e.g., Biological Resources, Transportation and Circulation, Air Quality, Noise, etc.) address the secondary impacts of the growth in housing, population, and employment. To the extent that the secondary impacts can be mitigated, the growth would not be considered a significant impact. If secondary impacts are not mitigated to a less-than-significant level, then the growth would be a potentially significant impact of the project.

Mitigation: No mitigation is required.
4.6 Public Services and Utilities

This section provides an overview of existing public services and utilities within the project site and surrounding region, associated regulatory framework, and an analysis of potential impacts to public services and utilities that would result from implementation of the project. Specific services discussed in this section are law enforcement, fire protection, emergency medical response, solid waste disposal, library, and education. Utilities discussed in this section include wastewater, water supply and delivery, electricity, and natural gas.

4.6.1 Setting

Existing Conditions

Law Enforcement

The Stockton Police Department, Seaport District, serves the project area. Services offered to the community include routine patrols, traffic enforcement, crime investigations, narcotics, youth services, and family violence. The Main Police Station at 22 East Market Street is the closest station to the project area. The response time from the nearest patrol unit would range from two to three minutes to 20 minutes, depending on the type of emergency/incident. The proposed increase in commercial businesses would require increased law enforcement patrols in the area to respond to calls for disputes, thefts, alarms, etc.

Fire Protection and Emergency Medical Response

The City of Stockton Fire Department provides fire protection and emergency medical services (EMS) for the project area. The department is led by the fire chief, who reports to the city manager. Currently there are 231 firefighters and 36 ambulance personnel working for the department, and they are supported by 38 civilian employees. The department is divided into two battalions. There are two battalion chiefs on 24-hour duty each day and a chief’s operator (aide) who drives the Mobile Command Unit and responds to all structure fires, hazardous material incidents, or large-scale EMS calls in the City. The chief’s operator also handles the daily staffing requirements. The department has 12 fire stations housing 12 engine companies and three truck companies. The Stockton Fire Department received a departmental and overall “Class 1” rating from the Insurance Services Office. Only five cities in the nation have been awarded this top overall rating.

A Hazardous Materials Unit and Fire Boat are staffed by Engine 10; a Water and Dive Rescue Team is staffed by Engine 6; Heavy and Confined Space Rescue at Truck 3; Fire Cause & Origin Investigation is provided by arson investigator. All engine and truck companies are staffed with a four-person crew with the exception of Truck 2, which is staffed with a crew of five.
The closest fire station to the project site is Station 5 at 3499 Manthey Road. Four people are staffed at this station, and the average response time to the project area is approximately three minutes. At present, the City of Stockton Fire Department would be able to meet the needs of the project. The required fire hydrants and fire flows are outlined in the City standards. The project would be designed to meet the standards.

The City of Stockton is served by several different private ambulance companies that are dispatched on a common radio channel. The three major hospitals that provide medical service in Stockton are Dameron Hospital, St. Joseph’s Medical Center, and the San Joaquin General Hospital.

**Public Schools**

*Manteca Unified School District*

The Manteca Unified School District provides public elementary and secondary education in portions of the City of Stockton. The District has a total of 23 schools district-wide. Of that total, four schools are located in the vicinity of south Stockton. The District has a total enrollment of over 21,000 students. No housing is proposed as a part of the project. Therefore, there would be no impacts to schools within the project area.

**Water Supply**

The project would receive water service from the City of Stockton Municipal Utilities Department, Water Division. Water distribution systems in the vicinity of the project site include a 30-inch pipeline along French Camp Road, an 18-inch pipeline along Manthey Road, and a 16-inch pipeline along William Moss Boulevard. The project would require an extension of the existing water service in the area. A 12-inch water line at the intersection of French Camp Road and Manthey Road would be extended west along French Camp Road to serve the project site. In addition, the project would require the extension of a 16-inch line from the intersection of Henry Long Boulevard and Manthey Road to coincide with the western boundary of the project area.

Water for the Stockton area comes from a combination of groundwater and surface water sources. Until 1977, groundwater was the sole source of domestic water for the Stockton area. A surface water supply was established in 1977, when the Stockton East Water District (SEWD) Treatment plant began operation. This plant currently treats up to 27,000 acre-feet per year of Calaveras River water. This water is stored in New Hogan Reservoir, and is diverted from the Calaveras River at Bellota and transported through a 12-mile-long, 54-inch-diameter pipeline to the plant. After treatment, water is distributed between the City, Cal Water, and the two County Maintenance Districts in proportion to the total amount of water use that each agency comprises in the Stockton region. The City’s current allocation accounts for approximately 35 percent of the SEWD Treatment Plant output.

Construction and operation of the project would generate increased demand for water. As a condition of approval for the project, the City would need to certify that they have adequate water to supply the project’s needs. The project would be required to comply with all applicable plans, including the South Stockton Water Master Plan and Update. A water supply assessment, consistent with SB 610, would be required for the project.
Water Supply Assessment

Senate Bill 610 (Chapter 643, Statutes of 2001), effective January 1, 2002, specifies requirements for identifying and documenting water availability for large development projects. Senate Bill 610 requires cities and counties to request a water supply assessment from any public water system that would serve a project that is subject to CEQA and meets the definition of a “project” in Water Code Section 10912. Water Code Section 10912(a) defines a project as a retail development of 500,000 square feet or more and certain large residential developments, industrial and mixed use projects.

Because the project meets the definition of a “project” under Water Code Section 10912 and is subject to CEQA, the City of Stockton Community Development Department, Planning Division requested the City of Stockton Municipal Utilities Department, Water Division to prepare a water supply assessment pursuant to Senate Bill 610. The letter of request was sent to the Municipal Utilities Department, Water Division on January 27, 2005. The water supply assessment is provided in Appendix D of this EIR.

As addressed in Section 4.10 Hydrology, the City has determined that it has sufficient water supplied to meet the project’s water demands based on information provided in the Water Supply Assessment (WSA) and the following specific facts (see Appendix D for complete Water Supply Assessment):

- The current, near-term, and long-term reliable supplies of the SEWD surface water supplies and indigenous groundwater supplies can deliver a sustainable, reliable water supply without impacting environmental values and/or impacting the current stabilization of the groundwater basin underlying the COSMA.

- The existing conjunctive use program of using SEWD surface water and City groundwater supplies has been extensively analyzed as part of the Delta Water Supply Project (DWSP) Feasibility Report and groundwater studies completed as part of the regional WSA. Both studies show that sufficient water rights and groundwater supplies exist for the project.

- The project will be served by water supplies made available through the City’s existing conjunctive water use program within the COSMA (MWH Americas, 2005).

Wastewater

The project would receive wastewater service from the City of Stockton Municipal Utilities Department. The collection systems operators maintain 900 miles of sanitary lines and over 38,000 sewer connections. Existing sewer facilities in the project area include a 10-inch and 15-inch pipeline located along Henry Long Boulevard. The current pipelines are designed to handle residential wastewater flows, and may not accommodate additional commercial use. In accordance with approved master plans, a 15-inch sanitary sewer pipeline will need to be extended from the intersection of McDougal Boulevard and Henry Long Boulevard east to coincide with the eastern boundary of the project site.
**Drainage**

The project would receive stormwater drainage service from the City of Stockton Municipal Utilities Department. Existing storm drainage facilities in the project area include a 36-inch drainage line along William Moss Boulevard, and an 18- to 24-inch line along French Camp Road that was designed to serve French Camp Road and the I-5 interchange.

The project would require extension of storm drainage infrastructure on Henry Long Boulevard, which will be served from a 54-inch and a 60-inch pipeline. The project would require revision of existing storm drainage master plans to incorporate proposed land use changes. Construction of the project is expected to add large areas of impervious surface to the area. Pavement and structures would contribute to an increased volume of runoff from the project site.

Watershed drainage plans shall also include a detailed analysis to verify that the storm pump station and existing infrastructure can accommodate the increased volume of runoff from the project area. The project would also require compliance with the City’s Storm Water Quality Control Criteria Plan, approved and adopted by City Council on November 25, 2003.

**Solid Waste Disposal**

The City of Stockton Public Works Department is responsible for the administration of the City solid waste management policies. The Public Works Department has a commercial solid waste collection system. The program includes recycling and green waste and food waste collection service for all commercial customers. The City contracts out the collection service to businesses, such as Waste Management, Allied Waste, and Delta Container. The commercial waste is taken to the Forward Landfill on Austin Road in Manteca, which is a Class III municipal waste landfill. The landfill was permitted in 2003 with a total of 567 acres of land. The landfill is expected to reach capacity in the year 2020.

**Electric and Gas Service**

The project area is currently served by electric lines owned and maintained by Pacific Gas and Electric Company (PG&E). Representatives of PG&E were unable to comment on the condition of these lines, or their ability to provide increased electricity to the project site at the time of preparation of this EIR. PG&E also provides natural gas within the City of Stockton.

**Regulatory Setting**

**City of Stockton General Plan**

The City of Stockton General Plan governs the placement and subsequent extension of the public infrastructure within the project area. The following goals and polices are provided in the Land Use and Public Facilities Elements as they relate to the provision of public facilities and services.
Land Use Element

Goal 2  Promote development and redevelopment within the City of those areas already served, or which may be readily served, by City services and facilities in order to maintain and revitalize the existing urban area.

Policy 4.  Provide, and where necessary, upgrade services and facilities to encourage development within the existing urbanized area consistent with the Land Use/Circulation Diagram.

Public Facilities Element

Goal 1  Provide public facilities and City services throughout the urbanized area.

Policies 1.  Give priority to providing services to existing urban areas and to prevent the deterioration of existing levels of service.

4.  Promote the consolidation of overlapping special service districts in order to increase efficiency and the quality of service and delivery.

5.  Development proposals shall be reviewed for their impacts on various infrastructure components (i.e., sewer, water, fire stations, libraries, streets) and should be required to provide appropriate mitigation measures if development reduces service levels.

6.  Require recycling programs, which reduce demand for solid waste disposal capacity.

11.  PG&E, Pacific Bell, and Continental Cablevision should upgrade their facilities and acquire appropriate easements to accommodate development.

Goal 3:  Assure that public facilities are compatible with surrounding land use and are an asset to the area.

Policy 3.  Governmental and semi-public agencies shall provide facilities that are attractive and complementary with their environment.

Water Facilities

Goal 1:  Conserve groundwater and surface water resources in order to ensure sufficient supplies of good quality water.

Policies 2.  Land use activities that use or store hazardous materials shall be regulated and monitored in order to prevent the contamination of groundwater and surface water resources.

4.  The use of Best Management Practices for the reduction of pollutant in urban runoff shall be encouraged within the storm drainage system in order to reduce the amount of pollutants entering the surface waters.

7.  Encourage and support water conservation measures by all City water users.
Fire Safety
Goal 1: Incorporate fire safety precautions in existing urbanized areas and in planning for new development.

Policies 1. Protection from fire hazards shall be a consideration in all planning, regulatory, and capital improvement programs.
2. Fire prevention programs shall be continued to reduce fire hazards and to increase public awareness.
3. Locate and maintain fire stations according to fire service area standards and maintain the water supply system necessary to provide the required water flow for fire fighting purposes.
4. New development shall provide adequate access for emergency vehicles, particularly fire fighting equipment, as well as proved evacuation routes.
5. Regulate the storage of flammable and explosive materials and strongly encourage the proper transportation of such materials.

Police Protection
Goal 1: Provide protection to the public through effective law enforcement and the incorporation of crime prevention features into new development.

Policies 1. Seek to promote the inclusion of security features into all structures.
2. Defensible space design techniques shall be considered in the review of new development in order to enhance crime prevention.

Safety Element
Goal 1: Develop and maintain emergency preparedness programs and emergency health services in order to protect the public.

Policies 4. Maintain water supply requirements for fire fighting needs in accordance with the Insurance Services Office “Guide for Determination of Required Fire Flow.”
5. Continue to enforce minimum road widths and clearances around structures to promote fire and safety protection and access.

4.6.2 Impacts and Mitigation Measures

Significance Criteria
Consistent with Appendix G of the CEQA Guidelines and the professional judgment of City staff and the EIR consultant, the project would result in a significant impact if it would:

- Result in a substantial adverse physical impact associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services: fire protection, police protection, schools, parks, or other public facilities;
4.6 Public Services and Utilities

- Exceed wastewater treatment requirements of the RWQCB;
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have insufficient water supplies available to serve the project from existing or permitted entitlements, or require new or expanded entitlements;
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments;
- Be served by a landfill with insufficient permitted capacity to accommodate the project’s solid waste disposal needs;
- Fail to comply with federal, state, and local statutes and regulations related to solid waste;
- Use substantial amounts of fuel or energy; or,
- Create a substantial increase in demand upon existing sources of energy, require the development of new energy sources, or require construction of additional facilities for energy generation or distribution to meet the increased demand, the development and construction of which could cause significant environmental impacts.

Impacts

Impact 4.6.1. The project would increase the need for law enforcement services from the City of Stockton Police Department. This impact is considered less-than-significant.

Implementation of the project would require additional law enforcement staff for the proposed commercial development. The proposed increase in commercial businesses would require increased law enforcement patrols in the area to respond to calls for disputes, thefts, alarms, etc. However, as noted in Chapter 3.0, Project Description, Security Measures, the following security measures will be undertaken at the proposed Wal-Mart Supercenter:

- Conduct a risk analysis (crime survey) of the area to evaluate the security needs for the store and implement a security plan based upon this analysis.
- Install closed-circuit camera systems (surveillance cameras) inside and outside the stores.
- Establish a parking lot patrol for both store areas to assist customers, ensure safety and take action to identify and prevent any suspicious activity (such as loitering and vandalism) both during the day and nighttime hours.
- Establish a plainclothes patrol inside the stores to ensure safety and security.
- Establish a Risk Control Team, which is a team of associates responsible and trained to identify and correct safety and security issues at the site.
- Provide lighting in the parking areas that will ensure public safety.
• Prohibit consumption of alcohol in the parking lots by having associates regularly “patrol” the parking areas while collecting shopping carts and report any inappropriate activity to the store managers. (Also, per state law, alcohol sales will be limited to the hours of 6 AM to 2 AM of the following day.)

The additional police protection may require additional staff but the need for the expansion of existing facilities and/or construction of new facilities leading to potential physical effects has not been identified. Therefore, by CEQA standards, this impact is considered less than significant.

Mitigation. No mitigation is required.

Impact 4.6.2. The project has the potential to impact the stormwater drainage system. This impact is considered potentially significant.

The stormwater drainage system within the project area may not be sufficient to support the project. In order to accommodate the project runoff, infrastructure may need to be expanded in accordance with the Stockton Municipal Code. If the pump station and/or associated storm drainage pipelines cannot accommodate the project runoff, infrastructure shall be expanded per the Stockton Municipal Code. Drainage impacts and mitigation to reduce project impacts related to drainage are presented in Section 4.10, Hydrology and Water Quality.

Mitigation Measures

Implement Mitigation Measure 4.10.5.

Significance after Mitigation: With implementation of the mitigation measure listed above, this impact would be reduced to a less-than-significant level.

Impact 4.6.3. The project has the potential to impact energy distribution facilities and infrastructure. This impact is considered potentially significant.

The energy distribution facilities and infrastructure within the project area may require upgrades to support additional growth associated with the project.

Mitigation Measure 4.6.3. The project applicant and/or developer shall coordinate with PG&E to ensure that all upgrades to the energy distribution facilities and infrastructure comply with state and federal energy standards.

Significance after Mitigation: With implementation of the mitigation measure listed above, this impact would be reduced to a less-than-significant level.
4.7 Transportation and Circulation

This section of the EIR describes the transportation and circulation conditions in the area surrounding the project site and identifies transportation impacts associated with development of the project. The analysis focuses on potential impacts to off-site intersections and freeway segments, as well as internal site circulation. This section also evaluates the site’s proposed parking supply. Significant impacts are identified and, as necessary, mitigation measures are recommended to address impacts. All technical analyses related to this section are included in Appendix E. This section was prepared by Fehr & Peers in consultation with the City of Stockton Public Works Department, San Joaquin County, Caltrans, and other potentially impacted agencies.

4.7.1 Setting

As described in Chapter 3.0, Project Description, the project site is located in Stockton, California, west of Interstate 5 (I-5), adjacent to the I-5/French Camp Road interchange. Roadway access to the project site is proposed via French Camp Road and Manthey Road. A portion of Manthey Road between Henry Long Boulevard and French Camp Road would be realigned as part of the proposed project, and this existing segment of Manthey Road would be vacated. Manthey Road to the south of French Camp Road would be realigned west of its current location with the proposed French Camp Road interchange improvement project. Upon project completion, Manthey Road would function as a private roadway through the project site. Henry Long Boulevard would be vacated through the project site and a cul-de-sac, designed to City standards, would be created at the eastern terminus of Henry Long Boulevard. This analysis accounts for the traffic shifts associated with the vacation of Henry Long Boulevard and the realignment of Manthey Road through the site. The site location and major roadways near the project site are illustrated on Figure 4.7-1, while the conceptual project site plan is shown on Figure 4.7-2.

Site Access

The project site is located at the northwest quadrant of the I-5/French Camp Road interchange, with primary project access provided from French Camp Road. Manthey Road would be realigned with the proposed project and would bisect the project site, intersecting French Camp Road approximately 800 feet west of the I-5 southbound off-ramp. A new private driveway extending north from French Camp Road would form the western boundary of the project site and provide additional site access. Two full access signalized intersections and one right-in/right-out intersection from French Camp Road are proposed to serve the project site. From Manthey Road and the Vacated Henry Long Boulevard, nine driveways are proposed to serve the project site. A detailed operations analysis of these access locations is proved in section 4.7.3 of this chapter.
Source: Nadel Architects Inc., June 2006

SITE PLAN

FIGURE 4.7-2
Roadway System

Regional access to the project site is provided by I-5 via the French Camp Road, Downing Avenue, and Mathews Road interchanges. I-5 provides regional north-south access throughout the Central Valley and runs through the west side of the City of Stockton. It provides six travel lanes in the study area. The following discusses the study area roadways.

French Camp Road is a two-lane east-west arterial roadway to the west of I-5 that forms the southern boundary of the project site. East of I-5, French Camp Road is designated County Road J9, connecting I-5 to State Route (SR) 99. Portions of the north side of French Camp Road west of Manthey Road have been improved to provide sidewalks and bicycle lanes. The speed limit is not posted in the study area.

Manthey Road is a two-lane, north-south arterial that parallels I-5 to the west. Portions of Manthey Road in the study area are unimproved with no sidewalks or bicycle facilities. Manthey Road extends south from Eighth Street in Stockton to the I-5/I-205 interchange near the City of Lathrop. In the study area, the speed limit on Manthey Road is 55 miles per hour (mph). As part of the project, the portion of Manthey Road between Henry Long Boulevard and French Camp Road would be realigned through the site approximately 600 to 800 feet west of its existing location and this existing portion of Manthey Road would be vacated. The portion of Manthey Road, south of French Camp Road would be realigned to connect with the portion of the roadway though the project site as part of the French Camp Road interchange improvement project.

William Moss Boulevard is a two-lane east-west collector roadway located north of the project site that connects the Carolyn Weston neighborhood with Manthey Road. At its intersection with McDougald Boulevard, four travel lanes are provided, narrowing to two travel lanes plus a two-way left-turn lane past the intersection in both directions. The posted speed limit is 30 mph.

Henry Long Boulevard is a two-lane east-west collector roadway that currently bisects the project site. As part of the project, Henry Long Boulevard would be vacated between the western property line and Manthey Road. A cul-de-sac, designed to City standards, is required at its eastern terminus.

McDougald Boulevard is a north-south street located west of the project site that starts just north of Carolyn Weston Boulevard and ends at French Camp Road. At its intersection with William Moss Boulevard, four travel lanes are provided, narrowing to two travel lanes plus a two-way left-turn lane in each direction past the intersection. Sidewalks are generally provided along McDougald Boulevard in the study area. The posted speed limit is 30 mph, except for the portion fronting Great Valley Elementary school, where the speed limit is 25 mph.

Carolyn Weston Boulevard is an east-west collector roadway located north of the project site that provides main access to the Weston Ranch neighborhood. West of McDougald Boulevard, Carolyn Weston Boulevard is a designated collector roadway. East of McDougald Boulevard the designation changes to arterial. Four travel lanes plus bicycle lanes and sidewalks are provided on this facility. The posted speed limit is 40 mph. At its east intersection with Manthey Road, Carolyn Weston Boulevard continues as Downing Avenue.
Downing Avenue is an east-west collector roadway located north of the project site that extends east from Manthey Road to Odell Avenue. A full access interchange to I-5 is provided at Downing Avenue. East of I-5, the posted speed limit is 25 mph.

French Camp Turnpike is a two-lane north-south collector roadway that parallels the east side of I-5. This roadway extends south from Center Street to its terminus approximately one-half mile south of Downing Avenue. The posted speed limit is 25 mph in the study area.

Mathews Road is a two-lane east-west arterial located south of the project site in San Joaquin County. This roadway extends west from El Dorado Street to the San Joaquin River. Access to the San Joaquin Health and Safety Complex is provided from Mathews Road. An interchange with I-5 is also provided from Mathews Road. The posted speed limit is 45 mph in the study area.

Howard Road is an east-west, two-lane unimproved arterial located south of the project site. Howard Road connects the study area to the City of Tracy. The posted speed limit is 45 mph in the study area.

Wolfe Road is a north-south arterial roadway located west of the project site. This roadway connects French Camp Road with Howard Road and is currently unimproved. The posted speed limit is 45 mph in the study area.

Val Dervin Parkway is a two-lane roadway on the east side of I-5 that provides access to a business park from French Camp Road.

Yettner Road is a two-lane roadway located south of the project site that extends from west of Manthey Road to French Camp Road.

For this study, impacts on study roadways were determined by measuring the effect project traffic would have on traffic operations at key intersections during the AM (7:00 to 9:00 a.m.) and PM (4:00 to 6:00 p.m.) peak periods. Key intersections were selected for analysis in consultation with City of Stockton Public Works staff, San Joaquin County Public Works staff, and comments received on the Notice of Preparation (NOP) for the project. All locations requested for analysis by other agencies, including Caltrans, are included in this analysis. The study intersection locations are illustrated on Figure 4.7-1 and include:

1. McDougald Boulevard/Carolyn Weston Boulevard
2. Manthey Road/Carolyn Weston Boulevard
3. I-5 Southbound Ramps/Downing Avenue
4. I-5 Northbound Ramps/Downing Avenue
5. French Camp Turnpike/Downing Avenue
6. McDougald Boulevard/William Moss Boulevard
7. Manthey Road/William Moss Boulevard
8. McDougald Boulevard/Henry Long Boulevard
9. Manthey Road/Henry Long Boulevard (removed with project implementation)
10. Wolfe Road/EWS Woods Boulevard/French Camp Road
11. McDougald Boulevard/French Camp Road
12. Manthey Road/French Camp Road
13. I-5 Southbound Ramps/French Camp Road
14. I-5 Northbound Ramps/French Camp Road
15. Val Dervin Parkway/French Camp Road (future intersection with Sperry Road)
16. Manthey Road/Yettner Road
17. Manthey Road/Mathews Road
18. I-5 Southbound Ramps/Mathews Road
19. I-5 Northbound Ramps/Mathews Road
20. Wolfe Road/Howard Road

The existing intersection lane configurations are shown on Figure 4.7-3.

Operations were also evaluated on the freeway mainline segments in the study area including:

1. I-5 north of Downing Avenue
2. I-5 between Downing Avenue and French Camp Road
3. I-5 between French Camp Road and Mathews Road
4. I-5 south of Mathews Road

**Level of Service Criteria**

To measure and describe the operational status of the local roadway network, transportation engineers and planners commonly use a grading system called level of service (LOS). Level of service is a description of an intersection’s operation ranging from LOS A (indicating free-flow traffic conditions with little or no delay), to LOS F (representing oversaturated conditions where traffic flows exceed design capacity, resulting in long queues and delays).

The analysis methods presented in the Transportation Research Board’s *2000 Highway Capacity Manual (HCM)* were used to calculate LOS for signalized and unsignalized intersections and freeway mainline segments. In Stockton, acceptable operations are defined as LOS D or better\(^1\).

**Signalized Intersection Analysis**

Signalized intersection traffic operations and resulting levels of service are determined using the 2000 *HCM* method. This operations analysis method uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the average control delay per vehicle. Control delay is the portion of the total delay attributed to signal operations and includes deceleration and acceleration, stopping, and moving up in the queue. The level of service for a signalized intersection is based on the average control delay per vehicle, measured in seconds. The relationship between delay and LOS for signalized intersections is shown in Table 4.7-1.

Operations of the closely-spaced signalized interchanges were evaluated using the Synchro 6.0 or CORSIM\(^2\) software program; all other intersection operations were analyzed using the TRAFFIX 7.7 traffic analysis software program, as required by the City of Stockton Transportation Analysis Guidelines (July 2003). The TRAFFIX software evaluates isolated intersections and does not account for the interaction between closely spaced intersections. Therefore, the signalized freeway interchanges were evaluated using Synchro 6.0 and CORSIM to better account for the interrelationship of closely spaced signal operations.

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\(^1\) City of Stockton General Plan – Circulation Element - Streets and Highways Goal 1.9."

\(^2\) French Camp Road interchange only, to be consistent with the traffic analyses prepared for the French Camp Road interchange project.
EXISTING LANE CONFIGURATIONS AND TRAFFIC CONTROL

Weston Ranch Towne Center EIR

FIGURE 4.7-3

LEGEND:

= Stop Sign

= Traffic Signal

= Lane Configuration
TABLE 4.7-1  
LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Average Control Delay per Vehicle (Seconds)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&lt; 10.0</td>
<td>Operations with very low delay occurring with favorable progression and/or short cycle length.</td>
</tr>
<tr>
<td>B</td>
<td>&gt; 10.0 to 20.0</td>
<td>Operations with low delay occurring with good progression and/or short cycle lengths.</td>
</tr>
<tr>
<td>C</td>
<td>&gt; 20.0 to 35.0</td>
<td>Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.</td>
</tr>
<tr>
<td>D</td>
<td>&gt; 35.0 to 55.0</td>
<td>Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable. This is considered to be the limit of acceptable delay in the City of Stockton.</td>
</tr>
<tr>
<td>E</td>
<td>&gt; 55.0 to 80.0</td>
<td>Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.</td>
</tr>
<tr>
<td>F</td>
<td>&gt; 80.0</td>
<td>Operations with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.</td>
</tr>
</tbody>
</table>

SOURCE: Transportation Research Board, 2000

Unsignalized Intersection Analysis

For unsignalized intersections, the 2000 HCM method was used with operations defined by the average control delay per vehicle, measured in seconds. This delay incorporates delay associated with deceleration and acceleration, stopping, and moving up in the queue. For side-street stop-controlled intersections, the delay is typically calculated for the minor approaches and left-turn movement from the major street, as well as average intersection delay. For all-way stop-controlled intersections, delay is represented as an average for the total intersection. Table 4.7-2 presents the LOS definitions for unsignalized intersections. For this study, the TRAFFIX 7.7 traffic analysis tool was used.

TABLE 4.7-2  
LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Average Control Delay per Vehicle (in seconds)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0 – 10</td>
<td>Little or no delay</td>
</tr>
<tr>
<td>B</td>
<td>&gt; 10 – 15</td>
<td>Minor delays</td>
</tr>
<tr>
<td>C</td>
<td>&gt;15 – 25</td>
<td>Average delays</td>
</tr>
<tr>
<td>D</td>
<td>&gt; 25 – 35</td>
<td>Moderate delays</td>
</tr>
<tr>
<td>E</td>
<td>&gt; 35 – 50</td>
<td>Lengthy delays</td>
</tr>
<tr>
<td>F</td>
<td>&gt; 50</td>
<td>Excessive delays/gridlock</td>
</tr>
</tbody>
</table>

SOURCE: Transportation Research Board, 2000

Freeway Mainline Analysis

For the freeway mainline segments, LOS was calculated using the 2000 HCM method. This method takes into consideration peak hour traffic volumes, free-flow speeds, percentage of heavy vehicles, and number of travel lanes. These factors are used to determine the vehicle density, measured in passenger cars per mile per lane. Table 4.7-3 summarizes the relationship between vehicle density and LOS for mainline freeway segments. In Stockton, acceptable freeway operations are defined as LOS D or better.
**Existing Traffic Volumes**

Weekday morning (7:00 to 9:00 a.m.) and evening (4:00 to 6:00 p.m.) peak period intersection turning movement counts were collected at the study intersections in December 2004 and March 2005 on a clear day with area schools in normal session. For each intersection count period, the hour with the highest traffic volume was identified as the peak hour. Existing AM and PM peak hour turning movement volumes are shown in Figure 4.7-4.

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Description</th>
<th>Density Range (pc/mi/ln)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.</td>
<td>0 to 11</td>
</tr>
<tr>
<td>B</td>
<td>Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.</td>
<td>&gt; 11 to 18</td>
</tr>
<tr>
<td>C</td>
<td>Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.</td>
<td>&gt; 18 to 26</td>
</tr>
<tr>
<td>D</td>
<td>Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.</td>
<td>&gt; 26 to 35</td>
</tr>
<tr>
<td>E</td>
<td>Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.</td>
<td>&gt; 35 to 45</td>
</tr>
<tr>
<td>F</td>
<td>Breakdown in vehicle flow.</td>
<td>&gt; 45</td>
</tr>
</tbody>
</table>

Note: pc/mi/ln = passenger cars per mile per lane.
Source: Transportation Research Board, 2000

**Bicycle, Pedestrian and Transit Access**

Within the study area, pedestrian facilities are provided along most of the roadways within the Weston Ranch development. Class II bicycle facilities (signed and striped bicycle lanes) are provided on Carolyn Weston Boulevard and are planned for most of the major roadways in the future including French Camp Road, Manthey Road, and Mathews Road. Pedestrian and bicycle facilities are not provided on roadways in the southern portion of the study area (French Camp Road, east of McDougald Boulevard; Manthey Road, south of William Moss Boulevard; and Mathews Road).

The San Joaquin Regional Transit District (SJRTD) provides transit service within the City of Stockton. Currently, two transit routes provide service to the project site: Route 14 (Weston Ranch) and Route 90 (Stockton/Tracy/Lathrop). Route 14 connects the Weston Ranch area to Downtown Stockton. Service near the project site is provided on Henry Long Boulevard. Route 90 is a flexible fixed-route service that requires reservations. This route connects Stockton with Lathrop and Tracy. Service in the study area is provided on Manthey Road. It is anticipated that with development in the study area, additional transit service would be provided.
### EXISTING PEAK HOUR TRAFFIC VOLUMES

#### FIGURE 4.7-4

**Legend:**

- **XX (YY) = AM (PM) Peak Hour**

<table>
<thead>
<tr>
<th>Street</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carolyn Weston Blvd</td>
<td>263 (700)</td>
<td>102 (227)</td>
</tr>
<tr>
<td>McDougald Blvd</td>
<td>579 (397)</td>
<td>15 (7)</td>
</tr>
<tr>
<td>Manthey Rd</td>
<td>5 (18)</td>
<td>145 (324)</td>
</tr>
<tr>
<td>Downing Avenue</td>
<td>208 (681)</td>
<td>20 (12)</td>
</tr>
<tr>
<td>I-5 SB Ramps</td>
<td>708 (523)</td>
<td>37 (78)</td>
</tr>
<tr>
<td>French Camp Rd</td>
<td>262 (156)</td>
<td>9 (12)</td>
</tr>
<tr>
<td>Mathews Rd</td>
<td>153 (503)</td>
<td>33 (93)</td>
</tr>
<tr>
<td>Howard Rd</td>
<td>85 (356)</td>
<td>162 (232)</td>
</tr>
</tbody>
</table>

**Weston Ranch Towne Center EIR**

September 2006

Graphics/September 2006/4.7-4
**Existing Intersection Levels of Service**

The levels of service at the study intersections are summarized in Table 4.7-4. As shown, the average intersection service level is within an acceptable range (LOS D or better) for all intersections. It should be noted that at the French Camp Road/I-5 Northbound Ramp intersection, the side-street movement operates at LOS F during the PM peak hour.

<table>
<thead>
<tr>
<th>Intersection Control</th>
<th>Peak Hour</th>
<th>Delay</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>McDougald Boulevard/</td>
<td>Signal</td>
<td>AM 21</td>
<td>C</td>
</tr>
<tr>
<td>Carolyn Weston Blvd</td>
<td>PM 17</td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>Manthey Road/Carolyn</td>
<td>Signal</td>
<td>AM 17</td>
<td>B</td>
</tr>
<tr>
<td>Weston Blvd</td>
<td>PM 18</td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>I-5 Southbound Ramps/</td>
<td>Signal</td>
<td>AM 13</td>
<td>B</td>
</tr>
<tr>
<td>Downing Ave</td>
<td>PM 15</td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>I-5 Northbound Ramps/</td>
<td>Signal</td>
<td>AM 16</td>
<td>B</td>
</tr>
<tr>
<td>Downing Ave</td>
<td>PM 18</td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>French Camp Turnpike/</td>
<td>SSSC AM</td>
<td>4 (16)</td>
<td>A (C)</td>
</tr>
<tr>
<td>Downing Ave</td>
<td>PM 6 (18)</td>
<td></td>
<td>A (C)</td>
</tr>
<tr>
<td>McDougald Boulevard/</td>
<td>Signal</td>
<td>AM 20</td>
<td>B</td>
</tr>
<tr>
<td>William Moss Blvd</td>
<td>PM 19</td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>Manthey Road/William</td>
<td>Signal</td>
<td>AM 14</td>
<td>B</td>
</tr>
<tr>
<td>Moss Blvd</td>
<td>PM 14</td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>McDougald Boulevard/</td>
<td>AWSC</td>
<td>AM 9</td>
<td>A</td>
</tr>
<tr>
<td>Henry Long Blvd</td>
<td>PM 9</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Manthey Road/Henry</td>
<td>SSSC AM</td>
<td>3 (11)</td>
<td>A (B)</td>
</tr>
<tr>
<td>Long Blvd</td>
<td>PM 3 (11)</td>
<td></td>
<td>A (B)</td>
</tr>
<tr>
<td>Wolfe Road/EWS Woods</td>
<td>Signal</td>
<td>AM 21</td>
<td>C</td>
</tr>
<tr>
<td>French Camp Road</td>
<td>PM 24</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>McDougald Boulevard/</td>
<td>SSSC AM</td>
<td>3 (14)</td>
<td>A (B)</td>
</tr>
<tr>
<td>French Camp Road</td>
<td>PM 2 (13)</td>
<td></td>
<td>A (B)</td>
</tr>
<tr>
<td>Manthey Road/French</td>
<td>AWSC</td>
<td>AM 26</td>
<td>D</td>
</tr>
<tr>
<td>Camp Road</td>
<td>PM 24</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>I-5 Southbound Ramps/</td>
<td>SSSC AM</td>
<td>6 (15)</td>
<td>A (B)</td>
</tr>
<tr>
<td>French Camp Road</td>
<td>PM 5 (19)</td>
<td></td>
<td>A (C)</td>
</tr>
<tr>
<td>I-5 Northbound Ramps/</td>
<td>SSSC AM</td>
<td>5 (23)</td>
<td>A (C)</td>
</tr>
<tr>
<td>French Camp Road</td>
<td>PM 25 (&gt;50)</td>
<td></td>
<td>C (F)</td>
</tr>
<tr>
<td>French Camp Road/Val</td>
<td>SSSC AM</td>
<td>4 (26)</td>
<td>A (D)</td>
</tr>
<tr>
<td>Dervin Parkway</td>
<td>PM 5 (21)</td>
<td></td>
<td>A (C)</td>
</tr>
<tr>
<td>Manthey Road/Yettner</td>
<td>SSSC AM</td>
<td>1 (12)</td>
<td>A (B)</td>
</tr>
<tr>
<td>Road</td>
<td>PM 1 (12)</td>
<td></td>
<td>A (B)</td>
</tr>
<tr>
<td>Manthey Road/Mathews</td>
<td>AWSC</td>
<td>AM 12</td>
<td>B</td>
</tr>
<tr>
<td>Road</td>
<td>PM 18</td>
<td></td>
<td>C</td>
</tr>
<tr>
<td>I-5 Southbound Ramps/</td>
<td>SSSC AM</td>
<td>6 (12)</td>
<td>A (B)</td>
</tr>
<tr>
<td>Mathews Road</td>
<td>PM 3 (13)</td>
<td></td>
<td>A (B)</td>
</tr>
<tr>
<td>I-5 Northbound Ramps/</td>
<td>SSSC AM</td>
<td>5 (14)</td>
<td>A (B)</td>
</tr>
<tr>
<td>Mathews Road</td>
<td>PM 6 (34)</td>
<td></td>
<td>A (D)</td>
</tr>
<tr>
<td>Wolfe Road/Howard Road</td>
<td>SSSC AM</td>
<td>3 (9)</td>
<td>A (A)</td>
</tr>
<tr>
<td></td>
<td>PM 3 (15)</td>
<td></td>
<td>A (B)</td>
</tr>
</tbody>
</table>

Notes:
- Signal = Signalized intersection; AWSC = All-way stop-controlled intersection; SSSC = Side street stop-controlled intersection; Delay for intersection average (worst movement) at SSSC intersections.

Detailed LOS calculations are provided in Appendix E.
Signal Warrants

To assess the need for signalization of stop-controlled intersections, the *Manual of Uniform Traffic Control* (MUTCD) (Federal Highway Administration 2000), presents eight signal warrants. The Peak Hour Volume Warrant (Warrant 3) is used in this study as a supplemental analysis tool to assess operations at unsignalized intersections. The results of the traffic signal warrant analysis are shown in Table 4.7-5. Detailed signal warrant calculations are provided in Appendix E.

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Peak Hour Warrant Met?</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. French Camp Turnpike/Downing Avenue</td>
<td>Not Met</td>
</tr>
<tr>
<td>8. Henry Long Boulevard/McDougald Boulevard</td>
<td>Not Met</td>
</tr>
<tr>
<td>9. Henry Long Boulevard/Manthey Road</td>
<td>Not Met</td>
</tr>
<tr>
<td>11. McDougald Boulevard/French Camp Road</td>
<td>Not Met</td>
</tr>
<tr>
<td>12. Manthey Road/French Camp Road</td>
<td>Met</td>
</tr>
<tr>
<td>13. I-5 Southbound Ramps/French Camp Road</td>
<td>Met</td>
</tr>
<tr>
<td>14. I-5 Northbound Ramps/French Camp Road</td>
<td>Met</td>
</tr>
<tr>
<td>15. French Camp Road/Val Dervin Parkway</td>
<td>Not Met</td>
</tr>
<tr>
<td>16. Manthey Road/Yettner Road</td>
<td>Not Met</td>
</tr>
<tr>
<td>17. Manthey Road/Mathews Road</td>
<td>Not Met</td>
</tr>
<tr>
<td>18. I-5 Southbound Ramps/Mathews Road</td>
<td>Not Met</td>
</tr>
<tr>
<td>19. I-5 Northbound Ramps/Mathews Road</td>
<td>Not Met</td>
</tr>
<tr>
<td>20. Wolfe Road/Howard Road</td>
<td>Not Met</td>
</tr>
</tbody>
</table>

SOURCE: Federal Highway Administration 2000

As shown in Table 4.7-5, three of the unsignalized study intersections currently satisfy the Peak Hour Volume Warrant: Manthey Road/French Camp Road, I-5 Southbound Ramps/French Camp Road, and I-5 Northbound Ramps/French Camp Road. These locations are included in the French Camp Road interchange project, which was recently approved by Caltrans. The French Camp Road interchange project includes reconstruction of the interchange, relocation of Manthey Road, and signalization of the following intersections: Manthey Road/French Camp Road, I-5 Southbound Ramps/French Camp Road, and I-5 Northbound Ramps/French Camp Road. This project has been submitted to the Federal Highway Administration (FHWA) for review and approval. It is anticipated that construction will begin within the next 18 months.

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Unsignalized intersection warrant analysis is intended to examine the general correlation between existing conditions and the need to install new traffic signals and is intended as a preliminary screening tool. Existing peak-hour volumes are compared against a subset of the standard traffic signal warrants recommended in the MUTCD and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely on the warrants because the installation of signals can lead to certain types of collisions. The responsible state or local agency should undertake regular monitoring of actual traffic conditions and accident data and conduct a timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.


**Freeway Analysis**

The I-5 freeway mainline segments from north of Downing Avenue to South of Mathews Road were analyzed based on the peak hour volumes shown in Table 4.7-6 and the LOS criteria shown in Table 4.7-3. The analysis results indicate that I-5 in the study area operates at LOS D or better during both peak hours. Detailed calculations are provided in Appendix E.

<table>
<thead>
<tr>
<th>Segment</th>
<th>Direction of Travel</th>
<th>AM Peak Hour</th>
<th>PM Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Volume</td>
<td>Density</td>
</tr>
<tr>
<td>North of Downing Avenue</td>
<td>Northbound</td>
<td>3,180</td>
<td>17</td>
</tr>
<tr>
<td>North of Downing Avenue</td>
<td>Southbound</td>
<td>4,690</td>
<td>26</td>
</tr>
<tr>
<td>North of French Camp Road</td>
<td>Northbound</td>
<td>2,790</td>
<td>15</td>
</tr>
<tr>
<td>North of French Camp Road</td>
<td>Southbound</td>
<td>4,500</td>
<td>25</td>
</tr>
<tr>
<td>South of French Camp Road</td>
<td>Northbound</td>
<td>2,610</td>
<td>14</td>
</tr>
<tr>
<td>South of French Camp Road</td>
<td>Southbound</td>
<td>4,130</td>
<td>23</td>
</tr>
<tr>
<td>South of Mathews Road</td>
<td>Northbound</td>
<td>2,550</td>
<td>14</td>
</tr>
<tr>
<td>South of Mathews Road</td>
<td>Southbound</td>
<td>3,780</td>
<td>19</td>
</tr>
</tbody>
</table>

Notes: Traffic volumes from Caltrans. Density measured in passenger cars per mile per lane. Mainline segment level of service based on vehicle density, according to the Highway Capacity Manual (Transportation Research Board, 2000).

**Regulatory Setting**

The *City of Stockton General Plan Policy Document* (adopted January 22, 1990) was used to provide evaluation criteria for determining project impacts. Key statements from Section 3, Transportation, which were used for reference in this study, are summarized below.

- Streets and Highways Goal 1.2 - The street system shall provide at least two (2) independent access routes for all major developed areas.
- Streets and Highways Goal 1.3 - Significant trip generating land uses should be served by roadways adequate to provide vehicular access with a minimum of delay.
- Streets and Highways Goal 1.6 - Traffic signals on arterial streets shall be synchronized to the extent possible to facilitate the flow of traffic and to minimize stops or delays.
- Streets and Highways Goal 1.8 - Seek to improve freeway interchanges along both Route 99 and Interstate 5 to current design standards as required by the traffic demands of new development.
- Streets and Highways Goal 1.9 - For traffic operating conditions use “Level-of-Service” (LOS) of “D” or better on a peak hour basis as the planning objective for the evaluation of new development, mitigation measures, impact fees and public works capital improvement programs.
• Streets and Highways Goal 2.3 – Off-street parking shall be required for all land uses in order to reduce congestion, improve overall operation and land use compatibility.

• Streets and Highways Goal 4.2 – Specific Plans for future roadways on the fringe of the City shall be prepared in coordination with the County and/or Caltrans.

• Public Transportation Goal 1.2 – Larger new developments along arterial and major collector streets shall provide transit-related public improvements (i.e., bus pullouts, bus shelters) to encourage bus use.

• Public Transportation Goal 1.5 – Strongly encourage that new development projects incorporate transit-related design features as outlined below.
  – A through roadway should connect adjacent developments so as to permit transit circulation between developments.
  – In major employment/commercial areas, parking should be prohibited on collector and arterial streets to provide access to bus stops in these areas.
  – Shielded openings in subdivisions sound walls should be provided to facilitate more direct pedestrian access to transit stops.
  – In major employment/commercial areas, the Transit District should be encouraged to post route and schedule information.
  – Commercial and industrial developments should have easy access to major arterials and transit stops.
  – Park and ride sites should be strategically located to maximize utilization.
  – Park and ride lots should be designed to accommodate not only motorists but also other users of public transit and van or carpooling.

• Non-Motorized Transportation Goal 1.1 – Pedestrian travel shall be encouraged as a viable mode of movement throughout the City by providing safe and convenient pedestrian facilities, particularly in commercial areas and residential neighborhoods.

• Non-Motorized Transportation Goal 1.2 – Within large retail and office centers, provisions shall be made for convenient and safe pedestrian movement through the large parking areas which surround these commercial centers.

• Non-Motorized Transportation Goal 1.3 – Recreational bikeways shall be developed and maintained on separate rights-of-way (i.e., Calaveras River path, East Bay Municipal Utility District easement paths).

• Non-Motorized Transportation Goal 1.4 – Right-of-way requirements for bike usage shall be considered in the planning of new arterial and collector streets and in street improvement projects.

• Non-Motorized Transportation Goal 1.5 – Safe and secure bicycle parking facilities should be provided at major activity centers such as public facilities, employment sites and shopping and office centers.
Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State Highway facilities\(^4\), however, Caltrans recognizes that achieving LOS C/LOS D may not always be feasible. Consistent with the City of Stockton Streets and Highways Goal 1.9, a standard of LOS D or better on a peak hour basis was used as the planning objective for the evaluation potential freeway impacts of this development.

### 4.7.2 Transportation and Circulation Analysis

#### Analysis Scenarios

The impact analysis has been conducted for the following conditions:

- **Near-Term** – Near-term forecast conditions considering existing traffic plus trips from approved near-term future developments and roadway improvements.

- **Near-Term With Project** – Near-term forecast conditions plus project-related traffic.

- **Future 2025 Without Project** – Future (Year 2025) forecast conditions, based on the 1990 General Plan, taking into account future development in the City of Stockton and the surrounding jurisdictions in addition to planned roadway improvements.

- **Future 2025 With Project** – Future (Year 2025) forecasted conditions plus project-related traffic.

The City of Stockton is currently preparing the Stockton 2035 General Plan Update and Infrastructure Master Plans Project to update the existing City of Stockton 1990 General Plan. The 1990 General Plan build-out includes about 160,000 residential units and about 170 million square feet of non-residential uses. The 2035 General Plan Update build-out is proposed to include about 210,000 residential units and 200 million square feet of non-residential uses. This plans take into account future development in the City of Stockton and the surrounding jurisdictions in addition to planned roadway improvements.

The 2035 General Plan Update EIR is currently being prepared; however, it is uncertain when the EIR will be completed and the 2035 General Plan Update adopted. When complete, the EIR will provide an assessment of the updated General Plan, the infrastructure master plans, and the expansions to the City’s existing Urban Services Boundary and Sphere of Influence. Because the 2035 General Plan Update has not yet been adopted, a supplemental cumulative analysis for 2035 conditions both without and with the project was conducted and is provided in Appendix E for informational purposes.

#### Project Traffic

This section describes the procedure used to develop project traffic estimates, including project trip generation, distribution, and assignment characteristics. The results are used to evaluate potential impacts the project would have on the surrounding roadway network.

Project Trip Generation

Project trip generation refers to the process for estimating the amount of vehicular traffic a project would add to the surrounding roadway system. First, estimates of the total amount of traffic entering and exiting the project driveways are calculated for an average weekday. Separate estimates are created for the peak one-hour periods during the morning and evening commute periods when traffic volumes on the surrounding streets are highest\(^5\). At retail establishments such as the proposed project, driveway traffic comprises: (1) new traffic generated by the project, (2) traffic that would otherwise already be on the adjacent roadways but the driver decides to stop at the site (e.g., to purchase an item on their way home from work), and (3) traffic on other nearby roadways, but the driver decides to take a short detour to stop at the site. The trips in Item 2 are referred to as “pass-by” trips and the trips in Item 3 are referred to as “diverted-link” trips.

Two sources of driveway count data of similar land uses were used to estimate project driveway volumes. Estimates for the shopping center portion of the project, including the major retail tenant, were developed by using equations contained in the Institute of Transportation Engineers (ITE), Trip Generation, (7\(^{th}\) Edition) (Land Use Code 820 – Shopping Center and Land Use Code 861 – Discount Club). Trip generation information documented in a separate study\(^6\) was used for the proposed Wal-Mart Supercenter. That study only had a PM peak hour rate, which was higher than the maximum PM peak hour rate for discount superstores (Land Use Code 813) presented in the ITE Trip Generation manual. Therefore, it was selected to provide conservatively high project traffic estimates. Daily and AM peak hour rates were then estimated by prorating the average daily and AM peak hour ITE rates by the same percentage increase between the VRPA and ITE PM peak hour rates.

Information contained in the ITE Trip Generation Handbook, March 2001, was used to estimate pass-by and diverted-link trips. For shopping centers, the average pass-by rate is 34 percent, and the average diverted linked trip rate is 16 percent. In other words, at a typical shopping center, approximately, 50 percent of the traffic entering and exiting the site is already on the surrounding roadway system.

The traffic volumes on the adjacent streets, French Camp Road and Manthey Road, are not high enough to justify the use of a 34 percent pass-by rate. However, as the project site is located close to I-5, which carries a significant amount of traffic (currently approximately 7,000 vehicles during the PM peak hour and 110,000 vehicles on a daily basis; projected to be approximately 13,000 vehicles during the PM peak hour in 2025), it is likely that a large proportion of project traffic would be comprised of vehicles already on this regional roadway facility. Based on this information, the following was estimated:

- 10 percent of the project trips would be pass-by trips from French Camp Road and Manthey Road
- 40 percent of the project trips would be diverted-linked trips from I-5

\(^{5}\) It should be noted that based on information in ITE’s Trip Generation, the one hour in the morning with the highest trip generation for discount superstores is generally between 10:00 and 11:00 a.m., while the highest afternoon/evening hourly traffic for discount superstores occurs during one-hour between 12:00 p.m. and 3:00 p.m.

\(^{6}\) ITE Journal, Trip Generation Characteristics of Free-Standing Discount Superstores, August 2006
These pass-by and diverted trip estimations are consistent with the analysis contained in Revised Final Traffic Analysis Report for the Sperry Road Extension Project, Project Report/Environmental Document, Fehr & Peers, July 2004.

Shopping centers could be considered multi-use development because they include retail space, restaurants, and at times, movie theaters. The ITE trip generation data was collected at shopping centers with a variety of these uses and the trip rates and equations reflect the “multi-use” nature of this type of development. Although it is likely that some patrons of the Wal-Mart and the other major retailer would patronize the other retail on site, no reduction for internalization of trips was applied to the trip generation estimates to present a conservative estimate of project trips.

Table 4.7-7 summarizes the trip generation for the Weston Ranch Towne Center, based on a total size of 710,000 square feet (285,000 square feet of general retail space, a 250,000-square-foot Wal-Mart, and a 175,000-square-foot major retailer). While the current project site plan shows development approximately 600,000 square feet of retail area, the off-site intersection analysis was completed assuming a larger building area to account for potential development on the adjacent parcel and to allow for flexibility in the final site design.

<table>
<thead>
<tr>
<th>TABLE 4.7-7</th>
<th>WESTON RANCH TOWNE CENTER TRIP GENERATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land Use</strong></td>
<td><strong>AM Peak</strong></td>
</tr>
<tr>
<td><strong>Daily Trips</strong></td>
<td><strong>In</strong></td>
</tr>
<tr>
<td>Shopping Center (285,000 square feet)(^a)</td>
<td>13,400</td>
</tr>
<tr>
<td>Wal-Mart (250,000 square feet)(^b)</td>
<td>14,500</td>
</tr>
<tr>
<td>Major Retail (175,000 square feet)(^c)</td>
<td>7,300</td>
</tr>
<tr>
<td>Total Driveway Volumes</td>
<td>35,200</td>
</tr>
<tr>
<td>Pass-By (10%)</td>
<td>-3,520</td>
</tr>
<tr>
<td>Diverted-Link (40%)</td>
<td>-14,080</td>
</tr>
<tr>
<td><strong>Net New Trips</strong>(^d)</td>
<td>17,600</td>
</tr>
</tbody>
</table>

(a) Trip generation determined from fitted curve equations presented for Shopping Center (Land Use 820) in the Institute of Transportation Engineers’ Trip Generation (7th Edition), as presented below.

- Daily Equation: \( \ln(T) = 0.65 \ln(X) + 5.83 \)
- AM Rate: \( T = 1.03 \times (X) \) (inbound = 61 percent, outbound = 39 percent)
- PM Equation: \( \ln(T) = 0.66 \ln(X) + 3.40 \) (inbound = 48 percent, outbound = 52 percent)

Where \( T = \) Trip ends, \( \ln = \) Natural Log, and \( X = \) building size in 1,000 square feet.


- Daily Rate: \( T = 58 \times (X) \)
- AM Rate: \( T = 2.76 \times (X) \) (inbound = 51 percent, outbound = 49 percent)
- PM Rate: \( T = 5.8 \) (inbound = 52 percent, outbound = 48 percent)

(c) Trip generation determined from average rate presented for Discount Club (Land Use 861) in the Institute of Transportation Engineers’ Trip Generation (7th Edition), as presented below.

- Daily Rate: \( T = 41.80 \times (X) \)
- AM Rate: \( T = 0.56 \times (X) \) (inbound = 71 percent, outbound = 29 percent)
- PM Rate: \( T = 4.24 \times (X) \) (inbound = 50 percent, outbound = 50 percent)

Where \( T = \) Trip ends and \( X = \) building size in 1,000 square feet.

(d) Although this table displays the net new trips, all project trips were assigned to the roadway system and accounted for in the analysis.

As shown on Table 4.7-7, it is anticipated that traffic volumes at the project driveways would be approximately 35,200 on a daily basis including 1,082 during the AM peak hour and 3,442 during the PM peak hour. Accounting for the pass-by and diverted-link trips, the proposed project is anticipated to generate approximately 17,600 new daily trips on the surrounding roadway network, including 540 new AM peak hour trips and 1,720 PM peak hour trips. This level of trip generation accounts for delivery vehicles to the site.

It should be noted that the diverted-link trips from I-5 are included as new trips through the study intersections as they travel between the site and the freeway, but they are not counted as new trips in the freeway analysis.

**Trip Distribution**

The 1990 General Plan traffic model was used as a preliminary means to determine general trip distribution patterns for the Weston Ranch Towne Center. Market data as well as existing traffic patterns were used to refine the trip distribution percentages. Trip distribution percentages are presented in Table 4.7-8 and Figures 4.7-5 and 4.7-6 for the near-term and Future 2025 conditions, respectively. Separate trip distribution percentages were developed for the near-term and Future 2025 analyses to reflect planned roadway network improvements and nearby developments that are assumed to be in place by 2025.

<table>
<thead>
<tr>
<th>Roadway Facility</th>
<th>Near-Term</th>
<th>Future 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-5, northbound via Downing Avenue</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>I-5, northbound via French Camp Road</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>I-5, southbound via French Camp Road</td>
<td>33%</td>
<td>33%</td>
</tr>
<tr>
<td>I-5, southbound via Mathews Road</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Downing Avenue, East</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Manthey Road, South</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>French Camp Road, East</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>Sperry Road, East</td>
<td>N/A</td>
<td>12%</td>
</tr>
<tr>
<td>Weston Ranch Area</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>El Dorado Street, North</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>Val Dervin Parkway to El Dorado Street</td>
<td>N/A</td>
<td>4%</td>
</tr>
<tr>
<td>Howard Road, West</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Mathews Road, East</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Note: N/A = Not Applicable. The Sperry Road and Val Dervin Parkway extensions would not be constructed until the Future 2025 scenario. 

Trips generated by the project were assigned to the roadway system based on the directions of approach and departure shown in Table 4.7-8. AM and PM peak hour project trip assignments are shown on Figure 4.7-7 for the near-term analysis and Figure 4.7-8 for the Future 2025 analysis.
Near-Term Traffic Conditions

This section discusses near-term traffic conditions both without and with the project. The analysis considers near-term land use development and roadway improvements in the study area.

Near-Term Without Project Traffic

This scenario includes existing traffic volumes, traffic from the build-out of parcels that could be further developed without future entitlements from the City, and traffic from those developments that are approved and/or under construction within the study area. Therefore, these conditions represent the traffic levels that could occur in the next several years.

Traffic volumes for Existing plus Approved Projects conditions were estimated using the City of Stockton’s traffic model. The input assumptions and model results were approved by City of Stockton staff. Traffic forecasts from the model were adjusted using the delta method, which considers the difference between the base year and future year model. Figure 4.7-9 shows the resulting traffic volumes that form the basis of the Near-Term without project analysis. Near-term traffic forecasts are higher in some locations that the Future 2025 forecasts due to the different land use and roadway network assumptions. The near-term analysis is based on the recently completed Existing Plus Approved Project traffic model, as described above, while the Future 2025 analysis is based on the 1990 General Plan.

Near-Term with Project Traffic

The peak hour project traffic volumes (Figure 4.7-7) were added to the near-term without project volumes to determine future traffic volumes with the project. Near-term with project peak hour traffic volumes are shown on Figure 4.7-10. These volumes take into account traffic shifts that would result with the realignment of Manthey Road through the project site and the vacation of Henry Long Boulevard. Near-term lane configurations and traffic control are shown on Figure 4.7-11. As part of the project, French Camp Road would be widened to two lanes in each direction from along the project frontage, connecting to the existing four lane cross-section at the I-5 under-crossing.

Analysis of Near-Term Conditions

Intersection Analysis

The near-term conditions analysis results are shown in Table 4.7-9. The results indicate that without the project, six study intersections are projected operate at overall deficient service levels (i.e., LOS E or F) during one or both peak hours.

- French Camp Turnpike/Downing Avenue
- Manthey Road/French Camp Road
- I-5 Northbound Ramps/French Camp Road
- French Camp Road/Val Dervin Parkway
- Mathews Road/Manthey Road
- Mathews Road/I-5 Northbound Ramps
NEAR-TERM PROJECT TRIP DISTRIBUTION

FIGURE 4.7-5
NOTE: Project Trip Assignment includes diverted and pass-by trips.
Figure 4.7-7B:

Near-Term Peak Hour Project Volumes

Legend:
XX (YY) = AM (PM) Peak Hour

NOTE: Project Trip Assignment includes diverted and pass-by trips.
FIGURE 4.7-8A

2025 CUMULATIVE PEAK HOUR PROJECT VOLUMES

NOTE: Project Trip Assignment includes diverted and pass-by trips.

LEGEND:
XX (YY) = AM (PM) Peak Hour
TABLE 4.7-9
NEAR-TERM PEAK HOUR INTERSECTION OPERATIONS

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Control</th>
<th>Peak Hour</th>
<th>Near-Term Without Project</th>
<th>Near-Term With Project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>AM</td>
<td>PM</td>
<td>AM</td>
</tr>
<tr>
<td>1. McDougald Boulevard/Carolyn Weston Boulevard</td>
<td>Signal</td>
<td>24</td>
<td>28</td>
<td>25</td>
</tr>
<tr>
<td>2. Manthey Road/Carolyn Weston Boulevard</td>
<td>Signal</td>
<td>21</td>
<td>36</td>
<td>23</td>
</tr>
<tr>
<td>3. I-5 Southbound Ramps/Downing Avenue</td>
<td>Signal</td>
<td>16</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>4. I-5 Northbound Ramps/Downing Avenue</td>
<td>Signal</td>
<td>20</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>5. French Camp Turnpike/Downing Avenue</td>
<td>SSSC</td>
<td>31 (&gt; 50)</td>
<td>&gt; 50 (&gt; 50)</td>
<td>31 (&gt; 50)</td>
</tr>
<tr>
<td>6. McDougald Boulevard/William Moss Boulevard</td>
<td>Signal</td>
<td>21</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>7. Manthey Road/William Moss Boulevard</td>
<td>Signal</td>
<td>14</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>8. McDougald Boulevard/Henry Long Boulevard</td>
<td>AWSC</td>
<td>10</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>9. Manthey Road/Henry Long Boulevard</td>
<td>SSSC/</td>
<td>5 (11)</td>
<td>6 (14)</td>
<td>8 (A)</td>
</tr>
<tr>
<td>10. Wolfe Road/EWS Woods Boulevard/French Camp Road</td>
<td>Signal</td>
<td>34</td>
<td>37</td>
<td>36</td>
</tr>
<tr>
<td>11. McDougald Boulevard/French Camp Road</td>
<td>SSSC</td>
<td>11 (19)</td>
<td>4 (17)</td>
<td>11 (46)</td>
</tr>
<tr>
<td>12a. Manthey Road/French Camp Road</td>
<td>AWSC</td>
<td>&gt; 50</td>
<td>&gt; 50</td>
<td>F</td>
</tr>
<tr>
<td>12b. Realigned Manthey Road/French Camp Road</td>
<td>Signal</td>
<td>N/A</td>
<td>N/A</td>
<td>18</td>
</tr>
<tr>
<td>13. I-5 Southbound Ramps/French Camp Road</td>
<td>SSSC</td>
<td>14 (36)</td>
<td>27 (&gt; 50)</td>
<td>&gt; 50 (&gt; 50)</td>
</tr>
<tr>
<td>14. I-5 Northbound Ramps/French Camp Road</td>
<td>SSSC</td>
<td>14 (&gt; 50)</td>
<td>&gt; 50 (&gt; 50)</td>
<td>F (F)</td>
</tr>
<tr>
<td>15. French Camp Road/Val Dervin Parkway</td>
<td>SSSC</td>
<td>&gt; 50 (&gt; 50)</td>
<td>&gt; 50 (&gt; 50)</td>
<td>F (F)</td>
</tr>
<tr>
<td>16. Manthey Road/Yettner Road</td>
<td>SSSC</td>
<td>1 (11)</td>
<td>1 (11)</td>
<td>1 (12)</td>
</tr>
<tr>
<td>17. Manthey Road/Mathews Road</td>
<td>AWSC</td>
<td>&gt; 50</td>
<td>&gt; 50</td>
<td>F</td>
</tr>
<tr>
<td>18. I-5 Southbound Ramps/Mathews Road</td>
<td>SSSC</td>
<td>11 (24)</td>
<td>5 (21)</td>
<td>12 (26)</td>
</tr>
<tr>
<td>19. I-5 Northbound Ramps/Mathews Road</td>
<td>SSSC</td>
<td>&gt; 50 (&gt; 50)</td>
<td>&gt; 50 (&gt; 50)</td>
<td>F (F)</td>
</tr>
<tr>
<td>20. Wolfe Road/Howard Road</td>
<td>SSSC</td>
<td>6 (14)</td>
<td>11 (38)</td>
<td>6 (14)</td>
</tr>
<tr>
<td>21. Secondary Driveway/French Camp Road</td>
<td>Signal</td>
<td>N/A</td>
<td>N/A</td>
<td>11</td>
</tr>
</tbody>
</table>

Notes:
Signal = signalized intersection; SSSC = side street stop-controlled intersection; AWSC = all-way stop-controlled intersection
Delay for intersection average (worst movement) at SSSC intersections.
N/A = Not Applicable, these driveways only exist with the proposed project
Bold = deficient operations; Bold/italics = significant impact
Source: Fehr & Peers, 2006
Near-Term with Project
Peak Hour Traffic Volumes

Weston Ranch Towne Center EIR

Figure 4.7-10A

NOTE: Accounts for traffic shifts associated with the vacation of Henry Long Boulevard

Legend: XX (YY) = AM (PM) Peak Hour

Graphics/September 2006/4.7-10A
LEGEND: XX (YY) = AM (PM) Peak Hour

NOTE: Accounts for traffic shifts associated with the vacation of Henry Long Boulevard
Additionally, the side-street movement at the I-5 Southbound Ramp/French Camp Road intersection is projected to operate at LOS E during the AM peak hour and LOS F during the PM peak hour. At the Wolfe Road/Howard Road intersection, the side-street movement is projected to operate at LOS E during the PM peak hour. Both intersections are projected to operate at an overall acceptable level during both peak hours.

With the addition of project traffic, the French Camp Road/McDougald Road intersection would degrade to an overall deficient LOS E during the PM peak hour. Side-street operations would also degrade to deficient operations during both peak hours. Operations of the I-5 Southbound Ramp/French Camp Road intersection would also degrade to an overall unacceptable service level F with the addition of project traffic. These are potentially significant impacts. No other intersections that are projected to operate acceptably without the project would degrade to unacceptable conditions.

The addition of project traffic could potentially impact the operation the six deficient intersections previously identified. Further review shows that the addition of project traffic would not increase average intersection delay by more than 5 seconds at the French Camp Turnpike/Downing Avenue intersection. Therefore, the project impact at this location is less than significant. However, the addition of project traffic would increase average intersection delay by more than 5-seconds at the remaining five intersections:

- Manthey Road/French Camp Road
- I-5 Northbound Ramps/French Camp Road
- French Camp Road/Val Dervin Parkway
- Manthey Road/Mathews Road
- I-5 Northbound Ramps/Mathews Road

Mitigation measures to address the project’s significant impacts are presented in Section 4.7.4. Detailed service level calculations are presented in Appendix E.

**Signal Warrants**

The Peak Hour Volume Warrant (Warrant 3) of the MUTCD is used in this study as a supplemental analysis tool to assess operations at the unsignalized intersections and to access the need for signalization. The results of the traffic signal warrant analysis are shown in Table 4.7-10. Detailed signal warrant worksheets are presented in Appendix E.

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Existing</th>
<th>Near-Term Without Project</th>
<th>Near-Term With Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. French Camp Turnpike/Downing Avenue</td>
<td>Not Met</td>
<td>Met</td>
<td>Met</td>
</tr>
<tr>
<td>8. Henry Long Boulevard/McDougald Boulevard</td>
<td>Not Met</td>
<td>Not Met</td>
<td>Not Met</td>
</tr>
<tr>
<td>9. Henry Long Boulevard/Manthey Road</td>
<td>Not Met</td>
<td>Not Met</td>
<td>Not Met</td>
</tr>
<tr>
<td>11. McDougald Boulevard/French Camp Road</td>
<td>Not Met</td>
<td>Not Met</td>
<td>Met</td>
</tr>
<tr>
<td>12. Manthey Road/French Camp Road</td>
<td>Met</td>
<td>Met</td>
<td>Met</td>
</tr>
<tr>
<td>13. I-5 Southbound Ramps/French Camp Road</td>
<td>Met</td>
<td>Met</td>
<td>Met</td>
</tr>
</tbody>
</table>

7 See footnote 3.
As shown in Table 4.7-10, four additional intersections would satisfy peak hour signal warrants in the Near-Term Without Project scenarios, as compared to Existing Conditions:

- French Camp Turnpike/Downing Avenue
- Val Dervin Parkway/French Camp Road
- I-5 Southbound Ramps/Mathews Road
- I-5 Northbound Ramps/Mathews Road

With the addition of project traffic, the Henry Long Boulevard/McDougald Road and French Camp Road/McDougald Road intersections would satisfy the peak hour traffic signal warrant. Although peak hour signal warrants are projected to be satisfied at the Henry Long Boulevard/McDougald Road intersection with the addition of project traffic, this intersection is projected to operate at acceptable service levels with all-way stop-control. Also, it should be noted that the French Camp Turnpike/Downing Avenue intersection would also operate acceptably with all-way stop-control.

**Freeway Analysis**

The I-5 freeway mainline segments from north of Downing Avenue to south of Mathews Road were analyzed based on the peak hour volumes shown in Table 4.7-11 and the LOS criteria shown in Table 4.7-3. The analysis results indicate that I-5 in the study area would continue to operate at LOS D or better during both peak hours with the addition of project traffic in the near-term scenario, except for the northbound segment of I-5 north of Downing Avenue during the PM peak hour, which would degrade to LOS E with the addition of project traffic. This is a potentially significant impact. Detailed service level calculations are presented in Appendix E.
TABLE 4.7-11  
NEAR-TERM PEAK HOUR FREEWAY ANALYSIS

<table>
<thead>
<tr>
<th>Segment</th>
<th>Direction of Travel</th>
<th>Peak Hour</th>
<th>Without Project</th>
<th>With Project</th>
<th>Percentage Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Volume</td>
<td>Density</td>
<td>LOS</td>
<td>Volume</td>
</tr>
<tr>
<td>North of Downing</td>
<td>North</td>
<td>AM</td>
<td>3,840</td>
<td>21</td>
<td>C</td>
</tr>
<tr>
<td>Avenue</td>
<td>PM</td>
<td>5,450</td>
<td>33</td>
<td>D</td>
<td>5,750</td>
</tr>
<tr>
<td>North of Downing</td>
<td>South</td>
<td>AM</td>
<td>5,230</td>
<td>30</td>
<td>D</td>
</tr>
<tr>
<td>Avenue</td>
<td>PM</td>
<td>4,780</td>
<td>27</td>
<td>D</td>
<td>5,082</td>
</tr>
<tr>
<td>North of French</td>
<td>North</td>
<td>AM</td>
<td>2,950</td>
<td>16</td>
<td>B</td>
</tr>
<tr>
<td>Camp Road</td>
<td>PM</td>
<td>4,830</td>
<td>27</td>
<td>D</td>
<td>5,037</td>
</tr>
<tr>
<td>North of French</td>
<td>South</td>
<td>AM</td>
<td>4,640</td>
<td>26</td>
<td>C</td>
</tr>
<tr>
<td>Camp Road</td>
<td>PM</td>
<td>3,790</td>
<td>21</td>
<td>C</td>
<td>3,997</td>
</tr>
<tr>
<td>South of French</td>
<td>North</td>
<td>AM</td>
<td>2,680</td>
<td>15</td>
<td>B</td>
</tr>
<tr>
<td>Camp Road</td>
<td>PM</td>
<td>4,460</td>
<td>25</td>
<td>C</td>
<td>4,744</td>
</tr>
<tr>
<td>South of French</td>
<td>South</td>
<td>AM</td>
<td>4,370</td>
<td>24</td>
<td>C</td>
</tr>
<tr>
<td>Camp Road</td>
<td>PM</td>
<td>3,440</td>
<td>19</td>
<td>C</td>
<td>3,722</td>
</tr>
<tr>
<td>South of Mathews</td>
<td>North</td>
<td>AM</td>
<td>3,600</td>
<td>20</td>
<td>C</td>
</tr>
<tr>
<td>Road</td>
<td>PM</td>
<td>3,770</td>
<td>20</td>
<td>C</td>
<td>4,072</td>
</tr>
<tr>
<td>South of Mathews</td>
<td>South</td>
<td>AM</td>
<td>3,920</td>
<td>21</td>
<td>C</td>
</tr>
<tr>
<td>Road</td>
<td>PM</td>
<td>3,310</td>
<td>18</td>
<td>B</td>
<td>3,610</td>
</tr>
</tbody>
</table>

Notes:
Density measured in passenger cars per mile per lane.
Mainline segment level of service based on vehicle density, according to the Highway Capacity Manual (Transportation Research Board, 2000).
Bold = deficient operations; Bold/italics = significant impact
Source: Fehr & Peers, 2006

Future 2025 Analysis

This section discusses the method used to develop the Future 2025 traffic forecasts with and without the project, based on the 1990 General Plan.

Planned Transportation Improvements

Several major roadway improvements are planned for the study area, as described in Table 4.7-12. Future lane configurations at the study intersection are shown on Figure 4.7-12. These network modifications were used in developing the Future 2025 traffic forecasts.

Intersection Forecasts

Future 2025 intersection traffic forecasts were developed using the 1990 General Plan traffic model, which reflects the build-out scenario envisioned in the 1990 General Plan. The forecasting method is consistent with the method used in the Revised Final Traffic Analysis Report for the Sperry Road Extension Project Report/Environmental Document, Fehr & Peers, July 2005. The Future 2025 Without Project forecasts are shown on Figure 4.7-13.
TABLE 4.7-12
PLANNED ROADWAY IMPROVEMENTS FOR 2025 SCENARIO

<table>
<thead>
<tr>
<th>Location</th>
<th>Lane Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-5</td>
<td>Eight lanes north of French Camp Road</td>
</tr>
<tr>
<td></td>
<td>Six lanes south of French Camp Road</td>
</tr>
<tr>
<td>French Camp Road</td>
<td>Six lanes west of I-5 interchange</td>
</tr>
<tr>
<td></td>
<td>Eight lanes east of the I-5 interchange</td>
</tr>
<tr>
<td>I-5/French Camp Road Interchange</td>
<td>Construction of an L-9 Interchange including loop on-ramps in the southeast and</td>
</tr>
<tr>
<td></td>
<td>northwest quadrants. In conjunction with this improvement, Manthey Road would</td>
</tr>
<tr>
<td></td>
<td>be realigned to the west and Val Dervin Parkway to the east across from the</td>
</tr>
<tr>
<td></td>
<td>Sperry Road/French Camp Road intersection.</td>
</tr>
<tr>
<td>El Dorado Street</td>
<td>Six lanes north of the proposed Sperry Road extension</td>
</tr>
<tr>
<td>Sperry Road/Arch-Airport Road</td>
<td>Four lanes south of the proposed Sperry Road extension</td>
</tr>
<tr>
<td></td>
<td>Eight lanes</td>
</tr>
</tbody>
</table>


The peak hour project traffic volumes from Figure 4.7-8 were added to the Future 2025 without project volumes to determine Future 2025 traffic volumes with the project, as shown on Figure 4.7-14.

**Analysis of Future 2025 Conditions**

**Intersection Analysis**

The Future 2025 without project conditions intersection analysis results are shown in Table 4.7-13. The results indicate that most study intersections would operate at acceptable LOS ranges (i.e., LOS D or better). The Manthey Road/Mathews Road intersection is projected to operate at an overall LOS F during the PM peak hour prior to the addition of project traffic. The project would worsen PM peak hour operation at this intersection. Side-street operations at the Mathews Road/I-5 northbound and southbound ramp intersections would also be deficient, although the intersections are projected to operate at an overall acceptable service level, even with the addition of project traffic. Mitigation measures to address the project’s significant impacts are presented in Section 4.7.4.

**Signal Warrants**

The Peak Hour Volume Warrant (Warrant 3) from the MUTCD is used in this study as a supplemental analysis tool to assess operations at the unsignalized intersections.\(^8\) The results of the traffic signal warrant analysis are shown in Table 4.7-14.

The peak hour signal warrants would be satisfied at the Manthey Road/Mathews Road and I-5 Southbound Ramp/Mathews Road intersections in the Future 2025 Without Project scenario. No additional intersections are expected to satisfy peak hour signal warrants with the addition of project traffic.

\(^8\) See footnote 3.
2025 CUMULATIVE WITHOUT PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 4.7-13A
<table>
<thead>
<tr>
<th>Intersection</th>
<th>Control</th>
<th>Peak Hour</th>
<th>Future 2025 Without Project</th>
<th>Future 2025 With Project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Delay</td>
<td>LOS</td>
</tr>
<tr>
<td>1. McDougald Boulevard/Carolyn Weston Boulevard</td>
<td>Signal</td>
<td>AM</td>
<td>28</td>
<td>C</td>
</tr>
<tr>
<td>2. Manthey Road/Carolyn Weston Boulevard</td>
<td>Signal</td>
<td>AM</td>
<td>33</td>
<td>C</td>
</tr>
<tr>
<td>3. I-5 Southbound Ramps/Downing Avenue</td>
<td>Signal</td>
<td>AM</td>
<td>13</td>
<td>B</td>
</tr>
<tr>
<td>4. I-5 Northbound Ramps/Downing Avenue</td>
<td>Signal</td>
<td>AM</td>
<td>11</td>
<td>B</td>
</tr>
<tr>
<td>5. French Camp Turnpike/Downing Avenue</td>
<td>SSSC</td>
<td>AM</td>
<td>5 (26)</td>
<td>A (D)</td>
</tr>
<tr>
<td>6. McDougald Boulevard/William Moss Boulevard</td>
<td>Signal</td>
<td>AM</td>
<td>20</td>
<td>B</td>
</tr>
<tr>
<td>7. Manthey Road/William Moss Boulevard</td>
<td>Signal</td>
<td>AM</td>
<td>18</td>
<td>B</td>
</tr>
<tr>
<td>8. McDougald Boulevard/Henry Long Boulevard</td>
<td>AWSC</td>
<td>AM</td>
<td>12</td>
<td>B</td>
</tr>
<tr>
<td>9. Manthey Road/Henry Long Boulevard (Project Driveway)</td>
<td>AWSC</td>
<td>AM</td>
<td>7</td>
<td>A</td>
</tr>
<tr>
<td>10. Wolfe Road/EWS Woods Boulevard/French Camp Road</td>
<td>Signal</td>
<td>AM</td>
<td>27</td>
<td>C</td>
</tr>
<tr>
<td>11. McDougald Boulevard/French Camp Road</td>
<td>Signal</td>
<td>AM</td>
<td>25</td>
<td>C</td>
</tr>
<tr>
<td>12. Manthey Road/French Camp Road</td>
<td>Signal</td>
<td>AM</td>
<td>19</td>
<td>B</td>
</tr>
<tr>
<td>13. I-5 Southbound Ramps/French Camp Road</td>
<td>Signal</td>
<td>AM</td>
<td>27</td>
<td>C</td>
</tr>
<tr>
<td>14. I-5 Northbound Ramps/French Camp Road</td>
<td>Signal</td>
<td>AM</td>
<td>7</td>
<td>A</td>
</tr>
<tr>
<td>15. French Camp Road/Val Dervin Parkway/Sperry Road</td>
<td>Signal</td>
<td>AM</td>
<td>22</td>
<td>C</td>
</tr>
<tr>
<td>16. Manthey Road/Yettner Road</td>
<td>SSSC</td>
<td>AM</td>
<td>2 (16)</td>
<td>A (C)</td>
</tr>
<tr>
<td>17. Manthey Road/Mathews Road</td>
<td>AWSC</td>
<td>AM</td>
<td>18</td>
<td>C</td>
</tr>
<tr>
<td>18. I-5 Southbound Ramps/Mathews Road</td>
<td>SSSC</td>
<td>AM</td>
<td>22 (37)</td>
<td>C (E)</td>
</tr>
<tr>
<td>19. I-5 Northbound Ramps/Mathews Road</td>
<td>SSSC</td>
<td>AM</td>
<td>8 (44)</td>
<td>A (E)</td>
</tr>
<tr>
<td>20. Wolfe Road/Howard Road</td>
<td>SSSC</td>
<td>AM</td>
<td>2 (13)</td>
<td>A (B)</td>
</tr>
<tr>
<td>21. Secondary Project Driveway/French Camp Road</td>
<td>Signal</td>
<td>AM</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes:
- Signal = signalized intersection; SSSC = side street stop-controlled intersection; AWSC = all-way stop-controlled intersection
- Delay for intersection average (worst movement) at SSSC intersections; N/A = Not Applicable, this driveway only exists with the proposed project
- Bold = deficient operations; Bold/italics = significant impact
TABLE 4.7-14
FUTURE 2025 PEAK HOUR SIGNAL WARRANT ANALYSIS

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Future 2025 Without Project</th>
<th>Future 2025 With Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. French Camp Turnpike/Downing Avenue</td>
<td>Not Met</td>
<td>Not Met</td>
</tr>
<tr>
<td>8. McDougald Boulevard/Henry Long Boulevard</td>
<td>Not Met</td>
<td>Not Met</td>
</tr>
<tr>
<td>9. Manthey Road/Henry Long Boulevard</td>
<td>Not Met</td>
<td>Not Met</td>
</tr>
<tr>
<td>16. Manthey Road/Yettner Road</td>
<td>Not Met</td>
<td>Not Met</td>
</tr>
<tr>
<td>17. Manthey Road/Mathews Road</td>
<td>Met</td>
<td>Met</td>
</tr>
<tr>
<td>18. I-5 Southbound Ramps/Mathews Road</td>
<td>Not Met</td>
<td>Not Met</td>
</tr>
<tr>
<td>19. I-5 Northbound Ramps/Mathews Road</td>
<td>Not Met</td>
<td>Not Met</td>
</tr>
<tr>
<td>20. Wolfe Road/Howard Road</td>
<td>Not Met</td>
<td>Not Met</td>
</tr>
</tbody>
</table>

SOURCE: Federal Highway Administration, 2000

Freeway Analysis

The I-5 freeway mainline segments from north of Downing Avenue to south of Mathews Road were analyzed based on the peak hour volumes shown in Table 4.7-15, assuming that I-5 was widened to eight lanes north of French Camp Road by 2025. The analysis results indicate that I-5 in the study area would continue to operate at LOS D or better during both peak hours with the addition of project traffic in the Future 2025 scenario. Detailed service level calculations are presented in Appendix E.

TABLE 4.7-15
FUTURE 2025 PEAK HOUR FREEWAY ANALYSIS

<table>
<thead>
<tr>
<th>Segment</th>
<th>Direction of Travel</th>
<th>Peak Hour</th>
<th>Future 2025 Without Project</th>
<th>Future 2025 With Project</th>
<th>Percentage Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>North of Downing Avenue</td>
<td>North</td>
<td>AM</td>
<td>4,300</td>
<td>17</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>6,670</td>
<td>27</td>
<td>D</td>
</tr>
<tr>
<td>North of Downing Avenue</td>
<td>South</td>
<td>AM</td>
<td>6,570</td>
<td>26</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>4,690</td>
<td>18</td>
<td>C</td>
</tr>
<tr>
<td>North of French Camp Road</td>
<td>North</td>
<td>AM</td>
<td>3,960</td>
<td>15</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>6,130</td>
<td>24</td>
<td>C</td>
</tr>
<tr>
<td>North of French Camp Road</td>
<td>South</td>
<td>AM</td>
<td>6,030</td>
<td>24</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>4,310</td>
<td>17</td>
<td>B</td>
</tr>
<tr>
<td>South of French Camp Road</td>
<td>North</td>
<td>AM</td>
<td>3,320</td>
<td>17</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>5,140</td>
<td>28</td>
<td>D</td>
</tr>
<tr>
<td>South of French Camp Road</td>
<td>South</td>
<td>AM</td>
<td>5,050</td>
<td>27</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>3,610</td>
<td>19</td>
<td>C</td>
</tr>
<tr>
<td>South of Mathews Road</td>
<td>North</td>
<td>AM</td>
<td>3,230</td>
<td>17</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>5,000</td>
<td>27</td>
<td>D</td>
</tr>
<tr>
<td>South of Mathews Road</td>
<td>South</td>
<td>AM</td>
<td>4,910</td>
<td>26</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>PM</td>
<td></td>
<td>3,510</td>
<td>18</td>
<td>C</td>
</tr>
</tbody>
</table>

Notes:
Density measured in passenger cars per mile per lane.
Mainline segment level of service based on vehicle density, according to the Highway Capacity Manual (Transportation Research Board, 2000).
Source: Fehr & Peers, 2006
2025 CUMULATIVE WITH PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 4.7-14A

LEGEND:
XX (YY) = AM (PM) Peak Hour Traffic Volumes

Weston Ranch Towne Center EIR

September 2006
Graphics/September 2006/4.7-14A
LEGEND:
XX (YY) = AM (PM)
Peak Hour Traffic Volumes

2025 CUMULATIVE WITH PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 4.7-14B
4.7.3 Site Plan Review

This chapter analyzes site access and internal circulation for vehicles, pedestrians, bicycles, transit, and emergency vehicles and also evaluates the proposed parking supply. The analysis is based on projected near-term and 2025 traffic volumes on the public roadways adjacent to the site.

Site Access

Recommendations for project site access and on-site circulation, including recommended lane configurations and turn pocket storage lengths for intersection internal and adjacent to the site, are summarized on Figure 4.7-15a for the near-term condition and Figure 4.7-15b for the 2025 condition. Each recommendation is discussed below.

Vehicle Access

The project would have 13 vehicle access points from French Camp Road, realigned Manthey Road, and the vacated Henry Long Boulevard, as depicted on Figure 4.7-15a and Figure 4.7-15b:

1. Signalized intersection at French Camp Road/Secondary Driveway
2. Unsignalized right-in/right-out driveway on French Camp Road west of Manthey Road
3. Signalized intersection at realigned Manthey Road/French Camp Road
4. Unsignalized Manthey Road/Driveway A
5. Unsignalized Manthey Road/Driveway B
6. Signalized Manthey Road/Driveway C
7. Unsignalized Manthey Road/Driveway D (right-in/right-out only)
8. Signalized Manthey Road/Vacated Henry Long Boulevard (west intersection)
9. Unsignalized Driveway F/Vacated Henry Long Boulevard
10. Unsignalized Driveway G/Vacated Henry Long Boulevard
11. Unsignalized Manthey Road/Vacated Henry Long Boulevard (east intersection)
12. Unsignalized Manthey Road/Service Entrance 1
13. Unsignalized Manthey Road/Service Entrance 2

PM peak hour operations of the main access locations were analyzed based on the projected traffic volumes and the recommended lane configurations. An AM peak hour analysis was not performed because AM peak hour trip generation for this proposed retail development is relatively low in comparison to the PM peak hour trip generation (at approximately 31 percent of PM peak hour trip generation). Traffic volumes at driveways where detailed analysis was not performed are expected to be low, due to the proposed location (serving delivery areas only). Results of this analysis are presented in Table 4.7-16. Recommendations for each location are discussed below and shown on Figure 4.7-15a for the near-term condition and Figure 4.7-15b for the 2025 condition.
GENERAL SITE RECOMMENDATIONS:
1) Identify Bicycle Parking Locations
2) Define Pedestrian Paths Throughout Site
3) Provide Code Required Parking
4) Designate Park and Ride Parking Facilities
5) Identify Truck Routes Through Facility

Modify driveway and parking aisles to provide 150-foot throat

Modify driveway and parking aisles to provide 100-foot throat

LEGEND
= Traffic Signal
= Stop Sign
= Recommended Storage Length
= Differs from configuration shown on plan

FIGURE 4.7-15A
CONCEPTUAL SITE PLAN – CONSULTANT RECOMMENDATIONS FOR NEAR-TERM CONDITIONS
GENERAL SITE RECOMMENDATIONS:
1) Identify Bicycle Parking Locations
2) Define Pedestrian Paths Throughout Site
3) Provide Code Required Parking
4) Designate Park and Ride Parking Facilities
5) Identify Truck Routes Through Facility

Modify driveway and parking aisles to provide 150-foot throat

Modify driveway and parking aisles to provide 100-foot throat

LEGEND

= Traffic Signal
= Stop Sign
= Recommended Storage Length
= Differs from configuration shown on plan

CONCEPTUAL SITE PLAN – CONSULTANT RECOMMENDATIONS FOR 2025 CONDITIONS

FIGURE 4.7-15B
TABLE 4.7-16
PM PEAK HOUR SITE ACCESS OPERATIONS

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Traffic Control</th>
<th>Near-Term</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
</tr>
<tr>
<td>1. French Camp Road/Secondary Entrance</td>
<td>Signal 13</td>
<td>B</td>
<td>12</td>
</tr>
<tr>
<td>2. French Camp Road/Right-in/right-out</td>
<td>SSSC 1 (11)</td>
<td>A (B)</td>
<td>1 (14)</td>
</tr>
<tr>
<td>driveway</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. French Camp Road/Realigned Manthey Road</td>
<td>Signal 37</td>
<td>D</td>
<td>45</td>
</tr>
<tr>
<td>4. Manthey Road/Driveway A</td>
<td>SSSC 2 (14)</td>
<td>A (B)</td>
<td>1 (15)</td>
</tr>
<tr>
<td>5. Manthey Road/Driveway B</td>
<td>SSSC 2 (45)</td>
<td>A (E)</td>
<td>1 (32)</td>
</tr>
<tr>
<td>6. Manthey Road/Driveway C (main Wal-Mart</td>
<td>SSSC 39 (&gt; 50)</td>
<td>E (F)</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>entry)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Manthey Road/Driveway D</td>
<td>SSSC 1 (11)</td>
<td>A (B)</td>
<td>1 (11)</td>
</tr>
<tr>
<td>8. Manthey Road/Vacated Henry Long</td>
<td>Signal 26</td>
<td>C</td>
<td>27</td>
</tr>
<tr>
<td>Boulevard (west intersection)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Driveway F/Vacated Henry Long Boulevard</td>
<td>SSSC 2 (14)</td>
<td>A (B)</td>
<td>2 (19)</td>
</tr>
<tr>
<td>10. Driveway G/Vacated Henry Long Boulevard</td>
<td>SSSC 2 (14)</td>
<td>A (B)</td>
<td>2 (18)</td>
</tr>
</tbody>
</table>

Note: Delay for intersection average (worst movement) at SSSC intersections.

1. **French Camp Road/Secondary Entrance** – The recommended lane configuration and turn pocket storage lengths for this intersection is shown on Figure 4.7-15a for the near-term and Figure 4.7-15b for the 2025 condition. Interconnecting and coordinating the traffic signal at this location to the French Camp Road/Realigned Manthey Road intersection is recommended.

2. **Right-in/right-out driveway on French Camp Road west of Manthey Road** – This driveway would serve a substantial amount of project traffic because it provides direct access to several uses including the proposed Wal-Mart building. The project applicant proposes to provide a right-turn lane on French Camp Road for vehicles using this driveway.

3. **French Camp Road/Realigned Manthey Road** – The recommended lane configuration and turn pocket storage lengths for this intersection is shown on Figure 4.7-15a for the near-term and Figure 4.7-15b for the 2025 condition. Interconnecting and coordinating the traffic signal at this location to the French Camp Road/Secondary Entrance intersection is recommended. The proposed design would allow for a southbound through lane to be converted to a left-turn lane, resulting in three left-turn lanes, and a through-right shared lane should future traffic volumes warrant a modified circulation scheme.
4. **Realigned Manthey Road/Driveway A** – This driveway is in close proximity (less than 300 feet) of the signalized French Camp Road/Realigned Manthey Road intersection. A northbound left-turn lane to provide access to the site is proposed. No left-turns from this driveway to Manthey Road would be permitted. A median would be constructed on Manthey Road to prevent outbound left-turn movements.

5. **Realigned Manthey Road/Driveway B** – This driveway is located approximately 400 feet from the signalized French Camp Road/Realigned Manthey Road intersection and would provide access to the eastern portion of site, currently proposed to contain approximately 90,000 square feet of retail uses. As currently proposed, this driveway would provide full access. A median refuge would be provided to facilitate left-turns from the driveway to Manthey Road.

6. **Realigned Manthey Road/Driveway C** – This driveway would be a heavily used driveway to the proposed Wal-Mart and would also provide access to the other major retailer. As such, it is anticipated that vehicle turning movements would be substantial at this location. Although peak hour volume warrant would be satisfied during the PM peak hour at this location in both the near-term and 2025 condition, a traffic signal is not recommended for installation at this intersection due to its close spacing (approximately 800 feet) with the signalized French Camp Road/Manthey Road intersection and the proposed to be signalized intersection of Manthey Road/Vacated Henry Long Boulevard (approximately 400 feet). To accommodate projected vehicle queues from the parking areas, it is recommended that the east side of the intersection be reconfigured to provide stacking for at least 4 vehicles (100 feet), and that the west side be reconfigured to provide stacking for at least 6 vehicles (150 feet). Should the driveway be restricted to prevent left-turns from the parking area to Manthey Road, the stacking area on the east side could be reduced to 50 feet.

7. **Driveway D/Manthey Road Entrance** – This driveway is proposed to be right-in/right-out only. Although this driveway is in close proximity to Driveway C and the intersection Manthey Road/Vacated Henry Long Boulevard (west intersection), volumes through this intersection are projected to be low and it is projected to operate acceptably with minimal queuing.

8. **Realigned Manthey Road/Vacated Henry Long Boulevard (west intersection)** – The peak hour volume warrant is satisfied during the PM peak hour at this location with projected volumes during both the near-term and cumulative condition. With traffic signal installation, this intersection would operate at an acceptable service level in both the near-term and cumulative condition.

9. **Driveway F/Vacated Henry Long Boulevard** – It is recommended that the westbound approach be modified to provide a left-turn pocket. One westbound and one eastbound travel lanes should be provided on vacated Henry Long Boulevard.

10. **Driveway G/Vacated Henry Long Boulevard** – It is recommended that the eastbound approach be modified to provide a left-turn pocket. One westbound and one eastbound travel lanes should be provided on vacated Henry Long Boulevard.

11. **Manthey Road/Vacated Henry Long Boulevard (east intersection)** – With development of the I-5/French Camp Road interchange project, Manthey Road would be rerouted through the project site and would continue along a portion of the vacated Henry Long Boulevard. The resulting intersection would operate with southbound right-turns and eastbound left-turns only, with no conflicting movements.
12. **Manthey Road/Service Entrance 1** – This driveway should be restricted to right-in/right-out operation only and should be side-street stop controlled.

13. **Manthey Road/Project Driveway** – A northbound left-turn pocket should be provided into this driveway in addition to side-street stop control. Additionally, it should be designed to accommodate the turning movements of large delivery vehicles.

**Vehicle Queuing 2025 Conditions**

In addition to a detailed evaluation of the site access locations, a detailed queuing analysis was performed for the French Camp Road corridor between the proposed Sperry Road extension and Manthey Road, including the I-5 interchange to determine if vehicle queues associated with project traffic would potentially impact operation of the freeway interchange under 2025 conditions. Table 4.7-17 summarizes the results based on CORSIM\(^9\) analysis.

<table>
<thead>
<tr>
<th>Interchange</th>
<th>Movement</th>
<th>Storage Length*</th>
<th>Without Project</th>
<th>With Project</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>AM</td>
<td>PM</td>
</tr>
<tr>
<td>French Camp Road/Realigned Manthey Road</td>
<td>Westbound Left</td>
<td>400</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Westbound Through</td>
<td>800</td>
<td>350</td>
<td>350</td>
</tr>
<tr>
<td></td>
<td>Westbound Right</td>
<td>500</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Southbound Left</td>
<td>500</td>
<td>350</td>
<td>350</td>
</tr>
<tr>
<td></td>
<td>Southbound Right</td>
<td>500</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>French Camp Road/I-5 Southbound Ramps</td>
<td>Eastbound Through</td>
<td>800</td>
<td>325</td>
<td>325</td>
</tr>
<tr>
<td></td>
<td>Eastbound Right</td>
<td>600</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Westbound Through</td>
<td>900</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td>French Camp Road/I-5 Northbound Ramps</td>
<td>Northbound Left</td>
<td>600</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>Eastbound Through</td>
<td>900</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Westbound Through</td>
<td>600</td>
<td>125</td>
<td>125</td>
</tr>
</tbody>
</table>

Notes:
95th percentile vehicle queues calculated using CORSIM.
Bold = deficient operations; Bold/italics = significant impact
Source: Fehr & Peers, 2006

Analysis results show that vehicle queues at the French Camp Road/Manthey Road intersection would not spill back into the I-5 interchange and vehicle queues through the interchange are not anticipated to exceed the proposed storage lengths.

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\(^9\) CORSIM is a micro-simulation tool used by engineers to evaluate intersection operations a system. Unlike macroscopic models, such as HCS and Synchro, the effects of turn pocket overflows, vehicle queue spillback, and the interaction of adjacent intersection are taken into consideration during operations analysis.
Pedestrian, Bicycle, and Transit Access
The project would include improvements to Manthey Road and French Camp Road, including roadway paving and construction of sidewalks, curbs, and gutters along the southern and eastern property lines. Based on the City of Stockton Existing and Future Bikeway Plan dated April 26, 2002 (<www.stocktongov.com/parks/pdf/bikepath.pdf>), a Class I bicycle path would be constructed on French Camp Road along the project frontage and would be located within an 8-foot meandering sidewalk/path on the north and south sides of French Camp Road. Manthey Road is designated as a Class III bicycle route. These improvements would enhance bicycle and pedestrian access to the site and throughout the area. Although sidewalks would be provided on French Camp Road and Manthey Road along the project frontage with project implementation, pedestrian paths connecting the project site to the adjacent developments are not shown on the conceptual project site plan, dated 2006.

The San Joaquin Regional Transit District has requested that the project applicant provide appropriate transit features, including bus pull-outs on both Manthey Road and French Camp Road, with development of the project. Provision of bus pull-outs with appropriate transit amenities, such as bus shelters, would improve transit accommodation in the area. The location of the proposed bus-pullouts on French Camp Road and Manthey Road should be identified on the project site plan and pedestrian connections from the site to bus facilities should also be provided.

Emergency Access
Factors such as number of access points, roadway widths, and proximity to fire stations determine whether a project provides sufficient emergency access. The project provides multiple points of entry from two major roadways. If one of these roadways or entrances is blocked or obstructed, an emergency vehicle could use the other roadway or an alternate entrance to access the site. The internal project roadways have minimum lane widths of 25 feet with adjacent parking provided, which is adequate for emergency vehicle access. A fire station is located on Manthey Road, south of Carolyn Weston Boulevard, less than one mile from the project site, which would allow for timely emergency response to the project site. The applicant should consult with the City of Stockton fire department to ensure that the site plan provides adequate emergency access.

Other On-Site Circulation Considerations
On-site circulation was reviewed with respect to the following: drive aisles, throat depth, dead-end drive aisles, vehicle/pedestrian conflicts, delivery vehicles, and parking stall dimensions. Due to the limited detail of the site plan provided, only a general discussion of these elements is included. The City of Stockton Municipal Code is the basis for this analysis.

Drive Aisles
The surface parking area provides major and minor circulation roadways. It appears that all aisles are at least 25 feet wide (the minimum width generally allowed for two-way travel with perpendicular parking), a sufficient width to accommodate vehicle circulation. Although drive aisles provide sufficient width, some aisles are offset with an opposing aisle, which creates potential sight distance constraints. These off-set locations should be eliminated, wherever possible.
**Throat-Depth**

Throat depth refers to the length of continuous curb extending from a project driveway into the project site before a curb break is provided. The continuous curb prevents vehicle queues at the driveway from obstructing internal site circulation. At low volume driveways, a throat depth of approximately 50 feet (2 vehicles) is generally sufficient and is generally provided at the low volume driveways on Manthey Road and Vacated Henry Long Boulevard. However, insufficient throat depth would be provided at the Manthey Road/Driveway C intersection. The recommended throat depth is detailed under recommendations for intersection 6 above: 150 feet on the west side and 100 feet on the east-side.

**Dead-End Drive Aisles**

Dead-end drive aisles are parking aisles that are obstructed at one end, thereby increasing difficulty navigating through the site. No dead-end drive aisles are shown on the project site plan.

**Vehicle/Pedestrian Conflicts**

Sufficient detail is not provided on the site plan to ascertain the specific location of potential vehicle/pedestrian conflict points. A detailed review of the final plan is recommended to ensure that pedestrian crossings are provided and pedestrian paths are identified throughout the site.

**Delivery Vehicles**

Given the nature of the project, deliveries in large semi-trucks would be expected on a regular basis in addition to smaller delivery vehicles. Any large semi-truck deliveries should be scheduled for off-peak periods to minimize conflicts between delivery trucks and passenger vehicles. Additionally, the project driveways should be designed to accommodate the turning radii of large delivery vehicles.

Truck counts at an existing Wal-Mart store show that the Wal-Mart portion of the project could expect to have up to 40 deliveries per day, with approximately 50 percent heavy duty trucks, 40 percent medium duty trucks, and 10 percent light duty trucks. Although Wal-Mart retailers tend to have higher delivery truck volumes than other retailers, the other portions of the project were anticipated to have truck deliveries at the same ratio of deliveries to square footage as the Wal-Mart store for the purposes of this analysis, to present a worst-case estimate of truck traffic. This equates to approximately 60 non Wal-Mart deliveries per day, for a total of 100 delivery truck trips to the site. This level of truck trip generation was accounted for in the off-site analysis. Truck routes should be identified through the site and internal intersection and drive aisles should be designed to accommodate the turning radii of large delivery vehicles.

**Parking Stall Dimensions**

The City of Stockton requires that 90-degree-angle parking stalls be at least 19 feet long and 9 feet wide with 25-foot-wide drive aisles. Parking stalls throughout the site appear to meet these design criteria. A maximum of 25 percent of the site’s parking can be designated “compact” spaces, with dimensions of 9 feet wide and 15 feet long.
Parking

The proposed on-site parking supply was compared to both City Code parking requirements and ITE parking demand rates.

City Code

City Code parking requirements were reviewed to ensure that the project would provide sufficient parking.

- For regional shopping centers over 400,000 square feet, the City of Stockton requires a minimum of 2,000 parking spaces plus one space for each 250 square feet over 400,000 square feet

Although the off-site analysis was based on a total building square footage of 710,000 square feet, the current site plan shows 600,489 square feet of retail uses. Based on 600,489 square feet of retail uses, the project is required to provide 2,802 parking spaces, as shown in Table 4.7-18.

<table>
<thead>
<tr>
<th>Land Use Type</th>
<th>Size</th>
<th>Parking Code Requirement</th>
<th>Parking Spaces Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>600,489 square feet</td>
<td>2,000 spaces + 1 space for each 250 square feet over 400,000 square feet</td>
<td>2,802</td>
</tr>
</tbody>
</table>

SOURCE: City of Stockton Municipal Code 16-345.040

The site plan shows 2,929 parking stalls, which satisfies City Code parking requirements.

Parking Demand

Parking demand rates, as presented in ITE’s Parking Generation (3rd Edition), were used to estimate peak parking demands for the project. Weekday and Saturday parking demand rates were reviewed and are presented in Table 4.7-19. Rates are based on data collected on Fridays and Saturdays during December in order to present a worst-case scenario, as well as for a typical weekday and Saturday. The peak parking demand rates were applied to the proposed square footage of the Weston Ranch Towne Center.
TABLE 4.7-19
PARKING DEMAND ANALYSIS

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Area (Square Feet)</th>
<th>Average Peak Weekday Parking Demand Rate (Per 1,000 Square Feet)</th>
<th>Average Peak Saturday Parking Demand Rate (Per 1,000 Square Feet)</th>
<th>Average Peak Saturday Parking Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shopping Center</td>
<td>600,489</td>
<td>4.01(^a) (December)</td>
<td>4.74(^b) (December)</td>
<td>2,846</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.02(^c) (Non-December)</td>
<td>2.97(^d) (Non-December)</td>
<td>1,783</td>
</tr>
</tbody>
</table>

Notes:
(a) Average parking demand rate for suburban shopping centers on Fridays during December.
(b) Average parking demand rate for suburban shopping centers on Saturdays during December.
(c) Average parking demand rate for suburban shopping centers on Fridays Non-December.
(d) Average parking demand rate for suburban shopping centers on Saturdays Non-December.

SOURCE: Institute of Transportation Engineers, 2004

As shown in Table 4.7-19, it is expected that peak weekday parking demand during December would be approximately 2,408 spaces, while peak Saturday parking demand would be 2,846. During non-December months, peak weekday parking demand would be approximately 1,813 spaces and peak Saturday demand would be approximately 1,783 spaces. The project generally provides 10 to 15 percent more spaces than typical peak parking demand, which provides for a circulation efficiency factor. This allows patrons to find a parking space close to their ultimate destinations within the center and minimizes excessive circulation.

Sufficient on-site parking is proposed to accommodate expected peak parking demand,

**Bicycle Parking**

No bicycle parking is shown on the site plan. Based on City of Stockton Municipal Code 16-345.100, a minimum of one employee bicycle parking space for each 7,500 square feet of gross floor area (80 spaces) plus one bicycle parking space for each 40 parking spaces (70 spaces based on the city code vehicle parking requirements) is required. Therefore, based on a development of 600,489 square feet approximately 150 bicycle parking spaces should be provided throughout the site. The development standards for bicycle parking outlined in the City Municipal Code should be met.

**Handicapped Accessible Parking**

The site plan was reviewed to determine the number of handicap accessible parking spaces required for the site and its location. Based on City Code requirements, the project must provide at least 40 handicap accessible stalls. The site plan shows at least this many accessible stalls. It is recommended that additional parking stalls be designed/designated as handicap accessible and located in accessible areas throughout the site, as noted on Figure 4.7-15.

**Park and Ride**

The proposed project is located adjacent to the regional roadway network. As such, opportunities exist for an expansion of Park and Ride facilities within the City of Stockton. It is recommended that parking spaces be reserved for park and ride usage, Mondays through Fridays, excluding holidays. These spaces should be located adjacent to transit facilities proposed on Manthey Road.
4.7.4 Impacts and Mitigation Measures

Significance Criteria

According to CEQA guidelines, a traffic increase from a project is considered a significant impact if the associated change to the transportation system either:

- Conflicts with adopted environmental plans and goals of the community where it is located; or

- Causes an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. (This will be evaluated based on criteria presented in the City of Stockton Transportation Impact Analysis Guidelines [July 30, 2003]).

Conditions without and with the project have been compared to identify significant impacts according to the following criteria:

- If a signalized intersection is projected to operate acceptably (i.e., LOS D or better with an average control delay of equal to or less than 55.0 seconds per vehicle) without the project and the project is expected to cause the facility to operate at an unacceptable LOS (LOS E or worse with an average control delay greater than 55.00 seconds per vehicle), the impact is considered significant.

- If an unsignalized intersection is projected to operate acceptably (i.e., LOS D or better with an average control delay equal to or less than 35.0 seconds per vehicle) without the project and the project is expected to cause the facility to operate at an unacceptable LOS (LOS E or worse with an average control delay greater than 35.0 seconds per vehicle), the impact is considered significant.

- If a facility is projected to operate unacceptably (i.e., LOS E or worse) without the project, and the project is expected to increase the average control delay by more than 5 seconds, the impact is considered significant.

- If a facility is projected to operate at an unacceptable LOS E without the project and the project is expected to cause the facility to operate at an unacceptable LOS F, but the average control delay does not increase by more than 5 seconds, City staff would determine whether the project has a significant impact.

- If a freeway segment is projected to operate acceptably (i.e., LOS D or better) without project and the project is expected to cause the facility to operate at an unacceptable service level (i.e., LOS E or worse), the impact is considered significant.

- If a freeway segment is projected to operate unacceptably (i.e., LOS E or worse) without project and the project is expected to increase traffic volumes on the facility by more than 5 percent, the impact is considered significant.

- Failure to comply with the City of Stockton General Plan Policy Document, as listed previously, would result in a significant impact.
Impacts

Near-Term Conditions

The following describes the impacts and mitigation measures for the proposed project under the Near-Term With Project condition.

Impact 4.7.1. The proposed project would contribute to the need to construct planned roadway improvements under Near-Term conditions. This impact is considered significant.

The proposed project would generate 17,600 new daily trips, 540 new AM peak hour trips, and 1,721 new PM peak hour trips, which would accelerate the need for construction of planned improvements along French Camp Road.

Mitigation Measures:

Mitigation Measure 4.7.1. The project applicant shall implement the following improvement:

- Widen French Camp Road along the project frontage from two lanes to four lanes

Impact Significance after Mitigation: With implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.

Impact 4.7.2. The French Camp Turnpike/Downing Avenue intersection is projected to operate at a deficient LOS F in the Near-Term condition during the PM peak hour prior to the addition of project traffic. The proposed project is not projected to increase traffic through this intersection in the near-term condition. Therefore, this impact is less than significant.

Mitigation Measures

Mitigation Measure 4.7.2. No mitigation is required.

Impact 4.7.3. The addition of traffic generated by the project in conjunction with traffic shifts associated with the vacation of Henry Long Boulevard, proposed to occur with the project, would result in deficient service levels at the French Camp Road/McDougald Road intersection in the Near-Term With Project condition during the PM peak hour. This impact is considered significant.

The addition of project traffic would result in overall deficient LOS E conditions during the PM peak hour for the French Camp Road/McDougald Road intersection. Traffic turning from McDougald Road to French Camp Road would also experience LOS E and LOS F conditions during the AM and PM peak hours, respectively, with the addition of project traffic.
Mitigation Measures

**Mitigation Measure 4.7.3.** The project applicant shall widen French Camp Road to provide a westbound right-turn only lane and install stop-signs on all intersection approaches.

**Impact Significance after Mitigation:** With implementation of this mitigation measure, this impact would be reduced to a less than significant level, as shown in Table 4.7-20.

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**Impact 4.7.4.** The French Camp Road/Manthey Road (east) intersection is projected to operate at a deficient LOS F in the Near-Term condition during both peak hours prior to the addition of project traffic. Average delay would increase through this intersection by more than 5 seconds with the addition of project traffic. This impact is considered significant.

**French Camp Road/Manthey Road.** The addition of project traffic would worsen LOS F conditions during both the AM and PM peak hour.

Mitigation Measures

**Mitigation Measure 4.7.4.** The project applicant shall contribute its fair share (26 percent based on the 1990 General Plan) towards the planned interchange improvements at the French Camp Road/I-5 interchange through the payment of traffic impact fees. With construction of the French Camp Road interchange improvement project, the southern leg of Manthey Road intersection would be relocated approximately 800 feet from the I-5 southbound ramps/French Camp Road intersection and incorporated into the Weston Ranch Towne Center project driveway (it was assumed that as part of the project, the northern leg of the intersection would be realigned and that French Camp Road would be widened to provide two lanes in each direction along the project frontage). With implementation of these planned improvements, this intersection would operate at an acceptable service level.

Should construction of the planned interchange improvements be scheduled for completion subsequent to project completion, the project applicant shall make the following interim improvements:

- Signalize the French Camp Road/Manthey Road (east) intersection and provide a westbound left-turn pocket.
- Interconnect and coordinate the traffic signals at the following intersections along French Camp Road: Secondary Project Driveway, Manthey Road (east), I-5 southbound ramps, I-5 northbound ramps, and Val Dervin Parkway.

Preliminary Synchro 6.0/SimTraffic analyses indicate that as an interconnected system, these intersections would operate acceptably, as shown on Table 4.7-20, with minimal queue spillback.
Impact Significance after Mitigation: With implementation of interim improvements, this impact would be reduced to a less-than-significant level, as shown in Table 4.7-20.

### TABLE 4.7-20
NEAR-TERM PLUS MITIGATION PEAK HOUR INTERSECTION OPERATIONS

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Peak Hour</th>
<th>Near-Term Without Project</th>
<th>Near-Term With Project</th>
<th>Near-Term With Project Plus Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
</tr>
<tr>
<td>11. McDougald Boulevard/</td>
<td>AM</td>
<td>3 (19)</td>
<td>A (C)</td>
<td>11 (46)</td>
</tr>
<tr>
<td>12a. French Camp Road</td>
<td>PM</td>
<td>4 (17)</td>
<td>A (C)</td>
<td>43 (&gt; 50)</td>
</tr>
<tr>
<td>12a. Manthey Road/</td>
<td>AM</td>
<td>&gt; 50</td>
<td>F</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>13. French Camp Road</td>
<td>PM</td>
<td>&gt; 50</td>
<td>F</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>12b. Realigned Manthey Road/</td>
<td>AM</td>
<td>N/A</td>
<td>N/A</td>
<td>18</td>
</tr>
<tr>
<td>12b. French Camp Road</td>
<td>PM</td>
<td>N/A</td>
<td>N/A</td>
<td>37</td>
</tr>
<tr>
<td>13. I-5 Southbound Ramps/</td>
<td>AM</td>
<td>14 (36)</td>
<td>C (E)</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>13. I-5 Northbound Ramps/</td>
<td>AM</td>
<td>&gt; 50 (&gt; 50)</td>
<td>D (F)</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>14. French Camp Road</td>
<td>PM</td>
<td>&gt; 50 (&gt; 50)</td>
<td>F (F)</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>15. French Camp Road</td>
<td>AM</td>
<td>&gt; 50 (&gt; 50)</td>
<td>F (F)</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>15. Val Dervin Parkway</td>
<td>PM</td>
<td>21 (&gt; 50)</td>
<td>C (F)</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>17. Manthey Road/</td>
<td>AM</td>
<td>&gt; 50</td>
<td>F</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>17. Mathews Road</td>
<td>PM</td>
<td>36</td>
<td>E</td>
<td>45</td>
</tr>
<tr>
<td>19. I-5 Northbound Ramps/</td>
<td>AM</td>
<td>&gt; 50 (&gt; 50)</td>
<td>F (F)</td>
<td>&gt; 50</td>
</tr>
<tr>
<td>19. Mathews Road</td>
<td>PM</td>
<td>&gt; 50 (&gt; 50)</td>
<td>F (F)</td>
<td>&gt; 50</td>
</tr>
</tbody>
</table>

Notes:
Delay for worst movement (average intersection delay) at SSSC intersections.
N/A = Not Applicable, this driveway only exists with the proposed project
Bold = deficient operations; Bold/italics = significant impact

SOURCE: Fehr & Peers, 2006

Impact 4.7.5. The French Camp Road/I-5 Southbound Ramps intersection is projected to operate at an acceptable overall service level in the Near-Term condition during both peak hours prior to the addition of project traffic. The addition of project traffic would result in overall LOS F conditions. This impact is considered significant.

French Camp Road/I-5 Southbound Ramps. The addition of project traffic would result in LOS F conditions during both the AM and PM peak hour.

Mitigation Measures

Mitigation Measure 4.7.5. The project applicant shall contribute its fair share (26 percent based on the 1990 General Plan) towards the planned interchange improvements at the French Camp Road/I-5 interchange through the payment of traffic impact fees.

Should construction of the planned interchange improvements be scheduled for completion subsequent to project completion, the project applicant shall install a traffic signal at the I-5 southbound ramps/French Camp Road intersection. This signal shall be interconnected and coordinated with the adjacent traffic signals on French Camp Road.
Impact Significance after Mitigation: With implementation of interim improvements, this impact would be reduced to a less-than-significant level, as shown in Table 4.7-20.

Impact 4.7.6. The French Camp Road/I-5 Northbound Ramps intersection is projected to operate at a deficient LOS F in the Near-Term condition during both peak hours prior to the addition of project traffic. Average delay through this intersection would increase by more than 5 seconds with the addition of project traffic. This impact is considered significant.

French Camp Road/I-5 Northbound Ramps. The addition of project traffic would worsen LOS F conditions during both the AM and PM peak hour.

Mitigation Measures

Mitigation Measure 4.7.6. The project applicant shall contribute its fair share (26 percent based on the 1990 General Plan) towards the planned interchange improvements at the French Camp Road/I-5 interchange through the payment of traffic impact fees.

Should construction of the planned interchange improvements be scheduled for completion subsequent to project completion, the project applicant shall install a traffic signal at the I-5 Northbound Ramp/French Camp Road intersection; modify the eastbound approach to provide dual eastbound left-turn lanes; and modify the westbound approach to provide a 200-foot right-turn-only lane. This signal shall be interconnected and coordinated with the adjacent traffic signals on French Camp Road. These improvements can be implemented within the existing right-of-way.

Impact Significance after Mitigation: With implementation of interim improvements, this impact would be reduced to a less-than-significant level, as shown in Table 4.7-20.

Impact 4.7.7. The French Camp Road/Val Dervin Parkway intersection is projected to operate at a deficient LOS F in the Near-Term condition during the AM peak hours prior to the addition of project traffic. Average delay would increase through this intersection by more than 5 seconds with the addition of project traffic during the AM peak hour. The addition of project traffic would also result in overall LOS F conditions during the PM peak hour. This impact is considered significant.

French Camp Road/Val Dervin Parkway. The addition of project traffic would worsen LOS F conditions during the AM and result in LOS F conditions during the PM peak hour.

Mitigation Measures

Mitigation Measure 4.7.7. The project applicant shall contribute its fair share (26 percent based on the 1990 General Plan) towards the planned interchange improvements at the French Camp Road/I-5 interchange through the payment of traffic impact fees. With planned improvements at this interchange, Val Dervin Parkway would be closed at French Camp Road, and a new roadway constructed connecting the business park at the new French Camp Road/Sperry Road intersection.
Should construction of the planned interchange improvements be scheduled for completion subsequent to project completion, the project applicant shall install a traffic signal at this intersection. This signal shall be interconnected and coordinated with the adjacent traffic signals on French Camp Road.

**Impact Significance after Mitigation:** With implementation of interim improvements, this impact would be reduced to a less-than-significant level, as shown in Table 4.7-20.

---

**Impact 4.7.8. Mathews Road/Manthey Road intersection** is projected to operate at a deficient LOS F in the Near-Term condition during the AM peak hour and a deficient LOS E during the PM peak hour prior to the addition of project traffic. Average delay would increase through this intersection by more than 5 seconds with the addition of project traffic during both peak hours. This impact is considered significant.

**Mathews Road/Manthey Road.** The addition of project traffic would worsen LOS E and LOS F conditions during both the AM and PM peak hour. Peak hour traffic signal warrants would be satisfied prior to the addition of project traffic. The project is projected to increase traffic through this intersection by 9 percent in the near-term condition.

**Mitigation Measures**

**Mitigation Measure 4.7.8.** The project applicant shall install a traffic signal at this intersection.\(^\text{10}\) No other improvements would be required to achieve an acceptable service level.

**Impact Significance after Mitigation:** This intersection is currently in San Joaquin County and implementation of this measure cannot be assured by the City of Stockton. Therefore, this impact would remain significant and unavoidable. However, with implementation of the signal installation, this impact would be reduced to a less-than-significant level, as shown in Table 4.7-20.

---

**Impact 4.7.9. Mathews Road/I-5 Northbound Ramps intersection** is projected to operate at a deficient LOS F in the Near-Term condition during both the AM and PM peak hours. Average delay would increase through this intersection by more than 5 seconds with the addition of project traffic during both peak hours. This impact is considered significant.

**Mathews Road/I-5 Northbound Ramps.** The addition of project traffic would worsen LOS F conditions during both the AM and PM peak hours. Peak hour traffic signal warrants would be satisfied prior to the addition of project traffic. The project is projected to increase traffic through this intersection by 7 percent in the near-term condition.

\(^{10}\) See footnote 3.
Mitigation Measures

Mitigation Measure 4.7.9. The project applicant shall install a traffic signal at this intersection. Signal installation would result in LOS C conditions during the AM peak hour and LOS B conditions during the PM peak hour.

Impact Significance after Mitigation: This intersection is currently in San Joaquin County and implementation of this measure cannot be assured by the City of Stockton. Therefore, this impact would remain significant and unavoidable. However, with implementation signal installation, this impact would be reduced to a less than significant level, as shown in Table 4.7-20.

Impact 4.7.10. Northbound I-5, north of Downing Avenue is projected to operate at LOS D during the PM peak hour prior to the addition of project traffic. The addition of project traffic would worsen LOS D operations to LOS E and increase total freeway volumes by more than 5 percent. This impact is considered significant.

I-5 Northbound, north of Downing Avenue. The addition of project traffic would result in LOS E conditions during the PM peak hour and increase traffic volumes by 5.5 percent.

Mitigation Measures

Mitigation Measure 4.7.10. The project applicant shall pay their proportionate share of the widening of northbound Interstate 5 to four lanes north of Downing Avenue through the payment of the Public Facilities Fee Street Improvements.

Impact Significance after Mitigation: Implementation of this measure would reduce the project’s impact to a less-than-significant level, as shown on Table 4.7-21. However, because this project is not yet fully funded, the impact would remain significant and unavoidable.

TABLE 4.7-21
NEAR-TERM PEAK HOUR FREEWAY ANALYSIS WITH MITIGATION

<table>
<thead>
<tr>
<th>Segment</th>
<th>Direction of Travel</th>
<th>Peak Hour</th>
<th>Without Mitigation</th>
<th>With Mitigation</th>
<th>Without Mitigation</th>
<th>With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>North of Downing Avenue</td>
<td>North</td>
<td>AM</td>
<td>3,840</td>
<td>21</td>
<td>C</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM</td>
<td>5,450</td>
<td>33</td>
<td>D</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3,913</td>
<td>21</td>
<td>C</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5,750</td>
<td>36</td>
<td>E</td>
<td>24</td>
</tr>
</tbody>
</table>

Notes:
Density measured in passenger cars per mile per lane.
Mainline segment level of service based on vehicle density, according to the Highway Capacity Manual (Transportation Research Board, 2000).
Bold = deficient operations; Bold/italics = significant impact
Future 2025 with Project Conditions

The following describes the impacts and mitigation measures for the proposed project under the Future 2025 With Project condition.

Impact 4.7.11. The proposed project would contribute to the need to construct planned roadway improvements under Future 2025 conditions. This impact is considered significant.

The proposed project would generate 17,600 new daily trips, 540 new AM peak hour trips, and 1,721 new PM peak hour trips, which would accelerate the need for construction of planned improvements along I-5, French Camp Road, El Dorado Street, and Sperry Road.

Mitigation Measures

Mitigation Measure 4.7.11. The project applicant shall contribute its fair share towards the implementation of the following improvements:

- Widening of I-5 to eight lanes from French Camp Road to Charter Way (5 percent)
- Widening of French Camp Road to six lanes from Wolfe Road to Manthey Road (47 percent)
- Widening of French Camp Road to eight lanes from Manthey Road to Val Dervin Parkway (5 percent)
- Construction of an L-9 interchange including loop on-ramps in the southeast and northwest quadrants. In conjunction with this improvement, Manthey Road would be realigned to the west and Val Dervin Parkway to the east across from the Sperry Road/French Camp Road intersection (26 percent)
- Widening of El Dorado Street to six lanes north of the proposed Sperry Road extension to McKinley Avenue and four lanes south of the proposed Sperry Road extension to I-5 (1 percent)
- Widening of Sperry Road/Arch-Airport Road to eight lanes from French Camp Road to Airport Way (4 percent)

This measure may be satisfied by direct contribution, payment of adopted impact fee programs to the extent the improvements are included in the programs, or other means deemed appropriate by the City.

Impact Significance after Mitigation: With implementation of this mitigation measure, this impact would be reduced to a less-than-significant level.
Impact 4.7.12. The addition of project traffic would increase average intersection delay by more than five seconds at the Manthey Road/Mathews Road intersection, which is projected to operate at an unacceptable LOS F in the Future 2025 Without Project condition. This impact is considered significant.

**Manthey Road/Mathews Road.** The addition of project traffic would result in a nine-second increase in delay (from 72 seconds [LOS F] without the project to 81 seconds [LOS F] with the project) during the PM peak hour.

**Mitigation Measures**

**Mitigation Measure 4.7.12.** The project applicant shall contribute its fair share (8 percent) towards the improvements at this intersection that would result in acceptable service levels. Improvements include signalization (Mitigation Measure 4.7.8) and the construction of left-turn channelization on all approaches.

**Impact Significance after Mitigation:** With implementation of this mitigation measure, this impact would be reduced to a less-than-significant level, as shown in Table 4.7-22.

### TABLE 4.7-22
**FUTURE 2025 PLUS MITIGATION PEAK HOUR INTERSECTION OPERATIONS**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Peak Hour</th>
<th>Without Project</th>
<th>With Project</th>
<th>With Project Plus Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Delay</td>
<td>LOS</td>
<td>Delay</td>
</tr>
<tr>
<td>17. Manthey Road/</td>
<td>AM</td>
<td>18</td>
<td>C</td>
<td>19</td>
</tr>
<tr>
<td>Mathews Road</td>
<td>PM</td>
<td>&gt; 50</td>
<td>F</td>
<td>&gt; 50</td>
</tr>
</tbody>
</table>

Bold = deficient operations; **Bold/italics = significant impact**


**Onsite Impacts and Mitigation Measures**

The following discusses onsite impacts and mitigation measures.

Impact 4.7.13. The proposed project site access would result in safety and operational deficiencies. This impact is considered potentially significant.

PM peak hour analysis of the project access locations shows that with the recommended lane configurations, all access locations would operate at acceptable service levels. In addition, emergency access and onsite circulation could also be improved.

**Mitigation Measures**

**Mitigation Measure 4.7.13.** The project applicant shall modify the site plan as described below.
1. **French Camp Road/Secondary Entrance** – The recommended lane configuration and turn pocket storage lengths for this intersection is shown on Figure 4.7-15a for the near-term and Figure 4.7-15b for the 2025 condition. Interconnecting and coordinating the traffic signal at this location to the French Camp Road/Realigned Manthey Road intersection is recommended.

2. **Right-in/right-out driveway on French Camp Road west of Manthey Road** – This driveway would serve a substantial amount of project traffic because it provides direct access to several uses including the proposed Wal-Mart building. The project applicant proposes to provide a right-turn lane on French Camp Road for vehicles using this driveway.

3. **French Camp Road/Realigned Manthey Road** – The recommended lane configuration and turn pocket storage lengths for this intersection is shown on Figure 4.7-15a for the near-term and Figure 4.7-15b for the 2025 condition. Interconnecting and coordinating the traffic signal at this location to the French Camp Road/Secondary Entrance intersection is recommended. The proposed design would allow for a southbound through lane to be converted to a left-turn lane, resulting in three left-turn lanes, and a through-right shared lane should future traffic volumes warrant a modified circulation scheme.

4. **Realigned Manthey Road/Driveway A** – This driveway is in close proximity (less than 300 feet) of the signalized French Camp Road/Realigned Manthey Road intersection. A northbound left-turn lane to provide access to the site is proposed. No left-turns from this driveway to Manthey Road would be permitted. A median would be constructed on Manthey Road to prevent outbound left-turn movements.

5. **Realigned Manthey Road/Driveway B** – This driveway is located approximately 400 feet from the signalized French Camp Road/Realigned Manthey Road intersection and would provide access to the eastern portion of site, currently proposed to contain approximately 90,000 square feet of retail uses. As currently proposed, this driveway would provide full access. A median refuge would be provided to facilitate left-turns from the driveway to Manthey Road.

6. **Realigned Manthey Road/Driveway C** – This driveway would be a heavily used driveway to the proposed Wal-Mart and would also provide access to the other major retailer. As such, it is anticipated that vehicle turning movements would be substantial at this location. Although peak hour volume warrant would be satisfied during the PM peak hour at this location in both the near-term and 2025 condition, a traffic signal is not recommended for installation at this intersection due to its close spacing with the (approximately 800 feet) the signalized French Camp Road/Manthey Road intersection and the proposed to be signalized intersection of Manthey Road/Vacated Henry Long Boulevard (approximately 400 feet). To accommodate projected vehicle queues from the parking areas, it is recommended that the east side of the intersection be reconfigured to provide stacking for at least 4 vehicles (100 feet), and that the west side be reconfigured to provide stacking for at least 6 vehicles (150 feet). Should the driveway be restricted to prevent left-turns from the parking area to Manthey Road, the stacking area on the east side could be reduced to 50 feet.

7. **Driveway D/Manthey Road Entrance** – This driveway is proposed to be right-in/right-out only. Although this driveway is in close proximity to Driveway C and the intersection Manthey Road/Vacated Henry Long Boulevard (west intersection), volumes through this intersection are projected to be low and it is projected to operate acceptably with minimal queuing.
8. **Realigned Manthey Road/Vacated Henry Long Boulevard (west intersection)** – The peak hour volume warrant is satisfied during the PM peak hour at this location with projected volumes during both the near-term and cumulative condition. With traffic signal installation, this intersection would operate at an acceptable service level in both the near-term and cumulative condition.

9. **Driveway F/Vacated Henry Long Boulevard** – It is recommended that the westbound approach be modified to provide a left-turn pocket. One westbound and one eastbound travel lanes should be provided on vacated Henry Long Boulevard.

10. **Driveway G/Vacated Henry Long Boulevard** – It is recommended that the eastbound approach be modified to provide a left-turn pocket. One westbound and one eastbound travel lanes should be provided on vacated Henry Long Boulevard.

11. **Manthey Road/Vacated Henry Long Boulevard (east intersection)** – With development of the I-5/French Camp Road interchange project, Manthey Road would be rerouted through the project site and would continue along a portion of the vacated Henry Long Boulevard. The resulting intersection would operate with southbound right-turns and eastbound left-turns only, with no conflicting movements.

12. **Manthey Road/Service Entrance 1** – This driveway should be restricted to right-in/right-out operation only and should be side-street stop controlled.

13. **Manthey Road/Project Driveway** – A northbound left-turn pocket should be provided into this driveway in addition to side-street stop control. Additionally, it should be designed to accommodate the turning movements of large delivery vehicles.

14. Consult with the City of Stockton fire department to ensure adequate emergency access.

15. Conduct a detailed review of the final site plan to ensure pedestrian crossings are provided and pedestrian paths are identified throughout the site.

16. Schedule large semi-truck deliveries for off-peak periods to minimize conflicts between delivery trucks and passenger vehicles.

17. Design project driveways and internal roadways to accommodate the turning movements of large delivery vehicles.

18. Provide sufficient bicycle parking designed to City standards to satisfy City code requirements.

19. Coordinate with SJRTD and City staff to identify the location of potential transit features and shall modify the site plan accordingly.

20. Designate Park and Ride parking locations adjacent to planned transit facilities.

**Impact Significance after Mitigation:** Implementation of this measure would reduce the impact to a less-than-significant level.
4.8 Air Quality

This section provides an overview of existing air quality in the proposed project area, the air quality regulatory framework to which the project is subject, and an analysis of potential air quality impacts that could result from the construction and operation of the Weston Ranch Towne Center.

4.8.1 Setting

This setting section provides an overview of the climate and topography in the project site area; existing air quality conditions in the project site area; and the air quality plans, policies, and regulations applicable to the project and its impacts.

Climate and Meteorology

The primary factors that determine air quality are the locations of air pollutant sources and the amounts of pollutants emitted. Meteorological and topographical conditions, however, also are important. Factors such as wind speed and direction, and air temperature gradients interact with physical landscape features to determine the movement and dispersal of criteria air pollutants.

The project lies within the San Joaquin Valley Air Basin (SJVAB), basically a flat area bordered on the east by the Sierra Nevada Mountains; on the west by the Coast Ranges; and to the south by the Tehachapi Mountains. Airflow in the SJVAB is primarily influenced by marine air that enters through the Carquinez Straits where the San Joaquin-Sacramento Delta empties into the San Francisco Bay (SJVAPCD, 2002a). The region’s topographic features restrict air movement through and out of the basin. As a result, the SJVAB is highly susceptible to pollutant accumulation over time (SJVAPCD, 2002a). Frequent transport of pollutants into the SJVAB from upwind sources also contributes to poor air quality.

Wind speed and direction play an important role in dispersion and transport of air pollutants. During summer periods, winds usually originate from the north end of the San Joaquin Valley and flow in a south-southeasterly direction through the valley, through the Tehachapi pass and into the neighboring Southeast Desert Air Basin. During winter months, winds occasionally originate from the south end of the valley and flow in a north-northwesterly direction. Also, during winter months, the valley experiences light, variable winds, less than 10 miles per hour (mph). Low wind speeds, combined with low inversion layers in the winter, create a climate conducive to high concentrations of certain air pollutants.

The SJVAB has an inland Mediterranean climate that is characterized by warm, dry summers and cooler winters. Summer high temperatures often exceed 100 degrees Fahrenheit (°F), averaging from the low 90s in the northern part of the valley to the high 90s in the south. The daily summer temperature variation can be as high as 30 degrees °F. Winters are for the most part mild and humid. Average high temperatures during the winter are in the 50s, while the average daily low temperature is approximately 45 degrees °F.
The vertical dispersion of air pollutants in the valley is limited by the presence of persistent temperature inversions. Air temperatures usually decrease with an increase in altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. Air above and below an inversion does not mix because of differences in air density thereby restricting air pollutant dispersal.

**Existing Conditions**

The SJVAPCD’s regional air quality monitoring network provides information on existing ambient concentrations of criteria air pollutants. Monitored ambient air pollutant concentrations reflect the number and strength of emissions sources and the influence of topographical and meteorological factors. Table 4.8-1 presents a five-year summary of air pollutant (concentration) data collected at the three monitoring stations in the vicinity of the project area on Hazelton Street, East Mariposa Road, and at the Wagner-Holt School in Stockton. The Hazelton Street station measures concentrations of all air pollutants, including the two for which the SJVAB remains “nonattainment”, ozone, PM10, and PM2.5. The East Mariposa Road Station measures ozone concentrations only. The Wagner-Holt School Station measures PM10 concentrations only. Pollutant concentrations measured at these stations should be representative of background air pollutant concentrations at the project site. In Table 4.8-1, these measured air pollutant concentrations are compared with state and national ambient air quality standard.

**Stationary Source Controls**

Local air pollution control districts, such as the SJVAPCD, develop plans and implement control measures in their areas. These controls primarily affect stationary sources such as factories and plants. The SJVAPCD’s primary means of implementing air quality plans is by adopting rules and regulations. The SJVAPCD rulebook contains more than 130 rules and more are scheduled for rule development over the next few years. The SJVAPCD rules limit emissions of both criteria air pollutants and toxic air pollutants from stationary sources. The SJVAPCD limits emissions of and public exposure to toxic air contaminants through a number of programs. The potential for new and modified stationary sources to emit toxic air contaminants is reviewed by the SJVAPCD’s Permit Services Division, which implements the SJVAPCD’s Risk Management Policy. Toxic air contaminant emissions from stationary sources are limited by:

- SJVAPCD adoption and enforcement of rules aimed at specific types of sources known to emit high levels of toxic air contaminants;
- Implementation of the Air Toxics “Hot Spots” Program; and
- Implementation of the Federal Title III Toxics program.

**Mobile Source Controls**

The approach to regulation of toxic air contaminants from mobile sources has been through establishment (by U.S. EPA and ARB) of emissions standards for motor vehicles (imposed on vehicle manufacturers) and through specifications for gasoline and diesel fuel sold in California (imposed on fuel refineries and retailers), rather than through air quality permits or regulations on how motor vehicles are used by the general public.
### TABLE 4.8-1
SUMMARY OF MONITORING DATA FOR THE PROJECT AREA, 2001–2005

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>State Standard</th>
<th>National Standard</th>
<th>Pollutant Concentration by Year *</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>2001</td>
</tr>
<tr>
<td><strong>Ozone (Hazelton Street)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 1-hour average, ppm</td>
<td>0.09</td>
<td>NA</td>
<td>0.103</td>
</tr>
<tr>
<td>Days over State Standard</td>
<td>5</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Days over National Standard</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Highest 8-hour average, ppm</td>
<td>0.07</td>
<td>0.08</td>
<td>0.088</td>
</tr>
<tr>
<td>Days over National Standard</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Ozone (E Mariposa Road)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 1-hour average, ppm</td>
<td>0.09</td>
<td>NA</td>
<td>0.106</td>
</tr>
<tr>
<td>Days over State Standard</td>
<td>5</td>
<td>5</td>
<td>NA</td>
</tr>
<tr>
<td>Days over National Standard</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td>Highest 8-hour average, ppm</td>
<td>0.07</td>
<td>0.08</td>
<td>0.092</td>
</tr>
<tr>
<td>Days over National Standard</td>
<td>1</td>
<td>1</td>
<td>NA</td>
</tr>
<tr>
<td><strong>PM10 (Hazelton Street)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 24-hour average, μg/m³</td>
<td>50</td>
<td>150</td>
<td>147.0</td>
</tr>
<tr>
<td>Est. Days over State Standard</td>
<td>64</td>
<td>58</td>
<td>17</td>
</tr>
<tr>
<td>Est. Days over National Standard</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Annual average, μg/m³</td>
<td>20</td>
<td>50</td>
<td>36.6</td>
</tr>
<tr>
<td><strong>PM10 (Wagner-Holt School)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 24-hour average, μg/m³</td>
<td>50</td>
<td>150</td>
<td>128.0</td>
</tr>
<tr>
<td>Est. Days over State Standard</td>
<td>NA</td>
<td>39</td>
<td>20</td>
</tr>
<tr>
<td>Est. Days over National Standard</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Annual average, μg/m³</td>
<td>20</td>
<td>50</td>
<td>NA</td>
</tr>
<tr>
<td><strong>PM2.5 (Hazelton Street)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 24-hour average, μg/m³</td>
<td>NA</td>
<td>65</td>
<td>76.0</td>
</tr>
<tr>
<td>Days over National Standard</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Annual average, μg/m³</td>
<td>12</td>
<td>15</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Carbon Monoxide (Hazelton Street)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest 8-hour average, ppm</td>
<td>9.0</td>
<td>9</td>
<td>6.0</td>
</tr>
<tr>
<td>Days over Standard</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**NOTE:** Bold values are in excess of applicable standard. NA = Not Applicable or Not Available.

- a Data was collected at the Hazelton Street monitoring station unless otherwise noted. The E Mariposa Road station monitors for ozone only.
- b ppm = parts per million; μg/m³ = micrograms per cubic meter.
- c This concentration was approved by the Air Resources Board on April 28, 2005 and became effective May 17, 2006.

**Sensitive Receptors**

Land uses such as schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because infants and children, the elderly, and people with health afflictions, especially respiratory ailments, are more susceptible to respiratory infections and other air-quality-related health problems than the general public. Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Sensitive receptors in the vicinity of the project include the existing residential communities to the west of the project site (along Sydney Lane, Brittanyann Lane, Riley Ford Lane, Blake Circle, and McDougald Boulevard), the Great Valley Elementary School located at 4223 McDougald Boulevard, and an existing residential neighborhood to the north of the project site along William Moss Boulevard. In addition to the existing sensitive receptors, there is a planned residential community to the west of the project site, vacant parcels zoned for General Business and Single Family Residential to the east of the project site (between Manthey Road and Interstate-5), and an adjacent vacant parcel zoned for residential uses to the north of the project site.

**Regulatory Setting**

Regulation of air pollution is achieved through both national and state ambient air quality standards and through emissions limits on individual sources of air pollutants. Local Air Quality Management Districts (AQMD’s) and Air Pollution Control Districts (APCD’s) are responsible for demonstrating attainment with state air quality standards through the adoption and enforcement of Attainment Plans.

**Federal**

The Federal Clean Air Act (FCAA) requires the U.S. Environmental Protection Agency (U.S. EPA) to identify National Ambient Air Quality Standards (NAAQS) (national standards) to protect public health and welfare. National standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, respirable particulate matter (PM10 and PM2.5), and lead. These pollutants are called “criteria” air pollutants because standards have been established for each of them to meet specific public health and welfare criteria set forth in the FCAA. California has adopted more stringent ambient air quality standards for the criteria air pollutants (referred to as State Ambient Air Quality Standards, or state standards) and has adopted air quality standards for some pollutants for which there is no corresponding national standard. Table 4.8-2 presents current national and state ambient air quality standards and provides a brief discussion of the related health effects and principal sources for each pollutant.

Ambient air quality standards are periodically reviewed in light of the results of ongoing research. In June of 1997, U.S. EPA reaffirmed the national PM10 standard, established a new standard for “fine” particulate matter (PM2.5), and changed the 1-hour ozone national standard of 0.12 to an 8-hour standard of 0.08 ppm. The 1-hour ozone standard continues to apply in areas that violated that standard before the 8-hour standard was adopted.
### TABLE 4.8-2
**STATE AND NATIONAL CRITERIA AIR POLLUTANT STANDARDS, EFFECTS, AND SOURCES**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Averaging Time</th>
<th>State Standard</th>
<th>National Standard</th>
<th>Pollutant Health and Atmospheric Effects</th>
<th>Major Pollutant Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone</td>
<td>1 hour</td>
<td>0.09 ppm</td>
<td>---</td>
<td>High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.</td>
<td>Formed when reactive organic gases (ROG) and nitrogen oxides (NOx) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.</td>
</tr>
<tr>
<td></td>
<td>8 hours</td>
<td>0.07 ppm(^1)</td>
<td>0.08 ppm</td>
<td></td>
<td>Internal combustion engines, primarily gasoline-powered motor vehicles.</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>1 hour</td>
<td>20 ppm</td>
<td>35 ppm</td>
<td>Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 hours</td>
<td>9.0 ppm</td>
<td>9 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>1 hour</td>
<td>0.25 ppm</td>
<td>---</td>
<td>Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.</td>
<td>Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.</td>
</tr>
<tr>
<td></td>
<td>Annual Avg.</td>
<td>0.25 ppm</td>
<td>0.053 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>1 hour</td>
<td>0.25 ppm</td>
<td>---</td>
<td>Irritates upper respiratory tract, injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.</td>
<td>Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.</td>
</tr>
<tr>
<td></td>
<td>3 hours</td>
<td>---</td>
<td>0.5 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 hours</td>
<td>0.04 ppm</td>
<td>0.14 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual Avg.</td>
<td>---</td>
<td>0.03 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respirable Particulate Matter (PM-10)</td>
<td>24 hours</td>
<td>50 μg/m(^3)</td>
<td>150 μg/m(^3)</td>
<td>May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.</td>
<td>Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).</td>
</tr>
<tr>
<td></td>
<td>Annual Avg.</td>
<td>20 μg/m(^3)</td>
<td>50 μg/m(^3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine Particulate Matter (PM-2.5)</td>
<td>24 hours</td>
<td>---</td>
<td>65 μg/m(^3)</td>
<td>Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.</td>
<td>Fuel combustion in motor vehicles, equipment, and industrial sources: residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.</td>
</tr>
<tr>
<td></td>
<td>Annual Avg.</td>
<td>12 μg/m(^3)</td>
<td>15 μg/m(^3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td>Monthly Ave.</td>
<td>1.5 μg/m(^3)</td>
<td>---</td>
<td>Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurologic dysfunction.</td>
<td>Present source: lead smelters, battery manufacturing &amp; recycling facilities. Past source: combustion of leaded gasoline.</td>
</tr>
<tr>
<td></td>
<td>Quarterly</td>
<td>---</td>
<td>1.5 μg/m(^3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** ppm = parts per million; μg/m\(^3\) = micrograms per cubic meter.

\(^1\) This concentration was approved by the Air Resources Board on April 28, 2005 and became effective May 17, 2006.

Pursuant to the 1990 Federal Clean Air Act Amendments (FCAA), the U.S. EPA classifies air basins (or portions thereof) as “attainment” or “nonattainment” for each criteria air pollutant, based on whether or not the NAAQS had been achieved. Table 4.8-3 shows the current attainment status of the project area. In summary, the area is nonattainment for state and federal ozone, PM10, and PM2.5 standards.

The FCAA required each state to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The FCAA added requirements for states containing areas that violate the NAAQS to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The U.S. EPA has responsibility to review all state SIPs to determine if they conform to the mandates of the FCAA and will achieve air quality goals when implemented. If the U.S. EPA determines a SIP to be inadequate, it may prepare a Federal Implementation Plan (FIP) for the nonattainment area and may impose additional control measures. Failure to submit an approvable SIP or to implement the plan within mandated timeframes can result in sanctions being applied to transportation funding and stationary air pollution sources in the air basin.

Regulation of Toxic Air Contaminants (TACs), termed Hazardous Air Pollutants (HAPs) under federal regulations, is achieved through federal, State and local controls on individual sources. The SJVAPCD regulates toxic air contaminants in District Policies 1905 and 1910, and in regulation VII. The district recognizes all TAC’s as defined by the State. The district recognizes federal Maximum Achievable Control Technology (MACT) standards for HAP’s in District Rule 4002. The 1977 Clean Air Act Amendments required the U.S. EPA to identify National Emission
Standards for Hazardous Air Pollutants (NESHAPs) to protect public health and welfare. These substances include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Although these studies indicate tangible health hazards to humans and other animals, the magnitudes of the hazards are unknown.

**State**

The California Air Resources Board (CARB) manages air quality, regulates mobile emissions sources, and oversees the activities of county and regional Air Pollution Control Districts and Air Quality Management Districts. CARB regulates local air quality indirectly by establishing state ambient air quality standards and vehicle emissions and fuel standards, and by conducting research, planning, and coordinating activities.

California has adopted ambient standards that are more stringent than the federal standards for some criteria air pollutants (e.g., PM10, daily and annual average standards), the California Ambient Air Quality Standards (CAAQS), pursuant to California Health and Safety Code (CH&SC) [39606(b)]. In July 2003, new annual standards adopted by CARB for PM10 and PM2.5 took effect. The annual PM10 standard was revised from 30 to 20 micrograms per cubic meter (µg/m³), and the annual PM2.5 standard was revised from 15 to 12 µg/m³. The state standards are shown in Table 4.8-1.

Under the California Clean Air Act (CCAA), patterned after the FCAA, areas have been designated as attainment or nonattainment with respect to the state standards (see Table 4.8-3). The project area is nonattainment for particulates (PM10 and PM2.5) and ozone. The state must verify compliance with the District’s plan for achieving attainment before inclusion in the SIP. Once the SIP is complete, EPA must verify the SIP’s compliance with the FCAA. If EPA determines the SIP to be inadequate in verifying compliance, EPA may prepare a FIP, as described earlier in this section.

California State law defines toxic air contaminants (TACs) as air pollutants having carcinogenic effects. The State Air Toxics Program was established in 1983 under Assembly Bill (AB) 1807 (Tanner). A total of 243 substances have been designated TACs under California law; they include the 189 (federal) hazardous air pollutants (HAP’s) adopted in accordance with AB 2728. The Air Toxics “Hot Spots” Information and Assessment Act of 1987 (AB 2588) seeks to identify and evaluate risk from air toxics sources; AB 2588 does not regulate air toxics emissions. Toxic air contaminant emissions from individual facilities are quantified and prioritized. “High-priority” facilities are required to perform a health risk assessment and, if specific thresholds are violated, are required to communicate the results to the public in the form of notices and public meetings. Depending on the risk levels, emitting facilities are required to implement varying levels of risk reduction measures. SJVAPCD implements AB 2588, and is responsible for prioritizing facilities that emit air toxics (SJVAPCD, 2002c).

In August of 1998, CARB identified particulate emissions from diesel-fueled engines (diesel particulate matter, or DPM) as TACs. CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles and the Risk
Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines. The Board approved these documents on September 28, 2000 (CARB 2000). The documents represent proposals to reduce diesel particulate emissions, with the goal to reduce emissions and the associated health risk by 75 percent in 2010 and by 85 percent in 2020. The program aims to require the use of state-of-the-art catalyzed diesel particulate filters and ultra low sulfur diesel fuel on diesel-fueled engines.

CARB recently published the Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005). The primary goal in developing the handbook was to provide information that will help keep California’s children and other vulnerable populations out of harm’s way with respect to nearby sources of air pollution. The handbook highlights recent studies that have shown that public exposure to air pollution can be substantially elevated near freeways and certain other facilities. However, the health risk is greatly reduced with distance. For that reason, CARB provided some general recommendations aimed at keeping appropriate distances between sources of air pollution and sensitive land uses, such as residences.

Local
The SJVAPCD is the primary local agency responsible for protecting human health and property from the harmful effects of air pollution in the San Joaquin Valley Air Basin, and has jurisdiction over most stationary source air quality matters in the SJVAB, including the NSPS program. The SJVAPCD includes all of Merced, San Joaquin, Stanislaus, Madera, Fresno, Kings and Tulare counties, and the Valley portion of Kern County.

The SJVAPCD is responsible for developing attainment plans for the SJVAB, for inclusion in California’s SIP, as well as establishing and enforcing air pollution control rules and regulations. The attainment plans must demonstrate compliance with federal and state ambient air quality standards, and must first be approved by CARB before inclusion into the SIP. The SJVAPCD regulates, permits, and inspects stationary sources of air pollution. Among these sources are industrial facilities, gasoline stations, auto body shops, MSW landfills and dry cleaners to name a few. While the state is responsible for emission standards and controlling actual tailpipe emissions from motor vehicles, the SJVAPCD is required to regulate emissions associated with stationary sources such as agricultural burning and industrial operations. The SJVAPCD also works with eight local transportation planning agencies to implement transportation control measures, and to recommend mitigation measures for new growth and development designed to reduce the number of cars on the road. The SJVAPCD promotes the use of cleaner fuels, and funds a number of public and private agency projects that provide innovative approaches to reducing air pollution from motor vehicles.

The project site is located in the City of Stockton on the geographic boundary between the San Joaquin and Sacramento Valleys, a sub-region within the SJVAB. The SJVAB is designated severe nonattainment for the federal 1-hour ozone standard and serious nonattainment for the federal PM10 standard. In April of 2004, the EPA approved the District’s appeal to downgrade its federal 1-hour ozone non-attainment status from “Severe” to “Extreme.” While all criteria pollutants are a concern of the SJVAPCD, and a project’s air quality impacts are considered significant if they would violate any of the state air quality standards. Ozone precursors, PM10 emissions and toxic air
contaminants are emphasized in the review of applications for an Authority to Construct / Permit to Operate. Federal and state air quality laws also require regions designated as nonattainment to prepare plans that either demonstrate how the region will attain the standard or that demonstrate reasonable improvement in air quality conditions. As noted, the SJVAPCD is responsible for developing attainment plans for the SJVAB for inclusion in California’s SIP.

The following are the air quality plans with current or recent application to the SJVAB:

- **1998 Carbon Monoxide State Implementation Plan (SIP).** With the U.S. EPA’s redesignation of 10 urban areas in California (including four urban areas in the SJVAB) from nonattainment to attainment for carbon monoxide in 1998, the South Coast Air Basin is the only basin in the state currently considered nonattainment for this pollutant. The 1998 Carbon Monoxide SIP revision modifies the carbon monoxide maintenance plan for the 10 areas, including the urban areas of the SJVAB.

- **The Federal Ozone Attainment Demonstration Plan, (adopted November 14, 1994 and amended 2001).** This plan established a regulatory framework to bring the SJVAB into compliance with the national standards for ozone and satisfied a required triennial review for state standards. This plan did not achieve its goal of meeting the national standards for ozone by 1999 (SJVAPCD, 1994).

- **2000 Ozone Rate of Progress Report, (adopted April 20, 2000 and amended April 27, 2000).** This report demonstrates that target levels of emissions reductions mandated by the CAA for 1997 to 1999 (9 percent) and for 1990 to 1999 (24 percent) were achieved (SJVAPCD, 2000).

- **Triennial Progress Report and Plan Revisions 1997–1999.** This report states that all areas of the SJVAB have attained the state carbon monoxide standard and focuses on attainment of the state ozone standard, in light of the basin’s “severe nonattainment” status under the state Health and Safety Code. The report reviews previously adopted and implemented Best Available Retrofit Control Technology (BARCT) measures and includes an adoption and implementation schedule for new measures to achieve additional emission reductions. Planned measures include new controls on stationary, mobile, and indirect sources, and plan revisions. This report was adopted March 15, 2001 (SJVAPCD, 2001a).

- **2001 Amendment to the 1994 Ozone Attainment Demonstration Plan.** These amendments to the 1994 OADP commit the SJVAPCD to revise, add or delete various Regulation IV rules pertaining to the use and storage of coatings and solvents and specific stationary sources (SJVAPCD, 2001b).

- **2002 and 2005 Ozone Rate of Progress Plan, (adopted May 16, 2002).** In December 2001 U.S. EPA reclassified the SJVAB from serious to severe nonattainment for the national 1-hour ozone standard. The severe classification triggered a requirement for the SJVAPCD to prepare plans that demonstrate annual reductions of ozone precursors and attainment of the standard by 2005. The district determined that it could not reach attainment in 2005. This plan demonstrates rates of progress in emissions reductions in volatile organic compounds at the mandated average rate of 3 percent per year, based on three-year periods (i.e., 9 percent between 2000 and 2002 and an additional 9 percent between 2003 and 2005). The plan also satisfies the requirement of the CAA that nonattainment areas adopt all reasonably available control measures (RACM) as expeditiously as possible.
• **2003 PM10 Plan: San Joaquin Valley Plan to Attain Federal Standards for Particulate Matter 10 Microns and Smaller.** This plan was adopted by the SJVAPCD Governing Board June 19, 2003 and submitted to CARB, which also has approved it and submitted it to U.S.EPA. U.S. EPA approved the plan as amended on May 26, 2004 effective June 26, 2004. The 2003 PM10 plan demonstrates attainment of the national PM10 standard at all monitoring stations within the air basin by 2010. It supersedes the district’s previous plan, the 1997 PM10 Attainment Demonstration Plan, which failed to meet the national standard by the 2001 target date and was withdrawn by the Air District.

• **PM10 Attainment Demonstration Plan Progress Report 1997-1990.** August 17, 2000. This report describes progress achieved by the SJVAPCD implementing the 1997 PM10 plan, including actions pertaining to stationary, area and mobile sources, research programs and revisions to Regulation VIII (Fugitive PM10 Prohibitions) that were then in progress.

The SJVAPCD’s primary means of implementing the above air quality plans is by adopting and enforcing rules and regulations. Stationary sources within the jurisdiction are regulated by the District’s permit authority over such sources and through its review and planning activities. In 2001, the SJVAPCD revised its Regulation VIII-Fugitive PM Prohibitions, in response to commitments made in the 1997 PM10 Attainment Plan to incorporate best available control measures (BACM). The revision also includes new rules for open areas and agricultural operations. The provisions of the revised regulation took effect in May 2002. Regulation VIII consists of a series of dust control rules intended to implement the PM10 Attainment Demonstration Plan. The PM10 Attainment Demonstration Plan emphasizes reducing fugitive dust as a means of achieving attainment of the federal standards for PM10.

The SJVAPCD submitted a comment letter in response to the Notice of Preparation on this project identifying District Rules that may apply to the project (SJVAPCD 2005). These are as follows:

• **District Rule 2201 (New and Modified Stationary Source Review Rule).** This rule applies to all new stationary sources and all modifications of existing stationary sources that are subject to the District permit requirements and after construction emit or may emit one or more affected pollutants.

• **District Rule 4002 (National Emission Standards for Hazardous Air Pollutants).** Prior to any demolition activity, an asbestos survey of existing structures on the project site may be required to identify the presence of any asbestos containing building materials (ACBM). Any identified ACBM having the potential for disturbance must be removed by a certified asbestos-contractor in accordance with CAL-OSHA requirements.

• **District Regulation VIII (Fugitive PM10 Prohibitions).** Regulation VIII (Rules 8011-8081) is a series of rules designed to reduce PM10 emissions (predominantly dust/dirt) generated by human activity, including construction, road construction, bulk materials storage, landfill operations, etc. The Dust Control Plan threshold has changed from 40.0 acres to 5.0 or more acres for non-residential sites. If a non-residential site is 1.0 acre to less than 5.0 acres, an owner/operator must provide written notification to the District at least 48 hours prior to his/her intent to
begin any earthmoving activities. If a residential site is 1.0 acre to less than 10.0 acres, an owner/operator must provide written notification to the District at least 48 hours prior to his/her intent to begin any earthmoving activities.

Regulation VIII specifically addresses the following activities:

- Rule 8011: General Requirements;
- Rule 8021: Construction, Demolition, Excavation, Extraction and other Earthmoving Activities;
- Rule 8031: Bulk Materials;
- Rule 8041: Carryout and Trackout;
- Rule 8051: Open Areas;
- Rule 8061: Paved and Unpaved Roads; and

- **District Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).** If asphalt paving will be used, then paving operations on this project will be subject to Rule 4841. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt, and emulsified asphalt for paving and maintenance operations.

- **District Rule 4102 (Nuisance).** This rule applies to any source operation that emits or may emit air contaminants or other materials. In the event that the project or construction of the project creates a public nuisance, it could be in violation and subject to District enforcement action.

Also, in addition to these above-described rules, District Rule 9510 Indirect Source Review (ISR) was adopted December 15, 2005. ISR was adopted to fulfill the District’s emission reduction commitments in the PM10 and Ozone Attainment Plans. ISR requires submittal of an Air Impact Assessment (AIA) application no later than the date on which application is made for a final discretionary approval from the public agency. The AIA will be the information necessary to calculate both construction and operational emissions of a development project. The project qualifies as a development project under Rule 9510 because it contains more than 2,000 feet of commercial space. Section 6.0 of the Rule outlines general mitigation requirements for developments that include reduction in construction emissions of 20% of the total construction NOx emissions, and 45% of the total construction PM10 exhaust emissions. Section 6.0 of the Rule also requires the project to reduce operational NOx emissions by 33.3% and operational PM10 emissions by 50%. Section 7.0 of the Rule includes fee schedules for construction or operational excess emissions of NOx or PM10; those emissions above the goals identified in Section 6.0 of the Rule. Section 7.2 of the Rule identifies fees for excess emissions that are $9,350/ton for NOx emissions after the year 2008, and $9,011/ton for PM10 emissions after the year 2008.
City of Stockton
The City of Stockton General Plan Conservation Element contains goals and policies that encourage emission reduction strategies from mobile, stationary, and area sources that comply with state and federal standards. These goals and policies are provided below:

Conservation
Goal 3. Achieve and maintain levels of air quality that comply with state and federal standards.

Policies 1. Consider the cumulative air quality impacts from development and land use regulations to reduce air pollution.

2. The expansion and improvement of public transportation services and facilities shall be promoted for its air quality benefits.

3. Cooperate with the State Air Resource Board, the County Air Pollution Control District, and other agencies in formulating and monitoring strategies and tactics to reduce air pollution emissions.

Goal 5. Actively contribute to the solution of local and regional air quality problems.

Policies 1. Cooperate with other local and regional and State agencies in developing and implementing air quality plans to achieve State and Federal Ambient Air Quality standards.

2. Review proposed development for local and regional air quality impacts.

3. Assist project applicants in understanding and meeting the air quality mitigation requirements established by the San Joaquin County Air Pollution Control District.

4. Coordinate City Transportation System Management programs with county-wide programs developed by the San Joaquin County Council of Governments and the San Joaquin County Air Pollution Control District.

5. Coordinate City Transportation System Management programs with private transportation management agency programs being developed by the Building Industry Association and the Chamber of Commerce. (City of Stockton Planning Department, 1990)

Pollutants Affecting Air Quality/Health Effects
A discussion of the air pollutants of interest to the regulatory agencies for their potential adverse impacts on the environment and sensitive receptors are described below.

Ozone
Short-term exposure to ozone can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, ozone can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.
Ozone, the main component of photochemical smog, is primarily a summer and fall pollution problem. Ozone is not emitted directly into the air but is formed through a complex series of chemical reactions involving other compounds that are directly emitted. These directly emitted pollutants (also known as ozone precursors) include reactive organic gases (ROG) and nitrogen oxides (NOx). The time period required for ozone formation allows the reacting compounds to spread over a large area, producing a regional pollution problem. Ozone problems are the cumulative result of regional development patterns rather than the result of a few significant emission sources. Mobile sources are the major source of ozone precursor emissions within the northern region of the SJVAB (SJVAPCD, 2003b).

Once formed, ozone remains in the atmosphere for one or two days. Ozone is then eliminated through reaction with chemicals on the leaves of plants, attachment to water droplets as they fall to earth (“rainout”) and absorption by water molecules in clouds that later fall to earth with rain (“washout”).

**Carbon Monoxide**

Ambient carbon monoxide concentrations normally are considered a local effect and typically correspond closely to the spatial and temporal distributions of vehicular traffic. Wind speed and atmospheric mixing also influence carbon monoxide concentrations. Under inversion conditions, carbon monoxide concentrations may be distributed more uniformly over an area that may extend some distance from vehicular sources.

When inhaled at high concentrations, carbon monoxide combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia, as well as for fetuses.

Carbon monoxide concentrations have declined dramatically in California due to existing controls and programs. Carbon monoxide concentrations are expected to continue declining due to the ongoing retirement of older, more polluting vehicles from the mix of vehicles on the road network. U.S. EPA designated the SJVAB as attainment for carbon monoxide in 1998. Although the SJVAPCD has been successful in achieving CO standards, localized CO concentrations may warrant concern (SJVAPCD, 2002a).

**Respirable Particulate Matter (PM10 and PM2.5)**

PM10 and PM2.5 consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. (A micron is one-millionth of a meter). PM10 and PM2.5 represent fractions of particulate matter that can be inhaled into the air passages and the lungs and can cause adverse health effects. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis and respiratory illnesses in children. Recent mortality studies have shown a direct association between mortality and daily concentrations of particulate matter in the air. Particulates can also damage materials and reduce visibility. One common source of PM2.5 is diesel particulate emissions.
Traffic generates particulate matter and PM10 emissions through entrainment of dust and dirt particles that settle onto roadways and parking lots. PM10 also is emitted by burning wood in residential wood stoves and fireplaces and open agricultural burning. PM10 can remain in the atmosphere for up to seven days before gravitational settling, rainout and washout remove it. The primary classes of PM10 sources in the SJVAPCD include geological material, ammonium nitrate, burning, motor vehicle exhaust, and sulfates. Geological material is the largest contributor annually, while ammonium nitrate constitutes the largest fraction during winter (SJVAPCD, 2003a).

**Other Criteria Pollutants**

Ozone and particulate matter are the primary focus of this analysis due to the nonattainment status of the air basin for these pollutants. The standards for nitrogen dioxide (NO2), sulfur dioxide (SO2), sulfates, and lead are being met in the SJVAB (CARB, 2003a). However, NO2 is an ozone precursor and thus contributes to the formation of a nonattainment criteria pollutant. Sources and effects of NO2 are discussed below.

NO2 is a reddish brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO2. Aside from its contribution to ozone formation, nitrogen dioxide can increase the risk of acute and chronic respiratory disease and reduce visibility. NO2 may be visible as a coloring component of a brown cloud on high pollution days, especially in conjunction with high ozone levels.

**Toxic Air Contaminants (TACS)**

Non-criteria air pollutants or TACs are airborne substances that are capable of causing short-term (acute) and/or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. They may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. The current California list of TACs includes approximately 200 compounds, including particulate emissions from diesel-fueled engines.

Diesel particulate matter (DPM) is the most complex of diesel emissions. Diesel particulates, as defined by most emission standards, are sampled from diluted and cooled exhaust gases. This definition includes both solids and liquid material that condenses during the dilution process. The basic fractions of DPM are elemental carbon, heavy hydrocarbons derived from the fuel and lubricating oil and hydrated sulfuric acid derived from the fuel sulfur. DPM contains a large portion of the polycyclic aromatic hydrocarbons (PAH) found in diesel exhaust. Diesel particulates include small nuclei mode particles of diameters below 0.04µm and their agglomerates of diameters up to 1µm. Ambient exposures to diesel particulates in California are significant fractions of total TAC levels in the State.

**Odorous Emissions**

Because offensive odors rarely cause any physical harm and no requirements for their control are included in state or national air quality regulations, the SJVAPCD has no rules or standards related to odor emissions, other than its nuisance rule. Any actions related to odors are based on citizen complaints to local government agencies including the SJVAPCD. The SJVAPCD uses screening distances to determine the potential for odor impacts from various land uses.
4.8.2 Impacts and Mitigation Measures

Significance Criteria

According to Appendix G of the CEQA Guidelines and the professional judgment of City staff and consultants, a project may be deemed to have a significant effect on the environment if it would:

- Conflict with or obstruct implementation of the applicable air quality plan(s);
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

The following analysis discusses the first four criteria; the fifth is not discussed, as the project would not involve development of the types of land uses typically associated with odor issues.1

Consistent with CEQA Guidelines Appendix G, the SJVAPCD has established thresholds of significance that may be relied upon in assessing construction impacts, project operations and cumulative impacts.

For construction impacts, the pollutant of greatest concern to the District is PM10.2 The SJVAPCD recommends that significance be based on a consideration of the control measures to be implemented during project construction (SJVAPCD, 2002b). Compliance with Regulation VIII, Rule 8011, and implementation of appropriate mitigation measures to control respirable particulate matter (PM10) emissions are considered by the SJVAPCD to be sufficient to render a project’s construction-related impacts less than significant. The SJVAPCD Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) contains a list of feasible control measures for construction-related PM10 emissions.

The SJVAPCD’s GAMAQI also includes significance criteria for evaluating operational-phase emissions from direct and indirect sources associated with a project. Indirect sources include motor vehicle traffic resulting from the project and do not include stationary sources covered under permit with the SJVAPCD. For this analysis, the project would be considered to have a significant effect on the environment if it would exceed the following thresholds:

1 Restaurants are not among the land uses identified by the SJVAPCD as generating odor complaints.
2 Construction equipment emits carbon monoxide and ozone precursors. The SJVAPCD has determined that these emissions would cause a significant air quality impact only in the case of a very large or very intense construction project (SJVAPCD, 2002b).
• Cause a net increase in pollutant emissions of reactive organic gases (ROG) or NOx exceeding 10 tons per year.

• Cause a violation of state CO concentration standards. The level of significance of CO emissions from mobile sources is determined by modeling the ambient concentration under project conditions and comparing the resultant 1- and 8-hour concentrations to the respective state CO standards of 20.0 and 9.0 parts per million.

• Cause “visible dust emissions” due to onsite operations and thereby violate SJVAPCD Regulation VIII.3

Stationary sources that comply, or that would comply, with SJVAPCD Rules and Regulations are generally not considered to have a significant air quality impact.

The operation of any project with the potential to expose sensitive receptors to substantial levels of toxic air contaminants would be deemed to have a potentially significant impact. More specifically, proposed development projects that have the potential to expose the public to toxic air contaminants in excess of the following thresholds would be considered to have a significant air quality impact:

• Probability of contracting cancer for the Maximally Exposed Individual4 (MEI) exceeds 10 in one million.

• Ground-level concentrations of non-carcinogenic toxic air contaminants would result in a Hazard Index greater than 1 for the MEI.

Lastly, any project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. Impacts of local pollutants (e.g., CO and toxic air contaminants) are cumulatively significant when modeling shows that the combined emissions from the project and other existing and planned projects in the area will exceed air quality standards.

**Impacts**

**Impact 4.8.1.** Construction activities associated with development of the project would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter (PM10) and equipment exhaust emissions. This impact would be significant.

Construction related emissions arise from a variety of activities including (1) grading, excavation, road building, and other earth moving activities; (2) travel by construction equipment and employee vehicles, especially on unpaved surfaces; (3) exhaust from construction equipment; (4) architectural coatings; and (5) asphalt paving.

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3 Visible dust is defined by the SJVAPCD as “visible dust of such opacity as to obscure an observer’s view to a degree equal to or greater than an opacity of 40 percent, for a period or periods aggregating more than three minutes in any one hour.”

4 MEI represents the worst-case risk estimate based on a theoretical person continuously exposed for 70 years at the point of highest compound concentration in air.
PM10 emissions from construction would vary greatly from day to day depending on the level of activity, the equipment being operated, silt content of the soil, and the prevailing weather. Larger-diameter dust particles (i.e., greater than 30 microns) generally fall out of the atmosphere within several hundred feet of construction sites, and represent more of a soiling nuisance than a health hazard. Smaller-diameter particles (e.g., PM10) are associated with adverse health effects and generally remain airborne until removed from the atmosphere by moisture. Therefore, unmitigated construction dust emissions could result in significant local effects. The SJVAPCD recommends that determination of significance with respect to construction impacts be based not on quantification of emissions and comparison to thresholds (SJVAPCD, 2002b), but upon inclusion of feasible control measures for PM10 and compliance with Regulation VIII, Rule 8011, of the District’s Rules and Regulations.

For all construction projects, implementation of all Regulation VIII fugitive dust control measures are required by law. Based on the size of the construction area and proximity to receptors, additional measures may be required, as described below. Implementation of the Regulation VIII fugitive dust control measures and all additional feasible measures would reduce construction PM10 emissions associated with the project to a less than significant level, based on the short-term exposure of any single sensitive receptor to residual fugitive dust emissions.

Construction equipment and construction-worker commute vehicles would also generate criteria air pollutant emissions. These emissions would be relatively major although temporary. Criteria pollutant emissions of ROG and NOx from these emissions sources would incrementally add to regional atmospheric loading of ozone precursors during the construction period. The SJVAPCD recognizes that construction equipment emits ozone precursors, but indicates that such emissions are not considered to be significant unless the project construction is very large or very intense. Construction emissions have been estimated for the project, as recommended by the SJVAPCD, and are depicted in Table 4.8-4.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Significance Threshold (Tons per Year)</th>
<th>May 2007 to May 2008</th>
<th>Significant? (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROG</td>
<td>10</td>
<td>25</td>
<td>Yes</td>
</tr>
<tr>
<td>NOx</td>
<td>10</td>
<td>86</td>
<td>Yes</td>
</tr>
<tr>
<td>PM10</td>
<td>NA&lt;sup&gt;3&lt;/sup&gt;</td>
<td>5</td>
<td>NA</td>
</tr>
<tr>
<td>CO</td>
<td>NA&lt;sup&gt;3&lt;/sup&gt;</td>
<td>92</td>
<td>NA</td>
</tr>
</tbody>
</table>

<sup>1</sup> Project construction emissions estimates were made using URBEMIS 2002. See Appendix F for details.
<sup>2</sup> Values in bold are in excess of the applicable SJVAPCD significance threshold.
<sup>3</sup> NA = Not Available. The SJVAPCD has not established significance thresholds for CO or PM10.

**TABLE 4.8-4 CONSTRUCTION EMISSIONS ESTIMATES (TONS PER YEAR)**

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<sup>5</sup> Recommendation provided by John Cadrett, Air Quality Planner, SJVAPCD. February 2005.
Mitigation Measures:

Mitigation Measure 4.8.1a: The applicant shall comply with Regulation VIII Rule 8011 and implement the following control measures during construction:

- The applicant shall submit a Dust Control Plan subject to review and approval of the SJVAPCD at least 30 days prior to the start of any construction activity on a site that includes 40 acres or more of disturbed surface area.

Specific control measures for construction, excavation, extraction, and other earthmoving activities required by the Valley Air District include:

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover in order to comply with Regulation VIII’s 20 percent opacity limitation.

- All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.

- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.

- When materials are transported offsite, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. However, the use of blower devices is expressly forbidden, and the use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.

- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.

- Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.

- Any site with 150 or more vehicle trips per day shall prevent carryout and trackout.

Enhanced and additional control measures for construction emissions of PM10 shall be implemented where feasible. These measures include:

- Limit traffic speeds on unpaved roads to 15 mph.

- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.

- Install wind breaks at windward side(s) of construction areas.

- Suspend excavation and grading activity when winds exceed 20 mph.

- Limit area subject to excavation, grading, and other construction activity at any one time.

**Mitigation Measure 4.8.1b.** The applicant shall implement feasible control measures during construction to mitigate NOx and ROG emissions from construction equipment, which may include:

- Require construction equipment used at the site to be equipped with catalysts/particulate traps to reduce particulate emissions. These catalysts/traps require the use of ultra-low sulfur diesel fuel (15 ppm). Currently, CARB has verified a limited number of these devices for installation in several diesel engine families to reduce particulate emissions. At the time bids are made, have the contractors show that the construction equipment used is equipped with particulate filters and/or catalysts or prove why it is infeasible.

- Use alternative fueled construction equipment, where feasible.

- Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

- Curtail construction during periods of high ambient pollutant concentrations; this may include ceasing of construction activity during the peak-hour of vehicular traffic on adjacent roadways.

- Require that all diesel engines be shut off when not in use on the premises to reduce the emissions from idling.

**Mitigation Measure 4.8.1c:** Implementation Plans prepared by the applicant, and subsequent development projects, shall comply with Rule 9510 Indirect Source Review. Compliance with Rule 9510 would require reductions of 20% of the NOx construction emissions and 45% of the PM10 construction emissions, or payment of fees (as calculated in Rule 9510) to offset NOx or PM10 construction emissions not reduced to the specified levels.

**Impact Significance after Mitigation:** Although construction of the project is temporary in duration, emissions of NOx (from construction equipment) and ROG (from construction equipment and architectural coating off-gas) would be significant and unavoidable after implementation of feasible mitigation. Compliance with Rule 9510 would reduce NOx emissions 20 percent (about 17 tons) during construction, but the remaining 69 tons of NOx during construction would be 59 tons above the annual NOx significance criteria. Mitigation measures would reduce fugitive dust impacts to a less-than-significant level. Rule 9510 would either reduce construction engine emissions or collect fees to offset emissions by reducing emissions from other sources. This would help to fulfill the SJVAPCD emission reduction commitments in the PM10 and Ozone Attainment Plans, but depending on the implementation and location of the offsite mitigation, may not reduce construction emissions at the construction site or at other downwind areas directly affected by the project construction.
Typical Health Effects Related to Criteria Pollutants

Quantitative emissions of criteria pollutants from construction activities are provided in Table 4.8-4, the following discussion addresses the adverse health effects associated with these increased levels of ozone (from ROG and NOx), and PM10. The most recent measurements (year 2004 or 2005) for each pollutant are used as the baseline for the following descriptions of potential health effects related to an increase in pollutant concentration and exposure.

**Ozone**

- Studies have shown that exposure to ambient concentrations of 0.12 ppm ozone for 1 to 3 hours result in increased respiratory irritation and a 10 percent decrease in the FEV1\(^6\) in 10 to 25 percent of the exposed subjects. No effects were observed at concentrations less than 0.12 ppm. Subjects were healthy adults performing moderate exercise (OEHHA, 2004; CalEPA and OEHHA, 2004).

- Studies have shown that exposure to ambient concentrations of 0.18 to 0.20 ppm ozone for 1 hour result in bronchial responsiveness and pulmonary inflammation, capable of aggravating preexisting chronic respiratory disease (i.e., bronchitis, asthma, emphysema) (OEHHA, 2004; CalEPA and OEHHA, 2004).

- Studies have shown that exposure to ambient concentrations of 0.24 ppm ozone for 1 to 3 hours result in increased shortness of breath and pain on deep breath (OEHHA, 2004).

- Studies have shown that exposure to ambient concentrations of 0.08 ppm ozone for 6.6 to 8 hours result in significant effects on lung function, respiratory symptoms, and airway hyper responsiveness among healthy, exercising individuals (OEHHA, 2004).

The highest recently measured levels of ozone in Stockton (Table 4.8-1) are 0.099 ppm (1-hour average) and 0.086 ppm (8-hour average). Any increases in ozone levels due to the project would probably occur in other areas of the region due to the dispersion of ozone precursors (ROG and NOx) and the time it takes for ozone to form. Although detailed photochemical modeling was not conducted for this EIR, the project emissions of ROG and NOx would both be 2 percent or less of countywide emissions (CARB, 2005) and increases in ozone concentrations would be minor and difficult to quantify. As such, any increases in ozone would be minimal, but would add to ozone levels that already exceed federal and state standards and that can cause respiratory problems.

**PM10**

- Studies have shown increased mortality due to increases of 10 μg/m\(^3\) in ambient concentration levels of PM10:
  1. 0.5 to 2.0 percent increase in total mortality risk. Notably, the elderly, individuals with chronic heart or lung disease, and infants appear to be at the greatest risk of PM-associated mortality (CalEPA, 2002).
  2. 0.8 to 1.8 percent increase in risk of cardiac mortality (CalEPA, 2002).
  3. 1.3 to 3.7 percent increase in risk of respiratory mortality (CalEPA, 2002).

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6 FEV1 is the most common measure of lung function. FEV1 is the volume of air exhaled during the first second of a forced expiratory test of the lungs started from the level of total lung capacity. FEV1 is used to test for airway obstructions, bronchoconstriction and bronchodilatation.
Studies have shown increased morbidity due to increases of 10 μg/m³ of PM10:

1. 0.6 to 2.0 percent increase in cardiovascular related hospitalizations (i.e., cardiovascular disease, congestive heart failure, and ischemic heart disease⁷). Majority of hospitalizations reported were individuals over age 65 (CalEPA, 2002).

2. 1.25 to 5 percent increase in respiratory disease hospitalizations or urgent care visits (i.e., total respiratory disease, COPD⁸, asthma, pneumonia). These effects have been reported primarily for individuals over 65, but effects have been reported for all age groups (CalEPA, 2002).

3. 10 to 15 percent decrease in activity for adults (i.e., more days spent in bed, days missed from work, or days when activities are partially restricted due to illness) (CalEPA, 2002).

4. 4 percent increase in absenteeism (elementary school subjects) (CalEPA, 2002).

The highest recently measured levels of PM10 in Stockton (Table 4.8-1) are 50 to 176 μg/m³ (24 hour average) and 22 to 30 μg/m³ (annual average). Based on measurements taken at large construction sites, PM10 levels could potentially increase by 10 μg/m³ during project construction. A 10 μg/m³ average increase in PM10 levels could lead to the mortality and morbidity health effects discussed above.

Impact 4.8.2. Construction activities associated with development of the Barkett property would potentially produce short-term emissions of suspended asbestos. This impact would be potentially significant.

Construction activities on the Barkett Property, which is a known asbestos disposal site, could generate airborne asbestos. Airborne asbestos fibers pose a serious health threat if adequate control techniques are not carried out when the material is disturbed. Demolition, excavation, or removal of asbestos-containing materials is subject to the limitations of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) as listed in 40 CFR Part 61, Subpart M, requiring notification and inspection. Most demolition and many renovation activities are subject to an asbestos inspection prior to start of the activity (SJVAPCD, 2002b). The applicant will consult with the Valley Air District’s Compliance Division prior to commencing any site preparation to determine inspection and compliance requirements. As stated in the GAMAQI, strict compliance with existing asbestos regulations will normally prevent asbestos from being considered a significant adverse impact.

Mitigation Measures:

Mitigation Measure 4.8.2. Before any site work is done on the Barkett Property parcels, the applicant shall contact the SJVAPCD Compliance Division and implement all appropriate asbestos cleanup procedures.

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⁷ Deficient blood supply and oxygen to the heart tissues.

⁸ Chronic Obstructive Pulmonary Disease, such as emphysema or chronic bronchitis.
Impact Significance after Mitigation: Implementation of appropriate asbestos cleanup procedures would reduce the potential impact to less than significant.

Impact 4.8.3. The project would result in an increase in operational emissions of criteria air pollutants (ROG, NOx and PM10) from on-road motor vehicle traffic traveling to and from the project area and onsite area sources associated with the project. This impact would be significant.

Over the long-term, the project would result in an increase in emissions primarily due to related motor vehicle trips. Onsite stationary sources and area sources (e.g., natural gas emissions from space heating) would result in lesser quantities of pollutant emissions.

Operational emissions for the two development scenarios have been analyzed separately and presented in Table 4.8-5 below. Emissions for project completion year 2008 and cumulative analysis year 2025 have been prepared using URBEMIS 2002 and the traffic data provided by Fehr and Peers. The results are shown in Table 4.8-5. The estimates shown in Table 4.8-5 are based on 35,200 daily vehicle trips generated by a 710,000-square-foot, mixed-use regional shopping center, as estimated in the traffic report for this project. The table also compares project emissions to the SJVAPCD thresholds for ROG and NOx, as well as an assumed threshold for PM10.

### TABLE 4.8-5
PROJECT AREA AND OPERATIONAL EMISSIONS (TONS PER YEAR)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>SJVAPCD Thresholds (tons/yr)</th>
<th>Unmitigated Area plus Operation Emissions (tons/yr)*</th>
<th>Year 2008</th>
<th>Significant? (Yes or No)</th>
<th>Year 2025</th>
<th>Significant? (Yes or No)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROG</td>
<td>10</td>
<td></td>
<td>42</td>
<td>Yes</td>
<td>12</td>
<td>Yes</td>
</tr>
<tr>
<td>NOx</td>
<td>10</td>
<td></td>
<td>53</td>
<td>Yes</td>
<td>14</td>
<td>Yes</td>
</tr>
<tr>
<td>PM10</td>
<td>10*</td>
<td></td>
<td>43</td>
<td>Yes</td>
<td>43</td>
<td>Yes</td>
</tr>
<tr>
<td>CO</td>
<td>NA</td>
<td></td>
<td>453</td>
<td>NA</td>
<td>117</td>
<td>NA</td>
</tr>
</tbody>
</table>

- Emission factors were generated by the Air Board's URBEMIS 2002 model for San Joaquin Valley Air Basin, and assume a default vehicle mix.
- Comparison to the SJVAPCD criteria for cumulative analysis year does not entirely determine cumulative significance. See the discussion under Cumulative Impact 4.8.6 for significance criteria and analysis for the Year 2025.
- The SJVAPCD does not have an established emissions threshold of significance for PM10. However, the Bay Area Air Quality Management District has established a significance threshold for PM10 that is equivalent to its thresholds for ROG and NOx. In order to determine significance for operational PM10 for this project, project generated emissions will be compared to an assumed 10 ton per year threshold for PM10, which is equivalent to the SJVAPCD thresholds for ROG and NOx.
- The SJVAPCD does not have an established emissions threshold of significance for CO. However, CO hotspot analysis was performed in order to determine if project generated traffic would lead to concentrations that exceed the State Ambient Air Quality Standards. See Impact 4.8.4 below.

NOTE: Bold values are in excess of applicable standard. The SJVAPCD established thresholds for ROG and NOx are 10 tons per year, whereas CO and PM10 do not have an established emissions threshold of significance.

Source: ESA, 2005
Based on the estimates shown in Table 4.8-5, the project’s contribution to regional air quality would be above the significance thresholds specified by the SJVAPCD for ROG and NOx. The project would also generate unmitigated PM10 emissions that would exceed the assumed threshold of 10 tons per year. Therefore, without mitigation, the operational impacts of the project would be considered significant.

**Mitigation Measures:**

**Mitigation Measure 4.8.3a:** To reduce the operational impacts of the project, feasible mitigation measures from the following list shall be implemented as required by the City:

1. Transit service infrastructure shall be approved by the City prior to development of each phase of the project.

   **Rideshare Measures:** Implement carpool/vanpool program (e.g., carpool, ride matching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.).

   **Transit Measures:** Construct transit facilities such as bus turnouts/bus bulbs, benches, transit shelters, and, route signs and displays.

   The project applicant would provide transit enhancing infrastructure that includes transit shelters, benches, street lighting, etc. at the project site.

   Contribute to regional transit systems (e.g., right-of-way, capital improvements, and park-and-ride lots)

   **Bicycle and Pedestrian Measures:** Provide direct, safe, attractive pedestrian and bicycle access to transit stops and adjacent development

   Provide bicycle lanes and/or paths, connected to community-wide network.

   Provide street lighting.

   Improve or construct onsite and offsite pedestrian facilities (e.g., overpasses, wide sidewalks, and building access for pedestrians).

   Provide pedestrian safety designs/infrastructure at crossings.

2. Implement feasible energy-conserving features from the list provided by the SJVAPCD (SJVAPCD, 2005). Prior to the implementation of the project, the applicant will present for City approval an energy-conservation plan that includes consideration of each of the following potential measures. The City, in consultation with the SJVAPCD, will require implementation of clearly feasible measures from this list.

   - Increased energy efficiency (meet or exceed California Title 24 Requirements)
   - Increased wall and ceiling insulation (meet or exceed California Title 24 Requirements)
- Energy efficient windows (double pane and/or Low-EE)
- High-albedo (reflecting) roofing material, or similar
- Cool paving
- Radiant heat barrier
- Energy efficient lighting, appliances, and heating and cooling systems
- Solar water-heating systems
- Photovoltaic cells
- Programmable thermostats for all heating and cooling systems
- Awnings or other shading mechanism for windows
- Porch, patio, and walkway overhangs
- Ceiling fans and whole house fans
- Orient the units to maximize passive solar cooling and heating when practicable
- Use passive solar cooling and heating designs
- Use daylighting (natural lighting) systems such as skylights, light shelves, interior transom windows, etc.
- Electrical outlets around the exterior of the units to encourage use of electric landscape maintenance equipment
- Bicycle parking facilities for patrons, employees, and/or students in a covered secure area
- Employee shower and locker areas for bicycle and pedestrian commuters
- On-site employee cafeterias or eating areas
- Low or non-polluting landscape maintenance equipment (e.g., electric lawn mowers, reel mowers, leaf vacuums, electric trimmers, and edgers, etc.)
- Exits to adjoining streets should be designed to reduce time to re-enter traffic from the project site.
- The project will include an information center for residents to coordinate carpooling and vanpooling.
Mitigation Measure 4.8.3b: Implementation Plans for the project shall comply with Rule 9510 Indirect Source Review. Compliance with Rule 9510 will require reductions of 33.3% of the NOx operational emissions and 50% of the PM10 construction emissions, or payment of fees (as calculated in Rule 9510) to offset NOx or PM10 operational emissions not reduced to the specified levels.

Impact Significance after Mitigation: Depending on the level of implementation, the above mitigation measures would reduce the operational impacts of the project by reducing motor vehicle trips generated by the project. However, the residual impact would still be significant and unavoidable. See the Impact 4.8.1 “Impact Significance after Mitigation” discussion, above, for potential health effects associated with increased criteria pollutant emissions from project construction and operation activities.

Impact 4.8.4: Project traffic would increase localized carbon monoxide concentrations at intersections in the project vicinity. This impact would be less than significant.

Traffic generated by the project was analyzed to determine its potential to affect carbon monoxide concentrations along surface streets in the project area. The modeling method included background CO concentration levels recommended by the SJVAPCD, and traffic projections prepared for the project at the most affected local intersections in the project vicinity, as well as the roadway segment in the vicinity of the Great Valley Elementary School:

- Intersection of Carolyn Weston and McDougald Boulevard
- Intersection of French Camp Road and McDougald Boulevard
- McDougald Boulevard, near the Great Valley Elementary School

As these were the intersections most affected by project-related traffic, it was assumed that if carbon monoxide concentrations at these three areas would not exceed the ambient air quality standards, the project’s contribution to impacts at other intersections affected by project traffic to a lesser extent would also be less than significant.

As shown in Table 4.8-6, the analysis demonstrated that no violations of the CO standard would occur at the receptor locations near the intersections and segments that were modeled. In fact, CO concentrations would decrease in the Cumulative 2025 scenarios compared to existing levels (due to reductions in the predicted future CO emission factors resulting from a cleaner future mix of vehicles). Project traffic would have a less-than-significant-effect upon CO concentrations in the area. Thus, project-related and cumulative traffic would have a less-than-significant impact on local carbon monoxide concentrations, as shown in Table 4.8-6.

Mitigation: None required.
## TABLE 4.8-6
ESTIMATED CARBON MONOXIDE CONCENTRATIONS AT SELECTED INTERSECTIONS IN PROJECT VICINITY

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Carolyn Weston and McDougald</td>
<td>1</td>
<td>20</td>
<td>4.7</td>
<td>4.9</td>
<td>0.2</td>
<td>No</td>
<td>4.1</td>
<td>-0.6</td>
<td>No</td>
</tr>
<tr>
<td>French Camp Rd and McDougald</td>
<td>8</td>
<td>9</td>
<td>3.2</td>
<td>3.3</td>
<td>0.1</td>
<td>No</td>
<td>2.8</td>
<td>-0.4</td>
<td>No</td>
</tr>
<tr>
<td>McDougald, across from school</td>
<td>1</td>
<td>20</td>
<td>5.1</td>
<td>6.2</td>
<td>1.1</td>
<td>No</td>
<td>4.8</td>
<td>-0.3</td>
<td>No</td>
</tr>
<tr>
<td>3. McDougald, across from school</td>
<td>8</td>
<td>9</td>
<td>3.5</td>
<td>4.3</td>
<td>0.8</td>
<td>No</td>
<td>3.3</td>
<td>-0.2</td>
<td>No</td>
</tr>
<tr>
<td>3. McDougald, across from school</td>
<td>1</td>
<td>20</td>
<td>2.7</td>
<td>2.8</td>
<td>0.1</td>
<td>No</td>
<td>2.6</td>
<td>-0.1</td>
<td>No</td>
</tr>
</tbody>
</table>

*a Concentrations relate to receptors at approximately 40 feet for Receptor 1, 25 feet for Receptor 2, and 30 feet for Receptor 3 from the middle of the roadways that form the intersection. The carbon monoxide analysis focuses on the weekday evening (p.m.) peak-hour because the project's effects on traffic congestion and related carbon monoxide concentrations are greater during that period than the a.m. peak-hour or off-peak periods. Carbon monoxide estimates shown above include background year 2004 concentrations of 3.7 ppm, one-hour average, and 2.5 ppm, 8-hour average. This background was recommended by the SJVAPCD and pulled from the EPA website (www.epa.gov/air/data/reports.html). Although the background concentration would be reduced from 2004 to 2005, 2011, and 2025, the 2004 concentration was implemented as the background for each scenario as a conservative assumption.

b Since these receptors are located at the intersections most affected by project-related traffic, other receptors in the project vicinity would experience lower CO concentrations and the impact would also be less than significant.
Impact 4.8.5. Emissions of diesel particulate matter could pose a risk to human health. This impact would be significant.

Implementation of the project would locate large retail facilities (Wal-Mart Supercenter and a major retailer) and smaller retailers near existing and approved residential developments. The loading docks at these retail stores primarily accommodate diesel trucks. A supplemental health risk assessment, which is summarized below, was conducted (see Appendix F for full discussion) to assess the diesel particulate matter (DPM) impacts due to diesel vehicle traffic and transportable thermal refrigeration units (TRU’s) on nearby sensitive receptors.

The SJVAPCD has established a significance threshold for health risk exposure to TACs, including diesel emissions, of 10 cases of cancer per million population over a 70-year exposure period. The DPM cancer risk is the probability of an individual developing cancer as a result of exposure to DPM. The cancer risks from DPM occur exclusively through the inhalation pathway. Based on diesel truck engine and truck TRU activity at an existing Wal-Mart Supercenter in Stockton (3223 East Hammer Lane), it was determined that for this project, the DPM concentrations would be greatest ($0.0409 \mu g/m^3$) to the west of the Wal-Mart Supercenter, along the site boundary, south of Henry Long Boulevard on the eastern edge of the approved residential development located at French Camp Rd and McDougald Boulevard. As shown in Figure 4.8-1, these DPM concentrations equate to health risks that are greater than 10 cancers per million at locations of potential residences west of the project site (the maximum value in the model was 12.3 cancers per million). The estimated risks were all below 10 cancers per million at the locations that were modeled directly north of the project site. The maximum increase of 12.3 cancers per million is relatively small compared with the overall cancer incidence of 200,000 to 250,000 per million in the United States. However, public health officials view this significance standard differently: if efforts aren't made to reduce the risk from other sources of cancer-causing pollutants, then the overall odds will climb above the existing rate of one in every four or five persons. This would be a significant impact without mitigation.

The Hazard Index is an expression used for the potential for non-cancer health effects. The SJVAPCD has established a significance threshold for non-cancer health risk based on ground-level concentrations of TACs that would result in a Hazard Index greater than 1.0 for the MEI. Based on the modeling analysis of diesel truck engine and truck TRU activity, the non-cancer health risks are well below the Hazard Index of 1.0 at all receptors. This would be a less-than significant impact and does not require mitigation.

Mitigation Measures:

Mitigation Measure 4.8.5a. All diesel truck operators shall be monitored to strictly abide by the applicable state law requirements for idling, as described in the air borne toxic control measure (CCR, Title 13, section 2485), which limits vehicles with gross vehicular weight ratings of more than 10,000 pounds to no more than 5 minutes of idling of the primary engine or the diesel-fueled auxiliary power system at any location. This limit shall be posted onsite.
Figure 4.8-1
Incremental Cancer Risk from Diesel Particulate – Unmitigated

SOURCE: GlobeXplorer, 2005; KB Environmental Sciences, 2006; and ESA, 2006
Mitigation Measure 4.8.5b. TRU operation will be limited to no more than 120 minutes within the loading dock area or anywhere else on the project site. This limit will be posted onsite, and enforceable by City code enforcement staff.

Mitigation Measure 4.8.5c. To support the requirements of Mitigation Measure 4.8.5a, overhead panels shall be installed over the loading bays to provide shade for docked trucks in order to keep the truck cabin and trailer cooler and to decrease the need for truck idling to power air conditioning units. The panels shall be of sufficient size and oriented to shade the cabin during the summer season.

Impact Significance after Mitigation: With implementation of Mitigation Measures 4.8.5a – 4.8.5c, the health risk impacts would be reduced to a less-than significant level. The mitigated DPM concentrations would be greatest (0.0242 μg/m³) to the west of the Wal-Mart Supercenter. This concentration translates to an approximate incremental cancer risk of 7.3 cancers per million. Thus, the mitigation measures would reduce the incremental cancer to less than 10 in a million and with the implementation of the mitigation measures; the impact would be less than significant.

Cumulative Impact

According to the SJVAPCD GAMAQI, a cumulative impact occurs when two or more individual effects, considered together, are considerable or would compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant impacts, meaning that the project’s incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. Notably, any project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact.

Cumulative Impact 4.8.6. The project would contribute to a cumulative air quality impact in the project area. This impact is considered significant.

Construction emissions from the project would result in the generation of air pollutants in the project area and in the immediate vicinity, and would incrementally add to cumulative emissions. The project would also add to ozone precursor emissions on a regional basis and would incrementally add to PM10 and CO emissions on a local basis. As discussed in Impact 4.8.4 above, however, CO emissions associated with the project on a Near Term and Cumulative basis would be less than significant.

Based on the procedure for evaluating cumulative impacts of projects specified by the SJVAPCD’s GAMAQI, any project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. Emissions from project sources would be combined with emissions from other sources, primarily including area traffic (local streets and freeways) from existing and future development in the greater project

Although cumulative traffic volumes would increase by 2025 over the estimated traffic associated with project operation in 2008, attrition of older, high polluting vehicles, improvements in the overall automobile fleet, and improved fuel mixtures (as a result of on-going State and federal
emissions standards and programs for on-road motor vehicles) would reduce the cumulative NOx, ROG, and CO emissions from associated motor vehicles. Table 4.8-5 shows the operational emissions of criteria pollutants due to the project, as estimated using the ARB model URBEMIS 2002, and Table 4.8-6 shows the specific CO emissions generated by project traffic, as estimated using the Caline 4 model. Although ROG, NOx, and CO emissions decline in future years for project operations and countywide (see Tables 4.8-5 through 4.8-7), the project individually has significant air quality impacts (estimated emissions of the project would exceed the significance criteria of 10 tons per year for ROG, NOx, and PM10 in 2008 and 2025), and thus the project’s incremental impact on air quality of the region would be considered cumulatively considerable, and thus significant, for cumulative analysis year 2025.

### TABLE 4.8-7
SAN JOAQUIN COUNTY–EXISTING AND FORECASTED ANNUAL EMISSIONS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ROG</td>
<td>46.2</td>
<td>41.8</td>
<td>-9.5%</td>
<td>40.1</td>
<td>-13.2%</td>
<td>40.0</td>
<td>-13.4%</td>
</tr>
<tr>
<td>NOx</td>
<td>74.8</td>
<td>61.2</td>
<td>-18.1%</td>
<td>51.2</td>
<td>-31.6%</td>
<td>45.7</td>
<td>-39.0%</td>
</tr>
<tr>
<td>PM10</td>
<td>36.8</td>
<td>38.4</td>
<td>4.2%</td>
<td>40.1</td>
<td>9.0%</td>
<td>41.9</td>
<td>13.9%</td>
</tr>
<tr>
<td>CO</td>
<td>236.6</td>
<td>189.4</td>
<td>-19.9%</td>
<td>159.1</td>
<td>-32.8%</td>
<td>143.0</td>
<td>-39.5%</td>
</tr>
</tbody>
</table>


**Mitigation Measure 4.8.6**: Implement Mitigation Measure 4.8.3a and Mitigation Measure 4.8.3b.

**Impact Significance after Mitigation**: Significant and unavoidable.
4.9 Noise

This section addresses potential noise impacts from transportation sources, stationary sources, and temporary construction due to the project. This analysis uses typical construction equipment and vehicular traffic noise levels and to estimate corresponding noise levels at the nearest sensitive receptor locations.

4.9.1 Setting

Noise Principles and Descriptors

Noise Background

Noise is defined as unwanted sound. Sound, traveling through the air as waves outward from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB). Pressure waves traveling through air exert a force registered by the human ear as sound. Zero dB corresponds roughly to the threshold of human hearing and 120 to 140 dB corresponds to the threshold of pain. Continuous human exposure to sound above roughly 90 dB can cause permanent hearing loss.

Sound pressure fluctuations can be measured in units of hertz (Hz) that correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of each measured Hz and the corresponding sound power level. The audible sound spectrum consists of a frequency range spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force of all wave energy in the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. Consequently, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz to imitate the human ear’s decreased sensitivity to low and extremely high frequencies. This emulation of the human ear’s frequency sensitivity is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard method of frequency de-emphasis and is typically applied to community noise measurements. In practice, the specific sound level from a source is measured using a meter incorporating an electrical filter corresponding to the A-weighting curve. Some representative noise sources and their corresponding A-weighted noise levels are shown in Figure 4.9-1. All of the noise levels reported here are A-weighted unless otherwise stated.

Noise Exposure and Community Noise

An individual’s noise exposure is a measure of sound experienced over a period of time. A noise level is a measure of noise at a given instant in time. The noise levels presented in Figure 4.9-1 are representative of measured noise at a given instant in time; however, they rarely persist consistently over long periods of time. Rather, community noise varies continuously over a period
of time with respect to the contributing sound sources in the community noise environment. Community noise is primarily the product of many distant noise sources that constitute a relatively stable background noise exposure, within which individual contributors are indistinguishable. Background noise levels change throughout a typical day, but do so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and wind. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources, such as aircraft flyovers, passing vehicles, or sirens, which are readily identifiable to the individual. These successive additions of sound to the community noise environment change the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize community noise environment and evaluate noise impacts in qualitative terms. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

\[ \text{Leq:} \quad \text{the equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The Leq is the constant sound level that would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).} \]

\[ \text{Lmax:} \quad \text{the instantaneous maximum noise level for a specified period of time.} \]

\[ \text{L10:} \quad \text{the noise level that is equaled or exceeded 10 percent of the specified time period. The L10 is often considered the maximum noise level averaged over the specified time period.} \]

\[ \text{Ldn:} \quad \text{See DNL, the Ldn is the same as the DNL.} \]

\[ \text{L90:} \quad \text{the noise level that is equaled or exceeded 90 percent of the specified time period. The L90 is often considered the background noise level averaged over the specified time period.} \]

\[ \text{DNL:} \quad \text{the Day/Night Average Sound Level is the 24-hour day and night A-weighed noise exposure level which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night. Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noise. (Formerly called Ldn).} \]

\[ \text{CNEL:} \quad \text{similar to the DNL, the Community Noise Equivalent Level adds a 5 dBA penalty for the evening hours between 7:00 p.m. and 10:00 p.m. in addition to a 10 dBA penalty between the hours of 10:00 p.m. and 7:00 a.m.} \]

\[ \text{SEL:} \quad \text{a receiver’s cumulative noise exposure from a single noise event. Often used to calculate Leq and DNL values.} \]
<table>
<thead>
<tr>
<th>PUBLIC REACTION</th>
<th>NOISE LEVEL (dBA, L_eq)</th>
<th>COMMON INDOOR NOISE LEVELS</th>
<th>COMMON OUTDOOR NOISE LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCAL COMMITTEE ACTIVITY WITH INFLUENTIAL OR LEGAL ACTION</td>
<td>4 Times As Loud</td>
<td>Rock Band</td>
<td>Jet Flyover at 1000 Ft.</td>
</tr>
<tr>
<td>LETTERS OF PROTEST</td>
<td>Twice As Loud</td>
<td>Inside Subway Train (New York)</td>
<td>Gas Lawn Mower at 3 Ft.</td>
</tr>
<tr>
<td>COMPLAINTS LIKELY</td>
<td>REFERENCE</td>
<td>Food Blender at 3 Ft.</td>
<td>Diesel Truck at 50 Ft.</td>
</tr>
<tr>
<td>COMPLAINTS POSSIBLE</td>
<td>1/2 As Loud</td>
<td>Garbage Disposal at 3 Ft.</td>
<td>Noisy Urban Daytime</td>
</tr>
<tr>
<td>COMPLAINTS RARE</td>
<td>1/4 As Loud</td>
<td>Shouting at 3 Ft.</td>
<td></td>
</tr>
<tr>
<td>ACCEPTANCE</td>
<td></td>
<td>Vacuum Cleaner at 10 Ft.</td>
<td>Gas Lawn Mower at 100 Ft.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Commercial Area</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Heavy Traffic at 300 Ft.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Large Business Office</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dishwasher Next Room</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Quiet Urban Daytime</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Quiet Urban Nighttime</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Small Theater, Large Conference Room (Background) Library</td>
<td>Quiet Suburban Nighttime</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concert Hall (Background)</td>
<td>Quiet Rural Nighttime</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Broadcast and Recording Studio</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Threshold of Hearing</td>
<td></td>
</tr>
</tbody>
</table>

SOURCE: CalTrans Transportation Laboratory Noise Manual, 1982

Figure 4.9-1
Effect of Noise on People
**Effects of Noise on People**

The effects of noise on people can be categorized as follows:

- Subjective effects of annoyance, nuisance, dissatisfaction;
- Interference with activities such as speech, sleep, learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual’s past experiences with noise.

Thus, an important way of predicting a person’s reaction to a new noise environment is the way it compares to the existing environment to which the person has adapted: the so-called “ambient noise” level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. For increases in A-weighted noise level the following relationships obtain (Caltrans, 1998):

- Under controlled conditions in an acoustics laboratory, the trained healthy human ear is able to discern changes in sound levels of 1 dBA;
- Outside such controlled conditions, the trained ear can detect changes of 2 dBA in normal environmental noise;
- It is widely accepted that the average healthy ear, however, can barely perceive noise level changes of 3 dBA;
- A change in level of 5 dBA is a readily perceptible increase in noise level; and
- A 10 dBA change is recognized as twice as loud as the original source.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple linear fashion, but rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

**Noise Attenuation**

Stationary “point” sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of 6 dBA to 7.5 dBA per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and noise barriers, either vegetative or manufactured, etc.). Widely distributed noises, such as a large industrial facility spread over many acres or a street with moving vehicles (a “line” source), would typically attenuate at a lower rate, approximately 3 to 4.5 dBA per doubling distance from the source (also dependent on environmental conditions) (Caltrans, 1998). Noise from large construction sites (or a landfill with heavy equipment moving dirt and solid waste daily and trucks entering and exiting the main gate daily—activities similar to construction sites) would have characteristics of both “point” and “line” sources, and attenuation would therefore generally range between 4.5 and 7.5 dBA per doubling of distance.
Regulatory Setting

In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains fairly constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas.

Generally, the federal government sets noise standards for transportation-related noise sources that are closely linked to interstate commerce, such as aircraft, locomotives, and trucks, and, for those noise sources, the state government is preempted from establishing more stringent standards. The state government sets noise standards for those transportation noise sources that are not preempted from regulation, such as automobiles, light trucks, and motorcycles. Noise sources associated with industrial, commercial, and construction activities are generally subject to local control through noise ordinances and general plan policies.

Federal

Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 CFR, Part 205, Subpart B. The federal truck pass-by noise standard is 80 dB at 15 meters from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers.

State

Title 4, California Code of Regulations has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The land use compatibility guidelines are listed in Figure 4.9-2.

The State of California establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the pass-by standard is consistent with the federal limit of 80 dB. The pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dB at 15 meters from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanction of vehicle operators by state and local law enforcement officials.

The State has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of DNL 45 dB in any habitable room. They require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to exterior noise levels greater than DNL 60 dB. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.
<table>
<thead>
<tr>
<th>LAND USE CATEGORY</th>
<th>COMMUNITY NOISE EXPOSURE</th>
<th>INTERPRETATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>55 60 65 70 75 80</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td></td>
<td><strong>NORMALLY ACCEPTABLE</strong> Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.</td>
</tr>
<tr>
<td>Transient Lodging - Motels, Hotels</td>
<td></td>
<td><strong>CONDITIONALLY ACCEPTABLE</strong> New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.</td>
</tr>
<tr>
<td>Schools, Libraries, Churches, Hospitals, Nursing Homes</td>
<td></td>
<td><strong>NORMALLY UNACCEPTABLE</strong> New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and the needed noise insulation features included in the design.</td>
</tr>
<tr>
<td>Auditoriums, Concert Halls, Amphitheatres, Sports Arenas</td>
<td></td>
<td><strong>CLEARLY UNACCEPTABLE</strong> New construction or development should generally not be undertaken.</td>
</tr>
<tr>
<td>Playgrounds, Neighborhood Parks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golf Courses, Riding Stables, Water Recreation, Cemeteries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Buildings, Business Commercial and Professional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial, Manufacturing, Utilities, Agriculture</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SOURCE: State of California, Governor's Office of Planning and Research, 1998; and ESA, 2005

Figure 4.9-2

Land Use Compatibility for Community Noise Environment
Local

Local regulation of noise involves implementation of general plan policies and noise ordinance standards. Local general plans identify general principles intended to guide and influence development plans. General plans recognize that different types of land uses have different sensitivities toward their noise environment; residential areas are generally considered to be the most sensitive type of land use to noise and industrial/commercial areas are generally considered to be the least sensitive. Noise ordinances set forth the specific standards and procedures for addressing particular noise sources and activities. Local noise ordinances typically set forth standards related to construction activities, nuisance-type noise sources, and industrial property-line noise levels. The City of Stockton noise regulations and standards apply to the land uses near the project site.

City of Stockton General Plan

The City of Stockton has adopted noise compatibility guidelines for various land uses that are contained in the Noise Element of the General Plan (City of Stockton, 1990a). The City considers a noise environment of up to 60 DNL to be acceptable for residential and church uses. A noise environment of up to 65 DNL is allowed for new development of these types of uses only when a detailed analysis of noise reduction requirements has been conducted and the best practicable and available noise insulation features have been incorporated into the project design, which typically involves construction of a noise barrier. In addition, the City has exterior noise level standards for stationary sources located in close proximity to residential areas. Table 4.9-1 summarizes these standards in terms of the hourly and maximum daytime and nighttime noise levels not to be exceeded by stationary noise sources.

<table>
<thead>
<tr>
<th>Noise Descriptor</th>
<th>Daytime (7:00 a.m. to 10:00 p.m.)</th>
<th>Nighttime (10:00 p.m. to 7:00 a.m.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hourly Leq</td>
<td>55</td>
<td>45</td>
</tr>
<tr>
<td>Maximum Level (Lmax)</td>
<td>75</td>
<td>65</td>
</tr>
</tbody>
</table>

SOURCE: City of Stockton, 1990a

The City’s General Plan recognizes noise pollution as a significant source of environmental degradation. The City’s General Plan Policy Document identifies community noise goals and establishes policies to reduce noise pollution. Many of the goals and policies address new residential development. The General Plan goals and policies applicable to the project include (City of Stockton, 1990a):
Goal 1: Protect the citizens of the Stockton Planning Area from the harmful and annoying effects of exposure to excessive noise levels.

2: Protect the economic base of the Stockton Planning Area by preventing incompatible land uses from encroaching upon areas with existing noise-producing uses.

Policy 6. Noise produced by commercial uses shall not exceed 75 A-weighted decibel (dBA) day-night average sound level (Ldn) or Community Noise Equivalent Level (CNEL) at the nearest property line.

8. Exceptions to the noise standards for commercial and industrial uses may be granted only if a recorded noise easement is conveyed by the affected property owners.

9. Enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the Uniform Building Code (UBC).

City of Stockton Noise Ordinance

The City of Stockton noise ordinance is codified in Chapter 16, Article III, Division 16-340 of the City’s Municipal Code (City of Stockton, 2004). The following sections present prohibited activities and noise standards applicable to the project.

16-340.030 - Activities Deemed Violations of This Division: The following acts are a violation of this Division and are therefore prohibited.

A. Construction noise. Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work between the hours of 10:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities.

B. Loading and unloading operations. Loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects on private property between the hours of 10:00 p.m. and 7:00 a.m. in a manner to cause a noise disturbance.

E. Refuse Collection Vehicles.

1. Operating or allowing the operation of the compacting mechanism of any motor vehicle that compacts refuse and that creates, during the compacting cycle, a sound level in excess of 85 dBA when measured at 50 feet from any point of the vehicle.

2. Collecting refuse, or operating or allowing the operation of the compacting mechanism of any motor vehicle that compacts refuse in a residential zoning district between the hours of 5:00 p.m. and 5:00 a.m. the following day.
F. **Sweepers and Associated Equipment.** Operating or allowing the operation of sweepers or associated sweeping equipment (e.g., blowers) on private property between the hours of 10:00 p.m. and 7:00 a.m. the following day in, or adjacent to, a residential zoning district.

**16-340.040 – Standards:** The following provisions shall apply to all uses and properties, as described below, and shall establish the City’s standards concerning acceptable noise levels for both noise-sensitive land uses and for noise-generating land uses and transportation-related sources:

B. **Standards for proposed noise-generating land uses and transportation-related sources.** Excluding noise-generating projects on infill sites, which shall comply with paragraph C, below, the following shall apply

**TABLE 4.9-2**
**MAXIMUM ALLOWABLE NOISE EXPOSURE FOR NOISE-SENSITIVE LAND USES**

<table>
<thead>
<tr>
<th>Part I: Transportation-Related Noise Standards, Maximum Allowable Noise Exposure (Ldn dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise-Sensitive Land Use Type</td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td>Residential (all types)</td>
</tr>
<tr>
<td>Child care</td>
</tr>
<tr>
<td>Educational facilities</td>
</tr>
<tr>
<td>Libraries and museums</td>
</tr>
<tr>
<td>Live-work facilities</td>
</tr>
<tr>
<td>Lodging</td>
</tr>
<tr>
<td>Medical services</td>
</tr>
<tr>
<td>Multi-use (with residential)</td>
</tr>
</tbody>
</table>

**Part II: Land Use-Related Noise Standard, Outdoor Activity Areas**

<table>
<thead>
<tr>
<th>Noise Descriptor</th>
<th>Daytime (7:00 a.m. to 10:00 p.m.)</th>
<th>Nighttime (10:00 p.m. to 7:00 a.m.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hourly Equivalent Sound Level (Leq), dB</td>
<td>55</td>
<td>45</td>
</tr>
<tr>
<td>Maximum Sound Level (Lmax), dB</td>
<td>75</td>
<td>65</td>
</tr>
</tbody>
</table>

1. The noise standard shall be applied at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards shall be applied on the receiving side of noise barriers or other property line noise mitigation measures.

2. Each of the noise level standards specified shall be increased by 5 for impulse noise, simple tone noise, or noise consisting primarily of speech or music.

Source: City of Stockton, 2004.

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2. **Commercial, industrial, and other land use-related noise sources (except infill sites).**

a. **New and expanded noise sources.** Land use-related projects that will create new noise sources or expand existing noise sources shall be required to mitigate their noise levels so that the resulting noise:

1) Does not adversely impact noise-sensitive land uses; and

2) Does not exceed the standards specified in Table 4.9-2, Part II.
Noise levels shall be measured at the property line of the nearest site which is occupied by, zoned for, and/or designated on the City’s General Plan Diagram to allow the development of, noise-sensitive land uses.

b. **Maximum sound level.**

1) **Commercial.**

a) The Maximum Sound Level (Lmax) produced by commercial land uses or by other permitted noise-generating activities on any retail commercial zoning district (i.e., CO, CN, CG, CD, CL, or CA Districts) shall not exceed 75 dB; and

b) The Hourly Equivalent Sound Level (Leq) from these land uses shall not exceed 65 dB during daytime or nighttime hours as measured at the property line of any other adjoining retail commercial zoning district (CO, CN, CG, CD, CL, or CA Districts).

c. **Adjacent to other uses.** If commercial, industrial, or public facilities land uses are adjacent to any noise-sensitive land uses or vacant residential (RE, RL, RM, or RH) or open space (OS) zoning districts, these uses shall comply with the performance standards contained in Table 4.9-2, Part II.

### Sensitive Receptors and Existing Noise Environment

#### Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others, due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, and parks and other outdoor recreation areas generally are more sensitive to noise than are commercial and industrial land uses. Sensitive receptors in the vicinity of the project site include the existing residential communities to the west of the project site (along Sydney Lane,Brittanyann Lane, Riley Ford Lane, Blake Circle, and McDougald Boulevard), the Great Valley Elementary School located at 4223 McDougald Boulevard, Long Park located a half mile from the intersection of French Camp Road and McDougald Boulevard, and an existing residential neighborhood to the north of the project site along William Moss Boulevard. In addition to the existing sensitive receptors, there is a planned residential community to the west of the project site, vacant parcels zoned for General Business and Single Family Residential to the east of the project site, and an adjacent vacant parcel zoned for residential uses to the north of the project site (see Figure 4.9-3).
Existing Noise Environment

The primary existing source of noise at the site is automobile and truck traffic on I-5. Traffic from French Camp Road and construction noise from the residential development north of Henry Long and east of McDougald also contribute to existing ambient noise levels. There are no major stationary or industrial noise sources located in close proximity. The closest airports in the vicinity of the project site are the Stockton Metropolitan Airport (approximately 2 miles from project site) and the Harley Airport (approximately 5 miles from project site). The noise resulting from airport activities is not considered to affect the commercial uses of the project.

In order to characterize ambient noise conditions in the project vicinity, six long-term and six short-term noise measurements were collected. The noise measurement locations are shown on Figure 4.9-3.

Metrosonics Model db308 sound level meters were used to measure current ambient noise levels. The meters were calibrated to ensure the accuracy of the measurements. The meters were programmed to record the maximum (Lmax), average (Leq), L10 and L90 noise levels. A summary of the noise level measurement results is provided in Table 4.9-3 and graphs of the 24-hour measurements are provided in Figures 4.9-4 through 4.9-9.

Figure 4.9-4 shows how ambient noise levels change throughout the day by displaying a Leq for each hour of the long-term measurement period. It also shows that all four measurement sites experienced their lowest ambient sound levels sometime in the late evening and their highest levels during the early to mid-morning.

<table>
<thead>
<tr>
<th>Location</th>
<th>Time Period</th>
<th>Leq (dBA)</th>
<th>Noise Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wal-Mart Supercenter Loading Dock. (145 feet from loading/unloading area, closest trucks within 30 feet)</td>
<td>24-hour CNEL measurement: 66 dBA</td>
<td>Hourly Leq's ranged from 51 to 71 dBA</td>
<td>Train horn, TRU idling, forklift operation, falling pallets, honking, backup beepers, construction noise associated with houses, backup beepers and squealing brakes at Stockton Steel, truck air brakes and operation, landscape equipment near meter (peak seen around 4:00 p.m. in Figure 4.9-10), last spike was a partial measurement at the end of the measurement period and is from the handling of the meter.</td>
</tr>
<tr>
<td>Wal-Mart Loading Dock. (42 feet to side of idling 18-wheeler truck)</td>
<td>3 minutes 61</td>
<td></td>
<td>Idling truck engine, truck air brake (∼72 dBA), driving 18-wheeler (∼69 to 73 dBA)</td>
</tr>
<tr>
<td>Wal-Mart Loading Dock. (45 feet to side of idling ThermoKing TRU)</td>
<td>3 minutes 63</td>
<td></td>
<td>Idling ThermoKing TRU</td>
</tr>
</tbody>
</table>

Short- and Long-Term Noise Measurement Locations

SOURCE: BlobeXplorer; and ESA, 2005

Figure 4.9-3
Figure 4.9-6
24-hours Noise Measurement
Location - Site LT-5
Wednesday April 20, 2005

Figure 4.9-7
24-hours Noise Measurement
Location - Site LT-6
Wednesday March 2, 2005
Figure 4.9-8
24-hours Noise Measurement
Location - Site LT-6
Thursday March 3, 2005

Figure 4.9-9
24-hours Noise Measurement
Location - Site LT-6
Friday March 4, 2005
TABLE 4.9-4
SOUND-LEVEL MEASUREMENTS IN THE VICINITY OF THE PROJECT SITE

<table>
<thead>
<tr>
<th>Location</th>
<th>Time Period</th>
<th>Leq (dBA)</th>
<th>Noise Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT-1. One house south of 4877 McDougald Blvd.</td>
<td>24-hour CNEL measurement: 65 dBA</td>
<td>Hourly Leq’s ranged from 51 to 62 dBA</td>
<td>--</td>
</tr>
<tr>
<td>LT-2. Northwest corner of project site; Southwest corner of parcel to Weston Ranch building</td>
<td>24-hour CNEL measurement: 70 dBA</td>
<td>Hourly Leq’s ranged from 49 to 69 dBA</td>
<td>--</td>
</tr>
<tr>
<td>LT-3. East side of Manthey Rd. between Henry Long and William Moss Blvds.</td>
<td>24-hour CNEL measurement: 75 dBA</td>
<td>Hourly Leq’s ranged from 64 to 73 dBA</td>
<td>--</td>
</tr>
<tr>
<td>LT-4. West side of Manthey Rd, south of Henry Long Blvd.</td>
<td>24-hour CNEL measurement: 76 dBA</td>
<td>Hourly Leq’s ranged from 66 to 73 dBA</td>
<td>--</td>
</tr>
<tr>
<td>LT-5. Dirt road off of Henry Long Blvd near new housing development (200 feet from Henry Long centerline and 45 feet from house sound wall)</td>
<td>24-hour CNEL measurements were Tuesday: 66 dBA Wednesday: 63 dBA</td>
<td>Hourly Leq’s ranged from 44 to 78 dBA</td>
<td>--</td>
</tr>
<tr>
<td>LT-6. Attached to telephone pole along Henry Long Blvd (25 feet from center of Henry Long and approximately 525 feet to I-5)</td>
<td>24-hour CNEL measurements were: Wednesday: 71 dBA Thursday: 71 dBA Friday: 69 dBA</td>
<td>Hourly Leq’s ranged from 58 to 69 dBA</td>
<td>--</td>
</tr>
</tbody>
</table>
TABLE 4.9-4
SOUND-LEVEL MEASUREMENTS IN THE VICINITY OF THE PROJECT SITE

<table>
<thead>
<tr>
<th>Location</th>
<th>Time Period</th>
<th>Leq (dBA)</th>
<th>Noise Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST-1. One house south of 4877 McDougald Blvd. (30 feet from centerline of McDougald Blvd.)</td>
<td>15 minutes</td>
<td>59</td>
<td>Traffic on McDougald Blvd. Traffic on French Camp Rd. Rustling leaves Plane overhead</td>
</tr>
<tr>
<td>ST-2. Northwest corner of project site; Southwest corner of parcel to Weston Ranch building. (1,200 feet from edge of Interstate 5)</td>
<td>15 minutes</td>
<td>53</td>
<td>Traffic on Interstate 5 Trees rustling Plane overhead Birds chirping</td>
</tr>
<tr>
<td>ST-3. Along Manthey Rd. between Henry Long and William Moss Blvds. (90 feet east of Manthey Rd centerline; 300 feet west of Interstate 5 edge)</td>
<td>10 minutes</td>
<td>61</td>
<td>Traffic on Interstate 5 Traffic on Manthey Rd.</td>
</tr>
<tr>
<td>ST-4. South side of French Camp Rd. between Manthey and McDougald Blvds. (50 feet south of French Camp Rd. centerline)</td>
<td>10 minutes</td>
<td>65</td>
<td>Traffic on French Camp Rd Traffic on Interstate 5 Plane overhead Birds chirping</td>
</tr>
<tr>
<td>ST-5. Dirt road off of Henry Long Blvd near new housing development (200 feet from Henry Long centerline and 30 feet from house sound wall)</td>
<td>10 minutes</td>
<td>52</td>
<td>Traffic Henry Long Traffic on Interstate 5 Plane overhead Birds chirping</td>
</tr>
<tr>
<td>ST-6. Henry Long and Manthey, (36 feet from center of Henry Long Blvd and 150 feet from center of Manthey Rd)</td>
<td>10 minutes</td>
<td>60</td>
<td>Traffic Henry Long Traffic on Interstate 5 Traffic on Manthey Birds chirping</td>
</tr>
</tbody>
</table>

* Noise measurements at sites LT-1 through LT-4 and ST-1 through ST-4 were taken in 2003. Measurements at sites LT-5, LT-6, ST-5 and ST-6 were taken in 2005.

Site Activity Noise Sources Measured Loading Dock Noise at Wal-Mart Supercenter

Data from a 24-hour-long-term noise measurement at the Wal-Mart Supercenter in Stockton (3223 East Hammer Lane) and several short-term noise measurements at a Wal-Mart in Sacramento are summarized in Table 4.9-3 and Figure 4.9-10. These measurement were used to estimate potential noise levels resulting from the proposed project at nearby existing and planned residences in the vicinity of the project site.

The proposed Wal-Mart Supercenter loading bays will have approximately 17-foot-tall wing-walls around the truck wells as well as rubberized gaskets at the loading bays to reduce noise. The measured average hourly noise at 145 feet from the Hammer Lane Wal-Mart Supercenter loading dock ranged from 51 to 71 dB Leq, as well as a 24-hour CNEL measured at 66 dBA. However, this data included noise generated by sources other than the Wal-Mart loading dock area. In addition to loading dock activities, the 24-hour noise readings were affected by train horns, construction noise associated with houses, backup beepers and squealing brakes at Stockton Steel, and landscape maintenance equipment near the noise meter. As a result, this data was used in conjunction with the short-term monitoring data reported in Table 4.9-4 and was supplemented with file data collected at other comparable loading dock areas.
4.9.2 Impacts and Mitigation Measures

Significance Criteria

A project would result in a significant noise impact if it would:

- Expose persons to or generate noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies.
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing levels existing without the project.
- Expose people residing or working in the project area to excessive noise levels if the project is located within an area covered by an airport land use plan, or where such plan has not been adopted, within two miles of a public airport or public use airport.
- Expose people residing or working in the project area to excessive noise levels if the project is located in the vicinity of a private airstrip.
- Expose persons to or generate excessive ground-borne vibration or ground-borne noise levels.

The following analysis discusses the first five criteria; the sixth is not discussed further since project construction would not involve activities that are typically associated with significant ground-borne vibration (i.e. pile driving, blasting, rock drilling).

The significance of project-related noise impacts can be determined by comparing estimated project-related noise levels to existing no-project noise levels. An increase of at least 3 dBA is usually required before most people will perceive a change in noise levels, and an increase of 5 dBA is required before the change will be clearly noticeable. A common practice has been to assume that minimally perceptible to clearly noticeable increases of 3–5 dB represent a significant increase in ambient noise levels. A sliding scale is commonly used to identify the significance of noise increases, allowing greater increases at lower absolute sound levels than at higher sound levels. This approach is based on research that relates changes in noise to the percentage of individuals that would be highly annoyed by the change. The significance criteria for changes in noise from project operations are as follows:

1. A 3 dBA DNL increase in noise as a result of project operations if the existing noise level already exceeds the “normally acceptable range” for the land use (60 dBA DNL or less for residential uses).
2. A 5 dBA DNL increase in noise as a result of project operations if the existing noise level is in the “normally acceptable range” and the resulting level is within the “normally acceptable range” for the land use.
3. A resulting offsite noise level from stationary non-transportation sources that exceeds 55 dBA Leq in the daytime (7:00 a.m. to 10:00 p.m.) or 45 dBA Leq in the nighttime (10:00 pm to 7:00 a.m.) at the property line of the receiving land use. These criteria are based on the noise level standards presented in Table 4.9-2, Part II.
Impact

Impact 4.9.1. Construction and grading activities associated with the development of the project would temporarily and intermittently increase noise levels at nearby sensitive receptor locations. This impact would be potentially significant.

Future noise levels related to construction within and adjacent to the project site would fluctuate depending on the particular type, number, and duration of uses of various pieces of construction equipment. Construction activities could involve excavation, grading, demolition, drilling, trenching, earth movement, and vehicle travel to and from the project site. The project would include the development of large and small retail stores, restaurants, and two gas stations. No pile driving activities are expected.

Construction-related material haul trips would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. Table 4.9-5 shows typical noise levels during different construction stages for commercial buildings. Table 4.9-6 provides typical noise levels produced by various types of construction equipment.

Construction of the project could generate significant amounts of noise, corresponding to the particular phase of building construction and the noise generating equipment used during construction. The closest sensitive receptors would be those described in the setting section, especially existing residences along Sydney Lane, Brittanyann Lane, and McDougald Boulevard. Other sensitive receptors in the project vicinity would be exposed to construction noise at incrementally lower levels.

Noise from construction activities generally attenuates at a rate of 6 to 7.5 dBA per doubling of distance. Residences to the west of the project site (along Sydney Lane, Brittanyann Lane) could be as close as 50 to 100 feet from project construction. Assuming an attenuation rate of 6 dBA per doubling of distance, the closest residences would experience exterior noise levels of 83 Leq during excavation and finishing activities, the loudest of the

### Table 4.9-5
**Typical Construction Noise Levels**

<table>
<thead>
<tr>
<th>Construction Phase</th>
<th>Noise Level (dBA, Leq)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Clearing</td>
<td>84</td>
</tr>
<tr>
<td>Excavation</td>
<td>89</td>
</tr>
<tr>
<td>Foundations</td>
<td>78</td>
</tr>
<tr>
<td>Erection</td>
<td>85</td>
</tr>
<tr>
<td>Finishing</td>
<td>89</td>
</tr>
</tbody>
</table>

*a Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.


### Table 4.9-6
**Typical Noise Levels from Construction Equipment**

<table>
<thead>
<tr>
<th>Construction Equipment</th>
<th>Noise Level (dBA, Leq at 50 Feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dump Truck</td>
<td>88</td>
</tr>
<tr>
<td>Portable Air Compressor</td>
<td>81</td>
</tr>
<tr>
<td>Concrete Mixer (Truck)</td>
<td>85</td>
</tr>
<tr>
<td>Scraper</td>
<td>88</td>
</tr>
<tr>
<td>Jack Hammer</td>
<td>88</td>
</tr>
<tr>
<td>Dozer</td>
<td>87</td>
</tr>
<tr>
<td>Paver</td>
<td>89</td>
</tr>
<tr>
<td>Generator</td>
<td>76</td>
</tr>
<tr>
<td>Pile Driver</td>
<td>101</td>
</tr>
<tr>
<td>Backhoe</td>
<td>85</td>
</tr>
</tbody>
</table>

**Source:** Cunniff, 1977
non-impact construction phases that would occur within close proximity of residences. Construction noise at these levels would be substantially greater than existing noise levels at nearby sensitive receptor locations. No pile driving will be needed for project construction. Long-term exposure to construction noise by individual residences could be lessened over time due to attenuation of noise by project structures built in the interim.

Construction activities associated with the project would be temporary in nature and related noise impacts would be short term. However, since construction activities could substantially increase ambient noise levels at noise-sensitive locations, construction noise could result in potentially significant, albeit temporary, impacts to sensitive receptors. Construction activities are required to comply with the City’s Noise Ordinance. Compliance with the Noise Ordinance and implementation of the following mitigation measure is expected to reduce impacts related to construction noise.

**Mitigation Measure 4.9.1a.** The applicant shall implement the following measures:

- Construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Saturday to avoid noise-sensitive hours of the day. Construction activities shall be prohibited on Sundays and holidays.

- Construction equipment noise shall be minimized during project construction by muffling and shielding intakes and exhaust on construction equipment (per the manufacturer’s specifications) and by shrouding or shielding impact tools.

- Construction contractors shall locate fixed construction equipment (such as compressors and generators) and construction staging areas as far as possible from nearby residences.

- Construction contractors shall prohibit material haul trucks from using William Moss Boulevard and the segment of Manthey Road north of William Moss Boulevard to access the project site. Instead, haul trucks shall exit Interstate 5 at French Camp Road and approach the project site via French Camp Road, Henry Long Boulevard, and/or the segment of Manthey Road between French Camp Road and Carolyn Weston Boulevard.

**Mitigation Measure 4.9.1b.** To further address the nuisance impact of project construction, construction contractors shall implement the following:

- Signs will be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a contact number with the City of Stockton in the event of problems.

- An onsite complaint and enforcement manager shall track and respond to noise complaints.

**Impact Significance after Mitigation:** Given the temporary nature of construction noise impacts and implementation of the above mitigation measures, this impact would be reduced to a less-than-significant level.
Impact 4.9.2. Operational activities (non-transportation) associated with the project could increase ambient noise levels at nearby existing and planned residences. This impact would be potentially significant.

Non-transportation noise generated by the project would include noise from commercial uses such as truck circulation, Heating Ventilation and Air Conditioning (HVAC), trash compactor use, loading/unloading activities in delivery areas, idling trucks, parking lot activities, and power equipment (e.g., leaf blowers and parking lot sweepers). Potential noise levels and impacts from these operational activities are described below.

Loading Docks
To assess loading dock activity noise impacts at the nearest potentially affected noise-sensitive land uses (residences proposed immediately west of the project site), reference noise levels of 80 dB Lmax and 60 dB Leq at a distance of 50 feet were used. These data include noise generated by truck arrivals and departures from the unloading area, trucks backing into the docks (including backup beepers), air brakes, and other related truck unloading noise.

The nearest proposed residential property lines to the truck unloading areas behind the proposed Wal-Mart Supercenter and the major retail store would be about 80 feet. At this distance, unmitigated loading dock area noise at the property lines would be approximately 56 dB Leq and 76 dB Lmax.

On-Site Truck Circulation Noise
According to the project site plans, the onsite truck traffic will likely be routed to the rear (west end) of the Wal-Mart Supercenter store via Manthy and French Camp Roads. While onsite, the trucks behind the store would pass within approximately 50 to 75 feet of the proposed residential property line to the west and north. Trucks accessing the other major retail store would also likely pass behind the Wal-Mart Supercenter but are projected to be fewer than those generated by the Wal-Mart Supercenter.

Truck pass-bys en route to the loading dock areas are expected to be relatively brief and are estimated to produce an average Sound Exposure Level (SEL) of approximately 87 dB at a distance of 50 feet. The typical Lmax level due to a truck pass-by has been measured to be approximately 75 dB at a distance of 50 feet. For this assessment, the nearest residential locations were conservatively assumed to be 50 feet away from the truck passage area.

The predicted Leq at the nearest residences resulting from truck passages would depend on the number of hourly truck operations. Based on ESA staff observations of loading dock activity at the other Hammer Lane Wal-Mart store, it is expected that up to 10 truck pass-bys could occur in any given daytime hour, while not more than 5 per hour are anticipated during nighttime hours behind the Wal-Mart Supercenter. Because there would be fewer trucks behind the other major retail store, the number of truck passages behind that structure in any given daytime hour would be 5, with not more than 2 in any given nighttime hour.
Based on these projections, the worst-case hourly Leq was computed at the nearest residential property lines to the north and west assuming a 4.5 dB decrease for each doubling of distance from the source. The results of that analysis are provided below in Table 4.9-7.

**TABLE 4.9-7**

<table>
<thead>
<tr>
<th>Property Line</th>
<th>Hourly day/night truck passages</th>
<th>Predicted Lmax (unmitigated)</th>
<th>Predicted Daytime Leq(h) (unmitigated)</th>
<th>Predicted Nighttime Leq(h) (unmitigated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>West – Wal-Mart Supercenter</td>
<td>10 / 5</td>
<td>75 dB</td>
<td>61 dB</td>
<td>58 dB</td>
</tr>
<tr>
<td>West – Major Retail 2</td>
<td>5 / 2</td>
<td>75 dB</td>
<td>58 dB</td>
<td>54 dB</td>
</tr>
<tr>
<td>North – Major Retail 2</td>
<td>5 / 2</td>
<td>75 dB</td>
<td>58 dB</td>
<td>54 dB</td>
</tr>
</tbody>
</table>

* Noise values based on a distance of 50 feet between the center of the truck circulation route and the property line.


**Heating, Ventilating, and Air Conditioning (HVAC) Equipment Noise**

The HVAC system for maintaining comfortable shopping temperatures within the proposed Wal-Mart Supercenter store will consist of packaged rooftop air conditioning systems. Such rooftop HVAC units typically generate noise levels of approximately 55 dB at a reference distance of 100 feet from the operating units during maximum heating or air conditioning operations.

Noise levels from cold food storage refrigeration units at a Wal-Mart Supercenter facility similar to the one proposed were measured to be 66 dB Leq at 50 feet. The nearest residences to the proposed refrigeration equipment will be approximately 230 feet west. At this distance, the refrigeration units are expected to produce approximately 53 dB Leq.

**Parking Lot Activities**

The center of the main parking lot is located approximately 500 feet from the nearest residential uses to the west, which would be shielded from view by the proposed Wal-Mart Supercenter structure. For the purposes of this analysis, this distance will be considered the focal point where parking activity noise is generated.

As a means of determining the noise levels due to parking lot activities noise level data collected at various parking areas was utilized. A typical SEL due to automobile arrivals and departures, including car doors slamming and people conversing is approximately 71 dB, at a distance of 50 feet. Based on information provided by the project transportation consultant, approximately 1,500 to 2,000 vehicles would arrive and depart during the p.m. peak hour. Assuming 2,000 parking lot movements, the peak hour Leq noise level can be determined using the following formula:

\[
\text{Peak Hour Leq} = 71 + 10 \times \log(2,000) - 35.6, \text{ dB where:}
\]
71 is the mean sound exposure level (SEL) for an automobile arrival and departure, and 10 * (log 2,000) is 10 times the logarithm of the number of automobile arrivals and departures per hour, and 35.6 is 10 times the logarithm of the number of seconds in an hour.

Based upon the equation above, the parking lot would result in a daytime peak hour Leq of approximately 68 dB, at a distance of 50 feet. At 500 feet, the predicted noise level, at the nearest residential property line would be approximately 48 dB Leq. However, a significant amount of shielding will be provided by the intervening commercial buildings. Therefore a -10 dB offset may be applied to the parking lot noise levels. Accounting for shielding, the parking lot noise levels at the nearest residential uses is predicted to be 38 dB Leq.

Public Address System

Outdoor garden areas of large commercial stores typically have speakers similar to those inside the store for use in paging store personnel. The noise generation of these systems is dependent on many variables (e.g., number of speakers, amplifier settings, speaker locations and direction, frequency of use). For this analysis, it was assumed that a desired maximum level of 75 dB at the outdoor shopping area (10 dB over normal conversational levels for speech intelligibility) would be desired, and that the distance between the shoppers and speakers would be approximately 20 to 30 feet. The garden area of the proposed Wal-Mart Supercenter would be about 400 feet from the western project property line and the nearest residences beyond. At that distance, the reference levels would be attenuated to approximately 50 to 55 dB Lmax, without considering the directionality of the speakers or shielding by the commercial structure. After consideration of those effects, maximum noise levels associated with public address system usage in the outdoor garden area are predicted to be well below 50 dB Lmax.

Site Maintenance

Maintenance activities associated with project-related parking and landscaped areas could include the use of parking lot sweepers and leaf blowers. Leaf blower noise levels have been measured to be in the range of 69 to 81 dBA at a distance of 50 feet from the operator.

Compactor

There is a trash compactor at the Wal-Mart Supercenter that would be located approximately 180 feet from the nearest planned residential property line. Trash compactor noise was measured at another Wal-Mart Supercenter\(^1\) and the Leq and Lmax were both 57 dBA at 50 feet. Based on these noise measurements, at approximately 180 feet the compactor noise levels would attenuate to 46 dBA Leq and Lmax. There would also be a screen wall enclosure that would block the line of sight between the trash compactor and the nearest residence to the west and reduce compactor noise below the City of Stockton 45 dBA Leq nighttime noise standard.

Auto Center Noise
The project proposes a Tire and Lube Express (TLE) auto center on the northeast side of the Wal-Mart Supercenter as shown in Figure 3-4. The TLE auto center would operate only during the daytime hours. Potentially significant noise sources associated with auto service operations include air impact wrenches, tire breakers, and air supply compressors. No significant noise producing activities are identified for any auto lubrication or battery changing operations which may occur in this area. The noise generation of each of the components of the tire changing operations is discussed separately below and is based on noise levels measured at similar facilities (Bollard and Brennan, Inc., 2005).

Impact Wrench Noise Levels:
A potentially significant noise source at the proposed auto maintenance facility would be the operation of air impact wrenches during tire changes. These wrenches typically produce a maximum noise level of about 88 dBA at a distance of 10 feet. Impact wrenches are used twice for each wheel removal/replacement operation with an average duration of use of 10 – 15 seconds per wheel.

Because the oil change/lubrication operations do not generate significant noise levels relative to the tire changing operations, the overall facility noise generation is directly related to the number of tires changed per day. Because the number of tires changed in any given day is variable, it was assumed that up to about 400 tire changes per day could occur at the proposed TLE on a very busy day, but typical operations would be expected to be less intense.

The nearest proposed residential property line to the TLE is located at a distance of approximately 100 feet to the west. At this distance, impact wrench maximum noise levels are predicted to be approximately 68 dBA without mitigation. This maximum noise level does not exceed the City’s daytime maximum noise level standards. Therefore, no noise mitigation measures appear to be warranted for this aspect of the proposed TLE.

Based on an assumed impact wrench usage of about 10 seconds per wheel, and a conservative assumption of 400 tire changes per day (with about 60 in a worst case hour), the predicted average noise level at the nearest residences is predicted to be approximately 50 dBA Leq. Because this level would satisfy the City of Stockton daytime noise level standards, no noise mitigation measures appear to be warranted for this aspect of the proposed TLE.

Tire Breaker Noise Levels:
Tire breakers are also a potentially significant noise source due to the rapid release of air pressure through a number of small holes adjacent to the tire sidewall. Noise produced by this type of pneumatic tire breaker reaches a brief maximum level of about 105 dBA at 10 feet. Other types of tire breakers, where the rapid air release has been eliminated and replaced with an air/hydraulic control system, produce noise levels of approximately 74 dBA at a distance of 10 feet. For a worst-case estimate of tire-breaker noise generation, it is assumed that the louder type of tire breaker could be used at the proposed facility. Tire breakers are used twice for each tire removal/replacement operation. The average duration of use is approximately 20 seconds per wheel.
The noise level at the nearest residential property line to the west of the Wal-Mart TLE during tire breaker operations will depend on the degree by which the tire breaker operations are shielded from view of those residences. If the pneumatic tire breaker were completely unshielded from view of the nearest proposed residences approximately 100 feet away, those areas could be expected to receive a maximum noise level of approximately 85 dBA. In practice, it is highly likely that there would be some degree of shielding of this equipment in the direction of the nearest proposed residences to the west. However, without mitigation, this noise level would exceed the City’s daytime maximum noise level standards. See Mitigation Measure 4.9.2a below.

**Air Compressor Noise Levels:**

The noise produced by air supply compressors varies considerably with compressor size, type, and operating conditions. At similar tire maintenance facilities, reference noise levels were measured at 60 dBA at 50 feet for steady-state compressor operation. The compressors typically cycle on and off intermittently during the work day to meet air supply demands. At the nearest proposed residential property line, located approximately 100 feet to the west of the proposed Wal-Mart TLE, the worst-case noise level associated with compressor usage would be 54 dBA Leq assuming it is unshielded. In practice, it is highly likely that there would be some degree of shielding of this equipment in the direction of the nearest proposed residences to the west. Because this level would satisfy the City of Stockton daytime noise level standards, no noise mitigation measures appear to be warranted for this aspect of the proposed TLE.

**Operational Activity Potential Impacts**

Although noise generated by parking lot activities and potential PA system usage within the outdoor garden area are predicted to be below City of Stockton noise level standards during both day and nighttime periods, noise generated by heavy truck passages and loading dock activities behind the Wal-Mart Supercenter and other major retailer, as well as mechanical equipment associated with food cold storage and the TLE auto center, is predicted to exceed those standards during both day and nighttime periods. Noise generated by rooftop air conditioning systems is predicted to satisfy City noise standards at the nearest residences to the west during daytime hours, but may exceed the City noise standards during nighttime hours. In addition, maintenance activities associated with project-related parking and landscaped areas could exceed City noise standards as well. Overall, noise associated with activities to the rear of the proposed store are predicted to exceed the City’s daytime hourly average exterior noise level standards by 3 to 6 dB, and the City’s nighttime hourly average exterior noise level standards by 9 to 13 dB.

As a result of the predicted exceedance of the City of Stockton Noise Ordinance standards (Table 4.9-2), impacts associated with these on-site operations are considered significant.
Mitigation Measures

Mitigation Measure 4.9.2a. The project applicant shall incorporate the following design features into the final site plans:

- Building equipment (e.g., HVAC units) shall be located away from nearby residences, on building rooftops, and properly shielded by either the rooftop parapet or within an enclosure that effectively blocks the line of sight of the source from the nearest receptors to the west.

- For the proposed Wal-Mart Supercenter and other major retailer that would be located on the western edge of the project site, appropriate wing-walls around the truck wells, rubberized gaskets at the loading bays, and acoustically absorptive materials shall be implemented at the primary loading docks of each facility to reduce noise.

- A 13-foot tall sound wall shall be constructed along the entire western edge of the Wal-Mart Supercenter property, and 12-foot tall sound walls shall be constructed along the entire western edge of the other major retail site and along the entire northern edge of the project site, to reduce noise that would reach the existing and planned residences to the west and north of the project. Please refer to Figures 4.9-11 and 4.9-12 for illustrations of sound wall mitigation efficacy.

- Any outdoor public announcement (P.A.) system speakers shall be directed away from residences. Speaker volumes shall be adjusted to minimize noise at nearby residences.

Mitigation Measure 4.9.2b. The following activities shall be prohibited between the hours of 10:00 p.m. and 7:00 a.m., per section 16-340.030 of the City of Stockton Noise Ordinance:

- Use of loudspeakers or loudspeaker systems.

- Garbage removal activities.

- Use of parking lot sweeping units (e.g., air system sweeping devices, truck-mounted parking lot sweeping devices or other similar devices) and landscape equipment (e.g., leaf blowers).

Impact Significance after Mitigation:

The recommended 12 and 13-foot sound walls would reduce all loading dock, truck circulation, and food cold storage and TLE mechanical equipment Leq and Lmax noise levels at existing and future approved residents along the western and northern edge of the project site by approximately 10-13 dB thereby achieving compliance with the City’s daytime and nighttime exterior noise level limits. Thus, with implementation of the above mitigation measures, the operational (non-transportation) noise impacts of the project would be reduced to less-than-significant levels.
45 dBAeq Truck Circulation noise contour - Including shielding provided by noise walls.
EXISTING RESIDENTIAL

45 dBLeq Loading Dock noise contour, Including shielding provided by 13-foot tall wall.

45 dBLeq Loading Dock noise contour, Including shielding provided by 12-foot tall wall.

SOURCE: Bollard Acoustical Consultants, 2006; and ESA, 2006

Figure 4.9-12
Loading Dock Noise Contours with Mitigation
Impact 4.9.3. Traffic associated with operation of the project would result in an increase in ambient noise levels on nearby roadways used to access the shopping center. This impact would be significant.

To assess the impact of project traffic on roadside noise levels, noise level projections were made using the Federal Highway Administration’s (FHWA) Noise Prediction Model for those road segments that would experience the greatest increase in traffic volume and/or that would pass through residential areas. The model is based on the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

The results of the modeling effort are shown in Table 4.9-8 for the Existing, Near Term, and Near Term Plus Project scenarios. Based on the traffic analysis, the project would generate approximately 35,200 daily vehicle trips that would enter the shopping center and be distributed over the local street network, thereby affecting roadside noise levels.

For the modeling effort, p.m. peak-hour traffic volumes during weekdays were used. Estimated noise levels shown in Table 4.9-8 correspond to a distances of 15 meters (49 feet) from the centerline of applicable roadway segments. As indicated in Table 4.9-8, noise generated by traffic on one roadway segment (but with two varying alignments of the cross-street, Manthey Road) meets the criteria for a significant noise impact. On Roadway Segment 8 (French Camp Road between McDougald Boulevard and Interstate 5), estimated existing, near term, and near term plus project noise levels are exceed the “normally acceptable” (65 dBA CNEL or less) range for residential land uses. Estimated project-related traffic on Roadway Segment 8 would increase noise levels by more than 5 dBA and the resulting exterior noise levels would be greater than 70 dBA CNEL for Roadway Segment 8 and would be significant without mitigation.

Mitigation Measure 4.9.3. The project applicant shall provide a fair-share contribution (based on project related traffic noise) to future sound wall construction along French Camp Road between McDougald Boulevard and I-5.

Impact Significance after Mitigation:

With implementation of the mitigation measure listed above, this impact would be reduced to less-than-significant for the approved residential development that will be located at French Camp Road and McDougald Boulevard in the near term.

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2 Ldn and CNEL are approximately equal to the Leq peak hour under normal traffic conditions (Caltrans, 1998)
TABLE 4.9-8  
EXISTING AND NEAR-TERM PM PEAK-HOUR TRAFFIC NOISE LEVELS ALONG ROADWAYS IN THE PROJECT VICINITY

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Existing</th>
<th>Near Term No Project</th>
<th>Near Term Plus Project</th>
<th>Incremental Increase (Existing vs. Near Term + Project)</th>
<th>Significant? (Yes or No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Carolyn Weston Blvd (b/t McDougald and Manthey)</td>
<td>68.3</td>
<td>71.0</td>
<td>71.6</td>
<td>0.6</td>
<td>No</td>
</tr>
<tr>
<td>2. Carolyn Weston Blvd (b/t Manthey and I-5)</td>
<td>68.8</td>
<td>70.0</td>
<td>70.7</td>
<td>0.7</td>
<td>No</td>
</tr>
<tr>
<td>3. McDougald Blvd (b/t Carolyn Weston and Henry Long)</td>
<td>58.6</td>
<td>62.0</td>
<td>62.7</td>
<td>0.7</td>
<td>No</td>
</tr>
<tr>
<td>4. Manthey Rd (b/t Carolyn Weston and Henry Long)</td>
<td>66.4</td>
<td>66.0</td>
<td>68.6</td>
<td>2.6</td>
<td>No</td>
</tr>
<tr>
<td>5. McDougald Blvd (b/t Henry Long and French Camp)</td>
<td>55.0</td>
<td>59.9</td>
<td>62.7</td>
<td>2.8</td>
<td>No</td>
</tr>
<tr>
<td>6. William Moss Blvd (b/t McDougald and Manthey)</td>
<td>59.8</td>
<td>58.9</td>
<td>61.4</td>
<td>2.5</td>
<td>No</td>
</tr>
<tr>
<td>7. Henry Long Blvd (b/t McDougald and EWS Woods)</td>
<td>58.4</td>
<td>60.8</td>
<td>60.8</td>
<td>0.0</td>
<td>No</td>
</tr>
<tr>
<td>8a. French Camp Rd (b/t McDougald and I-5)</td>
<td>68.8</td>
<td>69.9</td>
<td>74.1</td>
<td>5.3</td>
<td>Yes</td>
</tr>
<tr>
<td>8b. French Camp Rd (b/t McDougald and I-5)</td>
<td>68.8</td>
<td>69.9</td>
<td>73.9</td>
<td>5.1</td>
<td>Yes</td>
</tr>
<tr>
<td>9. French Camp Rd (b/t McDougald and EWS Woods)</td>
<td>64.5</td>
<td>66.9</td>
<td>67.3</td>
<td>0.4</td>
<td>No</td>
</tr>
<tr>
<td>10. Manthey Rd (b/t French Camp and Yettner)</td>
<td>65.3</td>
<td>65.2</td>
<td>66.1</td>
<td>0.9</td>
<td>No</td>
</tr>
</tbody>
</table>

1 Road center to receptor distance is 15 meters (approximately 50 feet) for values shown in this table. Noise levels were determined using FHWA Traffic Noise Prediction Model (FHWA RD-77-108). Please see Appendix H for more information.

2 Considered significant if the incremental increase in noise is greater than 5 dBA Leq in a noise environment of 60 dBA CNEL or less or an increase of 3 dBA Leq in a noise environment greater than 60 dBA CNEL.

3 Vehicle mix on these road segments is assumed to be 98.9 percent auto, 1 percent medium trucks, and 0.1 percent heavy trucks based on a traffic count on Manthey during the P.M. peak hour. The speed limit for these segments is 40 miles per hour.

4 Vehicle mix on these road segments is assumed to be 98.75 percent auto, 1 percent medium trucks, and 0.3 percent heavy trucks based on a traffic count on McDougald during the P.M. peak hour. The speed limit for these segments is 30 miles per hour.

5 Vehicle mix on these road segments is assumed to be 98.9 percent auto, 1 percent medium trucks, and 0.1 percent heavy trucks based on a traffic count on Manthey during the P.M. peak hour. The speed limit for these segments is 45 miles per hour.

6 The speed limit for French Camp Road was not posted in the study area. The speed limit was assumed to be 45 mph.

7 Roadway segments 8a and 8b represent the same segment but with different alignments of Manthey Road.

8 For the Near Term versus Near Term Plus Project scenario, the incremental increase of over 3 dBA is considered a significant impact because of development of approved residences located at French Camp Road and McDougald Blvd.

Cumulative Impact 4.9.4. Increases in traffic from the project in combination with other development would result in cumulative noise increases. This impact would be significant.

A cumulative impact arises when two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant impacts, meaning that the project’s incremental effects must be viewed in connection with the effects of past, current, and probable future projects. Notably, any project that would individually have a significant noise impact would also be considered to have a significant cumulative noise impact.

Cumulative Analysis – Years 2025

Based on the traffic analysis prepared for this report, the project would generate approximately 35,200 daily vehicle trips that would enter the shopping center and would be distributed over the local street network and would affect roadside noise levels.

To assess the cumulative impact of project traffic on roadside noise levels for the year 2025, noise level projections were made using the FHWA Noise Prediction Model and are shown in Table 4.9-9. Estimated noise levels shown in Table 4.9-9 correspond to a distance of approximately 50 feet from the centerline of applicable roadway segments. As depicted in Table 4.9-9 below, the project would not increase noise levels by 3 dBA or more on any of the roadway segments. Thus, it is also considered to have a less-than-significant cumulative impact on noise without mitigation for both the 2025 cumulative analysis years.

Mitigation Measure. No mitigation is required.
### TABLE 4.9-9
CUMULATIVE PM PEAK-HOUR TRAFFIC NOISE LEVELS ALONG ROADWAYS IN THE PROJECT VICINITY

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>Cumulative (Year 2025) No Project</th>
<th>Cumulative (Year 2025) Plus Project</th>
<th>Incremental Increase for Year 2025 (Cumulative vs. Cumulative + Project)</th>
<th>Cumulatively Significant? (Yes or No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Carolyn Weston Blvd (b/t McDougald and Manthey)</td>
<td>71.6</td>
<td>72.1</td>
<td>0.5</td>
<td>No</td>
</tr>
<tr>
<td>2. Carolyn Weston Blvd (b/t Manthey and I-5)</td>
<td>70.7</td>
<td>71.3</td>
<td>0.6</td>
<td>No</td>
</tr>
<tr>
<td>3. McDougald Blvd (b/t Carolyn Weston and Henry Long)</td>
<td>61.7</td>
<td>62.2</td>
<td>0.5</td>
<td>No</td>
</tr>
<tr>
<td>4. Manthey Rd (b/t Carolyn Weston and Henry Long)</td>
<td>66.8</td>
<td>68.8</td>
<td>2.0</td>
<td>No</td>
</tr>
<tr>
<td>5. McDougald Blvd (b/t Henry Long and French Camp)</td>
<td>62.0</td>
<td>58.6</td>
<td>-3.4</td>
<td>No</td>
</tr>
<tr>
<td>6. William Moss Blvd (b/t McDougald and Manthey)</td>
<td>60.1</td>
<td>60.4</td>
<td>0.3</td>
<td>No</td>
</tr>
<tr>
<td>7. Henry Long Blvd (b/t McDougald and EWS Woods)</td>
<td>58.7</td>
<td>59.2</td>
<td>0.5</td>
<td>No</td>
</tr>
<tr>
<td>8a. French Camp Rd (b/t McDougald and I-5)</td>
<td>72.5</td>
<td>75.2</td>
<td>2.7</td>
<td>No</td>
</tr>
<tr>
<td>8b. French Camp Rd (b/t McDougald and I-5)</td>
<td>72.5</td>
<td>75.2</td>
<td>2.7</td>
<td>No</td>
</tr>
<tr>
<td>9. French Camp Rd (b/t McDougald and EWS Woods)</td>
<td>70.6</td>
<td>65.8</td>
<td>-4.8</td>
<td>No</td>
</tr>
<tr>
<td>10. Manthey Rd (b/t French Camp and Yettner)</td>
<td>66.7</td>
<td>67.3</td>
<td>0.6</td>
<td>No</td>
</tr>
</tbody>
</table>

1 Road center to receptor distance is 15 meters (approximately 50 feet) for values shown in this table. Noise levels were determined using FHWA Traffic Noise Prediction Model (FHWA RD-77-108).
2 Considered significant if the incremental increase in noise is greater than 5 dBA Leq in a noise environment of 60 dBA CNEL or less or an increase of 3 dBA Leq in a noise environment greater than 60 dBA CNEL. If project is individually significant, then it is also considered to be cumulatively significant.
3 Vehicle mix on these road segments is assumed to be 98.9 percent auto, 1 percent medium trucks, and 0.1 percent heavy trucks based on a traffic count on Manthey during the P.M. peak hour. The speed limit for these segments is 40 miles per hour.
4 Vehicle mix on these road segments is assumed to be 98.75 percent auto, 1 percent medium trucks, and 0.3 percent heavy trucks based on a traffic count on McDougald during the P.M. peak hour. The speed limit for these segments is 30 miles per hour.
5 Vehicle mix on these road segments is assumed to be 98.9 percent auto, 1 percent medium trucks, and 0.1 percent heavy trucks based on a traffic count on Manthey during the P.M. peak hour. The speed limit for these segments is 45 miles per hour.
6 The speed limit for French Camp Road was not posted in the study area. The speed limit was assumed to be 45 mph.
7 Roadway segments 8a and 8b represent the same segment but with different alignments of Manthey Road.

4.10 Hydrology and Water Quality

4.10.1 Setting

Existing Conditions

Surface Hydrology

The project area is characterized by a typical Mediterranean climate with wet, cold winters, and warm, dry summers. Most of the rainfall occurs between November and April with an average annual rainfall of 13.7 inches. The 10-year, 48-hour estimated precipitation\(^1\) amount for the City of Stockton is 3.12 inches (San Joaquin County, 1973) and the 100-year, 24-hour estimated precipitation is 3.5 inches (Western Regional Climate Center, 2001).

The project area is located southeast of the Sacramento-San Joaquin Delta (Delta) in the San Joaquin Valley Floor Hydrologic Unit. The only surface water features traversing the project site are two irrigation ditches: (1) a concrete lined ditch along western boundary of project site, north of Henry Long Boulevard, and (2) an unlined ditch along eastern boundary of project site, north of Henry Long Boulevard. French Camp Slough, a tributary of the San Joaquin River, is the closest natural water feature, located approximately 1,500 feet north of the project site. The San Joaquin River, located just over one mile west of the project site, is the major surface water feature within the region and drains an area of approximately 13,536 square miles upstream of Vernalis, to the south. The San Joaquin River has a mean annual flow of approximately 4,622 cubic feet per second (cfs) and an annual discharge of approximately 3.349 million acre-feet (AF) (USGS, 2002). During the period of record (1924–2001), the maximum peak flow has reached 79,000 cfs on December 9, 1950 and a corresponding stage height of 32.81 feet.

Drainage

The project site currently contains a relatively low proportion of impervious surfaces. As a result, a majority of the precipitation that falls in a normal year infiltrates into the soil column with little or no surface runoff.

Surface Water Quality

Surface water quality is greatly influenced by local land uses, which have historically included rural residential and agricultural uses. Potential pollutant sources within the project area include past waste disposal practices, urban stormwater runoff, and chemicals and fertilizers applied to agricultural lands. Typical contaminants include sediment, hydrocarbons and metals, pesticides, nutrients, bacteria, and litter.

\(^1\) The 10-year, 48-hour precipitation estimate refers to the approximate amount of rainfall that is expected to fall over a 48-hour period during a 10-year storm event or an event that has a 10 percent probability of occurring during a normal year.
The State Water Resources Control Board (SWRCB), in compliance with the Clean Water Act Section 303(d) has prepared a list of impaired water bodies in the State of California (SWRCB, 2003). The project, as mentioned, would indirectly drain into the San Joaquin River. The San Joaquin River, from the Merced River to the south Delta Boundary, is listed as impaired for boron, chlordane, DDT, diazinon, electrical conductivity, Group A pesticides, mercury, and unknown toxicity. These sources of pollution are mainly attributed to agriculture and resource extraction. Downstream waterways within the Delta are also designated as impaired for a variety of contaminants, including pesticides (chlorpyrifos, DDT, diazinon, and Group A pesticides, resulting from agricultural and urban runoff/storm sewers), mercury (from abandoned mine drainage), electrical conductivity, organic enrichment/low dissolved oxygen (municipal point sources and urban runoff/storm sewers), and unknown toxicity (unknown cause).

**Groundwater Resources**

The San Joaquin River Hydrologic Region, covering approximately 15,200 square miles, contains two entire groundwater basins and part of the San Joaquin Valley Groundwater Basin. The San Joaquin Valley Groundwater Basin is divided into nine subbasins in this region (DWR, 2003). The project would occur within the area defined by the Eastern San Joaquin Subbasin.

The Eastern San Joaquin Subbasin is bound by the Mokelumne River on the north and northwest, the San Joaquin River on the west, the Stanislaus River on the south, and the Sierra Nevada to the east. The Eastern San Joaquin Subbasin is drained by the San Joaquin River and its major tributaries, the Stanislaus, Calaveras, and Mokelumne Rivers. The San Joaquin River flows northward into the Delta and discharges into the San Francisco Bay. Annual precipitation within the subbasin ranges from about 11 inches in the southwest to about 25 inches in the northeast.

Groundwater in San Joaquin County moves from sources of recharge to areas of discharge. Most recharge to the aquifer system occurs from the Delta and along active stream channels where extensive sand and gravel deposits are found. Consequently, the highest groundwater elevations typically occur near the Delta and the Stanislaus and San Joaquin Rivers. Other sources of recharge within the project area include subsurface recharge from fractured geologic formations to the east, as well as deep percolation from applied surface water and precipitation. Groundwater underlying the City of Stockton metropolitan area (COSMA) generally flows to the east (Stockton MUD et al., 2003).

**Hydrogeology**

Water-bearing zones in the Eastern San Joaquin Subbasin consist of the Alluvium and Modesto/Riverbank Formations, Flood Basin Deposits, Laguna Formation, and Mehrten Formation. The thickness of the usable aquifer ranges from less than 100 feet in the eastern edge of San Joaquin County to over 3,000 feet in the southwestern edge, and is approximately 1,000 feet beneath Stockton. In general, the sedimentary units dip westward with the older Tertiary sedimentary formations (primarily Mehrten and Laguna formations) exposed in the east (DWR, 1967). These older formations are overlain by younger Tertiary and Quaternary alluvium (stream deposits) that include the lower to middle Pleistocene Riverbank Formation and upper Modesto Formation.
The Alluvium and Modesto/Riverbank Formations (undifferentiated) are exposed within the subbasin along a band approximately 15 miles wide that extends from about Stockton eastward (DWR, 1967). Groundwater occurs unconfined within these units. Well yields to +650 gallons per minute (gpm) are reported regularly. Because these units are limited in thickness, most wells penetrate them in order to tap deeper aquifers in the area. The average specific yield in San Joaquin County is 7.3 percent. Specific yield is the ratio of the volume of water a rock or soil will yield through gravity drainage to the total volume of the rock or soil. The Victor Formation as defined in DWR Bulletin 146 is correlative with these units (DWR, 1967).

**Groundwater Overdraft**

Measurements over the past 40 years show a fairly continuous decline in groundwater levels in Eastern San Joaquin County (Corps, 2001). Groundwater pumping in San Joaquin County averaged 830,000 AF between 1970 and 1990. Groundwater levels have declined at an average rate of 1.7 feet per year and have dropped as much as 100 feet in some areas. It is estimated that groundwater overdraft during the past 40 years has reduced storage in the basin by as much as 2 million AF (DWR, 2003).

Since the late 1940s and early 1950s, groundwater extraction to meet agricultural and urban demands has created two pronounced pumping depressions. The larger depression is between the Mokelumne and Stanislaus Rivers. The center of this depression is east of Stockton, where groundwater levels can be more than 70 feet below surface level following the irrigation season. This pumping depression has caused poorer water quality from the Delta to migrate toward the City of Stockton. Several municipal wells in west Stockton have been abandoned because of the decline in groundwater quality. The other groundwater depression is between the Cosumnes and Mokelumne Rivers (DWR, 1998).

DWR (1967) concluded that continued groundwater overdraft in Eastern San Joaquin County had caused the groundwater depression beneath Stockton to deepen from -30 feet msl in 1950 to -70 feet msl in 1964. DWR also noted that the depression had broadened to the north, south, and east, and that the largest change in water levels was a drop of 65 feet near Collegeville (DWR, 1967).

Significant groundwater depressions are present below the City of Stockton, east of Stockton, and east of Lodi (SJCCFWCD, 1999). Several of these groundwater depressions extend to depths of about 100 feet below ground surface (bgs) (or more than 40 feet below mean sea level).

Subsidence was investigated during the 1960s in the Stockton area where a substantial quantity of groundwater had been withdrawn. Before 1964, subsidence in the central Stockton area exceeded two feet and subsidence of up to 0.5 feet was recognized to extend for more than four miles to the east and north of Stockton. The average rate of subsidence for the period from 1963 to 1987 was 0.1 and 0.2 feet per year near Stockton, decreasing eastward to approximately 0.05 feet per year (San Joaquin County, 1992).

The U.S. Bureau of Reclamation (1996) estimated the 1990 annual groundwater extraction in San Joaquin County to be about 731,000 AF/year, which exceeded the estimated safe yield of 618,000 AF/year. This resulted in an estimated overdraft of 113,000 AF/year. An estimated 70,000 AF/year of overdraft occurs in northeastern San Joaquin County and about 35,000 AF/year of overdraft occurs in the Stockton East Water District (SEWD) area.
Groundwater Demand
Groundwater currently comprises approximately 40 percent of the City’s total water supply. During dry years when surface water availability is limited, groundwater pumping increases to meet municipal demands. In contrast, during average and wet years, the level of groundwater pumping decreases. In water year 2003, total water use in the COSMA was approximately 66,000 AF/yr, with groundwater accounting for approximately 27,000 AF/yr (City of Stockton, 2004). Total groundwater production from the City’s South Stockton wells has increased significantly over the last ten years, from about 1,000 AF/yr in 1990 to approximately 5,338 AF/yr in 2003 (City of Stockton, 2004).

Groundwater level information in the South Stockton area is generally limited; however, the available data suggest that groundwater levels declined from 1988 to 1992, corresponding to the drought, and generally recovered in the following years. Thus, from a volumetric perspective, current pumping levels are considered to be within the safe perennial yield. In areas southeast and outside of the City, groundwater levels are much lower as compared to 40 years ago indicating continued over-pumping, possibly by agricultural and private wells (City of Stockton, 2004).

Groundwater Quality
The majority of the groundwater in the basin is characterized by calcium-magnesium bicarbonate or calcium-sodium bicarbonate types (Sorenson, 1981). Bicarbonate is the predominant anion in the eastern part of the basin. Large areas of chloride type water occur along the western margin of the subbasin along the San Joaquin River. Based on analyses of 174 water supply wells in the subbasin, total dissolved solids (TDS) ranges from 30 to 1,632 milligrams per liter (mg/L) and averages approximately 310 mg/L (DWR, 2003). Specific conductance of groundwater ranged from 78 to 5,390 micromhos per centimeter (µmhos/cm), with a mean value of 685 and a median of 356. Some of the highest specific conductance values were found along the western part of the subbasin and San Joaquin River alignment (DWR, 2003).

Since the late 1970s saline intrusion has threatened the groundwater quality in the Stockton area especially in dry years when groundwater is used more heavily. As a result of declining water levels, a cone of depression has formed creating a gradient that allows saline water underlying the Delta region to migrate northeast within the southern portions of Stockton. Increased lateral inflow from the west is undesirable, as this water is typically higher in TDS and chloride levels and causes the degradation of water quality in the basin.

Stockton Municipal Utilities Department operates 24 groundwater wells in North Stockton, six groundwater wells in South Stockton, and three groundwater wells at the Walnut Plant. California Water Service Company operates 37 groundwater wells in Central Stockton. Regulations allow for a representative number of wells to be sampled each year on a rotation basis. The quality of the groundwater is generally good with chloride ranging from 3 to 106 mg/L and hardness as calcium bicarbonate (CaCO3) ranging from 44 to 350 mg/L. Arsenic ranges from not detectable (ND) to 45 micrograms per liter (µg/L). All other metal concentrations are at or below their maximum contaminant level (MCL) or their secondary MCL. All organic chemicals of concern (e.g., tetrachloroethene and trichloroethene) are below their MCL.
In 2001, the US Environmental Protection Agency lowered the existing federal MCL for arsenic from 50 µg/L to 10 µg/L. The compliance date for the new MCL was January 23, 2006. California’s current arsenic standard is 50 µg/L. State law requires the California Department of Health Services (DHS) to establish an MCL for arsenic at a level that is equal to or more stringent than the USEPA’s standard and set as close as technically and economically feasible to arsenic’s Public Health Goal (PHG). A PHG is the level of arsenic in drinking water that would not pose a significant human health risk. In 2004, the DHS set the PHG for arsenic at 0.004 µg/L. The DHS has discussed setting the state standard anywhere from 4 to 10 µg/L. Although DHS is in the process of adopting new regulations, it is unknown when state regulations will be adopted.

The City has identified eight wells that have arsenic concentrations greater than 10.0 µg/L and is currently evaluating treatment alternatives for these eight wells to meet the new arsenic standards (City of Stockton and OMI Thames Water, 2004). If DHS sets the new standard at 4 µg/L, the City has indicated that a total of 25 wells additional wells will be affected. In order to meet the potential future arsenic standards, these wells will need either extensive retrofitting, source blending, or other treatment to achieve acceptable arsenic levels in the drinking water. It is expected that to achieve acceptable arsenic levels, there will be a loss in available well capacity and a significant increase in investment.

**Flooding**

The Federal Emergency Management Agency (FEMA) is responsible for predicting hazards related to flooding events. FEMA forecasts the level of inundation under various conditions and relates the information on Flood Insurance Rate Maps (FIRMs). The FIRM of relevance to the project area is City of Stockton Community–Panel Number 060302–0035 E, revised April 2, 2002. The FIRM predicts several layers of flood hazard as identified by various “Zone” designations. According to the FIRM, subject property is located within Zone X, which includes lands outside the limits of the 500-year flood (FEMA, 2002).

**Regulatory Setting**

A variety of federal, state, and local agencies have jurisdiction over the project area. Important agencies and statutory authorities relevant to water quality as it relates to the project are outlined below.

**Federal**

**Clean Water Act**

The federal Clean Water Act (CWA, 33 USC 1251-1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s water.” Important applicable sections of the Act are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal permit that proposes an activity which may result in a discharge to “waters of the United States” to obtain certification from the state that the discharge will comply with other provisions of the Act. Certification is provided by the Regional Water Quality Control Board (RWQCB).
• Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredge or fill material) into waters of the United States. This permit program is administered by the RWQCB, and is discussed further below.

• Section 404 establishes a permit program for the discharge of dredge or fill materials into waters of the United States. This permit program is administered by the Corps.

**State**

**Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act defines water quality objectives as the limits or levels of water constituents that are established for reasonable protection of beneficial uses. The Porter-Cologne Act requires the RWQCB to establish water quality objectives, while acknowledging that water quality may be changed to some degree without unreasonably affecting beneficial uses. Beneficial uses, together with the corresponding water quality objectives, are defined as standards, per Federal regulations. Therefore, the regional plans form the regulatory references for meeting State and Federal requirements for water quality control. Changes in water quality are only allowed if the change is consistent with the maximum beneficial use of the State, does not unreasonably affect the present or anticipated beneficial uses, and does not result in water quality less than that prescribed in the water quality control plans (CVRWQCB, 1998).

**Central Valley Regional Water Quality Control Plan**

The preparation and adoption of water quality control plans (Basin Plans) is required by the California Water Code (Section 13240) and supported by the Federal Clean Water Act. Section 303 of the Clean Water Act requires states to adopt water quality standards which “consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses.” According to Section 13050 of the California Water Code, Basin Plans consist of a designation or establishment for the waters within a specified area of beneficial uses to be protected, water quality objectives to protect those uses, and a program of implementation needed for achieving the objectives. Because beneficial uses, together with their corresponding water quality objectives, can be defined per Federal regulations as water quality standards, the Basin Plans are regulatory references for meeting the State and Federal requirements for water quality control. One significant difference between the State and Federal programs is that California’s basin plans establish standards for groundwater in addition to surface water. Adoption or revision of surface water standards is subject to the approval of the USEPA (Reclamation and DWR, 2003).

The Central Valley Basin Plan covers an area including the entire Sacramento and San Joaquin river basins, involving an area bound by the crests of the Sierra Nevada on the east and the Coast Range and Klamath Mountains on the west. The area covered in this Basin Plan extends some 400 miles, from the California–Oregon border southward to the headwaters of the San Joaquin River. The project will be required to meet the water quality objectives in the Basin Plan for the Sacramento River and San Joaquin River Basins (CVRWQCB, 1998), which was designed to protect the beneficial uses of the Sacramento and San Joaquin Rivers and their tributaries.
4.10 Hydrology and Water Quality

NPDES Permit for Construction Activities
The RWQCB administers the National Pollution Discharge Elimination System (NPDES) stormwater permitting program in the Central Valley Region for both construction and industrial activities. Construction sites disturbing one acre or more of land are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). For qualifying projects, the project applicant must submit a Notice of Intent (NOI) to the RWQCB to be covered by the General Construction Permit prior to the beginning of construction. The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which also must be completed before construction begins. Implementation of the plan starts with the commencement of construction and continues though the completion of the project. Upon completion of the project, the applicant must submit a Notice of Termination to the RWQCB to indicate that construction is completed.

San Joaquin County
New storm drainage facilities are constructed in accordance with the Storm Drainage Study and Master Plan developed by San Joaquin County (1973) and adopted by the Stockton City Council in 1975. The plan covers the entire County including the incorporated cities. It divides metropolitan Stockton into seven study areas and examined deficiencies in the existing systems and recommended design standards.

City of Stockton Public Works Department
The City of Stockton has adopted standard specifications as a guide for standardization of public works installations within the City (City of Stockton Department of Public Works, 2003). These specifications also contain countywide standards that have been accepted by the City Council on the recommendation of the City Engineer. These specifications outline requirements for clearing, grubbing, and earthwork, stormwater drainage facilities, including detention and retention basins.

City of Stockton Municipal Utilities Department, Stormwater Management Division
The Stormwater Management Division within the City’s Municipal Utilities Department has developed the Model SWPPP for Construction Activities (Stockton MUD, 1997). The Model SWPPP is designed to minimize the amount of paperwork required for permit compliance, and provide easy to follow formats that can be adapted for use at any facility. The Division also has developed guidelines for minimum best management practices (BMPs) to prevent and control stormwater pollution from new developments during construction and after construction is completed. The Stormwater Management Division has primary responsibility for the development and implementation of the City of Stockton Stormwater Management Plan (City of Stockton, 2003).

City of Stockton General Plan
The City of Stockton General Plan Land Use, Public Facilities and Services, and Safety elements contain goals and policies related to drainage and water quality relevant to the project (1990).
Land Use Element

Urban Growth and Overall Development

Goal 4: Promote and maintain environmental quality and the preservation of agricultural land while promoting logical and efficient and urban growth.

Policies:

2. Urban growth shall be geographically limited by such environmental hazards as flood vulnerability and unstable soil characteristics.

5. Storm water quality measures shall be undertaken to enhance to the maximum extent practicable the quality of the water in the sloughs, creeks, and rivers in this area.

Public Facilities and Services Element

Water Facilities

Goal 1: Conserve groundwater and surface water resources in order to ensure sufficient supplies of good quality water.

Policies:

2. Land use activities that use or store hazardous materials shall be regulated and monitored in order to prevent the contamination of groundwater or surface water resources.

3. All urban development shall be served by a sanitary sewage system to avoid possible contamination of groundwater from septic systems.

4. Best Management Practices for the reduction of pollutant in urban runoff shall be encouraged within the storm drainage system in order to reduce the amount of pollutants entering the surface waters.

7. Encourage and support water conservation measures by all City water users.

8. Non-potable water should be used to fill any lake or water features within development projects.

12. The City will comply with the requirements of the Clean Water Act with the intent of minimizing the discharge of pollutants into surface waters.

Safety Element

Flood Hazards

Goal 1: Protect the community from the risk of flood damage.
Policies:

1. New urban development shall be approved only when the developer shows it to be protected from the “100-year” flood.

4. Appropriate emergency plans for the safe evacuation of people from areas subject to inundation from dam failure shall be reviewed and periodically updated.

4.10.2 Impacts and Mitigation Measures

Significance Criteria

A hydrologic or water quality impact of the project would be considered significant if it would result in any of the following criteria, adapted from Appendix G of the CEQA Guidelines.

- Violate any water quality standards, waste discharge requirements, or otherwise substantially degrade water quality;

- 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);

- Substantially alter the existing drainage pattern of the site or area, which would result in substantial erosion, siltation, and/or other sources of polluted runoff on- and/or offsite;

- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems; thereby requiring the expansion and/or construction of storm water drainage facilities;

- Place housing and/or other structures 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; or

- Place within a 100-year flood hazard area structures that would impede or redirect flood flows, thereby exposing people or structures to a significant risk of loss, injury or death involving flooding.

Impact Statements and Mitigation Measures

Impact 4.10.1. Construction of the project could potentially degrade water quality and/or violate water quality standards. This impact is considered potentially significant.

During site grading and construction activities, large areas of bare soil would be exposed to erosive forces for extended periods of time. Bare soil surfaces are more likely to erode than vegetated areas due to the lack of dispersion, infiltration, and retention created by covering vegetation. Construction activities involving soil disturbance, excavation, cutting/filling,
stockpiling, and grading activities could result in increased erosion and sedimentation to storm
drains that empty to local surface waters. If precautions are not taken to contain contaminants,
construction could produce contaminated stormwater runoff. In addition, hazardous materials
associated with construction equipment and practices, such as fuels, oils, antifreeze, coolants,
and other substances, could adversely affect water quality if spilled or stored improperly.

The project will be required to comply with Section 13-501 of the City of Stockton Municipal Code,
which outlines the provisions required under the City’s Grading and Erosion Control Ordinance.
Construction activities carried out by the applicant’s contractors would require an NPDES general
construction stormwater permit since the affected area would be greater than one acre. The project
will also be required to provide post-construction BMPs as part of the project’s design per City of
Stockton Municipal Code 7-859, and monitoring to ensure impacts to water quality are minimized.
As discussed in the setting, the SWPPP will be prepared by the applicant and/or its contractors. The
project must meet the performance standards and objectives identified in Stockton Municipal Utilities
Department’s Model SWPPP. Compliance with the SWPPP in conjunction with the implementation
of the prescribed mitigation will reduce this impact to a less-than-significant level.

Mitigation Measures

**Mitigation Measure 4.10.1.** All construction plans and activities shall implement multiple
BMPs to provide effective erosion, runoff, and sediment control. These BMPs shall be
selected to achieve maximum soil protection and sediment removal; and represent the best
available technology that is economically achievable. BMPs to be implemented as part of
this mitigation measure shall include, but are not limited to, the following measures:

- Temporary erosion control measures (such as staked straw bales/wattles, soil mats,
earthen berms, silt/sediment basins and traps, check dams, geofabric, sandbag dikes,
and temporary revegetation or other ground cover) will be employed for disturbed areas.

- Onsite storm drain inlets and in downstream offsite areas will be protected from
sediment with the use of BMPs acceptable to Stockton Municipal Utilities Department.

- Dirt and debris will be swept from paved streets in the construction zone on a regular
basis, particularly before predicted rainfall events.

- Grass or other vegetative cover will be established on the construction site as soon as
possible after disturbance. At minimum, vegetative application shall be done by September
15th to allow for plant establishment. No disturbed surfaces will be left without erosion
control measures in place during the wet season (October 15th to April 15th).

- Hazardous materials such as fuels and solvents used on the construction sites shall be
stored in covered containers and protected from rainfall, runoff, vandalism, and
accidental release to the environment. All stored fuels and solvents will be contained
in an area of impervious surface with containment capacity equal to the volume of
materials stored. A stockpile of spill cleanup materials shall be readily available at
all construction sites. Employees shall be trained in spill prevention and cleanup, and
individuals shall be designated as responsible for prevention and cleanup activities.

- Equipment shall be properly maintained in designated areas with runoff and erosion
control measures to minimize accidental release of pollutants.
As shown in Table 4.10-1, multiple BMPs used in combination, assuming proper installation and maintenance, can achieve nearly complete sediment removal. Therefore, the City shall require the applicant and its construction contractor(s) to incorporate multiple BMPs to achieve this result and protect water quality. The final selection and design of erosion and sediment controls shall require approval from Stockton Municipal Utilities Department and demonstrate that this result can be achieved. In all cases, these BMPs shall be subject to approval by the City at its discretion, and the applicant shall incorporate into contract specifications the requirement that the contractor(s) comply with and implement these provisions, as well as provisions for monitoring to verify that these standards are met.

### TABLE 4.10-1
BMP EXPECTED POLLUTANT REMOVAL EFFICIENCY

<table>
<thead>
<tr>
<th>Structural BMP Type</th>
<th>Typical Pollutant Removal (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Suspended Solids</td>
</tr>
<tr>
<td>Dry Detention Basins</td>
<td>30 – 65</td>
</tr>
<tr>
<td>Constructed Wetlands</td>
<td>50 – 80</td>
</tr>
<tr>
<td>Infiltration Basins</td>
<td>50 – 80</td>
</tr>
<tr>
<td>Porous Pavement</td>
<td>65 – 100</td>
</tr>
<tr>
<td>Grassed Swales</td>
<td>30 – 65</td>
</tr>
<tr>
<td>Vegetated Filter Strips</td>
<td>50 – 80</td>
</tr>
<tr>
<td>Surface Sand Filters</td>
<td>50 – 80</td>
</tr>
<tr>
<td>Other Media Filters</td>
<td>65 – 100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Construction Site BMP Type</th>
<th>Typical Pollutant Removal (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt Fence</td>
<td>50 – 80</td>
</tr>
<tr>
<td>Sediment Basin</td>
<td>55 – 100</td>
</tr>
<tr>
<td>Sediment Trap</td>
<td>60</td>
</tr>
</tbody>
</table>

**SOURCE:** EPA 1999; EPA 1993.

**Impact Significance after Mitigation:** With implementation of the mitigation measure listed above, this impact would be reduced to a less-than-significant level.
Impact 4.10.2. Project operation could increase non-storm and stormwater runoff, thereby potentially transporting contaminants to nearby surface waters. This impact is considered potentially significant.

The project site would be developed with various commercial uses. These proposed land use changes would result in a higher runoff coefficient following the development of the project. The original Weston Ranch Master Storm Drain Plan (1988) assumes commercial land usage on the subject property at build-out.

Storm drain facilities for the development would be provided by the applicant but would be dedicated to the City of Stockton and maintained by Stockton Municipal Utilities Department. The project would connect to storm drain facilities associated with Master Planned storm drain lines constructed offsite. These facilities include a 60-inch line located at the corner of Henry Long and McDougald Boulevards, a 24-inch line located on Manthey Road to the north, and an 18-inch line along French Camp Road. Project drainage facilities will require conformance with the currently adopted City of Stockton Standard Specifications Manual and approval from Stockton Municipal Utilities Department staff.

Currently, runoff from development within the Weston Ranch area is conveyed to the San Joaquin River via three main trunk lines that flow east to west. These three lines join together at the west side of Loop Road and flow into a pump station to the northwest of the property, where runoff is pumped into the San Joaquin River. The pump station includes a total of six pumps, each with a design capacity of 35,000 gallons per minute (gpm). The total design flow to the pump station is estimated at 375.0 cfs.

Runoff from the project would be conveyed to the San Joaquin River and downstream waterways, such as the Stockton Deep Water Ship Channel and the Delta. These waterways are identified in the SWRCB’s 303(d) list as impaired for a variety of constituents. The ability of these waterways to assimilate additional pollutants is limited. On the project site, channelization and decreased surface permeability resulting from project development activities would concentrate pollutants generated by urban runoff. Urban runoff contaminants would include sediment, metals, pesticides, herbicides, oil and grease, and litter. These pollutants would be quickly transported downstream, adversely affecting riparian and wetland habitats and receiving water quality.

The project would also contribute similar contaminants to surface waters. The conversion from agriculture and rural residential to commercial uses would likely reduce the amount of nutrients and agricultural chemicals reaching surface water, with a corresponding increase in urban contaminants such as hydrocarbons, metals, and litter.

Because much of the site would be covered by impervious surfaces following construction, most stormwater would runoff rather than infiltrate into the soil column. This process tends to minimize stormwater treatment generally provided in permeable soil surfaces. To minimize these

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2 Runoff coefficients are assigned to a surface that is related to the hydrologic soil group, but further considers the land use and the relative condition of a surface. Runoff coefficients can range between 30 and 100. In general, high values mean that a soil is in poor condition, more apt to infiltrate water slowly, and thus produces more runoff.
impacts to water quality, a combination of treatment features would be needed as required by City design standards as well as a proper maintenance schedule to ensure success. With implementation of the prescribed mitigation, long-term impacts water quality would be less than significant.

Mitigation Measures

**Mitigation Measure 4.10.2a.** To minimize the amount of pollutants entering the storm drain system, project roadways and parking areas will be cleaned regularly using street sweeping equipment. Additionally, litter and debris that may accumulate on the project site will be regularly collected and properly disposed. Collection and disposal activities shall be the responsibility of the City provider (Sunrise Sanitation).

**Mitigation Measure 4.10.2b.** The Applicant shall develop and implement a pesticide and fertilizer management plan for landscaped areas with the goal of reducing potential discharge of such chemicals, chlorpyrifos, and diazinon in particular, to adjacent waterways. The Applicant will ensure that the Plan is issued to all future owners and tenants.

**Mitigation Measure 4.10.2c.** As required by the Stormwater Quality Control Criteria Plan, the owners, developers, and/or successors-in-interest must establish a maintenance entity acceptable to the City to provide funding for the operation, maintenance, and replacement costs of the stormwater best management practices.

**Mitigation Measure 4.10.2d.** The property owners, developers, and/or successors-in-interest shall comply with any and all requirements, and pay all associated fees, as required by the City’s Stormwater Pollution Prevention Program as set forth in its NPDES Stormwater Permit.

**Mitigation Measure 4.10.2e.** The Drainage Plan for the project will include BMPs to maximize non-storm and stormwater quality. The Drainage Plan will include both BMPs that will address the project site as a whole, as well as guidance for BMPs to be implemented for future tenants. These BMPs shall be selected to achieve maximum contaminant removal and represent the best available technology that is economically achievable. The BMPs will include a combination of source control, structural improvements, and treatment systems.

BMPs will include, but not be limited to the following:

- Water quality units to be located within the storm drain system. The selected units will provide effective water quality control for the pollutants that are commonly present in stormwater runoff generated by retail centers. These pollutants include trash and debris, oil and grease, and limited amounts of sediment. The water quality units will be periodically inspected and maintained to the levels and at the frequencies that are recommended by the product manufacturers. The units will accommodate the following parameters:
  
  1. Treatment capabilities for the expected pollutants (trash and debris, oil and grease, and limited amounts of sediment).
2. Ability to treat the amount of runoff generated by the low-flow storm event that is specified by the local jurisdiction.

3. Ability to accommodate or bypass the flood control design storm event as determined by the local jurisdiction.

- Grass strips, high infiltration substrates, and grassy swales shall be used where feasible throughout the project site to reduce runoff and provide initial storm water treatment. This type of treatment will apply particularly to parking lots.

- Small settling, treatment, and/or infiltration devices will be installed beneath large parking areas to provide initial filtration prior to discharges into flood control basins. This will include the use of oil and grease separators.

- Roof drains shall drain to natural surfaces or swales where possible to avoid excessive concentration and channelization of storm water. Roof drains may be directly connected to the storm drain system, if treatment control measures are provided downstream.

- All drain inlets shall be permanently stamped with the message “NO DUMPING, FLOWS TO DELTA.”

- Permanent energy dissipaters will be included for drainage outlets.

Because the assimilative capacity of the receiving waters is impaired, the Applicant shall remove the maximum level of pollutants from stormwater discharges using the best available technology to maintain ambient water quality. To achieve this goal, the Applicant shall select a combination of BMPs that is expected to reach a target goal of 100 percent removal of suspended solids, nitrogen, phosphorus, pathogens, and metals from stormwater discharges, given the lowest expected pollutant removal efficiencies identified in Table 4.10-1 or elsewhere. While 100 percent contaminant removal is often not feasible, the final selection and design of BMPs shall provide maximum contaminant removal, represent the best available technology that is economically achievable, and shall explicitly identify the expected level of effectiveness at contaminant removal. A monitoring program shall be implemented to verify BMP effectiveness and compliance with water quality standards for the San Joaquin River, as outlined in the Central Valley RWQCB’s Basin Plan (1998). In the event that the BMPs are not meeting the identified performance standards, BMPs shall be redesigned, or new BMPs implemented, to achieve this result.

The Drainage Plan shall include, and the Applicant shall implement, a schedule that implements BMPs prior to or concurrent with new development such that water quality is maintained. The City shall require the incorporation of these BMPs into project designs as a condition of project approval.

**Impact Significance after Mitigation:** With implementation of the mitigation measures listed above, this impact would be reduced to a less-than-significant level.
Impact 4.10.3. Implementation of the project would not substantially interfere with groundwater recharge or result in adverse impacts to groundwater quality. This impact is considered less than significant.

Development of the project site would replace the existing agricultural use of the site with a commercial development. As indicated in the Setting section, the entire project site is underlain by an impermeable duripan layer that ranges in depth between four to seven feet below the surface. This layer consists of cemented-silica that ranges from two to three feet in thickness. With the presence of this layer, the project site is not considered a prime groundwater recharge location. As construction of the project is not anticipated to excavate through the duripan layer, impacts associated with the project would not adversely affect groundwater recharge and the impact is considered less-than-significant. Additionally, with the lack of groundwater recharge originating from the site, it is expected that the project would not lead to a dramatic decrease in groundwater quality.

Mitigation: No mitigation is required.

Impact 4.10.4. Domestic water demands generated by the project could deplete groundwater supplies. This impact is considered less than significant.

Project water demands would be met using surface and groundwater. This mix will vary depending on the hydrologic year type and availability of surface water. Groundwater currently comprises approximately 40 percent of the COSMA’s total water supply. Currently within the Urban Services Area of the City’s General Plan about 44,000 AF/year groundwater is pumped: 27,000 AF/yr for municipal use and 17,000 AF/yr for agricultural use.

The sustainable yield of the groundwater basin is based on changes in the rate of movement of the saline front. The February 1992 Supplemental Report for Water Supply prepared for the City’s Special Planning Area Study states, “sustainable yield of the groundwater basin is uncertain but could be in the range of 30,000 AF/yr based on a total area of about 40,000 acres and an average withdrawal of 0.75 AF per acre per year (AF/ac/year). … ground water can provide 0.75 to 1.0 AF/ac/year on a long-term basis.” Other references to sustainable yield are included in the City’s 1995 Urban Water Management Plan Update, which uses a firm yield of 1.0 AF/ac/year. Planning studies based on these averages indicate that a 0.92 AF/ac/year extraction rate in northeast portions of the City’s General Plan boundary, and 0.75 AF/ac/year over the remaining areas does not increase the migration of the saline water intrusion, does not significantly lower the groundwater basin, and is sustainable over the long term (MWH Americas, 2005). At build-out of the General Plan, an average of 43,000 AF/year over the wet and dry years would be produced. It is assumed that a portion of new development will receive 0.92 AF/ac/year of groundwater with the remaining supplies coming from surface water and other sources, including but not limited to SEWD, water conservation, and reclaimed (or recycled) wastewater.
Assuming a total of 46,300 existing developed acres (based on the latest DWR land use survey) assumed for 2003, the 2003 sustainable yield of groundwater for urban development is calculated to be 34,725 AF/year (46,300 acre x 0.75 AF/acre/year = 34, 275 AF/year) (MWH Americas, 2005). At build-out of COSMA’s Urban Services Area of 66,000 acres, the sustainable yield based on the 0.75 AF/acre/year factor could potentially increase to approximately 49,500 AF/year of groundwater. At this rate of extraction, an equivalent volume would be recharged into the groundwater basin through deep percolation, streams and rivers, and subsurface recharge (MWH Americas, 2005).

A total of approximately 5,486 acres was approved for development between 2003 and January 2005. The City’s Planning Department estimates that 70 percent of the area is included in the existing developed area of 46,300 acres. The remaining 30 percent (1,613 acres) of approved development is considered to be undeveloped and to be in areas where the 0.92 AF/ac/year of groundwater yield is available. In addition to existing development, the City has a total of 4,843.6 acres of new planned growth, including the project, which would raise the sustainable groundwater yield to 39,082 AF/yr (MWH Americas, 2005).

Stockton East Water District (SEWD) currently provides the City up to 34,500 AF/yr of average annual surface water supply. SEWD receives surface water from three sources: (1) Calaveras River via New Hogan Reservoir pursuant to a contract between Reclamation, Calaveras County Water District (CACWD), and SEWD, (2) Stanislaus River via New Melones Reservoir pursuant to a contract between Reclamation and SEWD, and (3) Interim water transfers from the Oakdale Irrigation District (OID) and the South San Joaquin Irrigation District (SSJID). However, in the future, surface water availability to SEWD (and hence the City) is projected to decrease as water transfers with SSJID and/or OID expire in 2009 and 2019, and as CACWD increases its use of Calaveras River water. By 2020, supply availability to SEWD from its current surface water supplies may be reduced to about 19,000 AF/year in a critical dry year.3 As a consequence, the City has been pursuing options to obtain additional surface water supplies and has currently completed environmental review for a surface water diversion in the Delta.

The City’s ability to supply new growth is dependant on meeting demands with both surface and groundwater. Water demands within the City are projected to increase from 68,000 AF/yr in 2003 to 85,330 AF/yr by build-out of the current General Plan in approximately 2015. The total 2003 water demand was approximately 68,000 AF/yr, equating to an average water demand per developed acre of 1.5 AF/ac/yr. In the future, the City’s annual water demand is projected to increase to 1.6 AF/ac/yr and, as a consequence, it is assumed that every acre of new development within the City will increase the City’s annual demand by 1.6 AF/yr. Using this factor, the project would generate a domestic water demand of approximately 90 AF/year4.

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3 A dry year in which the full commitments for a dependable water supply cannot be met and deficiencies are imposed on water deliveries.

4 Water demand for the project was calculated using the weighted average of the urban water demand factor as provided in the Water Supply Assessment for the Weston Ranch Town Center 2005 (MWH Americas, 2005). The urban water demand factor is equivalent to 1.6 AF/ac/yr [85,330 AF/yr / (82,064 acres (urban) – 27,585 acres (agriculture)] = 1.6 AF/ac/yr. This factor is then applied to the gross acreage of the project (e.g., 1.5 * 60 acres = 90 AF/yr).
The City developed a model to estimate needed groundwater extractions over the next 20 years. The total water demand by 2015 based on projects currently in for application is estimated at 77,121 AF/yr. In 2025, the city estimated average groundwater demand will be 28,960 AF/yr, approximately 10,122 AF/yr less than the sustainable yield available for existing areas and the project.

The City has determined that it has sufficient water supplied to meet the project’s water demands based on information provided in the Water Supply Assessment (WSA) and the following specific facts (see Appendix D for complete Water Supply Assessment):

- The existing and near-term and long-term reliable supplies of the SEWD surface water supplies and indigenous groundwater supplies can deliver a sustainable, reliable water supply without impacting environmental values and/or impacting the current stabilization of the groundwater basin underlying the COSMA.

- The existing conjunctive use program of using SEWD surface water and City groundwater supplies has been extensively analyzed as part of the Delta Water Supply Project (DWSP) Feasibility Report and groundwater studies completed as part of the regional WSA. Both studies show that sufficient water rights and groundwater supplies exist for the project.

- The project will be served by water supplies made available through the City’s existing conjunctive water use program within the COSMA (MWH Americas, 2005).

In the context of these findings and in conjunction with the City’s pursuit of additional surface water supplies to augment its existing conjunctive use program, the project is not expected to contribute to overdraft within the groundwater basin. Therefore, impacts to the groundwater supplies would be less-than-significant.

**Mitigation:** No mitigation is required.

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**Impact 4.10.5. Development of the project would increase the amount of impervious surfaces, which in turn would increase local storm runoff volumes that could exceed the capacity of on- and offsite drainage systems, and create localized flooding or contribute to a cumulative flooding in down-gradient locations. This impact is considered potentially significant.**

The project site is currently undeveloped, with large open areas of generally pervious surfaces. Implementation of the project would create impervious surfaces (roofs, concrete, and asphalt) over a significant portion of the project site (up to 90 percent), thereby preventing precipitation from infiltrating and causing it to pond and/or runoff. Therefore, development would increase runoff, potentially causing flooding onsite and/or contributing to offsite flooding in down-gradient locations. In addition, site runoff may be discharged more efficiently, decreasing the time necessary to reach drainage facilities and exceeding conveyance system capacity.
In developing the original Weston Ranch Master Storm Drain Plan (1988), runoff coefficients of 0.90 (commercial) were used for portions of the project site based on build-out of the 1988 zoning map. As proposed, the project site would be developed with commercial uses, consistent with the assumptions used in the development of the 1998 Master Storm Drain Plan, and would generate runoff comparable to that accounted for in the 1988 Master Storm Drain Plan. However, in consultations with City staff, other prior land use modifications would necessitate additional review of conveyance capacity, depending on where drainage flows are routed on the project site. Therefore, a project-specific drainage plan would be required to minimize offsite runoff and impacts to the City’s stormwater conveyance system.

Mitigation Measures

Mitigation Measure 4.10.5. The Applicant shall prepare a Master Drainage Plan for the project site. The Drainage Plan should incorporate measures to minimize the increased runoff during peak conditions. The applicant will implement measures provided in the Drainage Plan.

A detailed drainage report shall be prepared by a registered civil engineer prior to site development. The report shall include the following items:

- An assessment of existing drainage facilities within the project vicinity, and an inventory of necessary upgrades, replacements, redesigns, and/or rehabilitation.

- A description of the proposed maintenance program for the onsite drainage system.

- Standards for drainage systems to be installed on a project-specific basis.

- The drainage system shall be designed to meet standards in the Stockton Municipal Code and the City of Stockton Department of Public Works Standard Specifications (current edition).

The Drainage Plan shall include, and the Applicant shall implement, a schedule for identified drainage improvements. In addition, when approving specific developments that may result in increased drainage flows on the project site, the Applicant shall concurrently implement any necessary drainage improvements such that new development does not exceed the capacity of Master-Planned drainage facilities.

Impact Significance after Mitigation: Implementation of the prescribed mitigation would reduce drainage impacts to a less-than-significant level.
Impact 4.10.6. Construction of the project could place structures within a 100-year flood area and expose people or structures to a significant risk of loss, injury, or death involving flooding. This impact is considered less than significant.

According to 2002 flood hazard maps prepared by FEMA, the project site is located outside the 100-year flood zone and also outside the FEMA-designated 500-year flood zone. The project would not involve the construction of any structures within a 100-year flood zone that could impede or redirect flood flows. Flood protection for the project site is provided by a large system of levees and upstream impoundments. These structures are subject to risks associated with inadequate maintenance, rising sea level, and regional land subsidence. However, in applying the significance thresholds, these risks are not directly or indirectly influenced by the project. In recognition of these findings, the impact is considered less-than-significant.

Mitigation. No mitigation is required.
4.11 Biological Resources

This section describes the biological resources occurring in the project area and vicinity. The potential for the project to result in impacts to sensitive biological resources is assessed and mitigation measures designed to eliminate or reduce potential project-related impacts are identified.

As described in greater detail in Chapter 3, Project Description, implementation of the project could include the following activities which may have an impact on biological resources: demolition of buildings; construction of new buildings, parking, and roads; and installation or rehabilitation of utilities.

This evaluation of biological resources includes a review of vegetation and wildlife habitat, special-status species, and jurisdictional waters of the U.S. which occur or potentially occur in the project area and vicinity. The results of this assessment are based on field reconnaissance of the project area, literature searches, and database queries. The sources of reference data reviewed for this report include the following:

- **Stockton West, Stockton East, Lathrop, Union Island, Holt, Terminous, Lodi South, Waterloo, and Manteca, California 7.5-minute topographic quadrangles** (USGS)
- **U.S. Fish and Wildlife Service Species List** (USFWS, 2004)
- **California Natural Diversity Database, Rarefind 3 computer program** (CDFG, 2004a)
- **California Native Plant Society, Electronic Inventory computer program** (CNPS, 2004)
- **Special Plants List** (CDFG, 2005a)
- **Special Animals List** (CDFG 2005b)
- **San Joaquin County Multi-Species Habitat Conservation and Open Space Plan** (SJCOG, 2000)

The project is consistent with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSPC), as amended. Pursuant to the **Final EIR/EIS for the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSPC)**, dated November 15, 2000, and certified by the San Joaquin Council of Governments on December 7, 2000, implementation of the SJMSPC is expected to reduce impacts to biological resources (that are covered by the SJMSPC) from the project to a level of less than significant. The document is hereby incorporated by reference and is available for review during regular business hours at the San Joaquin Council of Governments (555 E. Weber Avenue/Stockton, CA 95202) or online at <www.sjcog.org>.
4.11.1 Setting

The project area is located in the northern San Joaquin Valley within the City of Stockton, just west of I-5 and north of French Camp Road. The climate of this region is characterized by hot, dry summers and cool, moist winters.

The following information is based on reference materials and field assessments conducted by ESA biologists on July 2, 2003, November 8, 2004, and fall 2005. The field assessments were conducted by walking portions of the project area. The project area was evaluated for the potential to support regionally occurring special-status species, sensitive habitats, and jurisdictional “waters of the United States.”

The project area is bordered to the south by French Camp Road and active agricultural fields, to the west by high density suburban housing developments, to the North by fallow agricultural fields planned for development, and to the east by Manthey Road and I-5. Two defunct drainage ditches run north-south, one unlined just inside the eastern boundary and one lined just inside the western boundary of the project site. Neither drains into any other surface body of water.

Existing Conditions

Wildlife Habitats and Vegetation Communities

The wildlife habitats identified in this section were described using the CDFG’s A Guide to Wildlife Habitats (Mayer and Laudenslayer, 1988). The wildlife habitats described below generally correlate with vegetative communities. Vegetative communities are assemblages of plant species that occur together in the same area. They are defined both by species composition and relative abundance.

Non-Native Annual Grasslands

Approximately 29.2 acres of non-native annual grasslands occur in the southern half of the project area where agricultural fields have been left fallow for several years (Figure 4.11-1). These grasslands are ruderal and dominated by exotic species such as orchard grass (Dactylis glomerata), Johnson grass (Sorghum halepense), Russian thistle (Salsola tragus), mustard (Brassica spp.), and yellow star thistle (Centaurea solstitialis). There are a few scattered native trees, consisting of valley oak (Quercus lobata), Fremont cottonwood (Populus fremontii), and black walnut (Juglans hindsii), in the center of this habitat.
Figure 4.11-1
Wildlife Habitat in the Project Area

SOURCE: GlobeExplorer, 2002; and ESA, 2006
Several bird species were detected during the reconnaissance surveys in this habitat, including American crow (*Corvus brachyrhynchos*), northern flicker (*Colaptes auratus*), red-shouldered hawk (*Buteo lineatus*), gull species (*Larus* spp.), and white-crowned sparrow (*Zonotrichia leucophrys*). The few trees in the grassland could support perching and nesting raptors. The red-shouldered hawk was observed perched in a tall cottonwood in the center of this habitat. No nests were detected. Mammals, such as voles (*Microtus* sp.), California ground squirrel (*Spermophilus beecheyi*), raccoon (*Procyon lotor*), and coyote (*Canis latrans*), could also potentially occur in this habitat.

**Agricultural Fields**

Approximately 28.5 acres of fallow agricultural fields occur in the project area, mainly in the northern half of the project area (Figure 4.11-1). This field has historically been cultivated, but is now barren, except for new growth of grasses and other weedy species. The edges of the field are dominated by weedy plant species such as annual grasses, thistle, and mustard (*Brassica* spp.).

There is a lined drainage ditch that has become overgrown with mustard and other weedy species along the western boundary of the field. There is an unlined drainage ditch along the eastern boundary of the field along Manthey Road, but there is no wetland vegetation present.

Cropland habitat may be used by a variety of common wildlife. Several bird species were observed in this habitat, including killdeer (*Charadrius vociferus*), great blue heron (*Ardea herodias*), American kestrel (*Falco sparverius*), and horned lark (*Eremophila alpestris*). Croplands could also provide foraging habitat for sensitive wildlife species, including Swainson’s hawk (*Buteo swainsoni*) and burrowing owl (*Athene cunicularia*). Swainson’s hawks were observed foraging in this habitat during the reconnaissance survey in 2003. No nests were detected. A ground squirrel (*Spermophilus* spp.) burrow was detected along the eastern boundary of the project area by Manthey Road, where regular discing does not appear to have occurred. Ground squirrel burrows may be used for nesting and roosting by burrowing owls.

**Urban**

Approximately 5.8 acres of developed lands occur in the project area in the southeast and western portions of the project area (Figure 4.11-1). These areas are developed with active and abandoned houses, barns, and associated structures. There are several native and non-native ornamental trees around the developments as well. Another ±6 acres of developed land occurs on the eastern side of the property at the asbestos landfill. While sparse grasses occur, this is an area of imported fill and yields minimal habitat value.

Active and abandoned buildings provide habitat for some wildlife species. For example, common birds such as house finch (*Carpodacus mexicanus*) build their nests on structures, and less abundant species like black phoebe (*Sayornis nigricans*), cliff swallow (*Hirundo pyrrhonota*), and barn swallow (*Hirundo rustica*) also use buildings. Several bird species were observed in this

**Special-Status Species Assessment**

Special-status species are those plants and animals that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized in some fashion by federal, state, or other agencies as deserving special consideration. Some of these species receive specific legal protection pursuant to federal or state endangered species legislation. Others are “fully protected species,” and cannot be taken may not be taken or possessed at any time. Still others lack such legal protection, but have been characterized as “sensitive” on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as “special-status species” in this report, following a convention that has developed in practice but has no official sanction. The various categories encompassed by the term, and the legal status of each, are discussed later in this report under the “Regulatory Considerations” heading.

A list of regionally occurring special-status plant and animal species was compiled based on a review of pertinent literature, reconnaissance-level field assessment, a draft list of federal Endangered and Threatened species that may be affected by projects in the Stockton West, Stockton East, Lathrop, Union Island, Holt, Terminous, Lodi South, Waterloo, and Manteca 7½-minute quadrangles (USFWS 2004), and the results of a California Natural Diversity Database (CNDDB) query for reported occurrences of special-status species in the same 7½-minute quadrangles (CDFG 2004; Appendix F).

For each species, habitat requirements were assessed and compared to the habitats present in the project area (Appendix F). Based on this review of habitat requirements and CNDDB records, the project area represents potential habitat for nine special-status animal species: burrowing owl, ferruginous hawk, Swainson’s hawk, mountain plover, white-tailed kite, greater sandhill crane, loggerhead shrike, greater western mastiff bat, and Yuma myotis.

These potentially occurring special-status species, which have a medium or high potential to be impacted by project-related development, are identified in Table 4.11-1 (see Appendix F for definitions of “Potential for Occurrence”). These species are also discussed below.
Special-Status Species

Birds

Burrowing Owl (*Athene cunicularia*)

Status:
- Federal – special concern
- State – special concern

### TABLE 4.11-1

**POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES**

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Listing Status (Federal/State/CNPS)</th>
<th>General Habitat</th>
<th>Potential for Occurrence</th>
<th>Covered by SJMSCP?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Birds</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><em>Athene cunicularia</em></td>
<td>Burrowing owl</td>
<td>FSC/CSC/-- (burrow sites)</td>
<td>Open, dry annual or perennial grasslands characterized by low-growing vegetation. Subterranean nester, dependent on burrowing mammals.</td>
<td>Medium Potential. Very limited and disturbed potential habitat in project area. Unidentified burrow was detected during the reconnaissance survey along the eastern boundary of the project area.</td>
<td>Y</td>
</tr>
<tr>
<td><em>Buteo regalis</em></td>
<td>Ferruginous hawk</td>
<td>FSC/CSC/-- (wintering)</td>
<td>Uncommon wintering species throughout the Central Valley. Forages for rodents over open country.</td>
<td>Medium Potential. Potentially suitable foraging habitat occurs in the project area.</td>
<td>Y</td>
</tr>
<tr>
<td><em>Buteo swainsoni</em></td>
<td>Swainson’s hawk</td>
<td>--/ST/--</td>
<td>Forages in grasslands and open agricultural fields. Breeds in oak savanna and riparian areas.</td>
<td>High Potential. Potential nesting and foraging habitat present in the project area. Juvenile observed on a stick nest on Blake Circle within one-half mile of the project area by ESA biologists during a site visit on July 2, 2003.</td>
<td>Y</td>
</tr>
<tr>
<td><em>Charadrius montanus</em></td>
<td>Mountain plover</td>
<td>FSC/CSC/-- (wintering)</td>
<td>Winters in barren agricultural fields and grasslands with sparse vegetation between September and March.</td>
<td>Medium Potential. Potentially suitable foraging habitat occurs in the project area.</td>
<td>Y</td>
</tr>
<tr>
<td><em>Elanus leucurus</em></td>
<td>White-tailed kite</td>
<td>FSC/CFP/-- (nesting)</td>
<td>Nests in dense oak, willow, or other tree stands near open grasslands, meadows, farmlands, and emergent wetlands for foraging.</td>
<td>Medium Potential. Potentially suitable habitat occurs in the project area.</td>
<td>Y</td>
</tr>
<tr>
<td><em>Grus canadensis</em></td>
<td>Greater sandhill crane</td>
<td>--/ST, CFPI/-- (nesting &amp; wintering)</td>
<td>Winters in Central Valley within annual and perennial grasslands, croplands, and freshwater emergent wetlands.</td>
<td>Medium Potential. Potentially suitable foraging habitat occurs in the project area.</td>
<td>Y</td>
</tr>
<tr>
<td><em>Lanius ludovicianus</em></td>
<td>Loggerhead shrike</td>
<td>FSC/CSC/-- (nesting)</td>
<td>Nests in dense shrub or tree foliage; forages in scrub, open woodlands, grasslands, and croplands.</td>
<td>High Potential. Potentially suitable breeding and foraging habitat occurs in the project area. One individual was observed perched on a power line during the reconnaissance survey.</td>
<td>Y</td>
</tr>
</tbody>
</table>
### TABLE 4.11-1
POTENTIALLY OCCURRING SPECIAL-STATUS SPECIES

<table>
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<th>Scientific Name Common Name</th>
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<tbody>
<tr>
<td><strong>Mammals</strong></td>
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<tr>
<td><em>Eumops perotis californicus</em> Greater western mastiff-bat</td>
<td>FSC/CSC/--</td>
<td>Roosts primarily in crevices within cliffs and canyons, occasionally in buildings. Primarily feeds on moths. Maternity colonies active May through July.</td>
<td>Medium Potential. Project area contains limited roosting and foraging habitat. Potential roosting in structures to be demolished.</td>
<td>Y</td>
</tr>
<tr>
<td><em>Myotis yumanensis</em> Yuma myotis</td>
<td>FSC/--/--</td>
<td>Often found near reservoirs. Roosts in buildings, trees, mines, caves, bridges, and rock crevices. Maternity colonies active May through July.</td>
<td>Medium Potential. Project area contains limited roosting and foraging habitat. Potential roosting in structures to be demolished.</td>
<td>Y</td>
</tr>
</tbody>
</table>

1 The SJMSCP refers to the San Joaquin County Multi-Species Conservation and Open Space Plan, which is more fully described in the “Regulatory Setting” section.


**STATUS CODES:**

**FEDERAL:** (U.S. Fish and Wildlife Service)
- FE = Listed as Endangered by the Federal Government
- FT = Listed as Threatened by the Federal Government
- FPT = Proposed for Listing as Threatened
- FC = Candidate for Federal Listing
- FSC = Federal Species of Special Concern
- FD = Federal Delisted

**CNPS:** (California Native Plant Society)
- List 1A = Presumed extinct in California
- List 1B = Plants rare, threatened, or endangered in California and elsewhere
- List 2 = Plants rare, threatened, or endangered in California but more common elsewhere

**STATE:** (California Department of Fish and Game)
- SE = Listed as Endangered by the State of California
- ST = Listed as Threatened by the State of California
- CR = Listed as Rare by the State of California (plants only)
- CSC = California Species of Special Concern

In California’s Central Valley, the burrowing owl is a year-round resident of open spaces such as grasslands and agricultural fields. Nests are generally found in the burrows of small mammals such as ground squirrels. However, they can dig their own burrows in soft soil, and they occasionally use culverts and other man-made structures. Breeding peaks from April to May, but can occur from March to August. Burrowing owls forage on insects and small mammals and will also consume reptiles, birds, and carrion. Threats to the population include habitat destruction (e.g., conversion of grasslands and agricultural fields to other uses) and the poisoning of ground squirrels.

There are multiple occurrences of burrowing owls in the project vicinity (CDFG, 2004) (Figure 4.11-2). The nearest occurrence is approximately three-quarter mile to the west of the project area where three active burrows were detected in 1999 (CDFG, 2004). One ground squirrel burrow was detected along the eastern boundary of the project area during the reconnaissance survey in 2004. There is potential habitat for this species in the agricultural fields in the northern half of the project area. The eastern boundary of this area appears to have not been regularly disked and cultivated, and, therefore, may support burrowing owl. The annual grassland in the southern half of the project area is covered in 3- to 4-foot-tall weedy species such as thistle and does not represent suitable habitat for this species.
Known Occurrences of Special Status Plants and Animals within the Project Area

Source: USGS 7.5" Topographic Quadrangle (Stockton West); CNDDB, 2004; and ESA, 2006

Figure 4.11-2
**Ferruginous Hawk (Buteo regalis)**

Status:
- Federal – special concern
- State – special concern

Ferruginous hawks are uncommon winter residents in the project area. They forage over open grasslands and agricultural fields for medium-sized mammals such as ground squirrels and rabbits.

There are no records of this species in the project area or vicinity (CDFG 2004). However, ferruginous hawks may potentially forage in the annual grassland and agriculture in the project area and may roost in the scattered trees in the project area.

**Swainson’s Hawk (Buteo swainsoni)**

Status:
- Federal – none
- State – threatened

The Swainson’s hawk is a long-distance migrant species. The Central Valley population winters primarily in Mexico and arrives on their breeding grounds in the Central Valley in mid-March to early April. Nests are generally found in scattered trees or along riparian systems adjacent to agricultural fields or pastures, but they will also nest in tall shrubs and trees in proximity to developments near foraging habitat. Egg laying generally occurs in April and young are present during May to June. Most young have fledged the nest by the end of July and are relatively independent of parental protection. However, fledged young remain with their parents until they depart in the fall for migration. Migration to the wintering grounds generally occurs around September. Some individuals or small groups may winter in California.

There are many records of Swainson’s hawk in the project vicinity (CDFG, 2004a) (Figure 4.11-2). The nearest record is approximately a mile to the east. There are no known nests with one-half mile of the project area. There are 38 known nests (23 that have been active in the last five years) within five miles of the project area. There are 80 known nests (52 that have been active in the last five years) within 10 miles of the project area. Swainson’s hawks were observed foraging in the project area during the reconnaissance survey in 2003. On July 2, 2003, ESA biologists also observed a juvenile Swainson’s hawk on a stick nest on Blake Circle, within one-half mile of the project area. Trees present in the project area may represent suitable roosting and nesting habitat for this species. The agriculture and annual grassland in the project area are suitable foraging habitat.

**Mountain Plover (Charadrius montanus)**

Status:
- Federal – special concern
- State – special concern

In California’s Central Valley, mountain plovers are a winter visitor from September to March. They frequent open grasslands and agricultural fields with no or low-growing vegetation, where they forage primarily on insects. They generally form flocks in winter and may flock with other species such as black-bellied plover (Pluvialis squatarola).
There are no records of mountain plover in the project area or vicinity (CDFG, 2004a). This species may potentially forage in the winter in the agricultural portions of the project area.

**White-Tailed Kite (Elanus leucurus)**

Status:
- Federal – special concern
- State – fully protected

White tailed kites are year-round residents in central California. They typically nest in oak woodlands or trees, especially along marshes or river margins, and they may use any suitable tree or shrub that is of moderate height. Their nesting season may begin as early as February and extends into August. Kites forage during daylight hours for rodents in wet or dry grasslands and fields.

There are no records of this species in the project area or vicinity (CDFG, 2004a). However, white-tailed kites may potentially forage in the annual grassland and in the agricultural portions of the project area and may nest in the trees onsite.

**Greater Sandhill Crane (Grus canadensis tabia)**

Status:
- Federal – none
- State – threatened, fully protected

Greater sandhill cranes winter in the region of the project area. In the winter, they forage in grasslands and agricultural grain fields and may roost in the fields or meadows in which they are feeding. Food items include grass shoots, worms, insects, aquatic invertebrates, and small reptiles, amphibians, and rodents.

There are no records of greater sandhill cranes in the project area or vicinity. However, the agricultural land in the project area may provide foraging habitat for this species.

**Loggerhead Shrike (Lanius ludovicianus)**

Status:
- Federal – special concern
- State – special concern

Loggerhead shrikes are a common year-round resident of lowlands in central California. They nest in dense foliage of shrubs and trees, and forage in open habitats for insects and small vertebrates. While they infrequently occur in developed areas, they will nest and forage in croplands and grasslands.

There are no records of this species in the project area or vicinity (CDFG, 2004a). This species was observed perched on a power line in the developed area during the reconnaissance survey in 2004. This species potentially forages in the annual grassland, agricultural areas, and urban areas in the project area, and may nest in scattered trees or shrubs in the project area.
Mammals

Greater Western Mastiff-Bat (Eumops perotis californicus)

Status:
- Federal – special concern
- State – special concern

Greater western mastiff-bats are uncommon residents in the southeastern San Joaquin Valley and Coast Ranges. They roost primarily in crevices within cliffs and canyons, but also in buildings. They feed primarily on moths in open areas. Maternity colonies are active May through July.

There are no records of this species in the project area or vicinity (CDFG, 2004a). The structures in the project area are private property and could not be searched for sign of bat use during the reconnaissance survey. Greater western mastiff-bats may potentially roost in the buildings and associated structures in the developed areas in the project area and may forage throughout the project area.

Yuma Myotis (Myotis yumanensis)

Status:
- Federal – special concern
- State – none

Yuma myotis is typically found in open forests and woodland habitats, usually feeding over water. They emerge from day roosts soon after sunset and feed on a variety of low-flying insects. This species roosts in buildings, mines, caves, or crevices. Maternity colonies are active May through July.

There are no records of this species in the project area or vicinity (CDFG, 2004a). The structures in the project area are private property and could not be searched for sign of bat use during the reconnaissance survey. Yuma myotis may potentially roost in the buildings and associated structures in the developed areas in the project area and may forage throughout the project area.

Waters of the United States

The term waters of the U.S. is defined in the Regulatory Setting Section, and includes Navigable Waters of the U.S. and wetlands. There are no waters of the U.S. present in or adjacent to the project area.

Heritage Trees

A definition of heritage trees is provided below in the Regulatory Setting Section. One valley oak near the center of the project site qualifies as a heritage tree according to the City of Stockton Municipal Code. There are also several other large and small trees present on the project site. Just to the east of the project site (across Manthey Road) are a number of valley oaks and other trees, at least one of which is a heritage tree (Table 4.11-2).
TABLE 4.11-2
TREES ON AND NEAR THE PROJECT SITE.
LETTERED TREES ARE ON PROJECT SITE;
NUMBERED ARE ADJACENT.

<table>
<thead>
<tr>
<th>Number</th>
<th>Stem Diameter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>22” (Heritage)</td>
</tr>
<tr>
<td>B</td>
<td>7”</td>
</tr>
<tr>
<td>1</td>
<td>12”</td>
</tr>
<tr>
<td>2</td>
<td>10”, 10”, 10”</td>
</tr>
<tr>
<td>3</td>
<td>6”</td>
</tr>
<tr>
<td>4</td>
<td>10”, 9”, 9”, 7”</td>
</tr>
<tr>
<td>5</td>
<td>18” (Heritage)</td>
</tr>
<tr>
<td>6</td>
<td>10”</td>
</tr>
</tbody>
</table>

Regulatory Setting

Federal Waterway and Wetland Regulations

Wetlands are ecologically productive habitats that support a rich variety of both plant and animal life. The importance and sensitivity of wetlands has increased as a result of a growing understanding of their function as recharge areas and filters for water supplies. Below is the federal definition of a wetland.

U.S. Army Corps of Engineers Wetland Definition

Wetlands are a subset of “waters of the United States” and receive protection under Section 404 of the Clean Water Act. The term *waters of the United States*, defined in CFR (33 CFR 328.3(a); 40 CFR 230.3(s)), includes:

1. All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide.

2. All interstate waters including interstate wetlands. (Wetlands are defined by the federal government [CFR, Section 328.3(b) 1991] as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.)

3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters1:

---

1 Since the SWANCC decision, waters covered solely by this definition by virtue of their use as habitat by migratory birds are no longer considered “waters of the United States.” The Supreme Court’s opinion did not specifically address what other connections with interstate commerce might support the assertion of CWA jurisdiction over “nonnavigable, isolated, intrastate waters” under this definition, and the ACOE is recommending case-by-case consideration. A factor that may be relevant to this consideration includes, but is not limited to, the following: Jurisdiction of isolated, intrastate, and nonnavigable waters may be possible if their use, degradation, or destruction could affect other “waters of the United States,” thus establishing a significant nexus between the water in question and other “waters of the United States” (ACOE, undated memorandum).
• Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

• From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

• That are used or could be used for industrial purposes by industries in interstate commerce.

4. All impoundments of waters otherwise defined as waters of the United States under the definition.

5. Tributaries of waters identified in paragraphs (1) through (4).

6. Territorial seas.

7. Wetlands adjacent to waters identified in paragraphs (1) through (6).

8. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding the Clean Water Act jurisdiction remains with EPA (328.3(a)(8) added 58 FR 45035, Aug. 25, 1993).

Regulated wetlands and other waters of the United States are subject to jurisdiction under Section 4 of the Clean Water Act. Wet areas that are not regulated would include stock watering ponds and agricultural irrigation ditches created in upland areas.

**U.S. Fish and Wildlife Service**

The USFWS administers the Migratory Bird Treaty Act (16 USC 703-711), the Bald and Golden Eagle Protection Act (16 USC 668), and the federal Endangered Species Act (ESA) (16 USC 153 et seq.). Projects that would result in adverse effects on any species protected by the federal ESA are required to consult with the USFWS. This consultation can be pursuant to either Section 7 or Section 10 of the ESA, depending on the involvement by the federal government.

**California Department of Fish and Game**

The CDFG administers a number of laws and programs designed to protect fish and wildlife resources. Principal of these is the California Endangered Species Act of 1984 (CESA) (Fish and Game Code Section 2050 et seq.), which regulates the listing and “take” of endangered (SE) and threatened species (ST). A “take” of such a species may be permitted by CDFG through issuance of permits pursuant to Fish and Game Code section 2081.

Prior to enactment of the CESA, CDFG used the designation of “Fully Protected” to identify species that had been given special protection by the California legislature by a series of statutes in the California Fish and Game Code. (See sections 3503.5, 3505, 3511, 3513, 4700, 4800, 5050, 5515.) Many fully protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations; however, the original statutes
have not been repealed, and the legal protection they give the species identified within them remains in place. Fully Protected species may not be taken or possessed at any time; and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. Because endangered or threatened species can be “taken” for development purposes with the issuance of a permit by CDFG, “fully protected species” actually enjoy a greater level of legal protection than “listed” species.

CDFG maintains lists for Candidate-Endangered Species (SCE) and Candidate-Threatened Species (SCT). California candidate species are afforded the same level of protection as listed species. California also designates Species of Special Concern (CSC) which are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. These species do not have the same legal protection as listed species or fully protected species, but may be added to official lists in the future. The CSC list is intended by CDFG as a management tool for consideration in future land use decisions.

The state’s authority in regulating activities in “waters of the U.S.” resides primarily with the CDFG and the State Water Resources Control Board (SWRCB). CDFG provides comments on ACOE permit actions under the Fish and Wildlife Coordination Act. CDFG is also authorized under the California Fish and Game Code Sections 1600–1616 to develop mitigation measures and enter into Streambed Alteration Agreements with applicants who propose projects that would obstruct the flow of, or alter the bed, channel, or bank of a river or stream in which there is a fish or wildlife resource, including intermittent and ephemeral streams. The SWRCB, acting through the Regional Water Quality Control Board (RWQCB), must certify that an ACOE permit action meets state water quality objectives (Section 401, Clean Water Act).

**San Joaquin County Multi-Species Conservation and Open Space Plan**

The San Joaquin County Multi-species Habitat Conservation and Open Space Plan (SJMSCP) (SJCOG, 2000) provides a strategy for balancing the need to conserve open space and the need to convert open space to non-open space use while providing for the long-term management of plant, fish, and wildlife species, especially those that are currently listed or may be listed in the future under the FESA or the CESA. The SJMSCP is a 50-year plan and will be in effect until the year 2049. The SJMSCP is implemented by a Joint Powers Authority (JPA). The JPA is responsible for conducting all required preconstruction surveys, informing an applicant of “Incidental Take” minimization measures, confirming that “Incidental Take” minimization measures have been implemented prior to site-disturbance, and collecting development fees. Development fees are determined by the type and area of habitat converted to development. At the present time, San Joaquin County, the City of Stockton, and six other cities within the County participate in the SJMSCP. These participating jurisdictions work at developing mitigation measures and impose fees in accordance with the goals of the SJMSCP.

Participation in the SJMSCP is voluntary for local jurisdictions and independent project proponents, and allows a participant to conduct permitted activities that result in or may result in “Incidental Take” of listed species covered by the SJMSCP. Participation in the SJMSCP may
facilitate or expedite the approval of development projects as participants would avoid having to obtain required permits or authorizations directly from the regulating agencies. The JPA has obtained permits and authorizations for the conversion of a predetermined amount of open space habitat to development, and a participant in the SJMSCP would be covered by these permits and authorizations.

**Species Covered by the SJMSCP**

The SJMSCP covers 97 special-status plant, fish, and wildlife species in five designated zones. The project area is located entirely within the Central Zone. Covered species that may occur in the project area are identified in Table 4.11-1.

**Local Regulation of Other Natural Resources**

**City of Stockton**

**Heritage Trees**

Sections 5-037 through 5-042 of the Stockton Municipal Code provide for the protection and preservation of heritage trees. Heritage trees are defined as any valley oak (*Quercus lobata*), coast live oak (*Quercus agrifolia*), and interior live oak (*Quercus wislizenii*) tree that is located on public or private property within the limits of the City, and that has a trunk diameter of 16 inches or more, measured 24 inches above actual grade. Heritage trees may not be removed without a permit. A permit can be granted by the City Landscape Architect or a designee as determined by the Director of Parks and Recreation, based on factors including the necessity to remove the tree or trees in order to construct any proposed improvements, and the possibility of revising proposed tentative subdivision maps and improvement plans in order to save the trees.

**Natural Resources**

Through its General Plan, the City has adopted several Open Space Goals and Policies to protect natural resources within its plan area. Sections of Conservation Goal 1, Open Space Goal 1, and relevant policies are applicable to the project and are presented below.

**Conservation Goal 1**

Guide urban development toward vacant or underused land within the urbanized area and direct new growth toward contiguous lands to protect agricultural lands and other open spaces used for the managed production of resources from premature urban development.

**Conservation**

Goal 1, Policies 1: Existing agricultural soils capable of producing a wide variety of valuable crops shall be retained in agricultural use until the time that such soils are needed for logical urban expansion.
Open Space

Goal 1: Preserve and enhance open space areas for the preservation of natural resources including plant life, habitat for fish and wildlife species, ecologically sensitive areas, and historic and cultural resources.

Policies 4. Significant wildlife and natural vegetation areas shall be protected and preserved for environmental, educational, and research purposes.

5. Seek to preserve existing Valley Oak trees which are healthy.

4.11.2 Impacts and Mitigation Measures

Significance Criteria

Based on Section 15065 and Appendix G of the CEQA Guidelines, as well as the professional judgment of City Staff and consultants, the project would result in a significant impact on the environment if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS;

- Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS;

- 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;

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

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;

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

- Substantially reduce the habitat of a fish and wildlife species;

- Cause a fish or wildlife population to drop below self-sustaining levels;

- Threaten to eliminate a plant or animal community; or

- Substantially reduce the number or restrict the range of an endangered, rare, or threatened species.
CEQA Section 15380 provides that a plant or animal species may be treated as “rare or endangered” even if not on one of the official lists if, for example, it is likely to become endangered in the foreseeable future. As species of plants and animals become restricted in range and limited in population numbers, species may become listed or candidates for listing as endangered or threatened and become recognized under CEQA as a significant resource. Examples of such species are vernal pool fairy shrimp and burrowing owl, the former listed by the federal government and the latter a Species of Special Concern.

California Fish and Game Code Section 3503 has provisions against taking, possessing, or needlessly destroying eggs or nests of any birds. California Fish and Game Code Section 3503.5 provides that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the code or any regulation adopted pursuant thereto.

In conducting the following impact analysis, three principal components of the Guidelines outlined above were considered:

- Magnitude of the impact (e.g., substantial/not substantial);
- Uniqueness of the affected resource (i.e., rarity of the resource); and
- Susceptibility of the affected resource to perturbation (i.e., sensitivity of the resource).

The evaluation of the significance of the following impacts considered the interrelationship of these three components. For example, a relatively small magnitude impact to a state or federally listed species would be considered significant because the species is very rare and is believed to be very susceptible to disturbance. Conversely, a plant community such as California annual grassland is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact would be required to result in a significant impact.

**Methodology**

This section identifies potential impacts to local biological resources based on the type and location of land uses outlined in Chapter 3, Project Description. The impact analysis focuses on foreseeable changes to the baseline condition in the context of the significance criteria presented above. Impacts of the project in relation to these issues were assessed.

**Impacts**

**Impact 4.11.1.** Construction activities in the project area could result in adverse impacts to special-status species, including Swainson’s hawks, burrowing owls, Greater western mastiff-bat and Yuma myotis bat, Ferruginous hawk, Mountain plover, White-tailed (black shouldered) kite, Greater sandhill crane, and Loggerhead shrike. This impact is potentially significant.
Special-status species or their habitats may be adversely affected by the project. Species may be directly affected during construction and/or the breeding and/or foraging habitat for special-status species may be permanently removed. For example, removal of trees or shrubs in the project area or ground disturbance may result in the loss of nests of special-status birds. Demolition of the structures in the project area may result in the loss of bat roosts. Conversion of the project area to development will also result in the loss of breeding and/or foraging habitat for the special-status wildlife species mentioned above, in particular, Swainson’s hawk, listed by the State as a threatened species. Swainson’s hawks were observed foraging in the project area during the reconnaissance survey in 2003 and a number of nests are known in the area. CDFG has guidelines for mitigation for impacts to Swainson’s hawk for any adverse modification of potential foraging areas (CDFG 1994). Suitable habitat also exists to support nesting and/or foraging activities of the white-tailed kite and greater sandhill crane, both listed as fully protected species by the State, as well as several species of special concern, including ferruginous hawk, mountain plover, and loggerhead shrike.

Mitigation Measures

Mitigation Measure 4.11.1. The SJMSCP provides a means of providing mitigation for species covered by the plan. Regulatory agencies (USFWS, DFG) have approved the SJMSCP. All of the special-status species potentially present at the site are covered species under the SJMSCP. Thus, compliance with the SJMSCP would provide adequate mitigation for the project’s impacts to special-status species. As an alternative, the applicant could provide mitigation for each of the special-status species potentially present at the site, without complying with the SJMSCP. Either approach would provide adequate mitigation. Accordingly, the Applicant shall mitigate impacts to special status species by one of the following approaches:

a) The Applicant shall comply with the terms of the SJMSCP. In the event the Applicant complies with the SJMSCP, the Applicant shall implement one of the following measures:

- Pay the applicable in-lieu fee to the JPA, as indicated in section 7.4.1 of the SJMSCP. The site is currently categorized as agricultural land under the SJMCSP.
- Dedicate conservation easements, fee title, or in-lieu dedications.
- Purchase approved mitigation bank credits as specified in section 5.3.2.4.
- Propose an alternative mitigation plan consistent with SJMSCP goals and equivalent in biological value to the other options, subject to SPA approval.

These measures may also be combined, provided the combined measures provide equivalent biological value, subject to confirmation of compliance with this standard by the JPA. (See SJMSCP, p. 5-52.)

Or

b) The project shall implement pertinent avoidance and mitigation measures commensurate with those described in Sections 5.2 and 5.3 of the SJMSCP subject to review and approval by the appropriate regulatory agencies. Mitigation measures shall include, but are not limited to, the following:
1. Pre-construction clearance surveys for presence of special-status species, particularly nesting Swainson’s hawks, Loggerhead Shrikes, burrowing owls, and other raptors, and roosting special-status bats.

   - Surveys for nesting Swainson’s hawk shall be conducted in accordance with the Swainson’s Hawk Technical Advisory Committee (2000) guidelines in the project area and within one-half mile of the project area. This survey consists of six visits during the breeding season.

   - A preconstruction clearance survey shall be completed for Loggerhead Shrikes in the project area and within one-half mile of the project area. This survey consists of six visits during the breeding season.

   - Surveys for burrowing owl shall be conducted in accordance with the CDFG (1995) guidelines in the project area and a 150-meter buffer area. Surveys shall be conducted during both the wintering and nesting seasons, unless burrowing owls are detected on the first survey, to determine if the site is occupied. A subsequent survey within 30 days prior to the construction shall be performed to ensure that the site has not become occupied since the previous surveys.

2. Specified construction timing to avoid impacts to migratory or seasonal species or breeding periods.

   - Construction activities shall be avoided within one-quarter mile of an active nest of a Swainson’s hawk from March 1 to September 15 in accordance with the CDFG (1994) guidelines unless the approval of a local CDFG biologist is obtained.

   - If the project site is occupied by burrowing owls, a buffer area of 250 feet shall be maintained around the occupied burrow, unless a qualified biologist determines that the birds have not begun egg-laying and incubation or the juveniles are foraging independently and capable of independent survival, in accordance with CDFG (1995) guidelines. If owls must be moved away from the area, passive relocation techniques rather than trapping shall be used.

3. Replacement of lost habitat.

   - Swainson’s hawk foraging habitat shall be replaced at a ratio specified in the November 1994 CDFG Staff Report on Mitigation for Impacts to Swainson’s Hawks in the Central Valley of California. This includes a 1:1 ratio for lands within 1 mile of an active nest tree, 0.75:1 for lands within 1 to 5 miles of an active nest tree, and 0.5:1 for areas within 5 to 10 miles of an active nest tree. This may include purchase of credits at an approved mitigation bank.

   - To offset the loss of burrowing owl foraging and burrow habitat, preservation of 6.5 acres per owl pair or unpaired resident bird shall be acquired and permanently protected in accordance with the CDFG (1995) guidelines. If occupied burrows cannot be avoided, existing unsuitable burrows shall be enhanced or new burrows created on these protected lands at a ratio of 2:1. This may include purchase of credits at an approved mitigation bank. A monitoring plan and reports for the protected lands shall be submitted to CDFG.
• Construction activities within 250 feet of other active raptor nests shall be prohibited unless approval from CDFG biologists is obtained.

4. Swainson’s hawk nest trees shall not be removed for the project unless there is no feasible way to avoid them and a Management Authorization from CDFG is received. Swainson’s hawk nest trees shall be removed between October 1 and February 1.

5. If roosting special-status bat species are detected, one-way exclusion devices shall be implemented so that bats may exit but not reenter structures prior to demolition.

6. Construction monitoring shall be performed by a qualified biologist to ensure compliance with all of the above avoidance, protection, and mitigation measures. Swainson’s hawk monitoring shall be performed in accordance with the CDFG (1994) guidelines. Burrowing owl monitoring shall be performed in accordance with the CDFG (1995) guidelines.

Impact Significance after Mitigation: With the mitigation measures listed above, impacts to special-status species would be avoided or mitigated in accordance with methods approved by regulating agencies, and would be reduced to a less-than-significant level.

Impact 4.11.2. The project may result in impacts to heritage and other oak trees as defined in the Stockton Municipal Code. This impact is considered less than significant.

Heritage trees are protected under the Stockton Municipal Code. Heritage trees are defined as any valley oak, coast live oak, and interior live oak tree which is located on public or private property, and which has a trunk diameter of 16 inches or more, measured 24 inches above actual grade. Construction activities in the project area may result in the removal or effective removal of heritage trees.

One heritage tree is present within the project area, and at least one more is located adjacent to the project area. The Stockton Municipal Code requires that a certified arborist inspect these trees and clearly indicate which trees meet the heritage tree requirements. The ordinance requires that a tree removal permit be obtained from the City of Stockton prior to the removal of any heritage trees. In addition, the ordinance requires that when construction activities cease at a location, any affected heritage trees be inspected by a certified arborist. If any Heritage Trees have been killed and/or removed as a result of project construction activities, they must be replaced on at a 1:1 ratio at the discretion of the City Landscape Architect. The size of replacement trees is determined by the City Landscape Architect based on the size of the tree that is removed.

Additionally, the Open Space element of the City of Stockton General Plan calls for the preservation of all oak trees, including those which do not qualify as heritage trees. One non-heritage oak exists on the project site, on the northwest corner of the present intersection of Manthey Road and Henry Long Boulevard. The diameter of the tree is seven inches. Approximately five more non-heritage oak trees lie just east of the project site, with a total of ten stems ranging from 6 inches to 12 inches in diameter.
The following are standard requirements of the Stockton Municipal Code, which applies to oak trees including those that are not heritage trees:

1. Tentative maps and project improvement plans shall identify the species, location, retention value and diameter of existing individual oak trees greater than six inches in diameter at breast height. The maps shall identify all oak trees meeting the Heritage Tree definition (trunk diameter of 16 inches or greater as measured at twenty-four inches above actual grade) with a bold “H” on the map. These and all other tree locations shall be shown in relation to proposed improvements. Retention value shall be determined by a Certified Arborist retained by ODS.

2. The ODS shall be responsible for avoidance of impacts to oak trees, or mitigation of impacts, as follows:
   a. Removal of oak trees shall be avoided where feasible. The ODS shall coordinate the layout of project plans with the City representative to minimize or eliminate oak tree removal.
   b. Pursuant to the Stockton Municipal Code, prior to approval of the tentative map, and prior to the removal or severe pruning of limbs or disturbance of roots of any Heritage Tree, the ODS shall obtain a Heritage Tree Removal/Trimming permit from the City Parks and Recreation Department.
   c. Grading of proposed lots that include Heritage Trees to be preserved should be designed to preserve existing grade to the drip line surrounding the Heritage Tree, in order to enhance survivability.
   d. Prior to any construction activities, the ODS shall place temporary barriers around the drip lines of existing oak trees. No storage or operation of any equipment will occur within these barriers. No construction materials or fill will be stockpiled within these barriers, and trespassing will be prohibited. The City Arborist and the Public Works inspector shall be contacted prior to the start of construction to verify the barriers have been properly placed.
   e. Backyard and other property line fencing shall be located and installed in such a manner so as to minimize root disturbance and to allow for future root and trunk growth, subject to review and approval by the City Arborist representative.
   f. If during construction any damage to any oak trees occurs, the ODS or project contractor shall notify the City Arborist. The ODS shall be responsible for any remedial work necessary as directed by the Department.
   g. If oak tree removal is unavoidable and permitted, replacement oak trees shall be planted as required by the City Arborist based on the retention value (Mitigation Measure 3 below) as determined by a Certified Arborist and subject to approval by the City Arborist.
3. Replacement oak trees shall be planted on the same site as removed if possible and as approved by the City Arborist. The size of replacement trees shall be based on the original tree’s retention value (as determined the Certified Arborist) as follows:

<table>
<thead>
<tr>
<th>Retention Value</th>
<th>Replacement Oak Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dead</td>
<td>One 15-gallon container size</td>
</tr>
<tr>
<td>Alive</td>
<td>Eight 15-gallon container size; or Four 34-inch box container size; or One 48-inch box container size</td>
</tr>
</tbody>
</table>

4. If on-site planting is not possible, the ODS shall pay the City Parks and Recreation Department the estimated cost (as determined by the City Arborist) for the City to have the mitigation oak trees planted by private contract on a site deemed appropriate by the City Arborist.

5. For on-site planted trees, the ODS shall provide the resources necessary for one year to insure that the newly planted trees become established in their new location. During the one year establishment period, the ODS shall be responsible for purchasing and planting any trees for which replacement may be deemed necessary by the Arborist or City Arborist. If any mitigation trees require replacement, any such replacement trees shall be properly cared for by the ODS for one year and until accepted by the City Arborist.

6. Where mitigation plantings are made on site, the ODS shall record such planting(s) on an overall project site map titled “Oak Tree Mitigation Planting Map” (OTMPM). Each planted tree shall be designated as “Mitigating Heritage Oak Tree Planting,” and subsequent ODS shall be made aware that removal or damage to such tree(s) is no permissible without prior obtaining a permit from the City Parks and Recreation Department. The OTMPM shall be filed with the City Permit Center and the City Parks and Recreation Department within 10 days of issuance of any oak tree removal permit. In addition, the ODS shall provide a permanent automatic irrigation system, subject to approval by the City Arborist, and warranty such system for labor and materials for a period of one year.

Compliance with the required Stockton Municipal Code Heritage Tree Ordinance will result in a less-than-significant impact to heritage trees and no subsequent mitigation is required.

**Mitigation.** No mitigation is required.
4.12 Cultural and Historic Resources

The section provides an overview of the cultural history of the Stockton area, a description of known cultural resources within and near the project site, regulatory requirements, and an analysis of potential impacts to cultural resources that would result from implementation of the project.

4.12.1 Setting

This setting description provides a brief overview of the prehistory, ethnography, and history of the project site and the surrounding region.

Prehistory

Although the San Joaquin Valley may have been inhabited by humans as early as 10,000 years ago, the evidence of early human use is likely buried by alluvial deposits that accumulated during the last several thousand years. Later periods are better understood because there is more representation in the archaeological record. Central California archaeology has been described as a series of patterns. Fredrickson (1973) defines pattern as an essentially non-temporal, integrative cultural unit—the general mode of living shared by people within a given geographic region. Three such patterns which overlap somewhat in adjoining areas are recognized for central California: the Windmiller, Berkeley, and Augustine Patterns.

The Windmiller Pattern, which may represent the advent of early Penutian speaking populations extends from approximately 4,500 to 3,000 years before present. This pattern was focused primarily on the lower Central Valley and Delta regions, and reflects the influence of a lacustrine or marsh adaption. This economic stance may have preadapted them for the environment of the lower Sacramento-San Joaquin Valley and Delta and these people may have entered the region with this adaptation more or less fully developed.

The Berkeley Pattern extends roughly from 3,000 to 1,500 years before present and became more widespread, or at least more archaeologically visible, than the antecedent complex. The Berkeley Pattern has a greater emphasis on the exploitation of the acorn as a staple. The Berkeley Pattern initially may represent the spread of proto-Miwok and Costanoans, collectively known as Utians, from their hypothesized lower Sacramento Valley/Delta homeland.

The last complex in this sequence is the Augustine Pattern, which extended temporally from circa 1,500 years before present to European contact. Augustine initially appears to be largely an outgrowth of the Berkeley Pattern, but may have become a blend of Berkeley traits with those carried into California by migrating Wintuan populations from the north (Moratto, 1984).
Ethnographic Background

The project area was aboriginally inhabited by the Northern Valley Yokuts. Because of the early
decimation of the aboriginal populations in the San Joaquin Valley, most information regarding
this group is gleaned from the translated accounts of Spanish military men and missionaries.
A summary of these sources has been compiled by Wallace (1978), and it is on his work that the
following ethnographic setting is based.

Northern Valley Yokuts territory is defined roughly by the crest of the Diablo Range on the west,
and the foothills of the Sierra Nevada on the east. The southern boundary is located approximately
where the San Joaquin River bends northward; the northern boundary is roughly halfway between
the Calaveras and Mokelumne Rivers. The Yokuts may have been fairly recent arrivals in the
San Joaquin Valley, perhaps being pushed out of the foothills approximately 500 years ago.

Population estimates for the Northern Valley Yokuts vary from 11,000 to more than 31,000
individuals. Populations were concentrated along waterways and on the more hospitable east side
of the San Joaquin River. Villages, or clusters of villages, made up “miniature tribes” (tribelets)
led by headmen. The number of tribelets is estimated at 30 to 40; each tribe spoke their own
dialect of the Yokuts language. Combined with the Southern Valley Yokuts and the Foothill
Yokuts dialects, these tongues formed the Yokutsan linguistic family of the Penutian Stock
(Shipley 1978).

Principal settlements were located on the tops of low mounds on or near the banks of the
larger watercourses. Settlements were composed of single family dwellings, sweatshouses, and
ceremonial assembly chambers. Dwellings were small, lightly constructed, semi-subterranean,
and oval. Public structures were large and earth-covered. Sedentism was fostered by the
abundance of riverine resources in the area.

Subsistence among the Northern Valley Yokuts revolved around the waterways and marshes of
the lower San Joaquin Valley. Fishing activities involved the use of dragnets, harpoons, and hook
and line, which yielded salmon, white sturgeon, river perch, and other species of edible fish.
Waterfowl and small game attracted to the water also provided a source of protein. The
contribution of big game to the diet was probably minimal. Vegetal staples included acorns, tule
roots, and seeds.

Goods not available locally were obtained through trade. Paiute and Shoshone groups on the
eastern side of the Sierra were suppliers of obsidian (volcanic glass used for tools). Shell beads
and mussels were obtained from Salinan and Coastanoan groups. Trading relations with Miwok
groups yielded baskets and bows and arrows. Overland transport was facilitated by a network of
trails; tule rafts were used for water transport.

Most Northern Valley Yokuts groups had their first contact with Europeans in the early 1800s,
when the Spanish began exploring the Delta. The gradual erosion of the Yokuts culture began
during the mission period. Epidemics of European diseases played a large role in the decimation
of the native population. With the secularization of the mission and the release of neophytes,
tribal and territorial adjustments were set in motion. People returned to other groups, and a number of polyglot “tribes” were formed. The final blow to the aboriginal population came with the Gold Rush and its aftermath. In the rush to the southern mines, native populations were pushed out of the way and out of their existing territories. Ex-miners settling in the fertile valley applied further pressure to the native groups and altered the landforms and waterways of the valley. Many Yokuts resorted to wage labor on farms and ranches. Others were settled on land set aside for them on the Fresno and Tule River Reserves.

**Historic Setting**

After the initial phases of exploration by Europeans and Russians beginning the late 1500s, an era commonly referred to as the Hispanic Stage (1769–1822) followed. This period was marked most notably by the missionization of the indigenous population and the development of presidios, civilian ranchos, and pueblos throughout California. This irrevocably changed, and in some cases decimated, the California landscape and its indigenous peoples. This era effectively began the industrialization and agricultural movements of the nineteenth and twentieth centuries. By 1822, the Mexican government gained control of California and began to wield more power over the affairs of California and its use economically, which led to a greater degree of secularization of the missions and ranchos. This, in turn, led to the purchasing of various land grants, for the first time, by non-Hispanics, namely John Sutter and Charles M. Weber.

In 1839, John Sutter acquired 1,000 square miles in the area where Sacramento now stands (Chartkoff and Chartkoff 1984). Ten years later, the Gold Rush of 1849 brought about much change to California, particularly for the Central Valley and Bay Area, which brought social and economic growth at a much faster rate than would have occurred otherwise. As a consequence, the small developing colonies at Stockton and Sacramento rapidly expanded. The small colony near present day Stockton, French Camp, was founded by Captain Charles M. Weber, a German immigrant (Marschner, 2000).

Two land grants were made in San Joaquin County and portions of three other ranchos crossed the county line on the north, east, and south. Much of the project area falls within the boundary of the *Rancho Campo de los Franceses*, a 49,000-acre land grant made to Captain Weber by the Mexican government to (Marschner, 2000). Weber and his business partner William Gulnac organized a company in 1843 to form a colony at French Camp. The company established a settlement there in 1845, building corrals and shelters on the peninsula in the Stockton Channel, known today as Weber Point. Emigrants were offered free land as an inducement to settle, but due to the Mexican-American War, hostile American Indians in the area, plague, and limited food supplies, settlement was undesirable. Disappointed, Gulnac sold his property to Weber for $60. Weber subsequently ended up giving away the major portion of the rancho. In 1847, he laid out the town variously known as Tuleburg, Weherville, and Weber’s Embarcadero before it was officially renamed in honor of naval officer Commodore Robert F. Stockton in 1849 (Marschner, 2000).
According to many sources, Stockton experienced its most rapid growth as a result of its role as a major gold rush supply and transportation center in the mid-1800s. In 1850, the City of Stockton was incorporated and by 1854, the City had grown to 7,000 inhabitants, making it the fourth largest city in the State. However, in the later half of the nineteenth century and as gold mining waned, disenchanted miners turned to agriculture, with Stockton becoming a major shipping point for overseas grain trade. Agriculture was also the catalyst for other related industry such as flourmills, shipyards, agricultural machinery, financial institutions, and tannery. A notable event in the history of Stockton’s developing agricultural economy was the invention of the first commercially successful track-type tractor by Benjamin Holt, who in 1883 founded the Stockton Wheel Company.

With Stockton’s thriving agricultural economy came associated residential development. Many of the residential neighborhoods in the central portion of Stockton were developed by the owners of businesses and industries and reflect the relative affluence of the owners. These homes, dating to the late 1800s, reflect the high Victorian style.

Shipping has been an important aspect of the local economy throughout Stockton during the twentieth century. This is largely due to its location at the edge of the San Joaquin-Sacramento River Delta and in an area conducive to transporting goods. With the incorporation of Stockton, the resources on Rough and Ready Island became linked to reclamation and farming activities associated with the creation of the Port of Stockton. The economic evolution of Stockton during this period encouraged the development of suburbs during the later part of the twentieth century, which drew businesses and residential development to outlying areas.

**Cultural Resource Regulations**

**CEQA**

CEQA requires that public or private projects financed or approved by public agencies must assess the effects of the project on historical resources. CEQA also applies to effects on archaeological sites, which may be included among “historical resources” as defined by Guidelines section 15064.5, subdivision (a), or, in the alternative, may be subject to the provisions of Public Resources Code section 21083.2, which govern review of “unique archaeological resources.” Historical resources may generally include buildings, sites, structures, objects or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance.

Under CEQA, “historical resources” include the following:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code, §5024.1).

2. A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resources as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code, §5024.1) including the following:

(A) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;

(B) Is associated with the lives of persons important in our past;

(C) 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; or

(D) Has yielded, or may be likely to yield, information important in prehistory or history.

(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code section 5020.1(j) or 5024.1.

Archaeological resources that are not “historical resources” according to the above definitions may be “unique archaeological resources” as defined in Public Resources Code section 21083.2, which also generally provides that “nonunique archaeological resources” do not receive any protection under CEQA. If an archaeological resource is neither a “unique archaeological” nor an “historical resource,” the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the EIR, but they need not be considered further in the CEQA process.

In summary, CEQA requires that if a project results in an effect that may cause a substantial adverse change in the significance of an historical resource, or would cause significant effects on a unique archaeological resource, then alternative plans or mitigation measures must be considered.

Therefore, prior to the assessment of effects or the development of mitigation measures, the significance of cultural resources must first be determined. The steps that are normally taken in a cultural resources investigation for CEQA compliance are as follows:

- Identify potential historical resources
- Evaluate the eligibility of historical resources
- Evaluate the effects of a project on all eligible historical resources
Stockton General Plan

Policy Document

The Policy Document addresses cultural resources under the “Open Space” category, as follows:

Open Space Element

Goal 1. Policy 6. Continue to recognize and preserve Stockton’s historical and cultural resources.

City of Stockton Municipal Code

Within the purview of the City of Stockton’s Planning and Zoning Code, Chapter 16, Part 7 reflects the City’s policies regarding cultural resource preservation. The following are the purposes of those policies:

- Designate, preserve, protect, restore, enhance, and perpetuate those historic structures, districts, sites, zones, and neighborhoods which contribute to the cultural and aesthetic benefit of the City.
- Encourage public knowledge, understanding and appreciation of, and a sense of identity with, the City’s past.
- Foster civic and neighborhood pride in the beauty and accomplishments of the past.
- Stabilize and improve the economic value of historic structures, districts, zones, and neighborhoods.
- Preserve diverse architectural styles and design reflecting phases of the City’s history, and encourage complementary contemporary design and construction.
- Promote and encourage continued private ownership and utilization of such buildings and other structures now so owned and used, to the extent that the objectives listed above can be attained under such policy.

Stockton’s Municipal Code establishes rules and procedures for the Cultural Heritage Board, which was established in 1969 to assist in the preservation of Stockton’s historic districts and landmarks. In addition, the code establishes criteria and procedures for the designation and maintenance of landmarks and historic sites. Chapter 16, Part VII, Section 16-150 of the Stockton Municipal Code specifies that all property owners and tenants of Landmarks, Structures of Merit, and structures in a Historic Preservation District shall maintain and keep in repair such structures and premises, and shall comply with all applicable building and housing codes and other State and local laws. In addition, a Certificate of Appropriateness approved by the Community Development Director, with advice from the Cultural Heritage Board, must be obtained for the construction, demolition, alteration, removal, or relocation of any publicly or privately owned landmark, or any structure, natural feature, or site within a Historic Preservation District.
Existing Cultural Resource Conditions

Methods

The effort to identify cultural resources in the project area included a record search and review of existing documents and reference materials, contacts with Native Americans, and a field survey.

A cultural resources records search of all pertinent survey and site data was conducted at the Central California Information Center on July 2, 2003. The records were accessed by utilizing the Stockton West USGS 7.5-minute quadrangle map and included the project area along with a one-half-mile radius around the project site. In addition to Information Center maps and site record forms, other sources included the Directory of Properties in the Historic Property Data File for San Joaquin County, the National Register of Historic Places, the California Register of Historic Resources, the California Inventory of Historic Resources (1976), the California Historical Landmarks (1996), California Department of Transportation State and Local Bridge Survey, the California Points of Historical Interest (1992), and other standard reference sources.

The Native American Heritage Commission (NAHC) was contacted by an ESA archaeologist on November 5, 2004, and requested to provide information on locations of importance to Native Americans and a list of Native Americans who should be contacted. The NAHC provided a list of one Native American individual (Katherine Perez) who should be contacted concerning locations of importance to Native Americans in the project area. ESA sent a letter to Ms. Perez on March 29, 2005, providing information about the project and requesting information on locations of importance to Native Americans. No response has been received to date.

An archaeological field inspection of the project area was conducted on August 21, 2003, by an ESA Registered Professional Archaeologist. The surface of the project area was inspected using systematic survey transects spaced between 15 and 30 meters apart in areas with good surface visibility. Areas of visible surface were examined for evidence of archaeological remains such as artifacts, bone, features, historical material, or culturally modified soil horizons.

Results

The records search resulted in the finding that no cultural resources have been previously identified in the project area and that one prehistoric archaeological site and one historical refuse scatter have been identified within one-quarter mile of the project site, well outside the project boundaries. The records search indicated that the Turnpike Levee was located directly adjacent to, but outside, the project area and apparently corresponds to the location of Manthey Road near the east boundary of the project site. The Turnpike Levee was identified on a 1952 USGS topographic map. Additionally, the 1952 map indicates the presence of three structures in the project area.

The records search indicated that a portion of the project site has previously been inspected for the presence of cultural resources.
The field survey conducted for the project resulted in the identification of no potentially significant cultural resources. No archaeological materials or deposits were identified in the project area. Two standing residential structures are present in the project area. One of these structures is located northwest of the intersection of French Camp Road and Manthey Road and consists of a house and minor associated buildings all of which are less than 50 years old. The second structure is located just south of Henry Long Boulevard near the west edge of the project area. This residence consists of a house and garage connected by a roofed breeze-way, a barn, and a shed. The house appears to be less than 50 years old or has been extensively modified and renovated. The barn and shed appear to be over 50 years old, but are extensively deteriorated, lack physical integrity, and no longer retains integrity of historical setting.

Neither of the identified residential structures identified in the project area are considered to be eligible for listing in the CRHR and are therefore not considered to be historical resources under CEQA.

### 4.12.2 Impacts and Mitigation Measures

This section describes the criteria used to determine if significant impacts would occur, the types of project-related actions that could result in significant impacts on important cultural resources, a description of potential impacts that would result from implementation of the project and the identification of feasible mitigation measures that would reduce impacts and potential impacts to a less-than-significant level.

#### Significance Criteria

Under criteria based on the State CEQA Guidelines, the project would be considered to have a significant impact on cultural resources if it would result in any of the following:

- A substantial adverse change in the significance of a historical resource that is either listed or eligible for listing on the National Register of Historic Places, the California Register of Historic Resources, or a local register of historic resources;
- A substantial adverse change in the significance of a unique archaeological resource;
- Disturbance or destruction of a unique paleontological resource or site or unique geologic feature; or
- Disturbance of any human remains, including those interred outside or formal cemeteries.

CEQA provides that a project may cause a significant environmental effect where the project “may cause a substantial adverse change in the significance of an historical resource” (Pub. Res. Code, §21084.1 (emphasis added)). For the purposes of this EIR, the County has determined that impacts to historical resources will be significant if the project would cause a substantial adverse change in the significance of those resources. CEQA Guidelines section 15064.5 defines a “substantial adverse change in the significance of an historical resource” to mean “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.” (CEQA Guidelines, §15064.5, subd. (b)(1) (emphasis added)).
CEQA Guidelines, section 15064.5, subdivision (b)(2), defines “materially impaired” for purposes of the definition of “substantial adverse change …” as follows:

The significance of an historical resource is materially impaired when a project:

(A) demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or

(B) demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(C) demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Impact Mechanisms

Impacts on cultural resources could result from the following project-related activities:

Ground-disturbing activities. Project-related excavation, grading, trenching, or other sub-surface disturbance could damage or destroy buried archaeological resources including prehistoric and historic remains or human burials.

Impacts

Impact 4.12.1. Implementation of the project could result in damage to previously unidentified buried archaeological and/or human remains during project construction. This impact is considered potentially significant.

Although no cultural resources have been identified in the project area, no subsurface testing was conducted. Therefore, the nonexistence of subsurface cultural resources cannot be demonstrated. Unidentified, buried archaeological remains could be present at the project site. Buried archaeological remains such as prehistoric midden deposits, flaked and ground stone artifacts, bone, shell, building foundations and walls, and other buried cultural materials could be damaged during grading, trenching, and other construction related activities. Buried human remains that were not identified during field investigations could be inadvertently unearthed during construction-related activities, which could result in damage to these remains. Damage to significant buried archaeological and/or human remains would be a significant impact.
Mitigation Measure 4.12.1. Pursuant to CEQA Guidelines 15064.5 (f), “provisions for historical or unique archaeological resources accidentally discovered during construction” should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project proponent and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist and/or paleontologist would meet to determine the appropriate avoidance measures or other appropriate mitigation, with the ultimate determination to be made by the City. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.

In considering any suggested mitigation proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, City Planning Staff shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for historical resources or unique archaeological resources is carried out.

If the discovery includes human remains, CEQA Guidelines 15064.5 (e)(1) shall be followed, which is as follows:

(e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

(1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

(A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and

(B) If the coroner determines the remains to be Native American:

1. The coroner shall contact the Native American Heritage Commission within 24 hours.

2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.

3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or
(2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

(A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.

(B) The descendent identified fails to make a recommendation; or

(C) The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

**Significance after Mitigation:** With implementation of the mitigation measure listed above, this impact would be reduced to a less-than-significant level.
4.13 Hazards and Hazardous Materials

This section addresses the hazards and hazardous materials issues related to the project site and surrounding area. The issues addressed here include wildland fire hazards, hazardous materials, and hazardous waste. Also included is an overview of hazardous materials regulations and emergency response services.

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. The CCR defines a hazardous material as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating, illness or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed (CCR, Title 22, Division 4.5, Chapter 10, Article 2, Section 66260.10).

Hazardous wastes are defined in the same manner. Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal. Hazardous materials and hazardous wastes are classified according to four properties: toxicity, ignitability, corrosivity, and reactivity (CCR, Title 22, Chapter 11, Article 3).

4.13.1 Setting

A Phase I Environmental Site Assessment was completed for the project site by The Twining Laboratories, Inc. on May 16, 2003. The Phase I Assessment was performed in accordance with American Society of Testing and Materials (ASTM) E1527, the standard practice for environmental assessments. The objective of the Phase I Assessment was to identify recognized environmental conditions that may pose a material risk to human health or to the environment, or in any way affect the proposed use of the project site. As defined in ASTM E1527, the term recognized environmental conditions means “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into any structures on the property or into the ground, groundwater, or surface water of the property has been or may have been a release of hazardous material, or whether a naturally occurring hazardous material is present, based on reasonably available information about the property and the area in its vicinity.”

Existing Conditions

Hazardous Materials

A site reconnaissance completed by ESA staff on November 8, 2004, identified the following:

- Pile of household trash in the southeastern portion of the site that consisted of concrete, carpet, pieces of wood, table, boxes. No hazardous materials were observed.
• Water well, pump and white tank. A 55-gallon drum that contained a small amount of trash was observed near the tank.

• An aboveground gray tank. A 55-gallon drum that was empty was buried next to the tank (see Figure 4.13-1).

• An area on the south side of Henry Long Boulevard that supported a former residence. Visible in the topsoil was debris consisting of shoes, pieces of wood, milk cartons, pieces of plastic, pieces of glass, pieces of paper, and aluminum cans (see Figure 4.13-1).

• Behind the area that supported a former residence, there was a pump, piping, electrical box (see Figure 4.13-1).

The Phase I Environmental Site Assessment reported that the project site was listed on the State landfill/solid waste disposal database. A residence was removed from 4599 Manthey Road in 1988. A portion of that property, which is part of the project, was used for asbestos disposal. (Twining, 2003).

**Underground and Above Ground Storage Tanks**

Twining did not identify any underground storage tanks on the project site, and the site was not listed on the State underground storage tank list. A plastic aboveground storage tank was observed by Twining near the northwest corner of the property located at 612 Henry Long Boulevard (Twining, 2003).

**Historical Uses of the Project Site**

The history of the project site was investigated during the Phase I Environmental Site Assessment performed by Twining (2003). The history was researched back to 1937 and Twining determined that the project site has been used predominantly as rural residential, agricultural and vacant land. Given the agricultural history of the site, surficial soils may contain residual concentrations of persistent agricultural chemicals.

A natural gas well is located at the northwest corner of Manthey Road and Henry Long Boulevard that has not been in use for 15 to 20 years. (Twining, 2003).

**Water and Sewer**

Due to the historically rural nature of the project site, it is likely that water wells (both domestic and agricultural) and septic systems that are or were used by the current and former residences exist on the site.
Figure 4.13-1
Locations of Tank, Drum, and Asbestos Landfill

SOURCE: AFS (Aerial Photograph), 2003; and ESA, 2006
Asbestos and Lead-Based Paint

The U.S. Environmental Protection Agency (U.S. EPA) banned nearly all uses of asbestos in 1977/78 for ceilings, walls, insulation, patching and taping compound, and pipe and boiler insulation. However, the potential exists for asbestos to be present in older friable and non-friable materials. Lead-based paint is another potential health hazard associated with older construction.

Many structures built before 1978 could also have paint that contains lead. Legislation and voluntary industry guidelines have lowered lead levels in paint since the 1940s. Prior to 1950, lead was a major ingredient in many interior and exterior house paints.

The residential structures located on the project site may contain asbestos materials and lead paint. The presence of asbestos and lead paint in a building does not necessarily mean that the building poses a health hazard. However, asbestos fibers could be released during demolition activities.

There is an asbestos disposal area located on the project site, which is described in the Phase I report (Twining, 2003) as follows (see Figure 4.13-1):

Equinoa/Luengo Property located at 4599 Manthey Road. The former owners of the parcel, the Equinoa family, entered into a financial arrangement with the Johns Manville Pipe Corporation to dispose of an estimated waste volume of 13,000 cubic yards of asbestos containing debris on the property. In 1988 the California Department of Toxic Substances Control applied a polymer sealant to the site to prevent air dispersal of the asbestos. In October 1991 a permanent three foot cap of clean fill soil, including wire mesh to prevent burrowing animals from disturbing the asbestos, was installed on the site to effectively mitigate the disposal location. In May 1992 a deed restriction was placed on the property to preclude future disturbance of the area. The deed restriction requires that the U.S. Environmental Protection Agency (U.S. EPA) be notified at least five working days prior to conducting any work on the restricted land. The deed restriction also states that the parcel must be permanently sealed with at least a 24-inch compacted non-asbestos cover, and prohibits any drilling or other subsurface activity or any use of the water contained beneath the land.

Wildland Fires/Emergency Response

The project site contains agricultural fields and open space land, some of which has been disced and some that is covered with vegetation and trees. The project would require the coordination with local fire department officials in order to develop an emergency evacuation plan for the development. However, there is a potential fire hazard associated with construction activities in a vegetated area.

Airports

The project site is located within two miles of the Stockton Metropolitan Airport. The project site does not fall within the Airport Land Use Commission Planning boundary. However, it is located within the airport’s Conical Zone, which has certain safety requirements.
**Proposed Hazardous Materials Usage**

The Wal-Mart Supercenter would include a Tire & Lube Express. The Tire & Lube Express would handle hazardous materials and would have the potential to generate hazardous wastes and hazardous materials that would be recycled. The handling of such wastes is controlled through requirements for hazardous waste generators and requirements for the preparation of Hazardous Materials Business Plans, which would cover all the hazardous materials at the Wal-Mart Supercenter.

Two fuel centers (gasoline stations) are proposed for the project site that would include underground storage tanks containing gasoline and diesel fuel. The owners and operators of underground storage tanks are required to comply with federal, state, and local laws with respect to the design, construction and monitoring for new and existing underground storage tanks.

Underground storage tank regulations are divided into three sections: technical requirements, financial responsibility requirements, and state program approval objectives. Technical regulations are designed to reduce the chance of releases from tanks, detect leaks and spills when they do occur, and secure a prompt cleanup. Underground storage tank owners and operators are responsible for reporting and cleaning up any releases. The financial responsibility regulations are designed to ensure that, in the event of a leak or spill, an owner or operator will have the resources to pay for costs associated with cleaning up releases and compensating third parties. Subtitle I of Resource Conservation and Recovery Act (RCRA) allows state underground storage tank programs approved by the U.S. EPA to operate in lieu of the federal program, and the EPA’s state program approval regulations set standards for state programs to meet.

Federal underground storage tank laws and regulations are contained in 40 CFR 280 and 40 CFR 281.

State underground storage tank laws and regulations are contained in Title 23, Division 3, Chapter 16 of the CCR (1994, amended 2001), and Chapter 6.7, Health & Safety Code (1997, amended 2001). The laws and regulations are designed to protect waters of the State from discharges of hazardous substances from storage tanks and are administered by the State Water Resources Control Board.

San Joaquin County underground storage tank laws and regulations are authorized through State regulations as well as the San Joaquin County Board of Supervisors Resolution R-84-513. The primary focus of the San Joaquin County Environmental Health Division (SJCEHD) is on protection of groundwater from contamination. Activities include inspection, permitting, monitoring, repair, installation and removal of underground storage tanks.

**Sensitive Receptors**

Sensitive receptors are primarily those that have the potential to come in contact with a hazardous material. Adjoining properties may be sensitive receptors if a release occurred that spilled onto their properties. Nearby residential neighborhoods, schools, public places, and the environment would be considered the primary sensitive receptors.
Regulatory Setting

Federal

Federal regulatory agencies include the U.S. EPA, the Occupational Safety and Health Administration (Fed/OSHA), the Nuclear Regulatory Commission, the Department of Transportation (DOT) and the National Institute of Health. The following represent federal laws and guidelines governing hazardous substances.

- Clean Air Act (42 USC 7401 et seq./40 CFR)
- Clean Water Act (33 USC 1251 et seq./40 CFR)
- Comprehensive Environmental Response Compensation and Liability Act (42 USC 9601 et seq./29, 40 CFR)
- Federal Insecticide, Fungicide, and Rodenticide Act (7 USC 136 et seq./40 CFR)
- Occupational Safety and Health Act (29 USC 651 et seq./29 CFR)
- Oil Pollution Act (33 USC 2701-2761/30, 33, 40, 49 CFR)
- Pollution Prevention Act (42 USC 13101 et seq./40 CFR)
- Resource Conservation and Recovery Act (42 USC 6901 et seq./40 CFR)
- Safe Drinking Water Act (42 USC 300f et seq./40 CFR)
- Superfund Amendments and Reauthorization Act Title III (42 USC 9601 et seq./29, 40 CFR)
- Toxic Substances Control Act (15 USC 2601 et seq./40 CFR)

At the federal level, the principal agency regulating the generation, transport, and disposal of hazardous substances is the U.S. EPA, under the authority of RCRA. The RCRA established a federal hazardous substance “cradle to grave” regulatory program that is administered by the U.S. EPA. Under RCRA, the U.S. EPA regulates the generation, transportation, treatment, storage and disposal of hazardous substances. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the “cradle to grave” system of regulating hazardous substances. The HSWA specifically prohibits the use of certain techniques for the disposal of some hazardous substances. Under the RCRA, individual states may implement their own hazardous substance management programs as long as they are consistent with, and at least as strict as, RCRA. The U.S. EPA must approve state programs intended to implement the RCRA requirements.

The U.S. EPA regulates hazardous substance sites under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The CERCLA, commonly referred to as Superfund, was enacted on December 11, 1980. The purpose of CERCLA was to provide authorities the ability to respond to uncontrolled releases of hazardous substances from inactive hazardous waste sites that endanger public health and the environment. CERCLA established
prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at such sites, and established a trust fund to provide for cleanup when no responsible party could be identified. In addition, CERCLA provided for the revision and republishing of the National Contingency Plan (NCP) that provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also provides for the National Priorities List, a list of national priorities among releases or threatened releases throughout the United States for the purpose of taking remedial action.

The Superfund Amendments and Reauthorization Act (SARA) amended CERCLA on October 17, 1986. This amendment increased the size of the Hazardous Response Trust Fund, expanded U.S. EPA’s response authority, strengthened enforcement activities at Superfund sites, and broadened the application of the law to include federal facilities. In addition, new provisions were added to the law that dealt with emergency planning and community right to know. SARA also required U.S. EPA to revise the Hazard Ranking System to ensure that it accurately assesses the relative degree of risk to human health and the environment posed by sites and facilities subject to review for listing on the NPL.

**Hazardous Substances Worker Safety Requirements**

The Fed/OSHA is the agency responsible for ensuring worker safety. Fed/OSHA sets federal standards for implementation of training in the work place, exposure limits, and safety procedures in the handling of hazardous substances (as well as other hazards). Fed/OSHA also establishes criteria by which each state can implement its own health and safety program.

**Hazardous Materials Transportation**

The DOT regulates the interstate transport of hazardous materials and wastes through implementation of the Hazardous Materials Transportation Act. This act specifies driver-training requirements, load labeling procedures, and container design and safety specifications. Transporters of hazardous wastes must also meet the requirements of additional statutes such as RCRA.

**State**

The California Environmental Protection Agency (Cal/EPA) and the Office of Emergency Services (OES) of the State of California establish rules governing the use of hazardous substances. The SWRCB has primary responsibility to protect water quality and supply.

The Cal/EPA was created in 1991 to better coordinate state environmental programs, reduce administrative duplication, and address the greatest environmental and health risks. The Cal/EPA unifies the state’s environmental authority under a single accountable, cabinet-level agency. The Secretary for Environmental Protection oversees the following agencies: Air Resources Board, Integrated Waste Management Board, Department of Pesticide Regulation, State Water Resources Control Board, Department of Toxic Substances Control, and Office of Environmental Health Hazard Assessment.
Applicable State laws include the following:

- Aboveground Petroleum Storage Act (California Health and Safety Code Section 25270 et seq.)
- California Accidental Release Prevention Law (California Health and Safety Code Section 25531 et seq./19 CCR)
- California Air Quality Laws (California Health and Safety Code Section 39000 et seq./17 CCR)
- California Building Code (California Health and Safety Code Section 18901 et seq./24 CCR)
- California Fire Code (California Health and Safety Code Section 13000 et seq./19 CCR)
- California Occupational Safety and Health Act (California Labor Code Section 6300-6718/8 CCR)
- Carpenter-Presley-Tanner Hazardous Substance Account Act “State Superfund” (California Health and Safety Code Section 25300 et seq./California Revenue and Tax Code Section 43001 et seq.)
- Hazardous Materials Handling and Emergency Response “Waters Bill” (California Health and Safety Code Section 25500 et seq./19 CCR)
- Hazardous Substances Act (California Health and Safety Code Section 108100 et seq.)
- Hazardous Waste Control Law (HWCL) (California Health and Safety Code Section 25100 et seq./22 CCR)
- Pesticide Contamination Prevention Act (California Food and Agriculture Code Section 13141 et seq./3 CCR)
- Porter Cologne Water Quality Control Act (California Water Code Section 13000–14076/23 CCR)
- Safe Drinking Water and Toxic Enforcement Act “Proposition 65” (California Health and Safety Code Sections 25180.7, 25189.5, 25192, 25249.5-25249.13/8, 22 CCR)
- Underground Storage Tank Law “Sher Bill” (California Health and Safety Code Section 25280 et seq./23 CCR)

Within Cal/EPA, the DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the state agency, for the generation, transport and disposal of hazardous substances under the authority of the HWCL. The regulations implementing the HWCL list 791 hazardous chemicals and 20 or 30 more common substances that may be hazardous; establish criteria for identifying, packaging and labeling hazardous substances; prescribe management of hazardous substances; establish permit requirements for hazardous substances treatment, storage, disposal and transportation; and identify hazardous substances that cannot be deposited in landfills.
Under both the federal RCRA and the HWCL, the generator of a hazardous substance must complete a manifest that accompanies the waste from the point of generation to the ultimate treatment, storage or disposal location. The manifest describes the waste, its intended destination, and other regulatory information about the waste. Copies must be filed with the DTSC. Generators must also match copies of waste manifests with receipts from the treatment, storage or disposal facility to which it sends waste.

**Hazardous Substances Worker Safety Requirements**

Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations within the State. Cal/OSHA regulations concerning the use of hazardous substances include requirements for safety training, availability of safety equipment, hazardous substances exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces the hazard communication program regulations, which include provisions for identifying and labeling hazardous substances, describing the hazards of chemicals, and documenting employee-training programs.

Both federal and State laws include special provisions for hazard communication to employees who work with and/or encounter hazardous materials and wastes. The training must include safe methods for handling hazardous substances, an explanation of Material Safety Data Sheets, use of emergency response equipment, implementation of an emergency response plan and use of personal protective equipment.

**Hazardous Materials Transportation**

California law requires that hazardous waste (as defined in California Health and Safety Code Division 20, Chapter 6.5) be transported by a California registered hazardous waste transporter that meets specific registration requirements. The requirements include possession of a valid Hazardous Waste Transporter Registration, proof of public liability insurance which includes coverage for environmental restoration, and compliance with California Vehicle Code registration regulations required for vehicle and driver licensing.

State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the Caltrans. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads.

**Groundwater Regulatory Background**

The SWRCB regulates surface and groundwater quality pursuant to the Porter-Cologne Water Quality Act, the federal Clean Water Act, and the Underground Tank Law. The mission of the SWRCB is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The joint authority of water allocation and water quality protection enables the SWRCB to provide comprehensive protection for California’s waters.
Under the same laws, the RWQCB are authorized to supervise the cleanup of hazardous wastes sites referred to it by local agencies in those situations where water quality may be affected. There are nine Regional Water Quality Control Boards. The mission of the RWQCB is to develop and enforce water quality objectives and implementation plans, which will best protect the beneficial uses of the State’s waters, recognizing local differences in climate, topography, geology and hydrology.

Depending on the nature of contamination, the lead agency responsible for the regulation of hazardous materials at the site can be the DTSC, RWQCB, or both. DTSC evaluates contaminated sites to ascertain risks to human health and the environment. Sites can be ranked by DTSC or referred for evaluation by the RWQCB. The RWQCB, Central Valley Region, is responsible for overseeing the discharge of water (from dewatering during construction activities) to surface waters as it applies to the project. The DTSC and Cal/OSHA are the agencies that are responsible for overseeing that appropriate measures are taken to protect workers from exposure to potential groundwater contaminants.

Asbestos
Regulated asbestos-containing material (RACM) contains friable asbestos in quantities greater than 1 percent by visual area estimation. Friable means that the material can be crumbled, pulverized, or reduced to powder by hand pressure when dry. Some common examples of RACM are spray acoustic ceilings, duct wrap, paper backing of linoleum, wallboard, and thermal insulation on pipes and boilers. Use of asbestos in the manufacturing of these products was banned in 1978; however, some products remained on the shelf and were used in the construction of buildings and homes for years thereafter. If RACM is disturbed, it may release airborne fibers that can be inhaled and pose a health threat. If the RACM is in good general condition and is left undisturbed, it should not pose a health threat and is not required to be removed (40 CFR Part 61, subpart M (40 CFR §61.140 et seq).

The U.S. EPA has declared asbestos to be a hazardous air pollutant under the CAA and has issued a National Emissions Standard for Hazardous Air Pollutants (NESHAP) that regulates the demolition and renovation of facilities containing asbestos. In California, most of the State’s air districts are delegated by U.S. EPA to implement the federal NESHAP requirements. The San Joaquin Valley APCD has been delegated authority to implement and enforce the NESHAP. The California Air Resources Board enforces the NESHAP in undelegated air districts. The NESHAP imposes procedures for demolition and renovation activities involving regulated asbestos containing materials. The NESHAP also imposes additional restrictions on asbestos waste disposal.

Lead-Based Paint
The first federal regulatory effort regarding lead was the Lead-Based Paint Poisoning Prevention Act (LBPPA) of 1971, which called for the detection and abatement of lead-based paint hazards in residential housing. The LBPPA amendments in 1973 designated HUD as the lead agency in eliminating lead-based paint hazards in housing. The Housing and Community Development Act (HCDA) of 1987 changed the definition of lead-based paint hazards to include exterior surfaces.
The latest major source of HUD authority over lead in housing is the Residential Lead-Based Paint Hazard Reduction Act of 1992 (called Title X). In 1992 Congress added a new Title IV to the Toxic Substances Control Act (TSCA), entitled the “Lead-Based Paint Exposure Reduction Act” to address ways to reduce ongoing childhood lead exposure in housing and other structures. The U.S. EPA has not yet finalized the requirements of Title IV.

Several state and federal regulatory agencies either recommend or require specific actions when paint containing lead at various levels is present. The EPA considers deteriorated, chipping or chalking paint at or above 5,000 ppm to be a lead hazard. There are nine California statutes in the Health and Safety Code that govern lead hazard reduction and lead poisoning prevention. Cal/OSHA Standards require workers and their supervisors that engage in construction work in residences and public access buildings to receive training by DHS-approved training providers and to be certified by DHS.

**Local**

**City of Stockton Fire Department**

The City of Stockton Fire Department, Fire Prevention Division provides limited oversight of hazardous materials. The Fire Department is responsible for conducting inspections for code compliance and fire-safe practices, permitting of certain hazardous materials, and for investigation of fire and hazardous materials incidents. The Fire Department regulates explosive and hazardous materials under the Uniform Fire Code, and permits the handling, storage and use of any explosive or other hazardous material.

**San Joaquin County Environmental Health Department**

The SJCEHD is the Certified Unified Program Agency (CUPA) for all cities and unincorporated areas within San Joaquin County. The CUPA was created by the California Legislature to minimize the number of inspections and different fees for businesses. The SJCEHD provides the management and record keeping of hazardous materials and underground storage tank (UST) sites for San Joaquin County, including the City of Stockton. Through the Hazardous Materials Program, the SJCEHD inspects businesses for compliance with the Hazardous Waste Control Act. Hazardous waste is subject to storage time limits, disposal requirements and labeling requirements on containers.

The SJCEHD also issues permits to businesses that handle quantities of hazardous materials/waste greater than or equal to 55 gallons, 500 pounds, or 200 cubic feet of a compressed gas at any time. Businesses who handle those quantities of hazardous materials/wastes are required to submit a Hazardous Materials Management Plan (HMMP) to the SJCEHD. The HMMP includes an inventory of hazardous materials and hazardous wastes, as well as an emergency response to incidents involving those hazardous materials and wastes.

Aboveground storage tanks over 660 gallons or 1320 gallons combined that contain petroleum products, are inspected by the SJCEHD and are required to have a Spill Prevention Control and Countermeasure Plan (SPCCP). The plan is kept onsite and is subject to inspection by the SWRCB. The Plan includes a requirement to prepare a response to a release of hazardous materials from aboveground storage tanks and to prevent a release. The SPCCP also identifies the requirement for secondary containment and mitigation measures.
Under a contract with the SWRCB, the SJCEHD conducts the Local Oversight Program to oversee the abatement and cleanup of releases of hazardous substances from USTs in San Joaquin County that does not involve chemical releases to water. The California RWQCB is the lead agency for chemical releases to water throughout the County.

**San Joaquin County Office of Emergency Services**

The San Joaquin County OES responsibility includes effective planning for emergencies including those related to hazardous material incidents. The OES coordinates planning, response to emergencies, improves procedures for incident notification and provides training and equipment to safety personnel (Stockton Background Report 1990). The OES is required by California Health and Safety Code Section 25500 to (1) prepare an inventory and information system for the storage and location of hazardous materials in the County; (2) oversee the preparation and collection of plans for those businesses that use hazardous substances; (3) prepare area response plans that will incorporate inventory data, training for emergency responses and evacuation plans; and (4) present an inspection plan and data management plan for approval to the State.

**San Joaquin County Plans and Policies**

San Joaquin County prepared a Hazardous Waste Management Plan (HWMP) in November 1988. On January 9, 1989, the City of Stockton adopted this plan. The HWMP is intended to serve as the primary planning document for hazardous waste management in the County. The HWMP analyzes the hazardous waste situation within the County and makes recommendations. The recommendations within the HWMP encourage a variety of administrative programs to monitor and encourage hazardous waste reduction and to educate and inform hazardous waste generators and the public concerning hazardous waste problems.

**City of Stockton General Plan**

The 1990 City of Stockton General Plan, amended in 1998, addresses issues of hazardous materials through the use of goals, policies and implementation measures outlined in the Safety Section of the General Plan Policy Document. The following City of Stockton goals and policies are relevant to the project area:

**Hazardous Materials**

Goal 1 Protect City residents from the risks involved in the transport, distribution, use, and storage of hazardous materials.

Policies 1 Require proper storage and disposal of hazardous materials to prevent leakage, potential explosions, fires or the escape of harmful gases.

2 Cooperate with the County in the identification of hazardous material users (both large and small scale users) and in the development of an inspection process and hazardous materials management plan.

3 Jointly develops with San Joaquin County a household hazardous waste collection system.

4 Review the City’s land use policies to maintain compatibility between hazardous material users and surrounding land use to insure public safety.
4.13 Hazards and Hazardous Materials

Emergency and Disaster Planning

Goal 1  Develop and maintain emergency preparedness programs and emergency health services in order to protect the public.

Policies

1  Work with the County and other agencies to establish, maintain, and test a coordinated emergency response system to address a variety of hazardous and threatening situations.

2  Support and periodically update the various disaster plans concerning Stockton including the City’s Emergency Operations Plan.

3  Major access and evacuation corridors should be available and unobstructed in case of major emergency or disaster.

4  Maintain water supply requirements for fire fighting needs in accordance with the Insurance Services Office “Guide for Determination of Required Fire Flow.”

5  Continue to enforce minimum road widths and clearances around structures to promote fire and safety protection and access.

The Stockton General Plan and the land use planning process address emergency and disaster planning by trying to avoid emergencies and disasters. The City of Stockton has an Emergency Operations Plan that is designed to provide the basis for disaster response. The development of the Plan was overseen by an Emergency Planning Committee composed of representatives from the City’s various departments. It is through the direction of the San Joaquin County Office of Emergency Services that the City would respond to a disaster or emergency (Stockton Background Report 1990).

4.13.2 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a project may be deemed to have a significant environmental impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
• For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the project would result in a safety hazard for people residing or working in the project area;

• For a project within the vicinity of a private airstrip, the project would result in a safety hazard for people residing or working in the project area;

• Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

• Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Impacts

Impact 4.13.1. Construction of the project would occur in an area with wells and septic systems. This impact is considered potentially significant.

Due to the historically rural residential and agricultural nature of the project site, it is likely that the site contains water wells and septic systems. The septic systems are unlikely to have affected subsurface soils with hazardous materials, based on expected residential as opposed to commercial or industrial wastewater discharges.

Mitigation Measures

Mitigation Measure 4.13.1a. All onsite water supply wells and sewage disposal systems shall be properly destroyed by the project applicant in accordance with applicable under permit and inspection by the San Joaquin County Environmental Health Department.

Impact Significance after Mitigation: With implementation of the mitigation measures listed above, this impact would be reduced to a less-than-significant level.

Impact 4.13.2. Construction activities associated with the project could uncover areas of unknown contamination by hazardous substances. This impact is considered potentially significant.

Construction activities at the project site could result in the disturbance of unknown contaminated soil and/or groundwater associated with previous activities on the site.

Mitigation Measures

Mitigation Measure 4.13.2. If contaminated soil and/or groundwater are encountered or suspected contamination is encountered during project construction, work shall be stopped in the suspected area of contamination, and the type and extent of the contamination be identified by the project applicant or the applicant’s consultant. If necessary, a remediation plan shall be implemented in conjunction with continued project construction. A contingency plan shall be developed and implemented to dispose of any contaminated soil or
groundwater. In addition, if groundwater is encountered and any dewatering is to occur at
this location, the RWQCB would need to be consulted for any special requirements such as
containing the water until it can be sampled and analyzed to ensure that no contaminants
are in the groundwater.

**Impact Significance after Mitigation:** With implementation of the mitigation measure
listed above, this impact would be reduced to a less-than-significant level.

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**Impact 4.13.3.** Construction of the project may involve the temporary use and storage of
hazardous materials such as gasoline, diesel fuel, solvents, hydraulic fluids, oils, paints, and
other materials. This impact is considered potentially significant.

During grading and construction, it is anticipated that limited quantities of miscellaneous
hazardous substances, such as gasoline, diesel fuel, and hydraulic fluid would be brought onto
the site. Various contractors for fueling and maintenance purposes could use temporary bulk
aboveground storage tanks as well as storage sheds/trailers. The potential for an accidental release
exists during handling and transfer from one container to another. Depending on the relative
hazard of the hazardous material, if a spill were to occur of significant quantity, the accidental
release could pose a hazard to construction employees, the public, and the environment. Although
typical construction management practices limit and often eliminate the impact of such accidental
releases, the potential exists with the temporary onsite storage of hazardous materials that a
significant release could occur.

**Mitigation Measures**

**Mitigation Measure 4.13.3a.** The project applicant shall ensure, through the enforcement
of contractual obligations, that all contractors transport, store and handle construction-
related hazardous materials in a manner consistent with relevant regulations and guidelines,
including those recommended and enforced by the DOT, California RWQCB, SJCEMD,
and the Stockton Fire Department. Recommendations may include, but are not limited to,
transporting and storing materials in appropriate and approved containers, maintaining
required clearances, and handling materials using the applicable federal, state and/or local
regulatory agency protocols. In addition, all precautions required by the RWQCB issued
NPDES construction activity stormwater permits would be taken to ensure that no
hazardous materials enter any nearby waterways.

**Mitigation Measure 4.13.3b.** The project applicant shall ensure, through the enforcement
of contractual obligations, that all contractors immediately control the source of any
leak and immediately contain any spill utilizing appropriate spill containment and
countermeasures. If required by the SJCDEM, Stockton Fire Department, or any other
regulatory agency, contaminated media shall be collected and disposed of at an offsite
facility approved to accept such media.

**Impact Significance after Mitigation:** With implementation of the mitigation measures
listed above, this impact would be reduced to a less-than-significant level.
Impact 4.13.4. A natural gas well was identified on the project site at the northwest corner of Manthey Road and Henry Long Boulevard that has not been in use for 15 to 20 years. This impact is considered potentially significant.

Mitigation Measures

**Mitigation Measure 4.13.4.** The natural gas well shall be properly abandoned by the project applicant in consultation with and in accordance with the regulations of the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources and the San Joaquin County Environmental Health Department.

**Impact Significance after Mitigation:** With implementation of the mitigation measure listed above, this impact would be reduced to a less-than-significant level.

Impact 4.13.5. The project site is located within the Stockton Metropolitan Airport Area of Influence Boundary and the Conical Surface Outer Boundary. This impact is considered potentially significant.

Mitigation Measures

**Mitigation Measure 4.13.5.** The project applicant shall ensure that the design of structures and other features of the project include the following land use guidelines as provided in the San Joaquin County Airport Land Use Plan (adopted 1983):

- Non-reflective materials
- No transmissions (such as communication towers)
- No visual distractions
- No very tall structures

**Impact Significance after Mitigation:** With implementation of the mitigation measure listed above, this impact would be reduced to a less-than-significant level.

Impact 4.13.6. During construction, equipment and vehicles may come in contact with vegetated areas and accidentally spark and ignite dry vegetation. This impact is considered potentially significant.

Mitigation Measures

**Mitigation Measure 4.13.6.** The Stockton Fire Department provides fire protection and emergency services to the project site. However, the following mitigation measures are recommended to reduce this potentially significant impact:

- The project applicant shall ensure, through the enforcement of contractual obligations that during construction, staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other
4.13 Hazards and Hazardous Materials

materials that could serve as fire fuel. The contractor shall keep these areas clear of combustible materials in order to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.

- The project applicant, in consultation with the Stockton Fire Department, shall create fire-safe landscaping near the structures, develop a maintenance plan, and develop a plan for emergency response and evacuation at the project site.

**Impact Significance after Mitigation:** With implementation of the mitigation measure listed above, this impact would be reduced to a less-than-significant level.

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Impact 4.13.7. Exposure of individuals to asbestos-containing dust and lead-based paint. This impact is considered potentially significant.

Removal or disturbance of asbestos-containing material during demolition of existing residential structures within the project site has the potential for exposing construction workers, the general public, and the environment to friable asbestos and lead-based paint chips and dust. Discriminate and unmitigated demolition of structures containing asbestos and lead-based paint could create asbestos dust, lead paint chips, and lead dust that could be left in the soil on the site or travel offsite and present an inhalation hazard for the surrounding public. In addition, collection and disposal of asbestos and lead paint debris by untrained personnel could similarly result in asbestos and lead paint dust emissions offsite.

**Mitigation Measures**

**Mitigation Measures 4.13.7.** An asbestos survey and a lead-based paint survey shall be completed by the project applicant on all of the structures located on the project site prior to any demolition activities.

All asbestos work must comply with the NESHAP, California Occupational Safety and Health Administration (Cal/OSHA) regulations, San Joaquin Valley Unified Air Pollution Control District, and/or California Air Resources Board (CARB) regulations, as well as any local ordinances.

The California Department of Health Services (DHS) recommends that a contractor who is State certified be hired to perform lead-related construction work. Cal/OSHA requires contractors and workers to be state-certified for high exposure lead work. Prior to renovation or demolition of any structures on the project and alternative sites, painted surfaces should be tested by a State certified lead inspector to determine if the paint contains lead and what action, according to DHS recommendations and Cal/OSHA requirements, are recommended and required for the project and alternatives.

**Impact Significance after Mitigation:** With implementation of the mitigation measure listed above, this impact would be reduced to a less-than-significant level.
Impact 4.13.8. An asbestos landfill has been identified on the project site that if disturbed could result in a release of asbestos fibers into the air. This impact is considered potentially significant.

The Phase I report identified an asbestos disposal location on the “Barkett Property” (previously known as the Equinoa/Luengo property). (Twining, 2003). The former owners of the parcel, the Equinoa family, entered into a financial arrangement with the Johns Manville Pipe Corporation to dispose of an estimated waste volume of 13,000 cubic yards of asbestos containing debris on the property. In 1988, the California Department of Toxic Substances Control applied a polymer sealant to the site to prevent air dispersal of the asbestos. A CERCLA Section 106 order was issued to the property owner to cap the waste in place. The cap included six inches of cover placed in 1990 and three feet of cover placed in 1991. In October 1991 a permanent three-foot cap of clean fill soil, including wire mesh to prevent burrowing animals from disturbing the asbestos, was installed on the site to effectively mitigate the disposal location. In May 1992 a deed restriction was placed on the property to preclude future disturbance of the area. The deed restriction requires that the U.S. EPA be notified at least five working days prior to conducting any work on the restricted land. The deed restriction also states that the parcel must be permanently sealed with at least a 24-inch compacted non-asbestos cover, and prohibits any drilling or other subsurface activity or any use of the water contained beneath the land.

The CIWMB staff performs inspections of the site annually to assure it meets State Minimum Standards for closed disposal sites pursuant to the CCR, Title 27. The adjacent asbestos landfill will not be disturbed as a part of the project. The landfill area will be sectioned off from the rest of the project site by a fence so that the area cannot be accessed by construction workers or the public. However, unless the fencing and landfill are maintained on a regular basis, the landfill could be accessed by the public and wildlife and could pose a public health threat to the occupants of the project site.

The current owners of the property entered into a Voluntary Cleanup Agreement with DTSC in May, 2005. The purpose of the agreement is to prepare a removal action work plan (RAW) and implement the remedial strategy for the property under DTSC oversight.

Mitigation Measures

**Mitigation Measure 4.13.8a.** Until the asbestos landfill has been remediated and approved for development by the California Integrated Waste Management Board, State of California Department of Toxic Substance Control and the San Joaquin Valley APCD, the asbestos landfill shall be sectioned off from the rest of the project site by a fence (chain-link or better) so that the area cannot be accessed by construction workers or the public.

**Mitigation Measure 4.13.8b.** Pursuant to 27 CCR, Section 21190, all proposed land use of the asbestos landfill must be submitted to the Enforcement Agency (EA) section of the CIWMB for review and approval, including any future excavation of this former disposal site.
Mitigation Measure 4.13.8c. Prior to development of any uses on the Barkett property (the asbestos landfill), the developer shall supply the City of Stockton with a report showing that either the asbestos has been removed from the site (constituting “a clean closure”) or evidence that the site would be adequately capped so that the buried asbestos would have no potential to expose future users of the site. The City of Stockton must accept the report prior to approval of a Use Permit for the Barkett property.

Impact Significance after Mitigation: With implementation of the mitigation measures listed above, this impact would be reduced to a less-than-significant level.

Impact 4.13.9. Exposure of individuals to agricultural chemical residue in the soils on the project site. This impact is considered less than significant.

Due to the past and current agricultural use of the project site, there is the potential for residual agricultural chemicals to be present on the site in levels that may pose a threat to human health and the environment.

Due to the commercial nature of the proposed development, the site will be covered predominantly with impervious surfaces, structures, and paved parking lots. There will be some landscaping, but no access by the public to the soils on the site for such things as playgrounds or community gardens. Therefore, no exposure to the soils by the public would occur, and the impervious surfaces would serve as a cap over the former agricultural land so that runoff would not contain agricultural chemical residue.

Mitigation Measure. No mitigation required.

Impact 4.13.10. The project itself, once developed, would involve the use of underground fuel storage tanks at the two proposed fuel centers (gasoline stations). This impact would be less than significant.

The owners and operators of underground storage tanks are required to comply with federal, state, and local laws with respect to the design, construction, and monitoring requirements for new and existing underground storage tanks. Underground storage tank regulations are divided into three sections: technical requirements, financial responsibility requirements, and state program approval objectives.

Federal underground storage tank laws and regulations are contained in 40 CFR 280 and 40 CFR 281.

State underground storage tank laws and regulations are contained in Title 23, Division 3, Chapter 16 of the CCR (1994, amended 2001), and Chapter 6.7, Health & Safety Code (1997, amended 2001). The laws and regulations are designed to protect waters of the state from discharges of hazardous substances from storage tanks and are administered by the SWRCB.
The SJCEHD is responsible for the providing the oversight for the inspection, permitting, monitoring, repair, installation and removal of underground storage tanks in both the incorporated and unincorporated areas of San Joaquin County.

The design, construction, and monitoring of underground fuel storage tanks, associated piping and fuel pumps will be completed in compliance with all applicable federal, state and local regulations. The regulatory compliance of the operation of the fuel storage tanks would result in a less-than-significant impact with regard to air emissions or potential for substantial contamination of shallow groundwater.

**Mitigation:** None required.
4.14 Energy

This chapter addresses the impact of the proposed project’s energy usage. In accordance with Appendix F of the CEQA Guidelines, the section identifies the regional energy supplies and consumption patterns, the additional energy consumption that would result from implementation of the proposed project, the effects on local and regional energy supplies, and compliance with energy conservation standards.

4.14.1 Setting

Regulatory Setting

Federal and state agencies regulate energy consumption through various means and programs. At the local level, individual Cities and Counties regulate energy through their regulatory and planning activities. On the federal level, the U.S. Department of Transportation, U.S. Department of Energy, and U.S. Environmental Protection Agency are three agencies with substantial influence over energy policies and programs. Generally, federal agencies influence transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure projects.

On the state level, the California Public Utilities Commission and California Energy Commission are two agencies with authority over different aspects of energy. The California Public Utilities Commission regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The California Energy Commission collects and analyzes energy-related data, prepares state-wide energy policy recommendations and plans, promotes and funds energy efficiency programs, and regulates the power plant siting process. California is preempted under federal law from setting state fuel economy standards for new on-road motor vehicles.

At the local level, the City of Stockton, through its regulatory and planning activities, directly influences how, and to what extent, energy is used in the city. Local regulations governing the design, construction and use of buildings affect operational energy needs. Transportation policy decisions directly affect petroleum-based fuel requirements. Some of the more relevant federal and state transportation-energy-related laws and plans are discussed below. The relevant energy goals and policies in the Stockton General Plan are also discussed below.

Energy Plans, Policies, and Regulations

Federal

The National Energy Policy, developed in May 2001, proposes recommendations on energy use and on the repair and expansion of the nation’s energy infrastructure. The policy is based on the finding that growth in U.S. energy consumption is outpacing the current rate of production. Over the next 20 years, the growth in the consumption of oil is predicted to increase by 33 percent, natural gas by over 50 percent, and electricity by 45 percent. While federal policy promotes further improvements in energy use through conservation, it focuses on increased development of
domestic oil, gas, and coal and the use of hydroelectric and nuclear power resources. To address the over-reliance on natural gas for new electric power plants, the federal policy proposes research in clean coal technology and expanding the generation of energy to include energy derived from landfill gas, wind, and biomass sources.

**State**

The California Constitution vests in the CPUC, the exclusive power and sole authority to regulate privately owned or investor-owned public utilities. This exclusive power extends to all aspects of the location, design, construction, maintenance, and operation of public utility facilities. Nevertheless, the CPUC has provisions for regulated utilities to work closely with local governments and give due consideration to their concerns.

The *California Energy Plan*, prepared by the California Energy Commission (CEC) and mostly recently adopted in 1998, identifies the emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. Due to the passage of AB 1890 (see discussion of AB 1890, above), the *California Energy Plan* emphasizes the new competition in electricity generation, in contrast to the discussion of the issues in the petroleum and natural gas sectors.

The State of California regulates energy consumption under Title 24 of the California Code of Regulations. The Title 24 Building Energy Efficiency Standards were developed by the California Energy Commission (CEC) and apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and non-residential buildings. The CEC updates these standards periodically and adopted the latest standards in 2005. Under Assembly Bill 970, signed September 2000, the CEC will update and implement its appliance and building efficient standards to make “maximum feasible” reduction in unnecessary energy consumption.

**Local**

**City of Stockton**

The City of Stockton has been actively involved in energy conservation programs. A City Council Energy Conservation Committee has been pursuing means by which the City can promote energy conservation. The following are some of the opportunities, which are available to Stockton to promote and encourage conservation that have been studied by the Committee.

1. Enforcement of existing state and local energy conservation legislation
   - Solar Rights Act of 1978
   - Solar Shade Control Act of 1978
   - Title 24 Building Regulations
   - Clothesline Ordinance
   - Solar Standards Ordinance
   - Street width reduction in new subdivisions
2. Support of proposed energy conservation ordinances
   - Parking lot tree shading ordinance
   - Solar Access Ordinance

3. Promotion of Policies and Programs to encourage energy conservation
   a. Citywide education Program for schools and general populous.
   b. Subdivision Map review to encourage lot orientation, which would take advantage of natural heating and cooling.
   c. Permit the use of solar energy systems in all zoning districts and modify code restrictions wherever present height or setback restrictions prohibit an adequate collector location
   d. Implement an incentive or “bonus” program for higher densities to encourage solar and alternative conservation measures
   e. Permit a greater flexibility, in terms of reducing setbacks to allow for more energy conserving development
   f. Permit a mix of land uses in residential areas to reduce energy costs of travel to work and shopping, etc.
   g. Implementation of a bikeway system to link residential uses with other uses as an integral part of subdivision design.
   h. Study the feasibility of alternative energy producing projects.
   i. Require the utilization of energy conservation features in all redevelopment projects.

The City of Stockton 1990 General Plan contains the following goal and policy related to energy conservation:

**Energy Conservation**

Goal 1. Promote the conservation of energy in Stockton’s housing developments.

Policy 1. Utilize the City’s review and regulatory power to enhance residential energy conservation within Stockton.

**Energy Types and Sources**

**Petroleum**

Most gasoline and diesel fuel sold in California for on-road motor vehicles is refined in California to meet state-specific formulations required by the California Environmental Protection Agency's Air Resources Board. Major petroleum refiners in California are concentrated in three counties: Contra Costa County in northern California, Kern County in central California, and Los Angeles County in southern California.
California is currently ranked fourth in the nation among oil producing states, behind Louisiana, Texas, and Alaska, respectively. In 2005, refineries in California processed approximately 674 million barrels of crude oil (CEC, 2006a). Approximately 39 percent of the crude oil came from in-state oil production facilities; approximately 20 percent came from Alaska; and the remaining (approximately 41 percent) came from foreign sources. California refineries together have a combined crude oil distillation capacity totaling more than 1.9 million barrels per day, ranking the state third highest in the nation. The long-term oil supply outlook for California remains one of declining in-state and Alaska supplies leading to increasing dependence on foreign oil sources.

**Natural Gas**

Four regions supply California with natural gas. Three of them—the Southwestern U.S., the Rocky Mountains, and Canada—supply 87 percent of all the natural gas consumed in California (CEC, 2005a). The remainder is produced in California. In 2004, approximately one-half of all the natural gas consumed in California was used to generate electricity. Residential consumption represented 22 percent of California natural gas use with the balance consumed by the industrial, resource extraction, and commercial sectors (CEC, 2006b).

**Electricity**

Power plants in California meet approximately 78 percent of the in-state electricity demand; power from the Pacific Northwest provides another 7 percent and power plants in the southwestern U.S. provide another 14 percent (CEC, 2006c). The contribution between in-state and out-of-state power plants depends upon, among other factors, the precipitation that occurred in the previous year and the corresponding amount of hydroelectric power that is available. California’s electricity supply is identified by the types of fuel and renewable energy technologies used to generate it. Electricity generation in California uses the following fuel types: coal (20%), natural gas (38%), nuclear (15%), and other fuels, such as distillate fuel oil. Renewable energy technologies include biomass and waste (2%), geothermal (5%), solar (<1%), wind (1.5%), and hydroelectricity (19%) (CEC, 2006d).

Pacific Gas and Electric Company (PG&E) is the primary electricity and natural gas for San Joaquin County. PG&E obtains its energy supplies from power plants and natural gas fields in northern California and from energy purchased outside its service area and delivered through high voltage transmission lines and interstate pipeline system. PG&E’s service area extends from Eureka to Bakersfield (north to south) and from the Sierra Nevada to the Pacific Ocean (east to west).

**Nuclear Energy**

Nuclear power is the controlled use of nuclear reactions to release energy for work including propulsion, heat, and the generation of electricity. Nuclear power provides 7% of the world's energy and 17% of the world's electricity. U.S. produces the most nuclear energy, with nuclear power providing 15% of the electricity it consumes.

Nuclear energy in California (and imported from outside the state) accounted for 12.8 percent of electricity from all sources in 2004. Operating nuclear power plants in California are Diablo Canyon, near San Luis Obispo and San Onofre, about midway between Los Angeles and San Diego. The total dependable capacity of California's nuclear-supplied power is more than 5,300 megawatts, including the two operating nuclear power facilities in California and portions of nuclear facilities located in other states that are owned by California electricity companies.
Renewable Energy

Renewable energy sources capture their energy from existing flows of energy, from on-going natural processes, such as sunshine, wind, wave power, flowing water (hydropower), biological processes such as anaerobic digestion, and geothermal heat flow. Approximately 6 percent of the nation’s energy demand is met by renewable sources. California with its abundant natural resources has had a long history of support for renewable energy. In 2004, 10.2 percent of all electricity came from renewable resources such as wind, solar, geothermal, biomass and small hydroelectric facilities. Large hydro plants generated another 14.9 percent of the State’s electricity (CEC, 2006e).

Alternative Fuels

The U.S. Department of Transportation currently recognizes the following as alternative fuels: methanol and denatured ethanol (alcohol mixtures that contain no less than 70 percent of the alcohol fuel), natural gas (compressed or liquefied), liquefied petroleum gas, hydrogen, coal-derived liquid fuels, fuels derived from biological materials (i.e., biomass), and electricity. The liquid fuel referred to as Methanol (M85) consists of methanol and gasoline and is derived from natural gas, coal or woody biomass. The liquid fuel referred to as Ethanol (E85) consists of ethanol and gasoline and is derived from corn, grains or agricultural waste. Natural gas consists of a high percentage of methane (generally above 85 percent), and varying amounts of ethane, propane, butane, and inerts (typically nitrogen, carbon dioxide, and helium) and comes from underground reserves. Liquefied petroleum gas (LPG) consists mostly of propane and is a byproduct of petroleum refining or natural gas processing. Current technologies for electric vehicles include lead acid and nickel metal hydride batteries.

Energy Consumption

Petroleum products supply approximately 40 percent of the energy demand in the U.S. Coal and natural gas each supply approximately 23 percent of the national energy demand, and nuclear and renewable sources supply the rest in roughly equal proportions (Energy Information Administration, 2006a).

Current annual energy consumption in the United States is approximately 99,900,000 billion British thermal units (Btu)\(^1\), which represents approximately one-quarter of the world’s energy consumption (Energy Information Administration, 2006b).

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\(^1\)The units of energy used in this report are British thermal units (Btu), kilowatt-hours (kWh), therms, and gallons. A Btu is the quantity of heat required to raise the temperature of 1 pound of water 1 degree Fahrenheit at sea level. Since the other units of energy can all be converted into equivalent British thermal units, the Btu is used as the basis for comparing energy consumption associated with different resources. A kWh is a unit of electrical energy, and one kWh is equivalent to approximately 10,200 Btu, taking into account initial conversion losses (i.e., from one type of energy, such as chemical, to another type of energy, such as mechanical) and transmission losses. Natural gas consumption typically is described in terms of cubic feet or therms; 1 cubic foot of natural gas is equivalent to approximately 1,050 Btu, and 1 therm represents 100,000 Btu. One gallon of gasoline/diesel is equivalent to approximately 140,000 Btu, taking into account energy consumed in the refining process.
California is the tenth largest consumer of energy in the world. Petroleum supplies about 54 percent of the State's energy needs, natural gas supplies about 33 percent, and electricity contributes 13 percent of total energy use. The transportation sector consumes 46 percent of California energy, the industrial sector consumes 31 percent, residential 13 percent, and commercial 10 percent.

Current annual energy consumption in California (for all purposes, including transportation) is approximately 7,700,000 billion Btu, which represents approximately 8 percent of the nation's total energy consumption. California consumes more energy than any other state in the U.S., except for Texas (DOE, 2002). With a relatively mild Mediterranean climate and strict energy efficiency and conservation requirements, California has lower energy consumption rates than other parts of the country. According to the Department of Energy (DOE), per capita energy use in California is approximately 70 percent of the national average, ranking 49th among the 50 states (DOE, 2002). California has the lowest annual electrical consumption rates per person of any state and uses 20 percent less natural gas per person. Per capita transportation energy use in the state is near the national average. Nevertheless, with a population of 34 million people, the state is the tenth largest consumer of energy in the world.

The Pacific Gas and Electric Company (PG&E) provides electricity to its customers in Northern and Central California from various generating sources, including conventional hydroelectric sources (35%), the Diablo Nuclear Power Plant (28%), the Helms Pumped Storage Powerhouse (16%), fossil-fueled plants (7%), and purchase of power from independent power producers and other utilities (14%) (PG&E, 2001).

Within California, transportation is the major end use of energy, accounting for approximately 46 percent of total energy consumption (CEC, 2000). In 2004, Californians consumed about 15.4 billion gallons of gasoline and 2.8 billion gallons of diesel fuel (CEC, 2005b). Nonrenewable energy products derived from crude oil, including gasoline, diesel, kerosene, and residual fuel, provide nearly all of the energy consumed in transportation. The long-term oil supply outlook for California is one of declining in-state and Alaska supplies leading to increasing dependence on foreign oil sources.

The transportation sector currently consumes relatively minor amounts of natural gas or electricity; however, air quality laws and regulations, are likely to result in increased use of compressed natural gas and electricity in the future. The California Energy Commission predicts that potential annual statewide consumption of natural gas for transportation purposes could increase from approximately 33 million therms in 2000 to a range of 80 to 90 million therms over the next 15 to 20 years. Electricity consumption for transportation purposes could potentially increase from 494 million kWh in 2000 to a range of 670 to 746 million kWh over that same period.

**Energy Efficiency in Transportation**

Long-term energy consumption trends for transportation will be largely determined by fuel efficiency trends for motor vehicles, since motor vehicles are the predominant transportation mode for passengers and commercial goods. The federal Energy Policy and Conservation Act
established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the U.S. Department of Transportation, is responsible for establishing vehicle standards and for revising existing standards. Trucks under 8500 lbs. must average 22.5 mpg in 2008, 23.1 mpg in 2009, and 23.5 mpg in 2010. After this, new rules set varying targets based on truck size and class. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. The CAFE rules for trucks were officially amended at the end of March 2006. These changes would segment truck fleets by vehicle size and class as of 2011. All SUVs and passenger vans would now have to comply with CAFE standards regardless of size, but some large pickup trucks and cargo vans would remain exempt.

Compliance with federal fuel economy standards is not determined for individual vehicle model, but rather on the basis of the average fuel economy of a manufacturer’s vehicles produced for sale in the U.S. The Corporate Average Fuel Economy (CAFE) program, which is administered by U.S. Environmental Protection Agency, was created to determine vehicle manufacturers’ compliance with the fuel economy standards. The U.S. Environmental Protection Agency calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. The U.S. Department of Transportation is authorized to assess penalties against car manufacturers for noncompliance based on information generated under the CAFE program.

Model year 2000 cars had the lowest recorded fuel economy ratings since 1980, largely due to buyer preferences for sport utility vehicles (21 percent of new car sales in the US). Since 1981 improved engine performance has largely been offset by an increase in the average weight of cars and light duty trucks (10 percent and 16 percent, respectively). Overall fuel economy for cars and light trucks in the U.S. market reached its highest level in 1987, when manufacturers managed 22.1 mpg. The average in 2004 was 20.8 mpg. In that time, vehicles increased in size from an average of 3,220 pounds to 4,066 lb.

The total vehicle fleet fuel economy for vehicles in California is currently 20.664 miles per gallon for gasoline vehicles and 7.582 miles per gallon for diesel vehicles. This represents the harmonic average fuel economy calculated by weighting the number of vehicles in each stratum by the annual miles of travel and fuel economy of that stratum. Based on forecasts by the California Department of Transportation, the total fleet fuel economy is expected to improve very slightly to 20.748 mpg for gasoline and 7.598 mpg for diesel in 2008 (California Department of Transportation, 2000).

### 4.14.2 Impacts and Mitigation Measures

#### Significance Criteria

Significant energy impacts are generally linked with projects that would require substantial energy consumption on an annual basis or would use fuel or energy in a wasteful manner. For the purposes of this EIR, the proposed project would be considered to have a significant effect on the environment if it would use more fuel or energy than would be reasonably expected or would use energy in a manner that is inconsistent with common energy conservation practices.
The CEQA Guidelines do not specifically address significance criteria for energy-related impacts, and StanCOG has not adopted thresholds of significance for energy-related impacts. However, Appendix F of the CEQA Guidelines provides information on addressing energy conservation in an EIR. Based on that, a significant energy impact would occur if:

- The project would include wasteful, inefficient and unnecessary consumption of energy during project construction, operation, maintenance, and/or removal;
- The project would require additional energy facilities, the provision of which may have a significant effect on the environment;
- The project would be inconsistent with existing energy standards; or
- The project would preempt future energy development or future energy conservation.

**Impacts**

**Impact 4.14.1: Construction of the project would result in use of non-renewable energy resources. (Less than Significant)**

Construction energy expenditures would include both direct and indirect uses of energy. Combustion of the refined petroleum products needed to operate construction equipment would be a part of the direct energy use. The energy consumed through mining and extraction of raw materials, manufacturing, and transportation to make the steel and all other materials used in project construction would be a part of the indirect energy use. Indirect energy typically represents about three-quarters of total construction energy, while direct energy represents about one-quarter of total construction energy (Hannon, 1978). Though construction energy would be directly consumed only during the construction period, it would represent irreversible consumption of finite natural energy resources.

Construction would directly consume fuel and electricity and would indirectly consume energy for fabrication of materials used in the proposed project facilities. Construction equipment, including excavators and haul trucks and vehicles on site, is expected to consume a majority of the energy resources. Electricity would be used by construction equipment, such as welding machines and power tools. Energy consumed by construction power equipment would be relatively minimal.

Construction energy consumption would be a one-time impact and would not be an ongoing drain on finite natural resources. It would require additional energy facilities, the provision of which may have a significant effect on the environment. Construction energy consumption would primarily be in the form of fuel, and would not have a significant effect on PG&E's energy resources. Energy consumption by construction activities, therefore, would not be a significant impact.

**Mitigation:** While mitigation is not required, some elements of the air quality mitigation measure 4.8.1b would also serve to reduce energy use during construction. The applicable elements of this measure are listed below.
Mitigation Measure 4.8.1b. The applicant shall implement feasible control measures during construction to mitigate NOx and ROG emissions from construction equipment, which may include:

- Use alternative fueled construction equipment, where feasible.
- Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).
- Require that all diesel engines be shut off when not in use on the premises to reduce the emissions from idling.

Impact 4.14.2: Over the long term, the project would result in increased energy consumption from vehicle trips and building operations. (Potentially Significant)

Energy used by Project Traffic

The proposed project would lead to the generation of approximately 35,200 new vehicular trips per day. Using default average trip length and the default fleet mix data for 2008 (both derived from URBEMIS2002, version 8.7), upon buildout, the project would result in an estimated fuel consumption of approximately 1.214 million gallons of gasoline and 110,750 gallons of diesel per day. Table 4.14-1 shows the estimated vehicular fuel consumption due to the project and the equivalent energy use in billion British Thermal Units (Btu). The fuel consumption estimates take into account total fleet average fuel economy rate of 20.748 mpg for gasoline vehicles and 7.598 mpg for diesel vehicles in 2008 (California Department of Transportation, 2000).

<table>
<thead>
<tr>
<th>TABLE 4.14-1</th>
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<tr>
<td>VEHICLE ENERGY CONSUMPTION</td>
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<tr>
<td>2008</td>
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<tr>
<td>Diesel Use</td>
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<td>Gasoline Use</td>
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Notes:
2% of the total trips generated were assumed to be commute trips based on URBEMIS 2002 default settings for San Joaquin Valley. Trips lengths used were also derived from URBEMIS 2002: 9.5 miles per trip for commute trips and 7.35 miles per trip for non-commute trips. Based on the default vehicle fleet mix for San Joaquin Valley in 2008, 96.77% of the trips generated and miles traveled were assumed to be made by gasoline fueled vehicles and the remaining 3.23 percent is assumed to be made by diesel fueled vehicles.
Energy used by Building Operations

The project would also result in an increase in energy consumption, primarily electricity and natural gas due to operation of project buildings. Electricity and/or natural gas energy would be used for space heating, cooling and ventilation equipment; water heaters; cooking and refrigeration units; interior and exterior lighting of the buildings, parking lot lighting, office and cash register equipment, and other miscellaneous fixtures.

Retail stores have diverse loads, long operating hours, and high occupancy in the evenings. Planning for energy-efficient retail buildings starts in the design stages and should involve careful consideration for lighting, refrigeration, cooking, and space-conditioning systems and how they integrate together.

Projected electricity and natural gas energy use were estimated using PG&E forecasting methodology factors; gasoline consumption from vehicular operation was estimated using Caltrans transportation system factors. The project would involve construction of a 710,000-square-foot, mixed-use regional shopping center. Using PG&E’s Planning Area Forecast factor of 17 kWh per square feet of commercial space, in 2008, the project would result in an electricity demand of approximately 12.1 million kilowatt hours per year (CEC, 2005c). Using a natural gas usage factor of 2.9 cubic feet per square foot per month for retail/shopping space, the project would generate a natural gas demand of approximately 24.7 million cubic feet of natural gas per year. The natural gas usage factor was derived from the URBEMIS2002 User’s Guide (Jones & Stokes, 2005).

This project-related energy use would be required for operation of commercial and retail stores to serve the local population, which would not be considered wasteful, and would not consume substantial amounts of finite natural resources. In addition, the project would be required to conform to energy conservation requirements of Title 24, Part 6, of the California Code of Regulations.

Mitigation Measures

The air quality mitigation measure 4.8.3a provides measures to reduce the number of trips generated by the project and reduce trip length that would also serve to reduce transportation energy used by the project. Measure 4.8.3a also addresses energy conservation in project buildings.

Mitigation Measure 4.8.3a: To reduce the operational impacts of the project, feasible mitigation measures from the following list shall be implemented as required by the City:

1. Transit service infrastructure shall be approved by the City prior to development of each phase of the project.

   Rideshare Measures: Implement carpool/vanpool program (e.g., carpool, ride matching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.).
Transit Measures: Construct transit facilities such as bus turnouts/bus bulbs, benches, transit shelters, and, route signs and displays.

The project applicant would provide transit enhancing infrastructure that includes transit shelters, benches, street lighting, etc. at the project site.

Contribute to regional transit systems (e.g., right-of-way, capital improvements, and park-and-ride lots)

Bicycle and Pedestrian Measures: Provide direct, safe, attractive pedestrian and bicycle access to transit stops and adjacent development

Provide bicycle lanes and/or paths, connected to community-wide network.

Provide street lighting

Improve or construct onsite and offsite pedestrian facilities (e.g., overpasses, wide sidewalks, and building access for pedestrians)

Provide pedestrian safety designs/infrastructure at crossings

2. Implement feasible energy-conserving features from the list provided by the SJVAPCD (SJVAPCD, 2005). Prior to the implementation of the project, the applicant will present for City approval an energy-conservation plan that includes consideration of each of the following potential measures. The City, in consultation with the SJVAPCD, will require implementation of clearly feasible measures from this list.

- Increased energy efficiency (meet or exceed California Title 24 Requirements)
- Increased wall and ceiling insulation (meet or exceed California Title 24 Requirements)
- Energy efficient windows (double pane and/or Low-EE)
- High-albedo (reflecting) roofing material, or similar
- Cool paving
- Radiant heat barrier
- Energy efficient lighting, appliances, and heating and cooling systems
- Solar water-heating systems
- Photovoltaic cells
- Programmable thermostats for all heating and cooling systems
- Awnings or other shading mechanism for windows
• Porch, patio, and walkway overhangs
• Ceiling fans and whole house fans
• Orient the units to maximize passive solar cooling and heating when practicable
• Use passive solar cooling and heating designs
• Use day lighting (natural lighting) systems such as skylights, light shelves, interior transom windows, etc.
• Electrical outlets around the exterior of the units to encourage use of electric landscape maintenance equipment
• Bicycle parking facilities for patrons, employees, and/or students in a covered secure area
• Employee shower and locker areas for bicycle and pedestrian commuters
• On-site employee cafeterias or eating areas
• Low or non-polluting landscape maintenance equipment (e.g., electric lawn movers, reel mowers, leaf vacuums, electric trimmers, and edgers, etc.)
• Exits to adjoining streets should be designed to reduce time to re-enter traffic from the project site.
• The project will include an information center for residents to coordinate carpooling and vanpooling.

Impact Significance After Mitigation:

Energy conservation in transportation is regulated by the federal government, which sets requirements for fuel efficiency in motorized vehicles. It is assumed that the vehicle fleet will continue to become more energy-efficient and that alternative fuel (such as electric hybrid or hydrogen power) vehicles will become increasingly viable options. In addition, implementation of the measures listed above would help reduce the project’s energy demand to a level that would not be considered excessive and wasteful. This impact would be less than significant.

Cumulative Impacts

Impact H.3: The project would incrementally contribute to cumulative energy consumption. (Potentially Significant)

The project, together with other regional growth and development, would incrementally increase regional energy consumption. As discussed above, the project would require up to 12.1 million kilowatt hours (kWh) per year at buildout (post-construction). Current annual electricity
consumption in California for the commercial sector is 101,393 million kWh (CEC 2006). This demand is expected to grow at a rate of 1.8% per year. California is expected to require additional supplies to meet demand through 2025 (CEC 2004).

The project's contribution to planned cumulative energy demand in combination with other projects' contributions to this demand would be considered cumulatively significant because it would contribute to future demand, which is predicted to exceed current and planned supply.

**Mitigation:** Implement Mitigation Measure 4.8.3a, as described above.

**Impact Significance After Mitigation:**

Implementation of the measures listed above would help reduce the project’s energy demand to a level that would not be considered excessive and wasteful. By implementing feasible conservation measures (as described in Mitigation measure 4.8.3a), the project’s contribution to energy usage would be less than cumulatively considerable.
CHAPTER 5
Analysis of Alternatives

5.1  Overview

5.1.1  General CEQA Requirements

The purpose of the alternatives analysis in an EIR is to describe a range of reasonable alternatives to the project, or to the location of the project, that could 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 to evaluate the comparative merits of the alternatives (CEQA Guidelines, Section 15126.6[a]). Section 15126.6(b) of the CEQA Guidelines requires consideration of alternatives that could avoid or substantially reduce any significant effects of the project, even if those alternatives would be more costly or otherwise impede to some degree the attainment of the project’s objectives.

It is important to understand, however, that the mere inclusion of an alternative in an EIR does not constitute definitive evidence that the alternative is in fact “feasible.” The ultimate determination regarding the feasibility of alternatives lies with the decision-making body of the lead agency, which in this case is the Stockton City Council. Such determinations are to be made in statutorily mandated findings addressing potentially feasible means of reducing the severity of significant environmental effects. One finding that is permissible, if supported by substantial evidence, is that “specific economic, legal, social, technological, or other considerations … make infeasible the … alternatives identified” in the EIR. (Public Resources Code, § 21081, subd. (a); see also CEQA Guidelines, § 15091, subd. (a).) CEQA Guidelines section 15364 defines “feasible” to mean “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” In deciding whether an alternative is feasible or infeasible, a decision-making body may consider the stated project objectives in an EIR, and may balance any relevant economic, environmental, social, and technological factors. (See City of Del Mar v. City of San Diego (1982) 133 Cal.App.3d 410, 417; Sequoyah Hills Homeowners Assn. v. City of Oakland (1993) 23 Cal.App.4th 704, 715.)
5.2 Factors in the Selection of Alternatives

The CEQA Guidelines recommend that an EIR should briefly describe the rationale for selecting the alternatives to be discussed, identify any alternatives that were considered by the lead agency but were rejected as infeasible, and briefly explain the reasons underlying the lead agency’s determination [CEQA Guidelines, Section 15126.6(c)]. Alternatives addressed in this EIR were identified through the scoping process and in consideration of one or more of the following factors:

- The extent to which the alternative would accomplish most of the basic goals and objectives of the project (See further discussion below and Chapter 3, Project Description);
- The extent to which the alternative would avoid or lessen one or more of the identified significant environmental effects of the project;
- The potential feasibility of the alternative, taking into account site suitability, economic viability, availability of infrastructure, and consistency with other applicable plans and regulatory limitations;
- The appropriateness of the alternative in contributing to a “reasonable range” of alternatives necessary to permit a reasoned choice; and
- The requirement of the CEQA Guidelines to consider a “no-project” alternative and to identify an “environmentally superior” alternative in addition to the no-project alternative (CEQA Guidelines, Section 15126.6(e)).

Pursuant to the CEQA Guidelines, this EIR considers a “no project” alternative (Alternative 1) and identifies an “environmentally superior” alternative in addition to the no-project alternative (CEQA Guidelines, Section 15126.6[e]). In an attempt to identify an alternative that could potentially meet most project objectives while avoiding or reducing environmental impacts, particularly those related to noise, air quality, and traffic impacts, the following alternatives have been identified and are described further below: Alternative 2 includes consideration of an offsite location south of French Camp Road, adjacent to the project location; Alternative 3 includes consideration of an offsite location at State Route 99 and Arch Road; Alternative 4 is a reduced density commercial center at the same location as the project; and Alternative 5 is a reconfigured project design at the same location and with the same density as the project.

5.3 Alternatives Eliminated from Further Consideration

The following alternative locations were identified, but were eliminated from further consideration for the reasons expressed below.

Cannery Park Offsite Location

The Cannery Park offsite location is situated southwest of the State Route 99 and East Eight Mile Road intersection (see Figure 5-1). This location includes approximately 489 acres of undeveloped land with current General Plan designations of low-medium density residential, administrative-professional, and small areas of commercial and high-density residential.
Figure 5-1
Alternative Project Locations

SOURCE: InfoUSA, 2005; MapQuest, 2005; and ESA, 2005
Among the project applicant’s objectives for the project (see Chapter 3, Project Description) are to: provide needed commercial and retail space in south Stockton, provide retail and commercial services at a currently vacant location that is convenient and where economic viability can be sustained, and to provide a recognizable “gateway” at a major south entrance into the city. Because the Cannery Park location is in north Stockton it would not meet the objectives of providing retail space in south Stockton and it would not provide a recognizable “gateway” at a major south entrance into the City.

Existing large-scale retail businesses are located only three miles south of this location on East Hammer Lane (including a Wal-Mart Supercenter and a Lowe’s Home Center) and existing and proposed large-scale retail stores are located approximately six miles west of this location at West Eight Mile Road and Interstate 5 (including an existing Target and Kohl’s and a proposed Wal-Mart Supercenter). Because of the proximity to these existing and proposed retail facilities, the Cannery Park location is a viable location for commercial retail uses, but would result in the placement of major retail in an area with greater competition and less immediate needs for such facilities. This could increase the impacts of urban decay based on the proximity of major competitors.

For all of the reasons described above, the Cannery Park offsite location was eliminated from further review.

**Origone Ranch Offsite Location**

The Origone offsite location is situated south of East Hammer Lane and west of State Route 99 (see Figure 5-1). This location includes approximately 394 acres of undeveloped land (partially with existing orchards) with current a General Plan designation of low-medium density residential.

Among the project applicant’s objectives for the project (see Chapter 3, Project Description) are to: provide needed commercial and retail space in south Stockton, provide retail and commercial services at a location that is convenient and where economic viability can be sustained, and to provide a recognizable “gateway” at a major south entrance into the city. Because the Origone Ranch location is in north Stockton it would not meet the objectives of providing retail space in south Stockton and it would not provide a recognizable “gateway” at a major south entrance into the City.

Existing large-scale retail businesses (including a Wal-Mart Supercenter and a Lowe’s) are located less than one-half mile from this location on the north side of East Hammer Lane. Because of the direct proximity to these retail facilities, the Origone Ranch location is a viable location for commercial retail uses but would result in the placement of major retail in an area with greater competition and less immediate needs for such facilities. This could increase the impacts of urban decay based on the proximity of major competitors.

For all of the reasons described above, the Origone Ranch offsite location was eliminated from further review.
5.4 Alternatives Selected for Further Consideration

This EIR evaluates five alternatives to the project. These alternatives, as well as a discussion of how each alternative was selected based on anticipated significant environmental impacts of the project, are described further below. The following five alternatives to the project are analyzed in this section of the EIR:

5.4.1 Alternative 1 - No Project Alternative

Under CEQA, the analysis of alternatives must include consideration of the ‘no project’ alternative. The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project. (CEQA Guidelines, § 15126.6, subd. (e)(1).) The ‘no project’ analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, 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. (Ibid, subd. (e)(2).) When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the ‘no project’ alternative will be the continuation of the existing plan, policy or operation into the future. Thus, the projected impacts of the proposed plan or alternative plans would be compared to the impacts that would occur under the existing plan. (Ibid, subd. (e)(3)(A).)

In this case, if the City does not approve the Project, the existing General Plan and zoning designations will remain in place, and development in accordance with those existing designations is reasonably foreseeable. The ‘no project’ alternative does not consist of “no development.” “No development” would consist of maintaining the existing conditions at the site. For a description of those existing conditions, see the discussion of the environmental setting in each section of Chapter 4 of this Draft EIR.

The No Project Alternative would preclude the development of the Weston Ranch Towne Center project on the subject site. Under this scenario, it is assumed that the property would ultimately be developed with single-family homes and commercial uses according to the Low-Medium Density Residential designation and Commercial designation under the existing Stockton General Plan. This alternative would involve no action on the part of the City of Stockton or applicant to seek a General Plan amendment, to rezone the project site, or other discretionary approval for development of the project. Under this alternative, the proposed regional shopping center would not be constructed. The project area would remain subject to the applicable regulations adopted and in force by the City of Stockton.

The No Project Alternative would not meet any of the project objectives.

Presented below is a discussion of the environmental impacts of the No Project Alternative:
Land Use
Under the No Project Alternative it is assumed that the land within the project area would be developed with residential and commercial uses in accordance with existing zoning and general Plan designations. While this would lessen any potential land use conflicts with existing and planned residential development, it would still result in the conversion of economically viable prime farmland.

Aesthetics
As under the project, development of the currently undeveloped project area could result in adverse impacts to aesthetic resources. These impacts would be mitigated by implementing the City’s Municipal Design Guidelines.

Public Services and Utilities
Development of the project area with primarily residential uses may result in greater demand for law enforcement, water supply, wastewater infrastructure, and energy distribution infrastructure. Because there would be less impervious surface compared to the project, there would be less impact to the storm water drainage system, although this impact would likely remain significant. The No Project Alternative, assuming development with single family homes and commercial uses, would have greater potentially significant impacts to public services and utilities.

Transportation and Traffic
Under the No Project Alternative, the potential for transportation and circulation impacts under the No Project Alternative would be somewhat less than those associated with the project, due to a reduction in traffic generated by smaller-scale commercial and residential uses. However, impacts on intersection LOS, particularly in the cumulative scenario, are still assumed to be significant.

Air Quality
The potential for air quality impacts under the No Project Alternative would be less than those associated with the project, due to less traffic generated by smaller-scale commercial and residential uses versus a regional shopping center. Also, there would be less activity at smaller commercial loading and unloading areas and thus decreased air pollutant emissions from trucks, and associated risk from diesel particulate matter. It is assumed that eventual development of the Barkett property would occur under this alternative, which would result in a potentially significant air impact (asbestos release). Construction impacts would occur, however, annual construction emissions may be lessened because the project site would likely be developed more slowly under this alternative.
Noise

Under the No Project Alternative, it is assumed that the land within the project area would be developed with single-family residential and small commercial uses in accordance with existing zoning and General Plan designations. Noise impacts under the No Project Alternative would be slightly less than those for the project due to reduced traffic generation. Also, there would be less activity at smaller commercial loading and unloading areas and thus decreased operational noise from trucks. However, emissions under this alternative would still be considered significant and would contribute to cumulative air quality impacts.

Hydrology and Water Quality

It is assumed that the subject property would be developed with residential and commercial development, consistent with the current General Plan designation. Although the No Project Alternative would likely result in less impervious surface area (such as parking lots), impacts to surface and groundwater quality and storm drainage capacity would still be potentially significant.

Biological Resources

Under the No Project Alternative it is assumed that the land within the project area would be developed with residential and commercial uses in accordance with existing zoning and General Plan designations. As under the project, construction activities could result in adverse impacts to special-status species or their habitats, and a potential conflict with the SJMSCP. Potential impacts under the No Project Alternative would be potentially significant, similar to identified potential impacts under the project.

Cultural Resources

Under the No Project Alternative it is assumed that the land within the project area would be developed with residential and commercial uses resulting in the same types of ground-disturbing activities that could impact archaeological resources as would occur under the project. Therefore, the same potentially significant impacts to unidentified buried archaeological resources could occur under the No Project Alternative as could occur under the project.

Hazards and Hazardous Materials

Under the No Project Alternative it is assumed that the land within the project area would be developed with residential and commercial uses resulting in the same types of excavation and grading activities and would employ similar construction techniques. Uses under the No Project Alternative would have the same potential to encounter wells, septic systems, gas wells, and hazardous substances as could occur under the project. Therefore, the same potentially significant impacts associated with hazards and hazardous materials could occur under the No Project Alternative as could occur under the project.
5.4.2 Offsite Alternatives

This alternatives analysis considers two offsite alternatives that would involve locating the project to other sites which may avoid or reduce the significant effects of the project. The area within which alternative sites could be located is generally described as the “south Stockton” area. Other geographic regions of the City of Stockton (north Stockton and west Stockton) were not considered as feasible alternative locations because similar retail commercial centers already exist or are planned in those areas (see Alternatives Eliminated from Further Consideration, above) and those locations would not meet the goals and objectives of the project.

Alternative sites in south Stockton would include sites of sufficient size (50 to 60 acres) that would meet most of the objectives of the project while avoiding or reducing identified significant environmental impacts of the project. These offsite alternatives are located within the City of Stockton Municipal Area (COSMA) and would be served by the City’s Municipal Utilities District. Both are served by or in proximity to existing sewer and water pipelines. If the size, type, and density of the project at the alternative locations are consistent with the project, it is assumed that the similar trip generation and transportation-related air pollution emissions and noise generation would occur. However, alternative locations were taken into consideration based on the proximity of residential sensitive receptors, to reduce potential environmental effects related to land use conflicts, aesthetics, and noise and air quality impacts.

Alternative 2 – South of French Camp Road

Alternative 2, the South of French Camp Road alternative (see Figure 5-1), would involve implementation of the project on land directly south of French Camp Road and west of Interstate 5, just south of the project site. Land at this location is outside the City of Stockton situated within unincorporated San Joaquin County, but within the City of Stockton Urban Services Boundary. Existing uses are agricultural. In addition to the permits and approvals identified for the project, this alternative location would require annexation into the City of Stockton, a General Plan amendment redesignating the site from Agricultural to Commercial, and cancellation of active Williamson Act contracts.

Alternative 2 would meet most of the project objectives, although the site is not under the control of the project proponent.

Presented below is a discussion of the environmental impacts of the South of French Camp Road offsite alternative:

**Land Use**

Under Alternative 2 the same type of commercial regional shopping center would be developed at a different location. As under the project, development of the Alternative 2 location would result in the conversion of important agricultural land. Although potential conflicts with existing and proposed residential conflicts would be reduced, Alternative 2 would result in conflicts with ongoing agricultural uses and active Williamson Act contracts.
5. Analysis of Alternatives

Aesthetics
Under the South of French Camp Road Alternative, the effects of degrading the visual character and views of the project area may be slightly greater, as this project site is not situated as closely to existing urban development.

Public Services and Utilities
Under Alternative 2, the same retail commercial uses would occur, generating the same needs for law enforcement, water supply, water distribution upgrade, wastewater infrastructure upgrade, storm water drainage system upgrades, and energy distribution system upgrades as would occur under the project. Under Alternative 2, potential impacts associated with these public services and utilities would be similar to those identified under the project.

Transportation and Traffic
Under Alternative 2, the same retail commercial uses would occur, roadway improvements would be necessary, and the traffic generation would be similar to the project. The Alternative 2 location is also similarly located adjacent to the I-5/French Camp Road interchange. Traffic impacts would not only be similar due to trip generation but, due to proximity to the project site, would likely affect the same roadway segments and interchanges. Site circulation impacts may be reduced, since Manthey Road would not have to be realigned under this alternative.

Air Quality
Under Alternative 2 the same retail commercial uses would occur and the same traffic would be generated as under the project. Motor vehicle-related air pollutant emissions would thus be similar to those resulting from the project. However, because the location south of French Camp Road consists primarily of agricultural uses, the project under Alternative 2 would be further away from sensitive receptors (residences). Air pollutant emission impacts from loading dock activities associated with Alternative 2 would thus be less than the project. This project would not have the potential for airborne asbestos impacts associated with development of the Barkett property. Therefore, overall air quality impacts under Alternative 2 would be slightly less than those resulting from the project but would still be considered significant.

Noise
Alternative 2 would result in the same retail commercial uses and the same traffic generation as under the project. Motor vehicle-related noise would thus be similar to those resulting from the project and affect most of the same sensitive receptors. However, because the location south of French Camp Road consists primarily of agricultural uses, the project under Alternative 2 would be further away from sensitive receptors (residences) situated along the western boundary of the project site. Noise impacts from loading dock activities associated with Alternative 2 would thus be less than the project. Therefore, overall noise impacts under Alternative 2 would be less than those resulting from the project.
Hydrology and Water Quality

Similar to the project, development of this alternative site will introduce a substantial new area of impervious surface, resulting in increases in both the amount and timing of runoff from storm events. As this site is located to the south of the Weston Ranch Master Drainage Plan area, this alternative would carry a higher potential to exceed the capacity of existing stormwater drainage facilities, possibly resulting in flooding on- and/or offsite. For this reason, drainage mitigation applied to the project would apply under this alternative.

Construction on the alternative site has the potential to release contaminants into surface waters in the project area, similar to the project. Construction activities would also involve large amounts of soil disturbance, with potential for increased erosion into local waterways. Development of the alternative site would also generate an increased amount of non-point source pollution as a result of increased vehicular traffic on and near the site, use of chemical fertilizers, pesticides, and herbicides on the site, introduction of new sources of trash, etc. The increase in impervious surface from development would cause such pollutants to more rapidly enter surface waters. This increase in the timing and amount of contaminants reaching surface waters would be similar to the project and would require similar mitigation.

According to current flood hazard maps prepared by FEMA (2002), the project site is located in zone designation B, which is defined as:

- Areas between limits of the 100-year flood and 500-year flood, or certain areas subject to 100-year flooding with average depths less than one foot, or areas where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood.

Therefore, impacts of potential flooding would be less than significant.

Biological Resources

Impacts to biological resources under Alternative 2 would likely be similar to those identified under the project because the size of development and the biological setting of the Alternative 2 location are similar to that of the project.

Cultural Resources

The potential for the discovery of buried archaeological resources at this alternative location would be similar to the potential at the project location. It is assumed for the purpose of this analysis that the same potential for effects to cultural resources would exist and the same mitigation would be applicable although surveys of the site have not taken place.

Hazards and Hazardous Materials

Hazards and hazardous materials impacts associated with Alternative 2 South of French Camp Road are assumed, for the purpose of this analysis, to be similar and that the same mitigation would be applicable although pedestrian surveys of the site have not taken place. The potential
for the discovery of potential hazards such as wells, gas wells, and hazardous materials at this alternative location would be similar due to the same historic use (agricultural). The potential for previous storage and handling of pesticides, herbicides and fuels would be likely. However detailed site specific studies, including a Phase I Environmental Site Assessment, would need to be conducted to determine if potential impacts associated with hazards and hazardous materials could occur at this alternative location. No known asbestos disposal site occurs on the property so it is possible that impacts related to hazards and hazardous materials would be slightly less than for the Project.

Alternative 3 – Offsite Alternative – State Route 99 at Arch Road

Alternative 3, the State Route 99 at Arch Road alternative (see Figure 5-1), would involve implementation of the project on land east of State Route 99 and north of Arch Road. This location is within the City of Stockton. The site is designated for Commercial and Industrial uses in the City’s General Plan and is surrounded by land with General Plan designations of Industrial with small areas of Commercial uses south of Arch Road. The airport is located southwest of this location, west of State Route 99, and south of Arch Road.

While meeting most of the project’s goals and objectives, it should be noted that this project would not provide for a “gateway” to the City on the I-5 corridor.

Presented below is a discussion of the environmental impacts of the State Route 99 at Arch Road Off-Site Alternative:

**Land Use**

Under Alternative 3, the same type of commercial regional shopping center would be developed at a different location. As under the project, changes in zoning and General Plan designations would be required. The conversion of prime farmland would be avoided.

**Aesthetics**

The Offsite Alternative–State Route 99 at Arch Road location is currently designated for commercial and some industrial uses under the City’s General Plan. The surrounding land uses are similarly designated and the land is currently undeveloped. The nearest developments are the warehouse structures located to the northeast and these are considered to be non-sensitive receptors. Views from State Route 99 would be altered from open rural landscape to urban commercial development similar to much of the views through the City of Stockton corridor. No residences are located within or near this alternative location and residential land uses are not designated adjacent to the alternative location. Potential impacts to aesthetic resources under the State Route 99 at Arch Road Alternative would be potentially less than significant and therefore less than those of the project.
**Public Services and Utilities**

Under Alternative 3, the same retail commercial uses would occur, generating the same needs for law enforcement, water supply, water distribution upgrade, wastewater infrastructure upgrade, storm water drainage system upgrades, and energy distribution system upgrades as would occur under the project. Under Alternative 3, potentially significant impacts associated with these public services and utilities would be similar to those identified under the project and could be similarly reduced through implementation of mitigation.

**Transportation and Traffic**

Under Alternative 3, the same retail commercial uses would occur, similar roadway improvements would be made, and the same traffic would be generated as under the project. The Alternative 3 location is not located adjacent to a highway interchange; therefore, potential impacts associated with traffic congestion at a highway interchange would be reduced at the Alternative 3 location, and realignment of Manthey Road would not be required (which could lessen site circulation impacts). Otherwise traffic impacts similar to those resulting from the project would occur under Alternative 3. This alternative would essentially displace traffic impacts to new roadways and intersections. It is likely that LOS will be exceeded at one or more locations, resulting in significant impacts, similar to the project.

**Air Quality**

Under Alternative 3, the same retail commercial uses would occur and the same traffic would be generated as under the project. Motor vehicle-related air pollutant emissions would thus be significant and similar to those resulting from the project. However, because the alternative location consists primarily of industrial uses, the project under Alternative 3 would be further away from sensitive receptors (residences). Air pollutant emission impacts from loading dock activities associated with Alternative 3 would thus be less than the project. This project would not have the potential for airborne asbestos impacts associated with development of the Barkett property. Therefore, overall air quality impacts under Alternative 3 would be less than those resulting from the project.

**Noise**

Under Alternative 3 the same retail commercial uses would occur and the same traffic would be generated as under the project. Motor vehicle-related noise would thus be potentially significant and similar to those resulting from the project. However, because the alternative location consists primarily of industrial uses, the project under Alternative 3 would be further away from sensitive receptors (residences). Noise impacts from loading dock activities associated with Alternative 3 would thus be less than the project. Therefore, overall noise impacts under Alternative 3 would be less than those resulting from the project.
5. Analysis of Alternatives

Hydrology and Water Quality

Similar to the project, Alternative 3 would introduce large areas of impervious surfaces, resulting in increases in both the amount and timing of runoff from storm events. This alternative would carry the potential to exceed the capacity of existing storm water drainage facilities, possibly resulting in flooding on- and/or offsite. For this reason, drainage mitigation applied to the project would apply under this alternative.

Construction on the alternative site has the potential to release contaminants into surface waters in the project area, similar to the project. Construction activities would also involve large amounts of soil disturbance, with potential for increased erosion into local waterways. Development of the alternative site would also generate an increased amount of non-point source pollution as a result of increased vehicular traffic on and near the site, use of chemical fertilizers, pesticides, and herbicides on the site, and the introduction of new sources of trash. The increase in impervious surface from development would cause such pollutants to more rapidly enter surface waters. This increase in the timing and amount of contaminants reaching surface waters would be similar to the project and would require similar mitigation.

Utility services, such as water supply and wastewater conveyance, will need to be extended to this alternative site from nearby infrastructure. The construction of this infrastructure could lead to sediment and other contaminants reaching local surface waters. This impact would be similar to the project.

According to current flood hazard maps prepared by FEMA (2002), the project site is located in zone designation AO, which is defined as:

Areas of 100-year shallow flooding where depths are between one and three feet; average depths of inundation are shown, but no flood hazard factors are determined.

Therefore, impacts of potential flooding would be considered potentially significant and, similar to the project, could be reduced through implementation of mitigation.

Biological Resources

Impacts to biological resources under Alternative 3 would likely be similar to those identified under the project because the size of development and the biological setting of the Alternative 3 location are similar to those of the project. It is assumed for the purpose of this analysis that the same habitat value would exist and the same mitigation would be applicable although pedestrian surveys of the site have not taken place. Therefore, impacts to biological resources would be similar and could be mitigated similarly to the project.

Cultural Resources

The potential for the discovery of buried archaeological resources at this alternative location would be similar to that at the project location. It is assumed for the purpose of this analysis that the same potential for effects to cultural resources would exist and the same mitigation would be applicable although surveys of the site have not taken place.
Hazards and Hazardous Materials

Hazards and hazardous materials impacts associated with Alternative 3, State Route 99 at Arch Road are assumed, for the purpose of this analysis, to be similar and that the same mitigation would be applicable although pedestrian surveys of the site have not taken place. The potential for the discovery of potential hazards such as wells, gas wells, and hazardous materials at this alternative location would be similar due to the same historic use (agricultural). The potential for previous storage and handling of pesticides, herbicides and fuels would be likely. However detailed site-specific studies, including a Phase I Environmental Site Assessment, would need to be conducted to determine if potential impacts associated with hazards and hazardous materials could occur at this alternative location. No known asbestos disposal site occurs on the property so it is possible that impacts related to hazards and hazardous materials would be slightly less than for the Project.

5.4.3 Alternative 4 - Reduced Density Alternative

The Reduced Density Alternative would reduce the maximum total square feet of retail space from the 710,000 square feet proposed under the project to 500,000 square feet. This alternative would be in the same location and have the same general layout as the project. However, under this alternative, the reduced available retail space would result in fewer traffic impacts due to reduced trip generation and concomitant reduced air quality impacts.

Alternative 4 would meet most of the project objectives. The reduced density alternative may not fully meet the objectives related to creating a “destination commercial center.”

Presented below is a discussion of the environmental impacts of the Reduced Density Alternative:

Land Use

Under Alternative 4, the same land would be used for a similar commercial regional shopping center, although with a smaller total square footage of retail space. The same changes in zoning and General Plan designations would be required as under the project. As with the project, agricultural lands would be permanently converted to urban uses.

Aesthetics

Under the Reduced Density Alternative, buildings and parking areas would be reduced in scale and potentially placed in different locations. However, as under the project, development of the currently undeveloped project area could result in adverse impacts to aesthetic resources due to the permanent conversion of semi-rural land to urban uses. Potential impacts under the Reduced Density Alternative would be significant, similar to identified potential impacts under the project, and would require mitigation.
Public Services and Utilities

Under Alternative 4, similar retail commercial uses would occur, generating similar needs for law enforcement, water supply, water distribution upgrade, wastewater infrastructure upgrade, storm water drainage system upgrades, and energy distribution system upgrades as would occur under the project and could result in potentially significant impacts. However, because less commercial space would be developed, impacts to storm drainage and energy distribution would be reduced, although they would likely remain significant.

Transportation and Traffic

Under Alternative 4, similar retail commercial uses would occur and similar roadway improvements would be constructed; however, the reduced square footage would result in a reduction in traffic generated. The total daily trips would be reduced by approximately 20%. Therefore, Alternative 4 would result in a reduction in traffic impacts compared to what would occur under the project. However, traffic impacts would still be considered significant.

Air Quality

Under Alternative 4 similar retail commercial uses would occur but less traffic would be generated than under the project due to the reduction in retail square footage and resulting customers. The reduction in daily trips would result in decreased traffic volumes on the surrounding roadway network and thus decreased air pollutant levels from motor vehicles. The construction air pollutant emissions would be less under Alternative 4 than the project due to the smaller project size. Air pollutant emissions from large retail store loading docks would be similar to the project. Impacts related to development of the Barkett property would remain. Overall, Alternative 4 would result in less air quality impacts than would occur under the project due to the reduction in construction and motor vehicle-related air pollutant emissions (see Table 5-1) but would still exceed significance thresholds.

Noise

Under Alternative 4, the reduction in daily trips would result in decreased traffic volumes on the surrounding roadway network and thus decreased noise levels from motor vehicles. Noise associated with loading dock activities of the large retail stores would be similar to the project. Overall, Alternative 4 would result in slightly decreased noise impacts than would occur under the project due to the reduction in motor vehicle noise. However, impacts would be considered significant, similar to the project and would require mitigation as identified for the Project.
TABLE 5-1
SUMMARY OF ESTIMATED ALTERNATIVE 4 VERSUS PROJECT EMISSIONS (TONS PER YEAR)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Significance Threshold (tons/year)</th>
<th>Unmitigated Construction Emissions (tons/year)</th>
<th>Project - Year 2007-08</th>
<th>Alternative 4 - Year 2007-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROG</td>
<td>10</td>
<td></td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td>NOX</td>
<td>10</td>
<td></td>
<td>86</td>
<td>65</td>
</tr>
<tr>
<td>PM10</td>
<td>NA³</td>
<td></td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>CO</td>
<td>NA³</td>
<td></td>
<td>92</td>
<td>63</td>
</tr>
</tbody>
</table>

Hydrology and Water Quality
This alternative would include a slightly reduced footprint as compared to the project. As a consequence, the amount of impervious surface would be less than the project, resulting in a slight decrease in both the amount of additional runoff generated from the site. For this reason, this alternative would have less likelihood to exceed the capacity of existing storm water drainage facilities. However, because this alternative would still increase drainage flows as compared to existing conditions, the impact would likely remain significant and mitigation would be necessary.

Construction of this alternative would still carry the potential to release contaminants into surface waters in the project area, similar to the project. Construction activities would also involve large amounts of soil disturbance, with potential for increased erosion into local waterways. Development of the alternative site would also generate an increased amount of non-point source pollution as a result of increased vehicular traffic on and near the site, use of chemical fertilizers, pesticides, and herbicides on the site, introduction of new sources of trash, etc. The increase in impervious surface from development would cause such pollutants to more rapidly enter surface waters. This increase in the timing and amount of contaminants reaching surface waters would be similar to the project and would require similar mitigation.

Biological Resources
Under Alternative 4, similar construction activities would occur as would occur under the project, resulting in the same types of disturbance that could impact special-status species or their habitats and which could be in conflict with the SJMSCP. Therefore, the same potentially significant impacts to biological resources could occur under Alternative 4 as could occur under the project.

Cultural Resources
Under Alternative 4, similar construction activities would occur as would occur under the project, resulting in the same types of ground-disturbing activities that could impact archaeological resources. Therefore, the same potentially significant impacts to unidentified buried archaeological resources could occur under Alternative 4 as could occur under the project.
**Hazards and Hazardous Materials**

Under Alternative 4, the same types of excavation and grading activities would occur and similar construction techniques would be employed as would occur under the project. Alternative 4 would have about the same potential to encounter wells, septic systems, gas wells, and hazardous substances as could occur under the project. Therefore, the same potentially significant impacts associated with hazards and hazardous materials could occur under Alternative 4 as could occur under the project.

**5.4.4 Alternative 5 - Reconfigured Design Alternative**

The Reconfigured Design Alternative would involve a redesigned building layout at the same location as the project. Under this alternative, large retail buildings would be located approximately 250 feet to the east of existing and approved residences (a shift of approximately 50 feet to the currently proposed building footprints). This shift of major building footprints is intended to create a greater distance between loading bays and adjacent sensitive residential uses. Also, the shift would provide for the City’s standard 50’ landscaping buffer between commercial and residential uses. The Reconfigured Design Alternative would result in similar square footage and the same types and densities of uses as those proposed under the project. In order to provide adequate parking and circulation under this alternative (while maintaining the same square footage of retail space), development of at least a portion of the Barkett property would have to occur. Vehicle trip generation and transportation-related air emissions and noise would be similar. The Reconfigured Design Alternative would, however, place the primary sources of air emissions and noise further away from the residential sensitive receptors that are located along the western edge of the project site. This alternative may not be feasible because the Applicant does not control the Barkett property, and without the Barkett property the site will not be able to accommodate the project as described in this alternative.

Presented below is a discussion of the environmental impacts of the Reconfigured Design Alternative:

**Land Use**

Land use impacts would be similar to the project, although conflicts with existing and proposed residential uses may be lessened.

**Aesthetics**

Under the Reconfigured Design Alternative, the size and type of commercial development would be similar to the project. As under the project, development of the currently undeveloped project area could result in significant adverse impacts to aesthetic resources due to the permanent conversion of semi-rural land to urban uses.
Public Services and Utilities
Under Alternative 5, the same retail commercial uses would occur, generating the same needs for law enforcement, water supply, water distribution upgrade, wastewater infrastructure upgrade, storm water drainage system upgrades, and energy distribution system upgrades as would occur under the project. Under Alternative 5, potentially significant impacts associated with these public services and utilities would be the same as those identified under the project.

Transportation and Traffic
Under Alternative 5, the same retail commercial uses would occur, similar roadway improvements would be made, and the same traffic would be generated as under the project. Alternative 5 would, therefore, result in the same significant traffic impacts as under the project.

Air Quality
Under Alternative 5, the same retail commercial uses would occur and the same traffic would be generated as under the project. However, the increased buffer area between the large retail building loading docks and the residential developments to the west of the project site would reduce the residential exposure to diesel particulate matter. Alternative 5 would, therefore, result in decreased health risk for sensitive receptors to the west of the project site. However, construction and operational air quality emissions are still considered significant.

Noise
Under Alternative 5, the same retail commercial uses would occur and the same traffic would be generated as under the project. However, the increased buffer area between the large retail building loading docks and the residential developments to the west of the project site would slightly reduce the noise impacts to the adjacent receptors. Mitigation (in the form of a soundwall) would still be necessary, although the height of the wall may be slightly reduced.

Hydrology and Water Quality
This alternative would entail build-out of the project site under a reconfigured footprint with no changes to the proposed land use densities. For this reason, the impact analysis provided in Chapter 4 of the EIR would apply to this alternative. Water quality degradation and alterations to existing drainage patterns would be the same under both Alternative 5 and the project.

Biological Resources
Under Alternative 5, the same construction activities would occur as proposed under the project, resulting in the same types of disturbance that could impact special-status species or their habitats and which could be in conflict with the SJMSCP. Therefore, the same potentially significant impacts to biological resources could occur under Alternative 5 as could occur under the project.
Cultural Resources

Under Alternative 5, the same construction activities would occur as proposed under the project, resulting in the same types of ground-disturbing activities that could impact archaeological resources. Therefore, the same potentially significant impacts to unidentified buried archaeological resources could occur under Alternative 5 as could occur under the project.

Hazards and Hazardous Materials

Under Alternative 5, the same types of excavation and grading activities would occur and similar construction techniques would be employed as proposed under the project. Alternative 5 would have the same potential to encounter wells, septic systems, gas wells, and hazardous substances as could occur under the project. Therefore, the same potentially significant impacts associated with hazards and hazardous materials could occur under Alternative 5 as could occur under the project.

5.4.5 Environmentally Superior Alternative

As shown on Table 5.2 and described above, Alternative 1, the No Project Alternative, would have the fewest significant impacts. The CEQA Guidelines require that when the No Project Alternative is environmentally superior, that another “project” alternative be identified as the Environmentally Superior Alternative. The Environmentally Superior Alternative from among the other “project” alternatives is Alternative 4, which would avoid or reduce several significant impacts, including impacts to agricultural land, air quality (DPM health risk), and operational noise.
### TABLE 5-2
COMPARISON MATRIX OF THE PROJECT AND ALTERNATIVES

<table>
<thead>
<tr>
<th>Impact</th>
<th>Project</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
<th>Alternative 3</th>
<th>Alternative 4</th>
<th>Alternative 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2 Land Use and Planning</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Impact 4.2.3. The project has the potential to conflict with existing land uses surrounding the project site. This impact is considered potentially significant.</td>
<td>PS</td>
<td>LS-</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.2.4. The project could conflict with an applicable habitat conservation plan (HCP) or natural community conservation plan (NCCP).</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.2.5. The project would convert economically viable prime farmland to a non-agricultural use.</td>
<td>PS</td>
<td>PS</td>
<td>PS+</td>
<td>LS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>4.3 Aesthetics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact 4.3.1. Aesthetic Resources – Degradation of Local Visual Character.</td>
<td>PS</td>
<td>PS</td>
<td>PS+</td>
<td>LS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>4.4 Urban Decay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5 Population, Housing, and Employment</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4.6 Public Services and Utilities</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Impact 4.6.2. The project has the potential to impact the storm water drainage system.</td>
<td>PS</td>
<td>PS-</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.6.3. The project has the potential to impact energy distribution facilities and infrastructure.</td>
<td>PS</td>
<td>PS-</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>4.7 Transportation and Circulation</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Impact 4.7.1. The project would contribute to the need to construct planned roadway improvements under Near-Term conditions.</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.7.2. The French Camp Turnpike/Downing Avenue intersection is projected to operate at a deficient LOS F in the Near-Term condition during the PM peak hour prior to the addition of project traffic. The proposed project is not projected to increase traffic through this intersection in the near-term condition.</td>
<td>LS</td>
<td>PS</td>
<td>PS</td>
<td>N/A (Other intersection impacts may occur)</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.7.3. The addition of traffic generated by the project in conjunction with traffic shifts associated with the vacation of Henry Long Boulevard, proposed to occur with the project, would result in deficient service levels at the French Camp Road/McDougald Road intersection in the Near-Term With Project condition during the PM peak hour.</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>N/A (Other intersection impacts may occur)</td>
<td>PS</td>
<td>PS</td>
</tr>
</tbody>
</table>
### TABLE 5-2 (CONTINUED)

**COMPARISON MATRIX OF THE PROJECT AND ALTERNATIVES**

<table>
<thead>
<tr>
<th>Impact</th>
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<th>Alternative 3</th>
<th>Alternative 4</th>
<th>Alternative 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact 4.7.4. The French Camp Road/Manthey Road (east) intersection is projected to operate at a deficient LOS F in the Near-Term condition during both peak hours prior to the addition of project traffic. Average delay would increase through this intersection by more than 5 seconds with the addition of project traffic.</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.7.5. The French Camp Road/I-5 Southbound Ramps intersection is projected to operate at an acceptable overall service level in the Near-Term condition during both peak hours prior to the addition of project traffic. The addition of project traffic would result in overall LOS F conditions.</td>
<td>PS</td>
<td>LS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.7.6. The French Camp Road/I-5 Northbound Ramps intersection is projected to operate at a deficient LOS F in the Near-Term condition during both peak hours prior to the addition of project traffic. Average delay through this intersection would increase by more than 5 seconds with the addition of project traffic.</td>
<td>PS</td>
<td>LS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.7.7. The French Camp Road/Val Dervin Parkway intersection is projected to operate at a deficient LOS F in the Near-Term condition during both peak hours prior to the addition of project traffic. Average delay through this intersection would increase by more than 5 seconds with the addition of project traffic during the AM peak hour and overall LOS F conditions during the PM peak hour.</td>
<td>PS</td>
<td>PS</td>
<td>N/A</td>
<td>N/A</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.7.8. Mathews Road/Manthey Road intersection is projected to operate at a deficient LOS F in the Near-Term condition during the AM peak hour and a deficient LOS E during the PM peak hour prior to the addition of project traffic. Average delay would increase through this intersection by more than 5 seconds with the addition of project traffic during both peak hours.</td>
<td>PS</td>
<td>PS</td>
<td>N/A</td>
<td>N/A</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.7.9. Mathews Road/I-5 Northbound Ramps intersection is projected to operate at a deficient LOS F in the Near-Term condition during both the AM and PM peak hours. Average delay would increase through this intersection by more than 5 seconds with the addition of project traffic during both peak hours.</td>
<td>PS</td>
<td>PS</td>
<td>N/A (Other intersection impacts may occur)</td>
<td>N/A (Other intersection impacts may occur)</td>
<td>PS-</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.7.10. Northbound I-5, north of Downing Avenue is projected to operate at LOS D during the PM peak hour prior to the addition of project traffic. The addition of project traffic would worsen LOS D operations to LOS E and increase total freeway volumes by more than 5 percent.</td>
<td>PS</td>
<td>PS</td>
<td>N/A (Other impacts may occur on SR 99)</td>
<td>N/A (Other impacts may occur on SR 99)</td>
<td>PS</td>
<td>PS</td>
</tr>
</tbody>
</table>
### TABLE 5-2
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<th>Alternative 4</th>
<th>Alternative 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact 4.7.11. The proposed project would contribute to the need to construct planned roadway improvements under Future 2025 conditions.</td>
<td>PS</td>
<td>PS-</td>
<td>PS</td>
<td>PS</td>
<td>PS-</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.7.12. The addition of project traffic would increase average intersection delay by more than five seconds at the Manthey Road/Mathews Road intersection, which is projected to operate at an unacceptable LOS F in the Future 2025 Without Project condition.</td>
<td>PS</td>
<td>PS</td>
<td>N/A</td>
<td>PS-</td>
<td>PS-</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.7.13. The proposed project site access would result in safety and operational deficiencies.</td>
<td>PS</td>
<td>PS-</td>
<td>PS-</td>
<td>PS-</td>
<td>PS-</td>
<td>PS-</td>
</tr>
</tbody>
</table>

### 4.8 Air Quality

| Impact 4.8.1. Construction activities associated with development of the project would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter (PM10) and equipment exhaust emissions. | PS      | PS-            | PS             | PS            | PS-           | PS            |
| 4.8.2. Construction activities associated with development of the Barkett property would potentially produce short-term emissions of suspended asbestos. This impact would be potentially significant. | PS      | PS             | LS             | LS            | PS           | LS            |
| Impact 4.8.3. The project would result in an increase in operational emissions of criteria air pollutants (ROG, NOx and PM10) from on-road motor vehicle traffic traveling to and from the project area and onsite area sources associated with the project. | PS      | PS-            | PS             | PS            | PS-           | PS            |
| Impact 4.8.5. Emissions of diesel particulate matter could pose a risk to human health. | PS      | LS             | LS             | LS            | LS           | LS            |
| Impact 4.8.6. The project would contribute to a cumulative air quality impact in the project area. | PS      | PS-            | PS             | PS            | PS-           | PS            |

### 4.9 Noise

| Impact 4.9.1. Construction and grading activities associated with the development of the project would temporarily and intermittently increase noise levels at nearby sensitive receptor locations. | PS      | PS             | LS             | LS            | PS           | PS            |
| Impact 4.9.2. Operational activities (non-transportation) associated with the project could increase ambient noise levels at nearby existing and planned residences. | PS      | LS             | LS             | LS            | PS-           | PS-           |
### TABLE 5-2 (CONTINUED)
**COMPARISON MATRIX OF THE PROJECT AND ALTERNATIVES**

<table>
<thead>
<tr>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.9.3. Traffic associated with operation of the project would result in an increase in ambient noise levels on nearby roadways used to access the shopping center.</td>
</tr>
<tr>
<td>Project</td>
</tr>
<tr>
<td>PS</td>
</tr>
<tr>
<td>Cumulative Impact 4.9.4. Increases in traffic from the project in combination with other development would result in cumulative noise increases.</td>
</tr>
<tr>
<td>Project</td>
</tr>
<tr>
<td>PS</td>
</tr>
</tbody>
</table>

### 4.10 Hydrology and Water Quality

<table>
<thead>
<tr>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.10.1. Water Quality – Construction of the project could potentially degrade water quality and/or violate water quality standards.</td>
</tr>
<tr>
<td>Project</td>
</tr>
<tr>
<td>PS</td>
</tr>
<tr>
<td>4.10.2. Water Quality – Project operation could increase non-storm and stormwater runoff, thereby potentially transporting contaminants to nearby surface waters.</td>
</tr>
<tr>
<td>Project</td>
</tr>
<tr>
<td>PS</td>
</tr>
<tr>
<td>4.10.5. Drainage – Development of the project would result in increased drainage flows as a result of the introduction of increased amounts of impervious surfaces. Additional runoff generated by the project could exceed the capacity of on- and offsite drainage systems, create localized flooding, and contribute to flooding in down-gradient locations.</td>
</tr>
<tr>
<td>Project</td>
</tr>
<tr>
<td>PS</td>
</tr>
</tbody>
</table>

### 4.11 Biological Resources

<table>
<thead>
<tr>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.11.1. Construction activities in the project area could result in adverse impacts to special-status species, including Swainson’s hawks, burrowing owls, Greater western mastiff-bat and Yuma myotis bat, Ferruginous hawk, Mountain plover, White-tailed (=black shouldered) kite, Greater sandhill crane, and Loggerhead shrike.</td>
</tr>
<tr>
<td>Project</td>
</tr>
<tr>
<td>PS</td>
</tr>
</tbody>
</table>

### 4.12 Cultural Resources

<table>
<thead>
<tr>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.12.1. Implementation of the project could result in damage to previously unidentified buried archaeological and/or human remains during project construction.</td>
</tr>
<tr>
<td>Project</td>
</tr>
<tr>
<td>PS</td>
</tr>
</tbody>
</table>

### 4.13 Hazards and Hazardous Materials

<table>
<thead>
<tr>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.13.1. Construction of the project would occur in an area with wells and septic systems.</td>
</tr>
<tr>
<td>Project</td>
</tr>
<tr>
<td>PS</td>
</tr>
<tr>
<td>4.13.2. Construction activities associated with the project could uncover areas of unknown contamination by hazardous substances.</td>
</tr>
<tr>
<td>Project</td>
</tr>
<tr>
<td>PS</td>
</tr>
</tbody>
</table>
### TABLE 5-2
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<th>Alternative 3</th>
<th>Alternative 4</th>
<th>Alternative 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact 4.13.3. Construction of the project may involve the temporary use and storage of hazardous materials such as gasoline, diesel fuel, solvents, hydraulic fluids, oils, paints, and other materials.</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.13.4. A natural gas well was identified on the project site at the northwest corner of Manthey Road and Henry Long Boulevard that has not been in use for 15 to 20 years.</td>
<td>PS</td>
<td>PS</td>
<td>N/A</td>
<td>N/A</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.13.5. The project site is located within the Stockton Metropolitan Airport Area of Influence Boundary and the Conical Surface Outer Boundary.</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.13.6. During construction, equipment and vehicles may come in contact with vegetated areas and accidentally spark and ignite dry vegetation. This impact is considered potentially significant.</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.13.7. Exposure of individuals to asbestos-containing dust and lead-based paint.</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.13.8. An asbestos landfill has been identified adjacent to the project site that if disturbed could result in a release of asbestos fibers into the air.</td>
<td>PS</td>
<td>PS</td>
<td>N/A</td>
<td>N/A</td>
<td>PS</td>
<td>PS</td>
</tr>
<tr>
<td>Impact 4.13.9. Exposure of individuals to agricultural chemical residue in the soils on the project site.</td>
<td>LS</td>
<td>PS</td>
<td>LS</td>
<td>LS</td>
<td>LS</td>
<td>LS</td>
</tr>
<tr>
<td>Impact 4.13.10. The project itself, once developed, would involve the use of underground fuel storage tanks at the two proposed fuel centers (gasoline stations).</td>
<td>LS</td>
<td>N/A</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
<td>PS</td>
</tr>
</tbody>
</table>

#### 4.14 Energy

| Impact 4.14.2. Over the long term, the project would result in increased energy consumption from vehicle trips and building operations. | PS | PS- | PS | PS | PS- | PS |
| Impact H.3. The project would incrementally contribute to cumulative energy consumption. | PS | PS- | PS | PS | PS- | PS |

**Notes:**
- LS = Less than Significant
- PS = Potentially Significant
- N/A = Not Applicable
- + = Greater than project impact
- - = Less than project impact
CHAPTER 6
Other CEQA Considerations

6.1 Growth-Inducement

6.1.1 Introduction

The CEQA Guidelines require that an EIR evaluate the growth-inducing impacts of a proposed action (Section 15126.2[d]). A growth-inducing impact is defined by the CEQA Guidelines as:

[T]he ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth .... It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project involved construction of new housing. A project can have indirect growth-inducement potential if it would establish substantial new permanent employment opportunities (e.g., commercial, industrial or governmental enterprises) or if it would involve a substantial construction effort with substantial short-term employment opportunities and indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, under CEQA, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. An example of this indirect effect would be the expansion of a wastewater treatment plant, which might allow for more development in service areas.

6.1.2 Potential for Growth-Inducement

The project is a commercial retail development. Commercial development may induce growth indirectly if it would attract significant numbers of new employees to the area, creating a demand for additional housing. As discussed in Section 4.5, Population, Housing, and Employment, the project is not likely to induce substantial indirect population growth within the Stockton area (see Impact 4.5.1).

Existing water and wastewater utilities would need to be extended to serve the project, as described in Section 4.6, Public Services and Utilities. A 12-inch water line at the intersection of French Camp Road and Manthey Road would be extended west along French Camp Road to serve the project site. In addition, the project would require the extension of a 16-inch line from the intersection of Henry Long Boulevard and Manthey Road to coincide with the western
boundary of the project area. The current sewer pipelines are designed to handle residential wastewater flows, and may not accommodate additional commercial use. In accordance with approved master plans, a 15-inch sanitary sewer pipeline would need to be extended from the intersection of McDougal Boulevard and Henry Long Boulevard east to coincide with the eastern boundary of the project site. The sizing of these utilities would be designed to serve the project, and would not provide capacity for additional future development.

Further, the project site is located within the current City boundaries and is designated for urban use. The previously approved Weston Ranch Development project resulted in the annexation of 1,623 acres, including the current project site. In order to approve the annexation, LAFCo was required to consider whether the development of this area was a logical extension of urban development. The annexation, itself inherently growth-inducing, was approved in 1988. Subsequent development approvals for portions of the annexed area have proceeded, based on market demand (either residential and/or commercial). The proposed commercial development of the site is in response to growth and not growth inducing.

6.2 Cumulative Impacts

6.2.1 CEQA Analysis Requirements

A cumulative impact results from a combination of the project evaluated in an EIR together with other projects causing related impacts. The purpose of this analysis is to disclose significant cumulative impacts resulting from the implementation of the project in combination with other projects or conditions in the area, and to indicate the severity of the impacts and their likelihood of occurrence. Section 15130 of the CEQA Guidelines requires that EIRs discuss the cumulative impacts of a project CEQA Guidelines Section 15130 (b) states:

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact. The following elements are necessary to an adequate discussion of significant cumulative impacts:

(1) Either:

(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 general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.
The analysis of cumulative effects focuses on the effects of concurrent implementation of the project with other spatially and temporally proximate projects. The analysis also addresses the long-term cumulative effects of the project within the context of past, present and reasonably foreseeable future projects. As discussed in Chapter 4, the impacts associated with the project would most likely occur after construction of the proposed new retail development has been completed and the new retail stores are fully operational.

### 6.2.2 Approach for Cumulative Impacts Analysis

This EIR uses both the “list” approach, and projections based on the current land use plans. Certain cumulative impacts, most notably traffic, have fairly refined models to identify future conditions, based on implementation of existing land use plans and future population growth. Other impacts, such as urban decay, rely more heavily on the list approach, although the analysis is supplemented by projection data.

The proposed retail development would provide additional new retail opportunities for residents, workers and visitors to the cities of Stockton, Lathrop, Tracy, Manteca and some unincorporated areas in San Joaquin County. See Chapter 3, Project Description for details. In order to better identify and understand the potential impacts of other development in the area, the DEIR identifies the major foreseeable development projects. The cumulative project list was developed through consultation with planning staff for Stockton, San Joaquin County, and nearby cities.

The potential for project-related impacts to contribute to a significant cumulative impact would depend on the geographic area and the timing of the other projects. Although the timing of all projects may fluctuate due to schedule changes or other unknown factors, this analysis identifies the assumed regional development expected to occur concurrently and within the “reasonably foreseeable” future of the project. Generally, information for non-transportation development is limited to a five-year time horizon, or less. Due to the state project programming and funding process for transportation improvements, a longer horizon for transportation improvements has been used in some cases.

As the schedule for many of the projects identified in the cumulative list are not known at this time and many of the projects are not fully developed or designed, this discussion also considers the “plan” approach (as listed in CEQA Guidelines Section 15130 (b)) to supplement the project list. This approach incorporates regional projections in order to more fully address potentially significant effects in combination with the proposed retail development. This discussion incorporates projections from the following planning documents:

- Stockton General Plan and EIR (1990)
- San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
- Central Valley Region Water Quality Control Plan
- SJCOG’s Vision 2030
- SJVAPCD air basin plans
- Weston Ranch EIR
The City is preparing the Stockton 2025 General Plan and Infrastructure Master Plans Project to update the existing City of Stockton General Plan. The 2035 General Plan update EIR is expected to be completed in 2006-2007 and will provide an assessment of the updated General Plan, the infrastructure master plans, and the expansions to the City’s existing Urban Services Boundary and Sphere of Influence. Because the 2035 General Plan Update has not yet been approved, the traffic analysis was conducted as a supplemental duel cumulative analysis, based on projected 2025 and 2035 conditions. The 2025 analysis was used for the purpose of identifying potential cumulative impacts. The 2035 analysis is included in Appendix E of the DEIR as an information item. The 2025 Cumulative traffic analysis is also incorporated into the operational air quality and noise impact analyses.

Geographic Scope

The potential for project-generated impacts to contribute to a significant cumulative impact would arise if they are located within the same geographic area. This geographic area may vary depending on the resource area discussed. For example, the geographic area associated with construction noise impacts would be limited to areas directly affected by construction noise, whereas the geographic area that could be affected by construction related air emissions may include the larger air basin.

6.2.3 Cumulative Setting

This section identifies and discusses the expected inter-relationships between the Cumulative Project List and the project. Tables 6-1 thorough 6-6 identify the principal new developments in the region expected in the “reasonably foreseeable future.” Due to the nature of the project, particular emphasis is placed on future residential, retail and transportation projects that may be expected to have impacts associated with the proposed retail development.

Tables 6-1 through 6-6 identify the current and future development projects in the region and quantify future foreseeable residential, retail, and transportation changes based on the available information.

This section describes the projections from the applicable general plans pertaining to specific resources in the project area. Cumulative impacts are expected to be primarily associated with the future operations of the project.

Residential Development

The development of lower cost housing in San Joaquin County and its incorporated cities, compared with the Bay Area, has led to a commuter-based residential growth pattern. The majority of new housing under construction is being clustered near the fringes of City boundaries, and largely in the proximity of the freeway system and major arterials (San Joaquin Council of Governments’ Regional Transportation Plan: Vision 2030 [SJCOG’s Vision 2030]).
### TABLE 6-1
CUMULATIVE PROJECT LIST—STOCKTON RESIDENTIAL PROJECTS

<table>
<thead>
<tr>
<th>Location</th>
<th>Project Name</th>
<th>Address</th>
<th>Housing Units</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stockton (South)</td>
<td>Rancho Del Sol</td>
<td>E. of Airport Way adjacent to Duck Creek</td>
<td>246</td>
<td>Under construction</td>
</tr>
<tr>
<td>Stockton (South)</td>
<td>Juliet Terrace</td>
<td>N. of Mariposa Road and S. of Charter Way</td>
<td>83</td>
<td>Under construction</td>
</tr>
<tr>
<td>Stockton (South)</td>
<td>Ninfantino Estates</td>
<td>E. of Airport Way, S. of Carpenter Rd</td>
<td>29</td>
<td>Under construction</td>
</tr>
<tr>
<td>Stockton (South)</td>
<td>Little John Creek</td>
<td>W. of SR-99, N. of Ogden Ln</td>
<td>790</td>
<td>Under construction</td>
</tr>
<tr>
<td>Stockton (South)</td>
<td>Montclair</td>
<td>W. of SR-99, S. of Mariposa Rd</td>
<td>44</td>
<td>Under construction</td>
</tr>
<tr>
<td>Stockton (South)</td>
<td>Seabreeze I and II</td>
<td>W. of Pock Ln, N of Arch Airport Rd</td>
<td>52</td>
<td>Under construction</td>
</tr>
<tr>
<td>Stockton (South)</td>
<td>Mariana Estates</td>
<td>W. of I-5, N. of Alpine Ave</td>
<td>73</td>
<td>Pending approval</td>
</tr>
<tr>
<td>Stockton (South)</td>
<td>Cornerstone II</td>
<td>W. of I-5, N. of French Camp Rd</td>
<td>66</td>
<td>Pending approval</td>
</tr>
<tr>
<td>Stockton (South)</td>
<td>Lever Estates</td>
<td>W. of I-5, S. of W. 8th St</td>
<td>35</td>
<td>Pending approval</td>
</tr>
<tr>
<td>Stockton (South)</td>
<td>Simbad Estates</td>
<td>E. of Airport Way, N. of Carpenter Rd.</td>
<td>28</td>
<td>Pending approval</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>1,446</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>8,041</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>9,487</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>1,277</strong></td>
<td></td>
</tr>
</tbody>
</table>

SOURCE: ESA; City of Stockton, 2005
### TABLE 6-2
CUMULATIVE PROJECT LIST—LATHROP RESIDENTIAL PROJECTS

<table>
<thead>
<tr>
<th>Location</th>
<th>Project Name</th>
<th>Address</th>
<th>Housing Units</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lathrop</td>
<td>Mossdale Landing</td>
<td>West of I-5, adjacent to San Joaquin River</td>
<td>1,700 (1)</td>
<td>Under construction (3)</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Mossdale Landing (East)</td>
<td>West of I-5, adjacent to San Joaquin River</td>
<td>430 (1)</td>
<td>Under construction</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Mossdale Landing (South)</td>
<td>West of I-5, adjacent to San Joaquin River</td>
<td>450 (1)</td>
<td>Under construction</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Central Lathrop Specific Plan</td>
<td>Not specified by planner</td>
<td>6,800 (1)</td>
<td>Approval pending (4)</td>
</tr>
<tr>
<td>Lathrop</td>
<td>River Islands</td>
<td>West of I-5, adjacent to San Joaquin River</td>
<td>10,000 (2)</td>
<td>Approval pending (5)</td>
</tr>
</tbody>
</table>

**Total Residential Units - Lathrop**

**SOURCE:** ESA; Deanna Washburn, Principal Planner, City Of Lathrop - Personal Communication Feb. 25th, 2005.

**Notes:**
1. Associated commercial development planned.
2. Associated 350 acre business park and 250,000 square feet of retail development planned.
4. City has applied to LAFCO for annexation of these lands, full build-out expected over next 15 to 20 years.
5. In federal permitting process, construction anticipated to begin in 2007, full build-out expected over next 15 to 20 years.

### TABLE 6-3
CUMULATIVE PROJECT LIST—SAN JOAQUIN COUNTY RESIDENTIAL PROJECTS

<table>
<thead>
<tr>
<th>Location</th>
<th>Project Name</th>
<th>Address</th>
<th>Housing Units</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Joaquin County</td>
<td>Mountain House (1)</td>
<td>3.5 Miles East of Tracy Along I-205</td>
<td>Up to 40,000 residents</td>
<td>Under initial construction</td>
</tr>
<tr>
<td>San Joaquin County</td>
<td>Pa050055</td>
<td>North Del Rio Dr and Plymouth Dr (Near Stockton)</td>
<td>11</td>
<td>Application filed</td>
</tr>
<tr>
<td>San Joaquin County</td>
<td>Pa0400824</td>
<td>S. East Main St, between Coolidge and Del Mar Avenue</td>
<td>27</td>
<td>Application Filed</td>
</tr>
</tbody>
</table>

**SOURCE:** ESA; Jim Vanburen, February 2005, Personal Communication

**Notes:**
1. Planned community under third phase of master plan and phased for build-out planned over next 20 to 40 years.
### TABLE 6-4
CUMULATIVE PROJECT LIST—TRACY RESIDENTIAL PROJECTS

<table>
<thead>
<tr>
<th>Location</th>
<th>Project Name</th>
<th>Address</th>
<th>Housing Units</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracy</td>
<td>Tiburon Village</td>
<td>Infill, S. MacArthur at E. Vapico Rd</td>
<td>103</td>
<td>Pending approval</td>
</tr>
<tr>
<td>Tracy</td>
<td>Southgate</td>
<td>West Terminus of Schulte Rd</td>
<td>71</td>
<td>Pending approval</td>
</tr>
<tr>
<td>Tracy</td>
<td>4 Screens</td>
<td>Infill, Central Tracy</td>
<td>36</td>
<td>Pending approval</td>
</tr>
<tr>
<td>Tracy</td>
<td>Via de Flores</td>
<td>Infill, Central Tracy</td>
<td>16</td>
<td>Pending approval</td>
</tr>
<tr>
<td>Tracy</td>
<td>Muirfield Multi-Family</td>
<td>Corral Hollow Rd</td>
<td>109</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Garden Square</td>
<td>Tracy Blvd at Valpico Rd</td>
<td>375</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Presidio/Lourence Ranch</td>
<td>11th St b/t Lammers &amp; Corral Hollow</td>
<td>550</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Park Atherton</td>
<td>not listed</td>
<td>216</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Corral Hollow Estates</td>
<td>not listed (RSP area)</td>
<td>152</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Eastgate</td>
<td>Corral Hollow and Starflower Dr.</td>
<td>112</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Ryland Junction (Tracy Estates)</td>
<td>Tracy Blvd at Center Ct.</td>
<td>186</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Muirfield VII</td>
<td>Corral Hollow Rd</td>
<td>158</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Alden Meadows</td>
<td>not listed (Plan C area)</td>
<td>234</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Eastlake</td>
<td>not listed (Plan C area)</td>
<td>996</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Edgewood</td>
<td>8 projects - Linne at S. Tracy</td>
<td>1354</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Gabriel Estates</td>
<td>2 projects - Schulte at Corral Hollow</td>
<td>387</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Glenbriar Estates</td>
<td>2 projects - S. MacArthur Dr</td>
<td>857</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Huntington Park</td>
<td>Byron Rd</td>
<td>388</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Larkspur Estates</td>
<td>MacArthur Dr</td>
<td>180</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Lyon Crossroads</td>
<td>Byron Rd</td>
<td>255</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Pebblebrook</td>
<td>not listed (Plan C area)</td>
<td>100</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Redbridge</td>
<td>2 projects- Lammers and Schulte Rd</td>
<td>438</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>San Marco</td>
<td>4 projects- Corral Hollow and Schulte Rd</td>
<td>579</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Sterling Park</td>
<td>Corral Hollow Rd/Cypress</td>
<td>285</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Westgate</td>
<td>Fabian and Lammers</td>
<td>356</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Yosemite Vista</td>
<td>S. MacArthur</td>
<td>166</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Ellissagaray Ranch</td>
<td>4 projects- So. MacArthur</td>
<td>436</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Other small projects</td>
<td>Various locations</td>
<td>506</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Other multi-family projects</td>
<td>Various locations</td>
<td>84 (1)</td>
<td>Under construction</td>
</tr>
</tbody>
</table>

**Total Residential Units - City Of Tracy**  
9,181

**SOURCES:**  ESA; City of Tracy, Master RGA-ECU Monthly Report, March 2005; Tracy Subdivisions, April 2004

**Notes:**  
(1) Multi-family units will include numerous housing units at each project.
### TABLE 6-5
CUMULATIVE PROJECT LIST—RETAIL PROJECTS

<table>
<thead>
<tr>
<th>Location</th>
<th>Project Name</th>
<th>Site</th>
<th>Project Details</th>
<th>Area (Square Feet)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stockton</td>
<td>Cannery Park</td>
<td>Eight Mile Rd, SR-99</td>
<td>Unspecified commercial development</td>
<td>650,000</td>
<td>Approved</td>
</tr>
<tr>
<td>Stockton</td>
<td>Food 4 Less</td>
<td>East of Manthey Rd, south of Carolyn Weston Blvd</td>
<td>Commercial project</td>
<td>Not available</td>
<td>Complete</td>
</tr>
<tr>
<td>Stockton</td>
<td>Gateway Shopping Center</td>
<td>Eight Mile Rd, west of I-5</td>
<td>Grocery store, fast-food restaurants, retail</td>
<td>150,000</td>
<td>Complete</td>
</tr>
<tr>
<td>Stockton</td>
<td>Origone Ranch Specific Plan</td>
<td>South of Hammer Ln, west of SR-99, east of Holman</td>
<td>Commercial development north of Cesar Chavez High School site</td>
<td>Not available</td>
<td>In planning phases</td>
</tr>
<tr>
<td>Stockton</td>
<td>Wal-Mart</td>
<td>8-Mile Rd / Trinity</td>
<td>Wal-Mart Supercenter</td>
<td>Not available</td>
<td>Approved (court injunction)</td>
</tr>
<tr>
<td>Lathrop</td>
<td>River Islands</td>
<td>West of I-5, next to San Joaquin River</td>
<td>Business park; commercial development</td>
<td>250,000</td>
<td>Pending approval</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Mossdale Landing</td>
<td>West of I-5, next to San Joaquin River</td>
<td>1 service commercial; 1 village commercial&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td>326,700</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Mossdale Landing East</td>
<td>West of I-5, next to San Joaquin River</td>
<td>2 service commercial; 1 highway commercial&lt;sup&gt;(4,5,6)&lt;/sup&gt;; 1 village commercial</td>
<td>52,490</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Mossdale Landing South</td>
<td>West of I-5, next to San Joaquin River</td>
<td>2 service commercial</td>
<td>270,246</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Central Lathrop Specific Plan</td>
<td>North of I-5/1-205/ SR-120 Interchange</td>
<td>Office; specialty; neighborhood; public/semi-public; commercial</td>
<td>Not Available</td>
<td>Pending approval from LAFCO for annexation</td>
</tr>
<tr>
<td>Manteca</td>
<td>Retail Power Center</td>
<td>NW comer of Airport Rd &amp; Highway 120</td>
<td>Anchored by discount department store, 2-3 large-scale retail stores, and numerous restaurants</td>
<td>500,000</td>
<td>Pending approval&lt;sup&gt;(3)&lt;/sup&gt;</td>
</tr>
<tr>
<td>Tracy</td>
<td>Duong</td>
<td>W. Pavilion &amp; N. Naglee</td>
<td>Unspecified commercial development</td>
<td>30,181</td>
<td>Pending approval</td>
</tr>
<tr>
<td>Tracy</td>
<td>Satish Narayan</td>
<td>Glover Rd, 500 ft E of Tracy Blvd.</td>
<td>Unspecified commercial development</td>
<td>31,400</td>
<td>Pending approval</td>
</tr>
<tr>
<td>Tracy</td>
<td>La Morinda - Tracy Marketplace</td>
<td>Grant Line Rd</td>
<td>Unspecified commercial development</td>
<td>38,500</td>
<td>Pending approval</td>
</tr>
<tr>
<td>Tracy</td>
<td>Winco</td>
<td>S Pavilion/Robertson/Power</td>
<td>Grocery store</td>
<td>96,000</td>
<td>Pending approval</td>
</tr>
<tr>
<td>Tracy</td>
<td>Valpico Town Center</td>
<td>2795 S. Macarthur</td>
<td>Grocery store + other unspecified retail</td>
<td>98,000</td>
<td>Approved, unbuilt</td>
</tr>
<tr>
<td>Tracy</td>
<td>Wal-Mart</td>
<td>3010 Grantline Rd</td>
<td>Expansion to Supercenter</td>
<td>90,000</td>
<td>Pending approval</td>
</tr>
<tr>
<td>Tracy</td>
<td>Various &lt;30,000 sq ft</td>
<td>Various locations</td>
<td>Commercial development- multiple tenants</td>
<td>&lt;298,700</td>
<td>Pending approvals</td>
</tr>
<tr>
<td>San Joaquin</td>
<td>No Major Projects (2)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>County</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sources:**
- ESA: Jim VanBuren, San Joaquin County, February 2005, personal communication; Deanna Walsh, Principal Planner, City of Lathrop, March 2005, personal communication; Kevin Birkholz, Economic Redevelopment Planner, City of Manteca, February 2005, personal communication; City of Tracy, Development History Spreadsheet, Current as of March 2005; Mark Martin, City of Stockton, March 2005, personal communication.

**Notes:**
1. Project application is pending but currently on hold, due to legal action. Lathrop officials have agreed to release their lawsuit based on an agreement to complete a joint traffic impact analysis.
2. Most unincorporated commercial projects tend to be small scale developments relying on private septics & well water systems, given limited public infrastructure.
3. Total square footages noted in this column account for maximum allowable retail use on designated acreage.
4. City of Lathrop zoning defines a service commercial area as local & regional retail service & office space adjacent to main arterials.
5. City of Lathrop zoning defines a highway commercial area as a shopping center; local & regional retail service area, & office space. Large-scale retail tenants likely.
6. City of Lathrop zoning defines a village commercial area as mixed use, pedestrian friendly, main street oriented area.
# TABLE 6-6
CUMULATIVE PROJECT LIST—TRANSPORTATION IMPROVEMENTS

<table>
<thead>
<tr>
<th>Location</th>
<th>Site</th>
<th>Improvement Type</th>
<th>Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stockton</td>
<td>8-Mile Road at I-5</td>
<td>Widening &amp; interchange improvement</td>
<td>Complete</td>
</tr>
<tr>
<td>Stockton</td>
<td>El Dorado St: Yokuts Ave &amp; Bianchi Rd</td>
<td>Widening</td>
<td>Complete</td>
</tr>
<tr>
<td>Stockton</td>
<td>Hammer Ln: between Union Pacific &amp; S. Pacific crossings; West Ln: Swain Rd to Hammer Ln</td>
<td>Widening</td>
<td>Complete</td>
</tr>
<tr>
<td>Stockton</td>
<td>March Ln</td>
<td>Road extension</td>
<td>Complete</td>
</tr>
<tr>
<td>Stockton (2)</td>
<td>Arch Rd/SR 99</td>
<td>Interchange improvement</td>
<td>Complete</td>
</tr>
<tr>
<td>Stockton</td>
<td>March Ln/El Dorado Rd</td>
<td>Intersection improvement</td>
<td>Complete</td>
</tr>
<tr>
<td>Stockton</td>
<td>Miracle Mile/Pacific Ave</td>
<td>Beautification project</td>
<td>Complete</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Louise Ave</td>
<td>Widening &amp; reconstruction</td>
<td>Under construction</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Harlan Rd</td>
<td>Road repair &amp; crossroads</td>
<td>Not provided</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Lathrop Rd</td>
<td>Rehabilitation</td>
<td>Not provided</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Harlan Rd at Lathrop Rd</td>
<td>Realignment</td>
<td>Not provided</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Louise Ave &amp; I-5</td>
<td>Project study report</td>
<td>Not provided</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Lathrop Rd</td>
<td>Grade separation</td>
<td>Not provided</td>
</tr>
<tr>
<td>Lathrop</td>
<td>Yosemite/Mckinley SR-120</td>
<td>Feasibility study</td>
<td>Not provided</td>
</tr>
<tr>
<td>Manteca</td>
<td>S. Union Rd</td>
<td>Widening &amp; right-of-way acquisition</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Manteca</td>
<td>Center St/Walnut Ave</td>
<td>Traffic signal</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Manteca</td>
<td>Industrial Park/Spreckels Rd</td>
<td>Realignment</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Manteca</td>
<td>Louise Ave</td>
<td>Realignment</td>
<td>Under construction</td>
</tr>
<tr>
<td>Manteca</td>
<td>SR120/Mckinley Interchange</td>
<td>Project study report</td>
<td>Engineering study</td>
</tr>
<tr>
<td>Manteca</td>
<td>SR-99/SR-120 &amp; E. Yosemite Ave</td>
<td>Interchange &amp; improvement project</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Manteca</td>
<td>Moffat Blvd.</td>
<td>Improvement project</td>
<td>Under construction</td>
</tr>
<tr>
<td>Manteca</td>
<td>SR99/Austin/Olive</td>
<td>Feasibility study</td>
<td>Engineering study</td>
</tr>
<tr>
<td>Manteca</td>
<td>Yosemite Ave/S. Vasconcellos Ave</td>
<td>Extension &amp; traffic signal</td>
<td>Pending construction</td>
</tr>
</tbody>
</table>
### TABLE 6-6
CUMULATIVE PROJECT LIST—TRANSPORTATION IMPROVEMENTS

<table>
<thead>
<tr>
<th>Location</th>
<th>Site</th>
<th>Improvement Type</th>
<th>Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manteca</td>
<td>City-wide</td>
<td>2004 traffic installation project</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Tracy Blvd: Valpico to Schulte</td>
<td>Widening</td>
<td>Complete</td>
</tr>
<tr>
<td>Tracy</td>
<td>Tracy Blvd: Tracy through Sycamore Pkwy</td>
<td>Widening</td>
<td>Complete</td>
</tr>
<tr>
<td>Tracy</td>
<td>Tracy Blvd: Sycamore Pkwy to Linne</td>
<td>Widening</td>
<td>Complete</td>
</tr>
<tr>
<td>Tracy</td>
<td>Lemmers Rd: 3,000 ft South of 11th St</td>
<td>Widening</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Lemmers Rd: 4,000 ft West of 11th St</td>
<td>Widening</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Grant Line Rd: Naglee to Lammers</td>
<td>Widening</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Grant Line Rd: Parker to Hollow</td>
<td>Widening</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Coral Hollow Rd: Grant Line Rd to Mall Entry</td>
<td>Widening</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>11th St: Corral Hollow to Lammers</td>
<td>Widening</td>
<td>Complete</td>
</tr>
<tr>
<td>Tracy</td>
<td>11th St: East &amp; West of Coral Hollow</td>
<td>Widening</td>
<td>Complete</td>
</tr>
<tr>
<td>Tracy</td>
<td>West High School</td>
<td>Traffic signal</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Kavanagh/Corral Hollow</td>
<td>Traffic signal</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Schulte/Amareto</td>
<td>Traffic signal</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>MacArthur/Schulte</td>
<td>Traffic signal</td>
<td>Complete</td>
</tr>
<tr>
<td>Tracy</td>
<td>MacArthur/Valpico</td>
<td>Traffic signal</td>
<td>Complete</td>
</tr>
<tr>
<td>Tracy</td>
<td>Tracy Blvd/Valpico</td>
<td>Traffic signal</td>
<td>Complete</td>
</tr>
<tr>
<td>Tracy</td>
<td>MacArthur/Eastlake Circle</td>
<td>Traffic signal</td>
<td>Complete</td>
</tr>
<tr>
<td>Tracy</td>
<td>Corral Hollow/Middlefield</td>
<td>Traffic signal</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Civic Center/11th Street</td>
<td>Traffic signal</td>
<td>Complete</td>
</tr>
<tr>
<td>Tracy</td>
<td>Tracy/6th</td>
<td>Traffic signal</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>11th/Lammers</td>
<td>Signal modifications</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Tracy Central to Clover</td>
<td>Signal interconnection</td>
<td>Complete</td>
</tr>
</tbody>
</table>
TABLE 6-6 (CONTINUED)
CUMULATIVE PROJECT LIST—TRANSPORTATION IMPROVEMENTS

<table>
<thead>
<tr>
<th>Location</th>
<th>Site</th>
<th>Improvement Type</th>
<th>Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracy</td>
<td>Various locations</td>
<td>Replacement of traffic loops</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>East &amp; West Emerson Ave</td>
<td>Reconstruction</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>various arterial locations</td>
<td>Median improvements</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Tracy/10th</td>
<td>Median break</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Corral Hollow @ 3 locations</td>
<td>Median break</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Tracy Blvd/Sycamore Pkwy</td>
<td>Intersection improvements</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>I-205/Lemmers Road</td>
<td>Interchange improvements</td>
<td>Pending construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>11th St. Street Bridge</td>
<td>Bridge repairs</td>
<td>Under construction</td>
</tr>
<tr>
<td>Tracy</td>
<td>Tracy Blvd: Sycamore to Valpico</td>
<td>Widening</td>
<td>Pending construction</td>
</tr>
<tr>
<td>San Joaquin County</td>
<td>Hammer Ln/Crosstown Fwy</td>
<td>Widening- SR-99</td>
<td>Pending construction</td>
</tr>
<tr>
<td>San Joaquin County</td>
<td>Lwr Sacramento Rd b/n Woodbridge &amp; Bear Cr</td>
<td>Widening- Lower Sacramento Rd (SPP)</td>
<td>Under construction</td>
</tr>
<tr>
<td>San Joaquin County</td>
<td>I- 205; I-5 to Alameda County Line</td>
<td>Widening</td>
<td>Contingent on funding</td>
</tr>
<tr>
<td>San Joaquin County</td>
<td>8-Mile Road: I-5 &amp; SR-99</td>
<td>Widening</td>
<td>Not provided</td>
</tr>
<tr>
<td>San Joaquin County</td>
<td>SR-4: I-5 to existing SR-4</td>
<td>Road Extension</td>
<td>Not provided</td>
</tr>
<tr>
<td>San Joaquin County</td>
<td>I-205/Mountain House</td>
<td>Interchange improvement</td>
<td>Under construction</td>
</tr>
<tr>
<td>San Joaquin County</td>
<td>11th St (Tracy)</td>
<td>General improvements (SPP)</td>
<td>Pending construction</td>
</tr>
<tr>
<td>San Joaquin County</td>
<td>(1,2) Arch Sperry Rd connection between I-5 &amp; SR-99</td>
<td>Road extension- east/west (SPP)</td>
<td>Under construction</td>
</tr>
</tbody>
</table>

SOURCES: ESA; Adam Brucker, San Joaquin County, Personal Communication, March 1, 2005; Capital Improvement Project lists: City of Lathrop, City of Tracy; City of Manteca, Status Report on: Subdivision, Commercial, Industrial, & Capital Improvement Projects; SJCOG RTP 2004
Notes:
(1) Included all current & Priority A projects
(2) Joint effort between San Joaquin County & City of Stockton
Abbreviations:  SPP - Special Purpose Plan, RTP - Rapid Transit Plan
City of Stockton

The largest growth in the County occurred in the City of Stockton, which is estimated to have added nearly 33,000 new residents over the past ten years. Looking forward, there are 1,446 planned homes under construction and/or reasonably foreseeable to be approved and built within the next five years in the south Stockton area. Approximately 14 percent of these homes are awaiting project approval, including the Cornerstone II and Lever developments located directly adjacent to the project area. (See Table 6-1 for more details.)

Citywide, 9,487 single-family units and 1,277 multi-family units have been approved for construction. With a total of 10,764 new housing units approved for construction, the City of Stockton is expected to grow by at least 36,123 people in the next five years.¹ This anticipated population increase, based on construction of new homes, is relatively close to SJCOG’s more conservative estimate of 31,000 new residents in the next five years for the City (SJCOG’s Vision 2030).

City of Lathrop

The City of Lathrop, incorporated in 1989, is a relatively new community located just south of the project site and west of Manteca. Lathrop is in a rapid growth phase and has primarily emphasized large-scale, mixed-use projects for its future development (see Table 6-2). The largest single planned development is the 4,800-acre River Island Urban Design Concept, which would consist of 11,000 planned homes, a 5-million-square-foot business park, mixed-use town center, and golf course. Most of the Lathrop’s current projects are primarily in initial construction or project permitting phases. Lathrop’s current population is approximately 11,000. SJCOG’s Vision 2030 estimates that Lathrop’s population will increase to 15,500 residents over the next five years and 31,100 residents by 2025. However, in conversations with Community Development staff regarding the City’s current planning approach, which accounts for 20,380 new homes over the next 20 years, the City of Lathrop estimates that it will house 60,000 new residents by 2025.

City of Manteca

The City of Manteca currently has a population of 55,200, with approximately 67,000 people living within a five-mile radius of the City center. Recently, residential growth has been just under 3 percent a year, with the City having issued permits for 754, 803, and 617 single-family homes in 2003, 2002, and 2001 respectively. There are 33 current and likely future residential projects within or directly adjacent to the City of Manteca, 16 of which are presently under construction (see Table 6-3).

¹ The average household size in Stockton is approximately 3 individuals (US Census, 2000). Expected population growth was calculated based on number of units multiplied by average household size. This number can be compared against recent trends in Stockton’s population growth, which has averaged a rate of 2.5 percent annual population increase. This percentage would estimate an increase of 33,275 individuals over the next five years.
Manteca’s primary growth area is located south of Highway 120 and extending beyond Woodward Avenue. Over the next five years, 4,106 new homes are currently anticipated to be completed within southern Manteca. The average size of these projects is 219 homes. The largest southern projects include Evans Estates (586 homes) east of S. Manteca Road (between Sedan and W. Ripon Roads), and Machado Estates (564 homes) in the southwesterly corner of Manteca (west of Airport Way and south of Woodward Avenue).

Significant housing subdivision growth is also occurring in northern Manteca where 3,766 homes are either under construction or pending approval. The largest project, Union Ranch, is located north of Lathrop Road and has 1,960 single-family dwellings planned. SJCOG’s Vision 2030 projects a conservative estimate of 11,000 new residents by 2010. However, in considering a total of 8,168 new homes from major projects in the north and south, combined with proposed infill projects in central Manteca, it is anticipated that the City of Manteca will add approximately 24,144 new residents in the next five years.

**City of Tracy**

The City of Tracy experienced an increase of residential development applications in the late 1990s. During that period, the City approved the construction of 9,330 single family dwellings and approximately 85 multi-family units to be constructed within the next five to ten years (see Table 6-4). The majority of these projects range in size from 200 to 1,300 homes and now are nearing completion. To date, only 700 of the 9,330 single family dwellings remain to be constructed.

Following this major residential development growth in the 1990s, local residents passed a Slow Growth Initiative to limit new construction. As a result, Tracy’s residential growth is now limited to a total of 100 permits annually. Furthermore, new development must be located within the City’s core or contiguous infill areas known as the residential growth allotment area.

In addition to the current projects under construction, the City of Tracy has four projects pending approval by the City: two residential subdivisions (173 planned homes) and two multi-family units (137 planned units). These projects all fall within the City’s residential growth allotment area as defined by the City Council. SJCOG’s Vision 2030 projects that the City of Tracy will grow by 11,000 residents in the next five years. However, with a total of 9,503 single-family homes and 222 multi-family units under construction and nearing completion, the City of Tracy could be expected to grow by as many as 29,000 residents in the next five years.2

**San Joaquin County**

The County of San Joaquin is home to over 564,000 residents.3 Large-scale residential, commercial and retail development is highly restricted within the unincorporated areas of San Joaquin County. Typically, larger residential projects are located adjacent to incorporated cities, and developers apply directly to the City for annexation. This pattern is a result of the limited

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2 Based on U.S. Census averages, the average household size in Tracy is expected to be three individuals. City of Tracy planners provided housing unit projections for future multi-family residential developments.

3 Ibid.
public infrastructure (sewer, water, electricity, and phone) available in unincorporated areas. A major exception is a new planned community called Mountain House, located in the southwest corner of the County. (See Table 6-2 for current pending projects).

Mountain House is envisioned as a new self-sufficient community providing employment, goods, services and education on its 4,780 acres of land. Community planners have forecasted a total population of 44,000, with a mixed-use town center providing civic venues and commercial business. At full build-out, there are 21,000 anticipated jobs in the commercial and industrial sectors. Specific Plans I and II have been approved, with the third and final Specific Plan underway. Currently, there are 1,200 homes built in the Mountain House community. At full build-out of the first two specific plans, there will be 13,000 new residences. County planners estimate that approximately 5,000 to 10,000 of these 13,000 planned homes will be built over the next five years, providing new homes to 15,000 to 30,000 residents.

**Retail Development**

**City of Stockton**

Although it is only one of seven cities in the county, the relative size of Stockton’s economy, population, and land area ensures that its development trends have regional importance. Stockton has evolved into a multi-nucleated city with several pockets of intense office or retail development, each serving functionally in some characteristic manner of a traditional central business district (SJCOG’s Vision 2030). Stockton currently has five major retail projects, in addition to the project, under construction and/or pending approval (see Table 6-5):

- The Gateway Shopping Center located at Eight Mile Road, west of I-5. This is a 150,000-square-foot retail center that incorporates a grocery store, fast-food restaurants, and small retailers.

- The Food 4 Less Redevelopment Project located at Manthey Road.

- Park West Place Project at Trinity Road and Eight Mile Road (next to I-5). Several additional major large-scale retail businesses are planned in addition to the recently completed Target and Kohl’s stores. Future retail development at the site is pending and a Lowe’s and a Wal-Mart Supercenter are planned as tenants. However, in March 2005, a court injunction was imposed on the project suspending construction of the Wal-Mart Supercenter.

- The Origone Avenue Project located south of Hammer Lane and west of SR-99. No future retail tenants for the project have yet been publicly identified.

- Cannery Park at the northeast corner of Eight Mile Road and SR-99. No future retail tenants for the project have yet been publicly identified.
City of Lathrop

The City of Lathrop plans for extensive retail development in the area west of I-5, adjacent to the San Joaquin River. Collectively, there is 1.8 million square feet of future new commercial space approved for construction, with another 10.9 million square feet under consideration. These projects include commercial development across three zoning categories: service commercial, highway commercial, and village commercial. Both service and highway commercial designations accommodate local and regional retail service, as well as office space adjacent to main arterials. Village commercial use is aimed at mixed-use, pedestrian-friendly, Main Street-oriented development. All of the projects will be built in phased construction over the next five to 20 years. No projections of the likely size and type of retail development are currently available from the City Planning department, nor are there targeted tenants that have been identified.

City of Manteca

The City of Manteca currently has one major retail project under consideration for approval. An application has been submitted for a new retail “power center” development that would be located at the northwest corner of Airport Road and Highway 120. The project would likely be anchored by a large discount department store and include two or three other large-scale retailers as well as several smaller specialty retailers and restaurants on a 500,000-square-foot project site. Approval for this project is currently on hold due to an ongoing lawsuit filed by a neighboring municipality.

City of Tracy

The City of Tracy has six major retail projects under consideration for approval as well as an additional 298,700 square feet of combined minor retail projects. The major retail projects include two new grocery stores, several large-scale retail developments, and numerous smaller retail stores that currently unspecified (See Table 6-5 for further detail and locations). Future expansion/ conversion of the Wal-Mart on Grant Line Road into a Supercenter is also being sought. The combined square footage of these various major projects currently pending approval is estimated to be approximately 669,000 square feet.

San Joaquin County

According to County planning staff, no major planned retail developments pending in San Joaquin County.

Traffic Improvements

City of Stockton

There are five current major transportation projects that would likely improve accessibility to Wal-Mart Supercenters in the Stockton area (see Table 6-6). Four of the five improvement projects facilitate access to the existing Wal-Mart Supercenter in northern Stockton, with the remaining fifth project improving traffic flows to the project area. The general purpose of the four northern traffic improvements is to enhance the existing interchange operations and safety at Eight Mile Road, Hammer Lane, West Lane, El Dorado Street, and March Lane, to meet current and future capacity needs resulting from residential developments in northern Stockton.
The recently completed interchange project of Arch Road and SR-99 was a joint project of the City of Stockton, the San Joaquin Council of Governments (SJCOG), Caltrans and San Joaquin County. With the projected increase in industrial activity in the area, the City of Stockton considers the following interchange improvements essential to facilitate economic growth and expansion.

- Reconstruction of Route 99 to the bridge over Arch Road. The structure will be built for future six-lane widening.
- Construction of urban interchange with double ramps, auxiliary lanes, ramp metering, and new signalization at interchange ramp intersections and northbound ramp terminals.
- Expansion of Arch-Airport Road between the Route 99 and Qantas Lane to three lanes in each direction, expandable to four lanes in each direction.
- Expansion of Arch Road between Route 99 and East Frontage Road to provide two lanes in each direction.
- Realignment of the East Frontage Road intersection with Arch Road.
- Relocation of the West Frontage Road to intersect at Arch/Qantas Lane.
- Extension of Qantas Lane south of Arch Road to the West Frontage Road.

This interchange improvement project is related to the proposed Arch-Sperry Road extension. The Arch-Sperry Road extension will provide an east-west connection between I-5 and SR-99, providing additional access similar to French Camp Road. This project is currently under Environmental review.

The City of Stockton also has an on-going beautification project to encourage shopping and visitation to the Miracle Mile area (a pedestrian-friendly shopping district between Castle Street and Harding Way on Pacific Avenue). Recent improvements have included angle parking along Pacific Avenue, elimination of parking meters, and parking lot improvements.

**City of Lathrop**

The City of Lathrop’s Capital Improvement Program defined five priority traffic improvements for 2005. The most notable traffic improvements include a Project Study Report for I-5 and Louise Avenue and the widening and reconstruction of Louise Avenue. Given the location of the Lathrop improvements, they are not likely to directly improve accessibility to the Project Area (See Table 6-6 for more improvement information and locations).

**City of Tracy**

The City of Tracy’s Capital Improvement Program list defined a large range of ongoing and upcoming priority projects. Numerous street widening projects are planned and/or have been recently completed to meet Tracy’s ongoing growth and traffic circulation needs. These
transportation projects include: Tracy Blvd, 11th Street, Grant Line Road, Lemmers Road, and Coral Hollow Road. In addition, many other additional interchange improvements, traffic signal installations and reconfigurations, and median improvements are all planned to occur within the next five years (see Table 6-6 for more detailed information and improvement locations).

**City of Manteca**

The City of Manteca’s status report on Capital Improvement Projects provided comprehensive information regarding current and upcoming priority traffic improvement projects. There is a major interchange and improvement project for SR-99, SR-120, and East Yosemite Avenue pending construction. Another notable effort within Manteca is a Project Study Report for the interchange between SR-120 and McKinley. In addition to these interchange improvement projects, there are multiple road widening and realignments projects, traffic signal installations, and road extension projects at various construction and engineering study phases. (See Table 6-6 for more detailed information and improvement locations).

**San Joaquin County**

San Joaquin County has several traffic improvements under development and for future implementation that would improve access to both the existing and proposed Wal-Mart Supercenter locations. In the northern part of Stockton, the County is involved with widening Lower Sacramento Road from Harney Road south to Bear Creek. South of the Stockton metropolitan area, the County is cooperatively involved with the Arch-Sperry Road extension project, and the widening of I-205 from I-5 to the Alameda County line.

In the unincorporated areas around Tracy, the County is involved with improvements on 11th Street (a major east-west thoroughfare through Tracy intersecting with I-205 at the west terminus. Both the I-205 widening and the 11th Street improvements will improve access to the Wal-Mart Supercenter located northwest of Tracy (see Table 6-6 for more detailed information and location on these transportation improvements).

**Stockton General Plan**

The City’s current general plan was adopted on January 22, 1990. The accompanying EIR was prepared in 1989 and certified on January 22, 1990 (State Clearinghouse No. 88072506). The 1990 General Plan, a comprehensive update of the 1978 General Plan, identified land that was mostly vacant into which urbanization could be safely directed and accommodated by the systematic extension of the City’s infrastructure. The City’s intention was to direct most new residential and commercial growth into these areas, known as Future Growth Areas (FGAs). The FGAs are located at the edge of the Planning Area Boundary. Located within the 1990 Planning Area Boundary is the Urban Services Area, which includes those lands designated for urban development under the 1990 General Plan and requiring urban services, such as water. Weston Ranch is located within an FGA and within the Urban Services Area.

The environmental impacts associated with buildout of the general plan are listed in Table 6-7.
6.2.4 Cumulative Impacts

For certain categories of environmental effects, the potential cumulative impacts are discussed as part of the impact assessment in Chapter 4, Environmental Analysis. This is particularly true of impacts that have distinct cumulative methodologies, such as traffic and circulation. These cumulative impacts are summarized below. Other potential cumulative impacts, particularly those that are site-specific, such as cultural resources, are discussed below.

Land Use and Agricultural Resources

Impact 4.2.5, conversion of agricultural prime farmland, should be considered a cumulative impact, as well as a direct impact, based on the ongoing conversion of agricultural land within San Joaquin County. In 1990, San Joaquin had 437,859 acres of prime farmland. By 2002, this number was 415,527 acres. This is a net loss of 22,332 acres, more than 1800 acres per year. Farmland of statewide importance showed a similar decline, from 100,277 acres to 92,521. Unique farmland showed a slight increase in acreage, from 46,863 acres to 61,849 acres. This increase in unique farmland is most likely due to the conversion of unirrigated lands to vineyards. However, the net loss among all types of agricultural land (including grazing land) was 20,904 acres during this period (DOC 2002). Implementation of Mitigation Measure 4.2.5 would reduce the cumulative impacts of development by preserving an equal amount of farmland to that converted by the project. Therefore, while the direct loss of farmland is significant, by preserving land on a regional level, the cumulative impact is reduced to a less than significant level.

Urban Decay

The project’s potential to cause urban decay, an indirect impact of economic change, is discussed in Section 4.4. The project’s potential urban decay impact, when combined with future regional retail and residential development, is identified in Impact 4.4.2 as less than significant.

Transportation and Circulation

As discussed in Section 4.7, Transportation and Circulation, the project will contribute to cumulative traffic impacts. Impacts 4.7.11 and 4.7.12 describe cumulative impacts (year 2025) that the project would contribute to, and the mitigation measures which would reduce the project impacts.

Air Quality

As discussed in Section 4.8, Air Quality, the SJVAB is currently designated as extreme nonattainment for the national one-hour ozone standard, serious nonattainment for the national eight-hour ozone standard, nonattainment for the national PM2.5 standard, and serious

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4 Conversion numbers are from the 2002 Farmland Mapping and Monitoring data, available online at http://www.consrv.ca.gov/DLRP/fmmp/stats_reports/conversion_tables_historic.htm.
nonattainment for the national PM10 standard (SJVAPCD, 2005). Cumulative impacts to air quality are discussed in Impact 4.8.6. Although ROG, NOx, and CO emissions are expected to decline in future years for project operations and countywide (see Tables 4.8-5 through 4.8-7), the project individually would have significant air quality impacts (estimated emissions of the project would exceed the significance criteria of 10 tons per year for ROG and NOx in 2007 and 2025, and PM10 in 2007, and 2025), and thus the project’s incremental impact on air quality in the region would be considered cumulatively significant for both cumulative analysis year 2025. The project’s incremental impact on air quality in the region would be considered cumulatively significant, even with implementation of feasible mitigation measures.

**Noise**

Cumulative noise impacts are discussed in Section 4.9, Noise. Cumulative impacts can result from individually minor but collectively significant impacts, meaning that the project’s incremental effects must be viewed in connection with the effects of past, current, and probable future projects. A cumulative impact arises when two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Impact 4.9.4 addresses the increase in traffic noise from the project in combination with other development. Mitigation Measure 4.9.4 would require installation of sound walls along certain street segments. With implementation of this mitigation, the cumulative impact of the project would be reduced to a less-than-significant level.

**Hydrology and Water Quality**

As discussed in Section 4.10, Hydrology and Water Quality, the runoff generated by the project would be conveyed to the San Joaquin River and downstream waterways such as the Deep Water Ship Channel and the Delta (Impact 4.10.1). These waterways are identified in the SWRCB’s 303(d) list as impaired for a variety of constituents, and their ability to assimilate additional pollutants is limited. This would represent a cumulatively considerable impact. To minimize the project’s impact on water quality, a combination of treatment features will be required as required by City design standards and a proper maintenance schedule to ensure success. These features are described in Mitigation Measures 4.10.1a, b, and c. With implementation of mitigation, the project’s contribution to a cumulative impact would be less than significant.

Impact 4.10.4, water supply, is based on the water supply assessment prepared for the project. Per the requirements of SB 610, cumulative effects (future water demand) are inherent in the water supply assessment. The potential cumulative effects of the project on water supply are therefore less than significant, as described in Impact 4.10.4.
<table>
<thead>
<tr>
<th>Issue</th>
<th>Impact</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use</td>
<td>Potential land use compatibility problems; conflicts between residential, commercial, and industrial uses.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Potential for proposed annexations in the future growth areas to conflict with LAFCO policies related to City service plans and prime agricultural lands.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Potential conflict with San Joaquin County General Plan Land Use Element map and policies.</td>
<td>LSM</td>
</tr>
<tr>
<td>Population and Employment</td>
<td>Population and employment growth are a fundamental determinant of the wide range of impacts resulting from urban growth.</td>
<td>SU</td>
</tr>
<tr>
<td>Housing</td>
<td>Potential for General Plan to designate an inadequate supply of developable land for housing (causes price of land to rise, which affects affordability and availability of housing).</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Lack of affordable housing (affects supply of housing for persons of low and moderate incomes).</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>Governmental constraints affect the supply, distribution, and cost of housing.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Deterioration of housing stock/neighborhoods in the older areas of the City (affects amount of housing available for low and moderate incomes).</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Lack of accessibility to housing for the elderly, minorities, handicapped, the homeless, and others with special needs.</td>
<td>Unknown</td>
</tr>
<tr>
<td>Topography, Geology, and Soil</td>
<td>Potential hazards to new and existing structures due to the earthquakes and development on organic peat soils and expansive clay soils.</td>
<td>LSM</td>
</tr>
<tr>
<td>Agricultural Resources</td>
<td>Eventual development of the future growth areas would result in the loss of approximately 9,000 acres of agricultural land, approximately one-half of which is considered to be prime farmland. The inducement of urban growth onto agricultural land beyond the planned urban boundary is also possible.</td>
<td>SU</td>
</tr>
<tr>
<td></td>
<td>Conflicts and incompatibility between agricultural and urban uses, including dust, smoke, pesticides, noise from agricultural operations impinging on urban uses, and the potential for nearby urban residents to trespass on, litter, or vandalize agricultural land and equipment.</td>
<td>SU</td>
</tr>
<tr>
<td></td>
<td>Parcelization of agricultural land on the fringe of Stockton into units too small to maintain agricultural viability.</td>
<td>LSM</td>
</tr>
<tr>
<td>Biological Resources</td>
<td>Development in accordance with the proposed General Plan would result in the eventual loss of over 9,000 acres of agricultural land and potential wildlife habitat within the future growth areas, approximately 3,300 acres of which is considered to be within or on the fringe of the Delta. The Delta, with its wetlands and waterways, provides the most sensitive and highest value wildlife and plant habitat in the planning area. The Delta is home to a number of special status species, provides an important wintering area for migrating water fowl, and is an important fishery. Agricultural land is also an important source of food and cover for wildlife, including special status species.</td>
<td>SU</td>
</tr>
</tbody>
</table>
TABLE 6-7 (CONTINUED)  
CITY OF STOCKTON 1990 GENERAL PLAN EIR ENVIRONMENTAL EFFECTS

<table>
<thead>
<tr>
<th>Issue</th>
<th>Impact</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>The remaining Valley Oak trees within the planned growth areas may be lost if they are not properly incorporated into new development.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Construction of the western beltway road in the Delta beyond the western boundary of the planning area would adversely impact biological resources in terms of direct construction-related impacts, and more significantly, from the potential of the roadway to induce urban growth further west in the Delta. (The western beltway is not shown in the proposed General Plan but was included in the traffic analysis at the request of the Public Works Department.)</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>The projected increase in traffic volumes would result in a number of capacity deficiencies on a number of existing streets and freeway segments (as noted on Tables J-7 and J-8 of the EIR).</td>
<td>SU</td>
</tr>
<tr>
<td></td>
<td>Improper design of the street system can create adverse impacts on surrounding land uses and safety problems, such as through traffic being routed through residential neighborhoods, lack of design for speed restriction, lack of off-street parking, too many access points to arterial streets and inadequate right-of-way widths and dedications.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Impacts related to the western beltway road are summarized under Biological Resources.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>A greater demand for public transportation services will be created as urbanization occurs in the future growth areas.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>As growth continues to occur in the Stockton area, it will be important to assure and promote convenient and safe non-motorized transportation in the form of pedestrian and bikeway facilities. Not planning for these transportation modes can act to discourage these non-polluting alternatives to automobile use.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Stockton has a substantial number of at-grade railroad crossings, which can be a safety and convenience problem, as well as block emergency vehicle access to an area. Railroads are also a significant source of noise due to train engine and wheel noise, brakes whistles and signals, and switching activities.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>The operation of an airport has the potential to result in significant noise and safety problems in relation to surrounding land uses.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>The industrial and shipping activities in the Port area would be incompatible with residential land uses.</td>
<td>LSM</td>
</tr>
<tr>
<td>Air Quality</td>
<td>The Stockton area currently exceeds federal and state standards for carbon monoxide (CO), ozone, and particulates. Development in accordance with the proposed General Plan and master plans will significantly worsen the extent to which these standards are exceeded due to a substantial increase in vehicular and stationary pollutant sources and will add to both local and regional air quality problems.</td>
<td>SU</td>
</tr>
<tr>
<td></td>
<td>Based on traffic projections and air quality modeling, the 8-hour federal and state air quality standards for carbon monoxide (CO) are projected to be exceeded at three major street intersections (West Lane/Hammer Lane, Thornton Road/Hammer Lane and West Lane/March Lane) in the year 2010 assuming buildout of the proposed General Plan.</td>
<td>SU</td>
</tr>
<tr>
<td>Noise</td>
<td>Noise from freeways and major streets, railroads and railroad yards, industrial operations, and airports may adversely impact residential and other noise sensitive land uses proximate to these noise sources. The noise contours along the freeways and many major streets will significantly increase with the projected increase in vehicular traffic.</td>
<td>SU (for freeway and major streets)</td>
</tr>
</tbody>
</table>
### TABLE 6-7 (CONTINUED)
CITY OF STOCKTON 1990 GENERAL PLAN EIR ENVIRONMENTAL EFFECTS

<table>
<thead>
<tr>
<th>Issue</th>
<th>Impact</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Supply and Quality</td>
<td>Depletion of groundwater table beyond safe yield.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Inadequate supply of surface water to serve long-term projected growth.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Lack of capital facilities to distribute and deliver water in and efficient and effective manner.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Increased saline groundwater intrusion in the western portion of the planning area.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Potential for migration of groundwater contaminated with pesticides into the planning area.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Potential surface and groundwater contamination could result from urban runoff and the use and storage of hazardous materials by commercial industrial and institutional uses.</td>
<td>LSM</td>
</tr>
<tr>
<td>Wastewater Collection and Treatment</td>
<td>Potential for growth inducement within and beyond areas planned for urban expansion. A 6,000-acre area is designated for agriculture in south Stockton that was master planned for urban-level sewer services.</td>
<td>SU</td>
</tr>
<tr>
<td></td>
<td>Potential to overload the wastewater collection and treatment system, which can lead to overflows and backups in the collection system and exceedence of the capacity of the treatment plant, causing inadequately treated sewage to be discharged into the San Joaquin River.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Generation of hydrogen sulfide in sewer lines, which can corrode concrete and steel, and pose a safety and odor problem.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Direct impacts from the actual construction of sewer lines and facilities, such as noise, dust, traffic disruption, utility line disruption safety hazards, and disturbance of below surface cultural resources.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>The disposal of sludge has the potential to result in adverse environmental impacts in terms of potential groundwater contamination from the sludge lagoons and the landfill site.</td>
<td>LSM</td>
</tr>
<tr>
<td>Flood Control</td>
<td>Portions of the existing community and portions of the future growth areas are subject to flood hazards (within a 100-year flood zone) from inadequate levees adjacent to the Delta and along the various watercourses traversing the metropolitan area.</td>
<td>LSM</td>
</tr>
<tr>
<td>Solid Waste</td>
<td>The City’s Austin Road Landfill is nearing capacity and will either need to be expanded or a new site will have to be established prior to the mid-1990s.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>The continued discard of recyclable items by homes and businesses results in the use of more landfill space than necessary and also wastes substantial amounts of raw material resources and energy.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>The groundwater in the vicinity of the Austin Road Landfill is being contaminated by toxic substances originating from the landfill.</td>
<td>LSM</td>
</tr>
<tr>
<td>Law Enforcement</td>
<td>Additional growth and development will place greater demands on law enforcement personnel and resources. The current (FY 89–90) number of sworn employees is 245. The Police Department anticipates the need for a staff of 486 officers by 2005.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>The growth in employees will worsen the need for headquarters expansion, which is estimated to cost $15.3 million.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>With increased growth and development in the western portion of the planning area adjacent to the Delta and associated waterways, the Department is concerned that these areas could be subject to theft and vandalism related to waterway access.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Potential for inadequate emergency access to new development.</td>
<td>LSM</td>
</tr>
</tbody>
</table>
### TABLE 6-7 (CONTINUED)

**CITY OF STOCKTON 1990 GENERAL PLAN EIR ENVIRONMENTAL EFFECTS**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Impact</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fire Protection and Emergency Services</strong></td>
<td>Potential for inadequate security features and defensible space design in new development.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Potential for the theft and vandalism during the construction process.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Additional fire stations will be needed in north and south Stockton to accommodate projected urban growth and development.</td>
<td>LSM</td>
</tr>
<tr>
<td><strong>Schools</strong></td>
<td>Additional fire stations will be needed in north and south Stockton to accommodate projected urban growth and development.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Full development of the future growth areas of the proposed General Plan would theoretically result in the generation of approximately 44,000 additional K-12 students and a need for 27 elementary schools, seven middle schools, and six high schools. Continued strong growth will perpetuate existing overcrowding and facility shortage problems.</td>
<td>LSM</td>
</tr>
<tr>
<td><strong>Parks and Recreation</strong></td>
<td>Urbanization of the future growth areas as set forth in the proposed General Plan will create a need for new parks and recreation facilities in these areas, including community centers. The proposed General Plan map depicts 18 new neighborhood parks and nine new community parks within the future growth areas.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Regional park acreage is currently deficient (based on a standard of 8 acres per 1,000 persons) and would not improve significantly under the proposed General Plan given the fact that, except for the 45 acre sports park to be provided in the Spanos Park project, no additional regional park acreage is provided.</td>
<td>LSM</td>
</tr>
<tr>
<td><strong>Utilities: Electricity, Gas, Telephone, and Cable TV</strong></td>
<td>Residential and commercial development of the future growth areas in accordance with the land use designations of the proposed General Plan would result in a 39 percent increase in natural gas usage and a 35 percent increase in electrical usage as compared to existing usage. (PG&amp;E indicates that it will have no problem serving the future growth areas, however their facilities would need to be upgraded and additional substations would be required).</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>The generation of electrical power involves the use of substantial amounts of non-renewable fossil fuels. Natural gas is also a non-renewable resource.</td>
<td>SU</td>
</tr>
<tr>
<td><strong>Library Services</strong></td>
<td>Projected growth will create the need for two new branch libraries in north Stockton and a new branch library in south Stockton.</td>
<td>LSM</td>
</tr>
<tr>
<td><strong>Hazardous Materials</strong></td>
<td>Improper storage, disposal, transport, and use of hazardous materials, including chemicals, solvents, petroleum products, natural gas, pesticides, heavy metals, explosives and radioactive materials can result in air, soil, and groundwater contamination, as well as pose a serious safety hazard.</td>
<td>LSM</td>
</tr>
<tr>
<td><strong>Aesthetics</strong></td>
<td>The rural, pastoral view for those living on the urban fringe would eventually be lost due to urban development.</td>
<td>SU</td>
</tr>
<tr>
<td></td>
<td>The view along highways may present negative image of the City to highway travelers.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>New development may occur in a manner that results in a negative aesthetic impact.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Deterioration of the older areas of the City will have a negative aesthetic effect.</td>
<td>LSM</td>
</tr>
</tbody>
</table>
### TABLE 6-7 (CONTINUED)
**CITY OF STOCKTON 1990 GENERAL PLAN EIR ENVIRONMENTAL EFFECTS**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Impact</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Resources</td>
<td>Undiscovered cultural resources existing in the future growth areas may be disturbed by construction activities associated with new development.</td>
<td>LSM</td>
</tr>
<tr>
<td>Fiscal</td>
<td>Public facility capital costs to accommodate new development may put an extreme financial burden on the City.</td>
<td>LSM</td>
</tr>
<tr>
<td></td>
<td>Build-out of the future growth areas could create the need for 27 new elementary schools, seven new middle schools, and 6 new high schools, which could put a substantial financial burden on affected school districts.</td>
<td>LSM</td>
</tr>
</tbody>
</table>

1 See Table 6-7 (Continued). See Table 6-7 (Continued).

1 Significance of certain housing impacts is identified as unknown in the General Plan EIR.

SU = Significant unavoidable; LSM = Less than significant with mitigation.

SOURCE: City of Stockton, 1990
6. Other CEQA Considerations

Biological Resources

As discussed in Section 4.11, Biological Resources, the project would remove potential breeding and/or foraging habitat for special-status species, specifically the Swainson’s hawk and burrowing owl (Impact 4.11.1). Other projects identified in the cumulative setting have the potential to eliminate habitat. This represents a cumulative impact to habitat, to which the project would contribute. The SJMSCP is a regional conservation plan that addresses the cumulative impacts of development. Mitigation Measures 4.11.1a and 4.11b require that the project comply with the SJMSCP or meet the equivalent standards for habitat mitigation. Implementation of these measures will reduce the project’s contribution to a cumulative impact to less than significant.

Aesthetics

The aesthetic impacts of the project are discussed in Section 4.3, Aesthetics. Impact 4.3.1 identifies the degradation of local visual character as a significant impact. Implementation of Mitigation Measure 4.3.1 would reduce the impact to a less than significant level. Degradation of visual character is also a cumulative effect, as individual parcels are developed. The project, however, is substantially surrounded by urban development, and is located between existing development and a major freeway (I-5) and frontage road (Manthey Road). The project’s contribution to visual impacts, as mitigated, would not be cumulative considerable.

6.3 Significant Unavoidable Impacts

6.3.1 Introduction

CEQA Guidelines §21100(b)(2) and 15126.2(b) require that any significant and unavoidable effect on the environment must be identified. Unavoidable environmental impacts include those which can be mitigated, but not to a less-than-significant level. If the lead agency approves a project which will result in significant unavoidable impacts, the agency shall state in writing the specific reasons to support its action (CEQA Guidelines §15093(b)). The “Statement of Overriding Considerations” should lay forth the specific economic, legal, social, technological, or other benefits of the project that outweigh the unavoidable adverse environmental effects of the project (CEQA Guidelines §15093(a)).

A list of unavoidable adverse impacts identified in this EIR is provided below. For each of the unavoidable adverse impacts, the City must prepare and adopt a Statement of Overriding Considerations if the City approves the project.
6.3.2 Unavoidable Adverse Impacts

Significant and unavoidable impacts identified in this EIR include:

- Implementation of the project would convert 59.68 acres of prime farmland to commercial use (Impact 4.2.5). Significant unavoidable environmental impacts resulting from conversion of agricultural land in the project site have been addressed in previous documents and have been considered and accepted through previous Statements of Overriding Considerations in connection with the approval of Weston Ranch Annexation. Nevertheless, the project, if implemented, would result in direct conversion of prime farmland to a non-agricultural use.

- The addition of project traffic would result in deficient service levels two intersections (Mathews Road/Manthey Road and Manthey Road/I-5 Northbound ramp) and a northbound segment of I-5 (Impacts 4.7.8, 4.7.9, and 4.7.10). With implementation of mitigation measure, the intersection level of service impact would be reduced to a less-than-significant level. However, the two intersections are in unincorporated San Joaquin County and are not under the lead agency’s jurisdiction. Therefore, construction of the necessary improvements cannot be reasonably guaranteed. The widening improvements on northbound I-5 have not been fully funded, so while the applicant would contribute their “fair share” to future improvements, implementation of the mitigation measure cannot be reasonably guaranteed. Therefore, these three impacts are significant and unavoidable.

- Short-term emissions of criteria pollutants, including suspended and inhalable particulate matter (PM10) and equipment exhaust emissions (Impact 4.8.1)

- The project would result in an increase in operational emissions of criteria air pollutants (ROG, NOx and PM10) from on-road motor vehicle traffic traveling to and from the project area and onsite area sources associated with the project.

- The project would contribute to a cumulative air quality impact in the project area (Impact 4.8.4).

6.4 Significant Irreversible Environmental Changes Which Would Result from the Project Should It Be Implemented

6.4.1 Introduction

CEQA Guidelines 21100(b)(2) and 15126.2(b) require that any significant effect on the environment that would be irreversible if the project is implemented must be identified. Significant irreversible environmental changes include the project’s direct and indirect effects that will commit nonrenewable resources to uses that future generations would most likely be unable to reverse.
6.4.2 Significant Irreversible Environmental Changes

Several significant and unavoidable environmental effects have been identified in Section 6.3, above. Of these impacts, only Impact 4.2.5, the conversion of prime farmland to an urban use is considered a significant irreversible environmental change.

6.5 Effects Not Found To Be Significant

As required by CEQA, this EIR focuses on expected significant or potentially significant environmental effects (CEQA Guidelines 15143). A Notice of Preparation and Initial Study were prepared for the project to identify issues to be evaluated in this EIR (Appendix A). Comments received on the Notice of Preparation that helped to further refine the list of environmental issues to be evaluated in this EIR are included in Appendix A.

The following impacts have eliminated from further consideration as a result of the scoping process:

- Impacts to recreation, library, and school facilities were considered in the NOP/IS and determined to have no effect.

- Geologic impacts and impacts to known mineral resources were considered in the NOP/IS and determined to have no effect or a less-than-significant effect.
CHAPTER 7
Report Preparers and Organizations and Persons Consulted

7.1  Report Authors

7.1.1  Lead Agency

City of Stockton Community Development Department
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Mark Martin, Project Manager

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Dan Wormhoudt – Project Director
Brian Grattidge – Project Manager
Laurie Warner Herson
Aaron Hecock

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Urban Decay: Nik Carlson
Aesthetics: Sarah Yackel
Agriculture: Brian Grattidge
Transportation, Traffic and Circulation: Fehr & Peers Associates
Population and Housing: Christopher Ganson
Biological Resources: Niall McCarten
Noise: Matt Morales, Paul Miller
Noise Peer Review: Paul Bollard, Bollard Acoustical Consultants, Inc.
Air Quality: Matt Morales
Hydrology and Water Quality: Clint Meyer, Michele Stern
Geology and Soils: Clint Meyer, Michele Stern
Cultural Resources: Barry Scott
Public Services and Utilities: Brian Grattidge
Hazards and Hazardous Materials: Paul Miller

Word Processing and Report Production: Susan Lamb, Phil Wade, John Patrus
GIS and Graphics: Thomas Wyatt, Solomon McCrea, Bradley Allen
Fehr & Peers Associates, Inc – Transportation and Circulation

Matthew Henry
Kathrin Tellez
CHAPTER 8

Acronyms

ASTM American Society of Testing and Materials
bgs below ground surface
BMP Best Management Practices
CaCO3 calcium bicarbonate
Cal/EPA California Environmental Protection Agency
Cal/OSHA California Occupational Safety and Health Administration
CALTRANS California Department of Transportation
CARB California Air Resources Board
CCR California Code of Regulations
CEQA California Environmental Quality Act
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
CFR Code of Federal Regulations
cfs cubic feet per second
CGS California Geological Survey
City City of Stockton
CRCV Coast Range-Central Valley
CUPA Certified Unified Program Agency
CWA Clean Water Act
DHS California Department of Health Services
DOT Department of Transportation
Draft EIR Draft Environmental Impact Report
EIR Environmental Impact Report
EMS emergency medical services
ESA "Environmental Science Associates"
Fed/OSHA Federal Occupational Safety and Health Administration
FEMA  Federal Emergency Management Agency
FIRMS  Flood Insurance Rate Maps
gpm  gallons per minute
HCDA  Housing and Community Development Act
HCP  habitat conservation plan
HMMP  Hazardous Materials Management Plan
HSWA  Hazardous and Solid Waste Act
HWCL  Hazardous Waste Control Law
HWMP  Hazardous Waste Management Plan
I-5  Interstate 5
LBPPA  Lead-Based Paint Poisoning Prevention Act
MCL  maximum contaminant level
MRZ  Mineral Resource Zones
msl  mean sea level
MUD  Municipal Utilities Department
$M_w$ (moment) magnitudes
NAHC  Native American Heritage Commission
NCCP  natural community conservation plan
NCP  National Contingency Plan
ND  not detectable
NESHAP  National Emissions Standard for Hazardous Air Pollutants
NIH  National Institute of Health
NOI  Notice of Intent
NOP  Notice of Preparation
NPDES  National Pollutant Discharge Elimination System
NRC  Nuclear Regulatory Commission
NRCS  Natural Resource Conservation Service
OES  Office of Emergency Services
OSHA  Occupational Safety and Health Administration
PG&E  Pacific Gas and Electric Company
RACM  regulated asbestos-containing material
RCRA  Resource Conservation and Recovery Act
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>RWQCB</td>
<td>Regional Water Quality Control Board</td>
</tr>
<tr>
<td>Regional Board or Board</td>
<td>Central Valley Regional Water Quality Control Board</td>
</tr>
<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
</tr>
<tr>
<td>SEWD</td>
<td>Stockton East Water District</td>
</tr>
<tr>
<td>SJCEHD</td>
<td>San Joaquin County Environmental Health Division</td>
</tr>
<tr>
<td>SJMSCP</td>
<td>San Joaquin County Multi-species Habitat Conservation and Open Space Plan</td>
</tr>
<tr>
<td>SMARA</td>
<td>California Surface Mining and Reclamation Act</td>
</tr>
<tr>
<td>SPCCP</td>
<td>Spill Prevention Control and Countermeasure Plan</td>
</tr>
<tr>
<td>SWPPP</td>
<td>Storm Water Pollution Prevention Plan</td>
</tr>
<tr>
<td>SWRCB</td>
<td>State Water Resources Control Board</td>
</tr>
<tr>
<td>TDS</td>
<td>total dissolved solids</td>
</tr>
<tr>
<td>TMDL</td>
<td>total maximum daily load</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substances Control Act</td>
</tr>
<tr>
<td>U.S. EPA</td>
<td>U.S. Environmental Protection Agency</td>
</tr>
<tr>
<td>UBC</td>
<td>Uniform Building Code</td>
</tr>
<tr>
<td>UST</td>
<td>underground storage tank</td>
</tr>
<tr>
<td>WDR</td>
<td>Waste Discharge Requirements</td>
</tr>
</tbody>
</table>
CHAPTER 9

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